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Doctoral (PhD) Dissertation

Towards a Sustainable Long-Term Care System in China: Legal and AI-based Care Solutions from Germany and Japan

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Chapter I. Introduction

1.1 Research Background

According to the United Nations' statistical criteria, a country or region is considered to be experiencing population ageing if the population aged 60 and above constitutes 10% of the total population, or if the population aged 65 and above constitutes 7% of the total population.[1] In the year 2000, the proportion of the elderly population aged 65 and above in China reached 6.96%, officially marking the country's entry into the ranks of ageing nations. Due to China's large population base and the combined impact of the one-child policy implemented in the 1970s, there has been a significant increase in family structures like 4-2-1, 1-4-2-2[2], and even 8-4-2-1[3], as a result, the ageing process in China has been much faster than in other countries.[4] According to the latest statistical data as of 2024, the proportion of the population aged 65 and above in China has exceeded 15.6%.[5] The *China*

[1] United Nations (2019), *World Population Prospects 2019: Methodology of the United Nations population estimates and projections*, United Nations, https://population.un.org/wpp/. Accessed 25. April. 2024.
[2] Four parents, one couple, and one or two children (in the context of the one-child policy, the first child is disabled, or in the case of remarriage, or in rural households where the first child is a girl, a second child is allowed).
[3] Eight grandparents, four parents, one couple, and one child.
[4] Data from the seventh population census show that the population aged 60 years and over accounted for 18.70 per cent of the total population, of which 13.50 per cent were aged 65 years and over. Referring to the National Bureau of Statistics https://www.stats.gov.cn/sj/tjgb/rkpcgb/qgrkpcgb/202302/t20230206_1902005.html Accessed 25. April. 2024.
[5] 国家统计局 [National Bureau of Statistics of China]. (2025, January 17). *国家统计局：2024 年经济运行*

Development Report 2020: Development Trends and Policies of Population Ageing in China indicates that it is projected that by the year 2050, the elderly population aged 65 and above in China will reach 380 million, accounting for nearly 30% of the total population.[6,7] At the same time, China's fertility rate has fallen steeply (reaching only 6.8 births per thousand in 2022), resulting in "a narrowing base and an expanding top" in the age pyramid.[8] With the increasing ageing population, the demand for caregiving for disabled elderly individuals is rising. Currently, China has over 40 million disabled elderly individuals,[9] and it is predicted to reach 52.24 million by 2050.[10] Yet traditional family support is weakening, one-child policy, smaller households and under one-child families have eroded the capacity of family members to provide informal care, leaving China with "escalating demands" for formal long-term care services.[11] Relying solely on families to address the caregiving needs of this demographic will be significantly challenging.[12]

China's exploration of long-term care (LTC) can be traced back to the "Long-Term Medical Care Insurance System" in Qingdao in 2012. In 2016, the Ministry of Human Resources and Social Security issued the "Guidance on Pilot Implementation of Long-Term Care Insurance System" (MHRSS Office [2016] No. 80), initiating long-term care insurance pilots in 15 regions, including Chengde City in Hebei Province and Changchun City in Jilin Province.

稳中有进 主要发展目标顺利实现 [NBS: Stable and advancing economic performance in 2024, with major development targets successfully met]. Retrieved July 14, 2025, from https://www.gov.cn/lianbo/bumen/202501/content_6999261.htm

[6] 中国发展报告 2020:中国人口老龄化的发展趋势和政策 - 中国发展研究基金会. "China Development Report 2020: Development Trends and Policies of Population Aging in China"- the China Development Research Foundation. (n.d.). https://www.cdrf.org.cn/laolinghua/index.htm Accessed 25. April. 2024.

[7] Čen, Mengsuan. 2024. Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine 96: 754–777. doi:10.5937/gakv96-49343.

[8] Li, Q., Chen, Y., Zhang, Y., & Liu, X. (2024). Evaluation of China's long-term care insurance policies. *Frontiers in Public Health*, *12*, 1252817. https://doi.org/10.3389/fpubh.2024.1252817

[9] 党俊武:《老龄蓝皮书:中国城乡老年人生活状况调查报告(2018)》,社会科学文献出版社 2018 年版,第 138-167 页. Dang Junwu, "Blue Book on Ageing: Survey Report on the Living Conditions of the Elderly in Urban and Rural Areas of China (2018)", Social Sciences Academic Press, 2018 edition, pp. 138-167. pp.

[10] 景跃军、李涵等:《我国失能老人数量及其结构的定量预测分析》,载《人口学刊》2017 年第 6 期,第 88 页. Jing Yuejun, Li Han et al: "Quantitative Forecasting Analysis of the Number and Structure of Disabled Elderly in China", Journal of Population, 2017, No. 6, p. 88.

[11] Feng, Z., Liu, C., Guan, X., & Mor, V. (2012). China's rapidly aging population creates policy challenges in shaping a viable long-term care system. *Health affairs (Project Hope)*, *31*(12), 2764–2773. https://doi.org/10.1377/hlthaff.2012.0535

[12] Čen, Mengsuan. 2024. Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine 96: 754–777. doi:10.5937/gakv96-49343.

In September 2020, a joint directive was issued to expand the pilot program titled *"Guidance on Expanding the Pilot Implementation of Long-Term Care Insurance System"* (Medical insurance [2020] No. 37), marking the expansion phase of China's long-term care insurance, with the total pilot cities increased to 49.[13] However, to date, there is no unified LTC system at the national level, and no long-term care law has been established as a legal safeguard.[14]

On the other hand, the development of artificial intelligence (AI) and the emergence of robocare seem to offer a potential means in LTC settings. Compared to human care, care robots work much longer hours (24 hours/day) than human caregivers (8 hours/workday) and are ideally able to provide close to perfect care with fewer diagnostic and care errors compared to that, human caregivers are only able to provide as good care as possible. Technology can assist with case management, patient lifting, electronic documentation, and remote monitoring, thus alleviating some of the physical demands of caregiving[15] and making the elderly more independent against the imbalance of power in LTC settings.[16] But their adoption brings new ethical concerns: loss of privacy, restrictions on autonomy, potential loss of human contact, and even impacts on dignity if machines replace human companionship[17]. In Japan, for instance, studies warn that elder care robots may induce "lack of warmth" compared to human carers and raise privacy/security issues[18]. Thus, robocare in LTC must be examined not only for engineering feasibility but also under a critical ethical and legal lens.

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[13] Liu Meng, Wang Chen, Yin Ling. Overview of issues related to long-term care insurance [J]. Health Soft Science, 2022, 36(1):78-80.

[14] Čen, Mengsuan. 2024. Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine 96: 754–777. doi:10.5937/gakv96-49343.

[15] Zigante, V. (2021). *The role of new technologies in modernising long-term care systems: A scoping review*. Social Situation Monitor. https://ec.europa.eu/social/BlobServlet?docId=23362&langId=m

[16] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[17] Johnston, C. Ethical Design and Use of Robotic Care of the Elderly. *Bioethical Inquiry* **19**, 11–14 (2022). https://doi.org/10.1007/s11673-022-10181-z

[18] Ide, H., Suwa, S., Akuta, Y., Kodate, N., Tsujimura, M., Ishimaru, M., Shimamura, A., Kitinoja, H., Donnelly, S., Hallila, J., Toivonen, M., Bergman-Kärpijoki, C., Takahashi, E., & Yu, W. (2023). Developing a model to explain users' ethical perceptions regarding the use of care robots in home care: A cross-sectional study in Ireland, Finland, and Japan. *Archives of Gerontology and Geriatrics*, *116*, 105137. https://doi.org/10.1016/j.archger.2023.105137

In sum, the intersection of rapid ageing, rising care needs, emerging technologies, and evolving legal frameworks makes LTC a pressing social-legal issue in China. This dissertation takes as its starting point the demographic and policy "background" summarised above, drawing on the experiences of other ageing societies (notably Germany and Japan) to inform China's path forward.

1.2. Literature Review and Research Gap

China's rapid demographic ageing has become one of the most pressing social policy challenges. Scholars highlight not only the unprecedented growth of the elderly population but also the profound internal changes in its structure (Zhang et al., 2016)[19]. Traditional family-based care is increasingly weakening due to declining fertility rates, higher female labour force participation, and large-scale rural-to-urban migration, leaving many older adults—particularly those disabled or in rural regions—without sufficient support (Zhong, 2018[20]; Cui & Lin, 2020[21] ; Wang, 2021[22]). Existing research widely recognises that reliance on family care alone imposes unsustainable financial and emotional burdens, creating a strong rationale for establishing a long-term care insurance (LTCI) system. Mismatches between service demand and supply have also been consistently noted. Yao and Zhu (2021)[23] point to the growing tension between rising demand and insufficient service provision. Fang (2019)[24] further observes that profit-driven institutions often exclude low-income and

[19] Zhai Z.W., Chen Jiaju, Li Long. The general trend and new features of population ageing in China and the corresponding policies for the elderly [J]. Journal of Shandong University (Philosophy and Social Sciences), 2016 (03): 27-35

[20] 仲利娟,德国长护险制度的去商品化及其启示[J].河南社会科学 2018, 26(7): 81-85. Zhong Lijuan. De-commodification of the Long-term Care Insurance System in Germany and Its Implications [J]. Henan Social Sciences, 2018, 26(7): 81-85.

[21] 崔仕臣, 林闽钢,日本和韩国长护险发展的比较研究及中国的选择[J].当代经济管理 2020, 42(1): 92-97. Cui Shichen, Lin Mingang. A Comparative Study on the Development of Long-term Care Insurance in Japan and South Korea and China's Choice [J]. Contemporary Economic Management, 2020, 42(1): 92-97

[22] 王敏. 四川省长护险制度研究[J]. 卫生经济研究,2021,38(4):21-24,27.Wang Min. Study on the Long-term Care Insurance System in Sichuan Province [J]. Health Economics Research, 2021, 38(4): 21-24, 27.

[23] 姚兴安, 朱萌君.发达国家长护险融资的比较研究及对我国的启示[J].护理研究, 2021, 35(13): 2257-2266.Yao Xing'an, Zhu Mengjun. A Comparative Study on Financing of Long-term Care Insurance in Developed Countries and Its Implications for China [J]. Nursing Research, 2021, 35(13): 2257-2266.

[24] 房连泉.老年护理服务的市场化发展路径: 基于德国、日本和韩国长护险制度的经验比较[J]. 新疆师范大学学报(哲学社会科学版)2019, 40(2): 88-98. Fang Lianquan. The Marketization Development Path of Elderly Care Services: Based on the Comparative Experience of Long-term Care Insurance Systems in Germany, Japan, and South Korea [J]. Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition), 2019, 40(2): 88-98.

severely disabled older adults, thereby exacerbating inequality. And the comparative scholarship suggests that Germany's framework provides robust legal protections and decentralised financing, while Japan's system excels in service integration and user choice (Yuan & Liu, 2019[25]; Ma & Zhang, 2022[26]). For China, Germany's experience offers lessons in codifying rights and entitlements, while Japan's model demonstrates how to design community-oriented and efficiency-driven services. Despite different positions, scholars generally converge on the necessity of building a formal LTCI system, adapted to China's diverse contexts and advancing gradually. These findings underscore systemic contradictions that necessitate institutional reform. And the discussions in Chinese LTCI system focus on three main institutional options:

1) Socialised LTCI: Dai (2011[27], 2015[28]) argues that a socialised LTCI system is most suitable for China's socio-economic conditions and proposes a "three-in-one" approach integrating pensions, healthcare, and LTCI to ensure broad accessibility.

2) Commercialised LTCI: Zhang and Zhang (2006)[29] emphasise the potential of market-based models, suggesting that private LTCI can mobilise resources and foster innovation.

[25] 原新 & 刘绘如.(2019). 日本和德国长期护理保险制度比较及其借鉴. *日本问题研究(*03),64-72. doi:10.14156/j.cnki.rbwtyj.2019.03.008.Yuan Xin & Liu Huiru. (2019). A Comparison of Long-term Care Insurance Systems in Japan and Germany and Their Implications. *Japanese Issues Research*, (03), 64-72. doi:10.14156/j.cnki.rbwtyj.2019.03.008.

[26]马广博 & 张盼盼.(2022).长期护理保险制度：德国和日本经验与中国借鉴.*内蒙古农业大学学报(社会科学版)*(01),64-69.doi:10.16853/j.issn.1009-4458.2022.01.010. Ma Guangbo and Zhang Panpan. Long-term Care Insurance Systems: Experiences from Germany and Japan for Reference in China. *Journal of Inner Mongolia Agricultural University (Social Sciences Edition)* (01),64-69.doi:10.16853/j.issn.1009-4458.2022.01.010.

[27]戴卫东.长护险制度理论与模式构建[J].*人民论坛*, 2011(29):31-34. Dai Weidong. Theory and model construction of long-term care insurance system[J]. *People's Forum,* 2011(29):31-34.

[28]戴卫东.OECD 国家长期护理保险制度研究[M].*中国社会科学出版社*,2015. Dai Weidong.Research on long-term care insurance system in OECD countries[M]. *China Social Science Press,*2015.

[29]张洪烨,张梦琳.国外长护险对我国健康保险市场的启示[J].*辽宁经济*,2006(5):56-57. Zhang Hongye,Zhang Menglin. Implications of foreign long-term care insurance for China's health insurance market[J]. *Liaoning Economy*,2006(5):56-57.

3) Hybrid Systems: Jiang (2007)[30], Tao (2010) [31], and Han and Zhang (2011) [32] advocate a "socialised + commercialised" model, tailored to regional diversity. They propose that more market-oriented approaches may be suitable for eastern provinces, while central and western regions could draw lessons from Germany and Japan.

Technological innovation is reshaping LTC worldwide. Artificial intelligence and robotics are increasingly applied to elder care through assistive service robots, remote health management, and digital monitoring (Wang & Yang, 2017[33]; Krittanawong, 2018[34]). In China, the concept of "smart ageing" (Zuo, 2014[35]; Liu, 2015[36]) has been introduced to integrate digital technologies into elder care, Since the mid-2010s, national and local governments have introduced policies and pilot projects to foster the integration of digital technologies, assistive robots, and AI-driven monitoring into home, community, and institutional LTC (Chen, 2023[37]; Zhang et al., 2020[38]). Research documents a growing ecosystem of IoT-enabled platforms, remote health management systems, and rehabilitation devices, complemented by robotics research focusing on lifting aids, intelligent wheelchairs, and social companion robots (Hung, 2022[39]; Kong et al., 2023[40]). These developments are

[30]蒋虹．我国长期护理保险的发展模式选择[J].*西南金融*,2007(1):61-62.. Jiang Hong. Selection of Development Mode of Long-Term Care Insurance in China[J]. *Southwest Finance,*2007(1):61-62.
[31]荆涛.建立适合中国国情的长护险制度模式[J].保险 研究,2010(4):77-82. Jing Tao. Establishing a Long-term Care Insurance System Model Suitable for China's National Conditions[J]. *Insurance Research*,2010(4):77-82.
[32]韩俊江,张友.老年社会需要长护险[J].中国人力资 源社会保障,2011(0):42-43. Han Junjiang,Zhang You. Old age society needs long-term care insurance[J]. *China Human Resources and Social Security,*2011(0):42-43.
[33]WANG Z H，YANG Z.Research on artificial intelligence technology and the future intelligent information service architecture [J].Telecommunications Science, 2017, 33(5):1-11.
[34] KRITTANAWONG C. The rise of artificial intelligence and the uncertain future for physicians [J]. Eur J Inter Med, 2018, 48: e13- e14.
[35] Meyun Zuo. The connotation, model and opportunities of smart elderly care [J]. *China Public Safety,* 2014(10): 48-50
[36] J.B. Liu, Z. Qi, Y.J. Xing. What is smart ageing in place? [J]. *China Information Community*, 2015 (0 6): 63-65
[37] Chen, Honglin, et al. "The Development of Smart Eldercare in China." *The Lancet Regional Health - Western Pacific*, vol. 35, 2023, p. 100547, https://doi.org/10.1016/j.lanwpc.2022.100547. Accessed 1 Oct. 2025.
[38] Zhang, Q., Li, M. & Wu, Y. Smart home for elderly care: development and challenges in China. *BMC Geriatr* 20, 318 (2020). https://doi.org/10.1186/s12877-020-01737-y
[39] Hung, Jason. "Smart Elderly Care Services in China: Challenges, Progress, and Policy Development." *Sustainability*, vol. 15, no. 1, 2022, p. 178, https://doi.org/10.3390/su15010178.
[40] Kong, Dehui, et al. "Perspectives on the Popularization of Smart Senior Care to Meet the Demands of Older Adults Living Alone in Communities of Southwest China: A Qualitative Study." *Frontiers in Public Health*, vol. 11, 2023, p. 1094745, https://doi.org/10.3389/fpubh.2023.1094745.

supported by regulatory frameworks such as the Personal Information Protection Law and the Interim Measures for the Management of Generative Artificial Intelligence Services (2023), which impose obligations for safety, accountability, and data protection. However, empirical studies reveal that adoption remains limited to small-scale pilots, mostly in major urban centres (Huang et al., 2022[41]).

Although existing studies on LTC in China provide valuable insights into demographic pressures, financing models, and pilot programme experiences, significant gaps remain. Most research has focused on economic feasibility and policy design, but little attention has been paid to the legal and institutional foundations of LTC. Unlike Germany and Japan, where LTC insurance is codified in comprehensive legal frameworks that clearly define citizens' rights and providers' obligations, China's current LTC initiatives are still governed largely by temporary regulations and administrative measures. This highlights a lack of scholarship examining how China could build a sustainable, legally grounded LTC system capable of ensuring quality standards, accountability, and long-term stability. Furthermore, while comparative studies have drawn lessons from Germany and Japan, there is insufficient analysis of how these models can be realistically adapted to China's specific governance structures and socio-economic environment.

In parallel, research on Robocare in the Chinese context remains fragmented. Most studies emphasize the technological feasibility of robocare, digital platforms, or smart eldercare applications, but few explore their integration into actual LTC settings such as home care, community-based services, or institutional care. Critical dimensions such as ethics, human rights, regulatory safeguards, and the interaction between caregivers, care recipients, and robotic technologies are largely underexplored. International experiences, particularly from Japan, demonstrate both opportunities and challenges in adopting robocare, yet in China, there is a lack of systematic examination of how such technologies could be responsibly implemented. This creates an urgent need for interdisciplinary research that combines legal,

[41] Huang, Q., Li, Y., Wu, X. *et al.* The willingness and influencing factors to choose smart senior care among old adults in China. *BMC Geriatr* **22**, 967 (2022). https://doi.org/10.1186/s12877-022-03691-3

social, and technological perspectives, ensuring that Robocare can support the LTC system without compromising the dignity and rights of the elderly.

1.3. Research Objectives and Questions

The overarching aim of this dissertation is to analyse how China can construct a sustainable LTC system, learning from international experiences. In particular, it examines lessons from Germany's and Japan's LTC legal frameworks and Japan's experience with robocare. Key objectives are: (a) to compare China's current LTC system with Germany's and Japan's, focusing on legal and social analysis to borrow their experiences; (b) to map China's current LTC policy landscape based on the Chinese environment; (c) to assess how robocare have been integrated in Japan and (d) how to develop robocare in China.

Accordingly, the dissertation addresses the following research questions:

RQ1: What are the main legal and policy challenges in China's long-term care system after the 2016 pilot programme?

RQ2: How do Germany's and Japan's LTC systems (particularly their public insurance schemes and regulatory frameworks) compare to China's?

RQ3: What design and reform lessons from Germany and Japan are transferable to the Chinese context?

RQ4: Under what conditions could robocare be responsibly introduced into China's LTC system based on the experiences from Japan?

Through these questions, the study aims to provide a thorough comparative analysis with a clear policy focus. The goal is not merely descriptive: it seeks normative insight into how China might borrow foreign experience from Germany and Japan in a way that is culturally appropriate and ethically sound.

1.4. Research Scope and Focus

This dissertation focuses on LTC for the elderly (typically defined as persons aged 65 and over) and the legal frameworks that support it. The primary geographical focus is China, viewed through a comparative lens. Germany and Japan are chosen as the key comparators because both are high-income countries with advanced LTC systems: each has a well-established public LTC insurance (LTCI) mechanism and significant experience addressing ageing. Germany implemented a compulsory social LTCI in 1995 (SGBXI), and Japan launched a similar system in 2000. Both countries face ageing challenges and have many policy studies of their LTC models. This dissertation will examine those legal systems (Germany's SGBXI and Japan's 介護保険法) as cases, drawing relevant experiences while acknowledging contextual differences. The study does not delve into the engineering or technical aspects of care robots. Instead, "Robocare" is considered from social-legal and ethical perspectives. Specifically, attention is given to how law and policy regulate or should regulate the use of robots and AI in LTC for the elderly, and how care ethics values (dignity, autonomy, privacy) are affected. Technical performance of robots (e.g., sensor design, AI algorithms) is outside the scope; this dissertation's interest is in the legal statutes, policy guidelines, and ethical discussions surrounding Robocare. Moreover, the scope is primarily social security law and related social policy. Issues such as urban planning for ageing, general healthcare reforms, or private sector service delivery beyond LTCI fall outside the core scope, except where they intersect with LTC provision. The dissertation emphasises policy and law (statutes, regulations, insurance rules, rights charters) over, say, medical or caregiving best practices.

1.5. Conceptual Clarifications

1.5.1. The Concept of LTC

The earliest LTC practices date back to the almshouses of the colonial wars, which became a well-known and easily recognisable institution in many cities throughout the 18th century.[42] In terms of its concept evolution, the concept of LTC was initially closer to

[42] Long-term care in an ageing society: theory and practice[M]. Springer Publishing Company, 2015. pp.38

medical care and referred primarily to the provision of care of a curative nature to patients. In December 1999, a group of LTC experts from industrialised and developing countries met to identify specific issues for providing long-term care services in developing countries.[43] In 2000, the World Health Organization (WHO) issued the *International Consensus on Policy for the Long-term Care of the Ageing* to countries around the world, which clearly defines LTC as "*the system of activities undertaken by informal caregivers (family, friends and/or neighbours) and/or professionals (health, social and others) to ensure that a person who is not fully capable of self-care can maintain the highest possible quality of life, according to his or her individual preferences, with the greatest possible degree of independence, autonomy, participation, personal fulfilment and human dignity.*" [44] Subsequently, the WHO further describes the target group for long-term care and the types of care services and analyses the link between dependency and assistance.[45] This definition indicates that LTC has normative connotations: independence, autonomy, participation, personal fulfilment and human dignity are culturally bound values. They are related to social, moral and ethical norms, government policies and other country-specific contexts.[46,47]

In the Chinese context, scholars like Jing Tao[48] and Daiwei Dong[49] similarly define LTC, Jing Tao defines LTC as the condition in which an individual, due to various events, experiences physical or mental impairment, rendering them disabled or semi-disabled,

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[43] World Health Organization. Long-Term Care Team, WHO Cross-Cluster Initiative on Long-Term Care & WHO Collaborating Centre for Research on Health of the Elderly. (2002). Lessons for long-term care policy / the Cross Cluster Initiative on Long-Term Care. World Health Organization. https://apps.who.int/iris/handle/10665/67275 Accessed 25. April. 2024.

[44] WHO Ageing and Health Programme & Milbank Memorial Fund. (2000). Towards an international consensus on policy for long-term care of the ageing. World Health Organization. pp.6 https://apps.who.int/iris/handle/10665/66339 Accessed 25. April. 2024.

[45] World Health Organization. Long-Term Care Team, WHO Cross-Cluster Initiative on Long-Term Care & WHO Collaborating Centre for Research on Health of the Elderly. (2002). Lessons for long-term care policy / the Cross Cluster Initiative on Long-Term Care. World Health Organization. https://apps.who.int/iris/handle/10665/67275 Accessed 25. April. 2024.

[46] Ngai L R, Pissarides C A. Welfare policy and the distribution of hours of work[J]. 2009. http://eprints.lse.ac.uk/28698/ Accessed 25. April. 2024.

[47] Chen, M. (2024). The framework of long-term care for the elderly in the EU. In *Harmonisation of Serbian and Hungarian Law with the European Union Law* (Vol. 9, pp. 361–378). Univerzitet u Novom Sadu, Pravni fakultet, Izdavaštvo. https://publicatio.bibl.u-szeged.hu/id/eprint/35487

[48] 荆涛.长期护理保险研究[D].对外经济贸易大学,2005.Jing Tao. Research on long-term care insurance [D]. University of International Business and Economics, 2005.

[49] 戴卫东.(2023).中国长期护理保险的理论依据、制度框架与关键机制. 社会保障评论 (01),95-106. Weidong Dai. (2023). Theoretical basis, institutional framework and key mechanisms of long-term care insurance in China. Social Security Review (01), 95-106. doi:CNKI:SUN:SBPL.0.2023-01-007.

necessitating sustained medical and daily care from others. According to Daiwei Dong, LTC encompasses the medical and daily life services provided to disabled or semi-disabled individuals who, due to chronic illnesses or disabilities, require prolonged assistance to achieve basic independent living. As we can see from the above description, although there is no uniform definition of LTC, we can find a lot of consensus, including the three most basic elements: the subject who provides care, the object who receives care, as well as the way of providing care.[50] From these three perspectives, this dissertation simply regards LTC as a type of long-term assistance or service provided by formal and informal caregivers for people who need it. Even though it is recognised that everyone of any age may need LTC services, the majority of them are elderly people, and this is what is focused on in this dissertation.

1.5.2. The Concept of Robocare

Globally, AI is transforming healthcare, in LTC, automation and digitisation can improve productivity, highlighting the need for digital skill development among LTC workers.[51] Governments are exploring robotic care assistants and robotic pets to complement human care, addressing issues of loneliness while grappling with data security and user safety challenges.[52] January 2015, the EU Parliament's Committee on Legal Affairs (hereinafter: JURI) decided to set up a working group to study legal issues related to the development of robotics and artificial intelligence. In May 2016, the JURI published the Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics,[53] and in October of the same year, the report of the study was published (European Civil Law Rules in Robotics). This is the Commission's formal request to the European Parliament to submit a formal

[50] Čen, Mengsuan. 2024. Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine 96: 754–777. doi:10.5937/gakv96-49343.
[51] Zigante, V., 2021, The role of new technologies in modernising long-term care systems: a scoping review. Research Note for the Social Situation Monitor.
[52] Johnston, Carolyn. "Ethical Design and Use of Robotic Care of the Elderly." Journal of bioethical inquiry vol. 19, 1 (2022): 11-14. Doi: 10.1007/s11673-022-10181-z. https://pubmed.ncbi.nlm.nih.gov/35312965/
[53] European Parliament. (2017, February 16). *European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL))* [TA-8-2017-0051]. https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_EN.html

proposal for civil law rules on robotics. It includes the creation of a common official definition for various things; autonomous systems and autonomous intelligent robots; the designation of manufacturing quality standards; the establishment of liability rules concerning robots and the law on how to research, develop and use robots.[54,55]

The COVID-19 pandemic underscored the value of digital technologies in maintaining high-quality care, particularly for the elderly. This accelerated the adoption of AI and robotics in LTC, promoting smarter use of technology to automate routine tasks and free LTC professionals to focus on critical care.[56] Robots now assist older people with disabilities in daily tasks like eating, hand washing, dressing, and bathing.[57,58,59]Assistive walking robots also help maintain mobility and improve gait.[60,61] AI models extend beyond daily care to include medical data analysis and disease diagnosis through deep learning, radiology modelling, and automation.[62] Service robots in care settings offer healthcare support, assistance with daily tasks, and promote autonomy and self-management[63,64]. These robots

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[54] Directorate-General For Internal Policies Policy Department C: Citizens' Rights And Constitutional Affairs Legal Affairs European Civil Law Rules Inrobotics https://www.europarl.europa.eu/RegData/etudes/STUD/2016/571379/IPOL_STU(2016)571379_EN.pdf)

[55] Chen, M. (2022). PRIVACY PROTECTION AND ROBOCARE IN LONG-TERM CARE. *Central and Eastern European Online Library*, 97–109. https://www.ceeol.com/search/article-detail?id=1291439

[56] Llena-Nozal, A., Rocard, E., & Sillitti, P. (2022). Providing long-term care: Options for a better workforce. *International Social Security Review*, *75*(3–4), 121–144. https://doi.org/10.1111/issr.12310

[57] Song, W. K., Song, W. J., Kim, Y., & Kim, J. (2013). Usability test of KNRC self-feeding robot. *IEEE ... International Conference on Rehabilitation Robotics: [proceedings]*, *2013*, 6650501. https://doi.org/10.1109/ICORR.2013.6650501

[58] Goher, K. M., Mansouri, N., & Fadlallah, S. O. (2017). Assessment of personal care and medical robots from older adults' perspective. *Robotics and Biomimetics*, *4*(1). https://doi.org/10.1186/s40638-017-0061-7

[59] Wang, R. H., Sudhama, A., Begum, M., Huq, R., & Mihailidis, A. (2016). Robots to assist daily activities: views of older adults with Alzheimer's disease and their caregivers. *International Psychogeriatrics*, *29*(1), 67–79. https://doi.org/10.1017/s1041610216001435

[60] Lee, S., Lee, H., Chang, W. H., Choi, B., Lee, J., Kim, J., Ryu, G., & Kim, Y. (2017). Gait performance and foot pressure distribution during wearable robot-assisted gait in elderly adults. *Journal of Neuroengineering and Rehabilitation*, *14*(1). https://doi.org/10.1186/s12984-017-0333-z

[61] Lee, H. J., Lee, S., Chang, W. H., Seo, K., Shim, Y., Choi, B. O., Ryu, G. H., & Kim, Y. H. (2017). A Wearable Hip Assist Robot Can Improve Gait Function and Cardiopulmonary Metabolic Efficiency in Elderly Adults. *IEEE transactions on neural systems and rehabilitation engineering: a publication of the IEEE Engineering in Medicine and Biology Society*, *25*(9), 1549–1557. https://doi.org/10.1109/TNSRE.2017.2664801

[62] Dilip, G., Guttula, R., Rajeyyagari, S., S, H., Pandey, R. R., Bora, A., Kshirsagar, P. R., M, K. M., & Sundramurthy, V. P. (2021). Artificial Intelligence-Based Smart Comrade Robot for Elders Healthcare with Strait Rescue System. *Journal of Healthcare Engineering*, *2022*(1), 9904870. https://doi.org/10.1155/2022/9904870

[63] Garmann-Johnsen, N.F., Mettler, T., & Sprenger, M. (2014). Service Robotics in Healthcare: A Perspective for Information Systems Researchers? *International Conference on Interaction Sciences*.

[64] Martínez-Martín, E., & Pobil, A.P. (2018). Personal Robot Assistants for Elderly Care: An Overview. *Personal Assistants*

address elderly care needs in therapy, rehabilitation, companionship, activity planning, and healthcare support, enhancing independent living as ageing-related challenges increase.[65,66]

According to Vallor, care robots assist vulnerable populations across settings by helping with tasks, monitoring health or behaviour, and offering companionship.[67] Sharkey & Sharkey, similarly, categorize care robots into those supporting daily living and those providing medical assistance.[68] This dissertation adopts this classification, distinguishing robots for daily life support (including social companionship and monitoring) from those focused on medical assistance and testing, and categorises Robocare as: Assistive technology, Monitoring Robot and Companion Robot/Social Robot.

1.6 Research Methodologies

At the heart of this dissertation lies jurisprudential reception theory, which provides the conceptual and methodological foundation for assessing the transferability of legal and institutional models in LTC. Reception theory examines how legal norms, institutions, and values are "received" across jurisdictions, and how they undergo processes of translation, adaptation, and hybridisation in the target legal system. It thus offers a critical tool for evaluating whether, and how, foreign LTC experiences—particularly from Germany and Japan—can inform Chinese reform debates.

The notion of legal reception has long been recognised as a central theme in comparative legal scholarship. Luts (1997)[69] conceptualises jurisprudential reception not merely as a mechanical transfer of rules, but as a field of study that interrogates the dynamics, conditions, and limits of borrowing across legal systems. In this sense, reception is understood as a

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[65] Shen Y, Guo D, Long F, Mateos LA, Ding H, Xiu Z, Hellman RB, King A, Chen S, Zhang C, Tan H. Robots Under COVID-19 Pandemic: A Comprehensive Survey. IEEE Access. 2020 Dec 18;9:1590-1615. doi: 10.1109/ACCESS.2020.3045792.

[66] Khan, Z. H., Siddique, A., & Lee, C. W. (2020). Robotics Utilization for Healthcare Digitization in Global COVID-19 Management. *International journal of environmental research and public health*, *17*(11), 3819. https://doi.org/10.3390/ijerph17113819

[67] Vallor, S. (2011). *Carebots and Caregivers: Sustaining the ethical ideal of care in the Twenty-First Century*. https://philpapers.org/rec/VALCAC-3

[68] Sharkey, A., & Sharkey, N. (2010). Granny and the robots: ethical issues in robot care for the elderly. *Ethics and Information Technology*, *14*(1), 27–40. https://doi.org/10.1007/s10676-010-9234-6

[69] Luts, M. (1997). Jurisprudential reception as a field of study. *Juridica Int'l*, *2*, 2.

process of reinterpretation, involving the interplay between the donor system and the recipient's socio-political, cultural, and normative structures.

This perspective aligns with the broader debate in comparative law: On one side, Alan Watson's legal transplant theory (1993)[70] argues that rules and institutions can be technically transferred across borders and often constitute the main driver of legal development. On the other, Pierre Legrand's culturalist critique (1997) maintains that law is inseparable from its cultural, linguistic, and institutional environment, making genuine transplantation impossible.[71] More recent scholars, such as Günter Frankenberg (1985), propose an intermediate approach, recognising the possibility of functional transfer while highlighting the constraints of path dependency, institutional design, and socio-political contexts.[72]

According to the Max Planck Encyclopedia of European Private Law (2012) entry on Reception, legal reception is never a neutral importation but always an act of translation, shaped by the recipient's institutional needs, political interests, and cultural predispositions. Reception may involve selective borrowing, partial adaptation, or even resistance.[73] In this way, jurisprudential reception theory highlights not only the legal-technical dimension of borrowing, but also the underlying power dynamics and contextual filters that determine whether foreign models can be successfully internalised.

This dissertation adopts the intermediate stance: while rules and institutions may be transferable in function, their success depends on careful adaptation to China's demographic realities, fiscal capacity, administrative structures, and cultural values.

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[70] See Watson, A. (1993). *Legal transplants: an approach to comparative law*. University of Georgia Press. Also see Watson, A. (1996). Aspects of reception of law. *The American Journal of Comparative Law*, *44*(2), 335-351.

[71] Legrand, Pierre. "The Impossibility of 'Legal Transplants'." *Maastricht Journal of European and Comparative Law*, 1997, https://doi.org/10.1177/1023263X9700400202.

[72] Frankenberg, G. (1985). Critical Comparisons: Re-Thinking Comparative Law. *Harvard International Law Journal, 26,* 412.

[73] Rehm, G. (2009). *Reception*. Max-EuP 2012. Retrieved September 30, 2025, from https://max-eup2012.mpipriv.de/index.php/Reception

Secondly, this dissertation employs a Qualitative Document Analysis (QDA) approach as its principal research method. QDA enables a rigorous and systematic examination of written documents to uncover meaning, structure, and underlying assumptions. Within the field of legal and social policy research, this method is particularly suitable for analysing laws, policy frameworks, and normative texts, as it allows for consistent and impartial interpretation across multiple jurisdictions.[74] The primary sources for this study consist of publicly available legal and policy documents from China, Germany, and Japan. These include national legislation on LTCI, official policy reports, regulatory guidelines, rights charters, and ethical frameworks related to the use of care robotics in eldercare. Supplementary secondary sources—such as peer-reviewed journal articles, statistical reports, and expert commentaries—are also incorporated to enhance analytical depth and ensure methodological triangulation.

Finally, to ensure a comprehensive perspective, the research employs an interdisciplinary methodology, integrating law, sociology, economics, public health, ethics, and demography. Historical-institutional analysis will contextualise the evolution of social security and care regimes in China, Germany, and Japan, while quantitative methods will support demographic projections and policy evaluation. The project is embedded in international academic networks, facilitating scholarly exchange and comparative insight within the EU and East Asian contexts.

1.7. Statement of Significance of the Study

The findings of this dissertation have several important applications and potential effects for the future development of China's long-term care (LTC) system. The comparative analysis of Germany and Japan demonstrates how key elements of foreign LTC legislation, such as eligibility standards, financing structures, and quality assurance can inform China's future national LTCI framework, while also highlighting the institutional constraints created by China's demographic background, administrative fragmentation, and cultural norms.

[74] Wach, Elise. (2013). Learning about Qualitative Document Analysis. IDS Practice Papers.

Mapping China's current LTC landscape further identifies structural bottlenecks that policymakers must address, including uneven regional capacity, fiscal pressure, and the limited integration of LTC with other branches of social security.

Another central contribution of this study is its examination of robocare in Japan, which illustrates both the opportunities and risks of technology based care. These insights offer practical guidance for China's own robocare development, including regulatory standards, ethical safeguards, and strategies for addressing the digital divide. Together, the dissertation's findings support the design of an integrated, innovation-ready, and culturally grounded LTC system that can meet the challenges of rapid ageing.

1.8. Structures and Limitations

The remainder of this dissertation is organized as follows:

Chapters II–IV provide doctrinal and institutional analyses of China, Germany, and Japan, using QDA and Historical analysis.

Chapter V employs Jurisprudential Reception Theory to synthesise comparative insights.

Chapter VI focuses on robocare as a test case for applying socio-technical governance and care ethics.

Chapter VII translates analytical findings into de lege ferenda reform proposals for China.

Chapter VIII is the conclusion of the dissertation.

Through this design, the dissertation moves from historical description to comparative analysis and normative evaluation and finally give the reform recommendations, ensuring a coherent link between research objectives, methodology, and structure.

This research faces three main limitations：

1) Scope of data: This dissertation focused on national policy-making and legal and policy research in some developed pilot cities in China, but due to the uneven development of China's various regions in terms of population, economy and medical conditions, this research is destined to be broad and has little meaning to local reference, without in-depth

research for specific cities or regions, and these proposals and recommendations of Chinese LTC system are remain theoretical, the further research is needed to demonstrate their feasibility.

2) Methodological constraints: A common limitation of qualitative methods is the subjectivity, which may reduce objectivity compared to quantitative data. Moreover, due to the relatively recent launch of the pilot program (2016) and policy time lags, quantitative analysis remains limited. Future research could benefit from emerging data, such as longitudinal family surveys, to assess the policy's impact.

3)Language barriers: Due to the author's limited language skills, the language of the research material is limited to English, Chinese and Korean. Even though through the research, it's possible to use translation software and some AI tools to translate the German and Japanese original materials, there are limitations that may make the research findings less than perfect.

Chapter II. China's Social Security System and the Development of Long-Term Care

2.1 Introduction

The development of social security systems has long reflected the historical, cultural, and political evolution of a nation. In China, social security has undergone a unique trajectory, shaped by thousands of years of Confucian traditions, dynastic governance, and later by socialist ideology and state-led modernization. While social security in its broadest sense encompasses poverty relief, social assistance, health protection, and old-age support, the rapid demographic transition in recent decades has placed LTC at the center of policy debates.

This chapter seeks to trace the historical development of China's social security system, the chapter situates the emergence of China's LTC system within the broader trajectory of social security. This historical-contextual perspective is essential for understanding the institutional legacies and policy constraints that distinguish China from Germany and Japan, By doing so, the chapter lays the foundation for understanding both the historical continuity and the transformative changes that shape China's approach to eldercare in the twenty-first century.

2.2. Ancient Chinese "Social Security Philosophy" and Practices (Around 2100 BC - 1840[75])

From the perspective of historical development, the formation of China's social security system is closely related to the origin of the state and the evolution of dynasties and is deeply influenced by the level of productivity, social and economic structures, political systems, and cultural ideologies.[76] Although the term "social security" did not exist in pre-modern China, many practices fulfilled similar functions: relief for the poor, support for the elderly, disaster mitigation, and protection of vulnerable groups.

2.2.1 Philosophical Foundations of the Ancient Chinese Social Security

Chinese traditional social security thoughts were already formed in the pre-Qin period. The rulers of the Zhou Dynasty (1046 - 256 BC) learned from the lessons of the Shang Dynasty (around 1600 - 1046 BC), where tyranny led to suffering among the people, and advocated that rulers should have a benevolent concern for the well-being of the people and empathize with their hardships. The "保民" (protect the people) and "安民" (stabilize the people) thoughts from the Zhou Dynasty are recorded in the *Book of Documents: Kang Gao*. Apart from that, the 周礼(*Rites of Zhou)* emphasizes caring for children, providing for the elderly, aiding the poor, comforting the destitute, and showing compassion to the disabled. Starting from this idea of protecting and stabilizing the people, during the late Spring and Autumn period (770-476 BC) and the Warring States period (475 - 221 BC), various intellectuals proposed different social reform ideas as follows which are influenced the Chinese society until now:

1), Confucius's (551-479 BC) idea of the "Great Harmony"(Datong 大同), states that society included almost all contemporary social security aspects such as retirement, employment, healthcare, social relief, and early childhood education. Confucius believed that the world belonged to everyone, and people would elect those with virtuous character and talent to

[75] Chinese historical scholars commonly use the First Opium War of 1840 as the dividing line between ancient and Early modern Chinese history.

[76] 郑功成.(2014).中国社会保障演进的历史逻辑.中国人民大学学报(01),2-12. Zheng, G. (2014), The Historical Logic of the Evolution of China's Social Security History. *Journal of Renmin University of China*, (1), 2–12.

govern the country. Everyone would practice honesty and live in harmony. People would treat not only their own family members as family but also care for the elderly with proper places for their old age, provide jobs for the young to support their families, ensure a healthy environment for children, and provide support for widowers, widows, orphans, the disabled, and the elderly living alone. Men would have jobs, and women would have homes. People would be willing to dedicate themselves to public affairs rather than seeking personal gain. Therefore, schemes of deceit would not occur, theft, rebellion, and harm would not arise, and the gates would not need to be closed. This is the idea of the Great Harmony Society, which contains the initial thoughts on social security.[77] His emphasis on Ren (benevolence) and Xiao (filial piety) laid the foundation for a family-based welfare model, still central in Chinese LTC today.

2) Mencius (372-289 BC), as an important successor of Confucianism, further developed "Ren" into "Ren Zheng" (benevolent governance), advocating that rulers should govern with a heart of benevolence. He proposed that the ruler should extend the love and care they have for their own elderly and children to the elderly and children throughout the realm, cherish the labour of the people, and reduce taxes and labour burdens to ensure the people can live and work in peace with their food and clothing needs met. Mencius emphasized that rulers should be concerned with the suffering of the people. He criticized rulers who ignored the people's suffering and only pursued their own pleasure, asserting that the people are the most precious, followed by the state, and the least important is the ruler. This theory highlights that those in power must provide social security for the people, which is not only crucial for maintaining their ruling position but also for ensuring social stability.[78] This is an early articulation of the political legitimacy of welfare.

3) Mozi (470-391 BC), proposed the idea of "Jian Ai" (universal love), which requires everyone to love each other without distinction of rank or wealth, to help those around them

[77] Based on the original ancient Chinese documents and translated by author.
[78] 王卫平, & 黄鸿山. (2007). 中国古代传统社会保障事业述论. *学习与探索*, (01), 232-236.Wang, W. P., & Huang, H. S. (2007). An overview of traditional social security in ancient China. *Study & Exploration*, (01), 232-236.

to the best of their ability, and to care for their surroundings. Mozi also put forward a bold hypothesis: allowing the people to choose their ruler. He imagined that if the people could choose a ruler, they would select someone who prioritizes the safety and well-being of the people, taking care of their lives and hardships, rather than a selfish person who only seeks power for themselves. Mozi's hypothesis shows that a ruler who treats the people with benevolence and solves their problems will gain the trust of the people and consolidate their rule which anticipated modern notions of social responsibility.

4) Guan Zhong (720-645 BC) proposed the “Nine Benefits Teaching”, which includes nine specific welfare policies, such as preferential treatment for the elderly, emphasizing respect and care for the elderly, support for the disabled, and aid to orphans, widowers, widows, and the poor, which explicit recognition of vulnerable groups that aligns with the focus of LTC policies today.

The following Table 1 These philosophical currents established a dual principle: families bear primary responsibility for care, while the state should intervene to ensure stability and prevent destitution. This principle remains evident in China’s LTCI pilot programs, where family-based care is supplemented by state initiatives.

Table 1. Major Philosophical Traditions and Their Relevance to LTC

Philosophers	Core Ideas	Social Security Relevance	Link to Modern LTC
Confucius (551–479 BC)	Great Harmony, Ren (benevolence), Xiao (filial piety)	Care for elderly, orphans, widows, vulnerable as moral duty	Basis of family-centred care and intergenerational responsibility
Mencius (372–289 BC)	Benevolent governance, “people as foundation of the state”	Rulers must ensure people’s livelihood to secure legitimacy	State obligation to support families in caregiving
Mozi (470–391 BC)	Universal love, merit-based rulers	Impartial care beyond kinship; emphasis on rulers’ responsibility	Early idea of inclusive welfare for vulnerable groups
Guan Zhong (720–645 BC)	Nine Benefits doctrine	Preferential treatment for elderly, orphans, widows, disabled	Precursor of categorical LTC protection

Source: Compiled by the author

2.2.2. Social Security Practice in Ancient China

Although ancient China did not have the term “social security,” it already had its essence. The various systems and institutions for disaster relief, poverty alleviation, support for the

elderly, and care for children that existed in Chinese history essentially fulfilled the functions of social security.

2.2.2.1 Disaster Relief and Granary Systems

As early as the pre-Qin period, the “Huang Zheng” (famine relief) system was formed to address social crises caused by natural disasters. This system is detailed in the *Rites of Zhou*, including measures such as economic assistance, tax reduction, work relief programs, and resettlement of wasteland. During the Western Zhou Dynasty (1046-771 BC), the state appointed officials specifically responsible for implementing these famine relief policies. By the Han Dynasty (206 BC-220 AD), the system had become more refined, playing a positive role in resisting natural disasters, stabilizing people's livelihoods, and restoring production order.[79] In the Qing Dynasty (1644-1912), the famine relief system became fully institutionalized, with detailed regulations to ensure its implementation. However, starting from the Daoguang period (1820-1850), the system gradually declined, its execution became ineffective, and it eventually became a mere formality.[80]

Ancient Chinese society placed great emphasis on grain storage and agricultural production, which formed the important material foundation for disaster relief and poverty alleviation. The grain storage system, which began to emerge during the Western Zhou Dynasty (1046-771 BC), aimed to stockpile grain to address disasters and food shortages. During the Warring States period (475-221 BC), various states gradually improved this system, laying the groundwork for subsequent grain storage mechanisms. In the Han Dynasty (206 BC - 220 AD), the "Changping Cang" (ever-normal granary) was established to balance the grain supply between years of abundance and famine, stabilizing grain prices. The Sui (581-618 AD) and Tang (618 -907 AD) Dynasties promoted the "Yicang" (charitable granary) system, which provided relief during famine years, reflecting a sense of local autonomy and the social security awareness of the general populace. In the Southern Song Dynasty (1127-1279

[79] 陈业新《两汉荒政特点探析》,《史学月刊》2002 年第 8 期 Chen, Y. (2002). *An analysis of the characteristics of famine relief policies in the Han Dynasty*. *Historical Monthly*, (8),

[80] 叶依能《清代荒政述论》《中国农史》1998 年第 4 期 Ye, Y. (1998). *A general discussion on famine relief in the Qing Dynasty*. *Chinese Agricultural History*, (4),

AD), the "Shecang" (community granary), established by local communities, families, villages, or temples, aimed to ensure food supply during times of famine, which llustrating the family-community-state nexus that foreshadows today's multi-level LTC provision.

2.2.2.2. Relief for Vulnerable Groups

In addition to natural disasters, such as floods and droughts, ancient China's social relief system also included assistance to the elderly, the weak, the sick, the disabled, and the poor. The Western Zhou Dynasty (1046-771 BC) already proposed social relief policies such as "caring for children, supporting the elderly, aiding the poor, helping the destitute, easing the suffering of the sick, and comforting the wealthy,"[81] which were implemented through measures such as porridge distribution, residential care, and loan relief. Porridge distribution was an important means of coping with famine, and from the State of Qi during the Warring States period to the Han Dynasty (206BC-220 AD), this system gradually became widespread. By the Ming Dynasty (1368 - 1644), porridge distribution was more widely established to ensure that victims of disaster received aid. The residential care system developed from temporary relief in the Han Dynasty (206BC-220 AD) to permanent institutions during the Song Dynasty (960-1279), such as "Juyangyuan" (residential care homes) and "Anjifang" (relief shelters), which took in the elderly, orphans, and the poor. These were early institutional prototypes of LTC facilities.

Furthermore, during the Tang Dynasty (618-907 AD), the Buddhism began to provide medical and material relief to the poor, and became so influential that the government launched a suppression of it in 845 AD and took over Buddhist medical relief institutions[82]. These medical relief institutions survived into the succeeding Song Dynasty (960-1279), which also opened other types of relief institutions to provide material support to the poor[83].

[81] Translated from the original ancient Chinese documents: "慈幼、养老、赈穷、恤贫、宽疾、安富"
[82] Cai, Qinyu (2003) *State, society, and the vulnerable: Social relief in the Republic of China, 1927–1949.* Tianjin: Tianjin People's Publisher.
[83] Wang, Weiping (2007) On China's traditional social security affairs in ancient times. *Study and Exploration* serial no. 168: 232–236.

According to recent scholarship, the Song Dynasty (960-1279)'s poor relief represented the highest level of social policy development in Chinese imperial history.[84,85]

2.2.2.3. Filial Piety and Elderly Care

In traditional Chinese ethics, filial piety[86] holds a central position and is regarded as a natural and essential moral code that people are expected to follow. Under the national policy of "governing the country with filial piety," a systematic elderly care policy emerged. Later dynasties were deeply influenced by these ideas; these are the main philosophical thought that have permeated the entire Chinese society and continues to influence it to this day. During the Western Han Dynasty (206 BC-9 AD), building upon the pre-Qin "问疾" (inquire about illness) system, the practice of "Wangzhang"[87] was introduced, which elevated the social status of the elderly and provided them with material support, becoming a model for later generations. During the Tang (618 - 907 AD) and Song (960-1279 AD) dynasties, the government consistently provided material rewards to the elderly and granted legal leniency in sentencing to older individuals. The Ming (1368-1644 AD) and Qing (1644-1912 AD) dynasties continued the tradition of respecting and caring for the elderly, establishing lifelong take-care systems for impoverished and solitary seniors.[88]

In addition, the retirement system for officials in ancient times can be seen as an early form of the pension system. This practice emerged during the Shang (1600 - 1046 BC) and Zhou (1046-256 BC) periods and gradually became institutionalized, with the Han Dynasty (206BC-220 AD) systematizing it. This provided retirement benefits for elderly or infirm

[84] Sun, Hong and Deguang Bi (2018) Research on the social relief system of the Song Dynasty. *Journal of Jingdezhen University* 33,1: 64–68.
[85] Zhang, Wen (2017) Inside and outside the system: The double-track system of social security in the Song Dynasty and its historical limitations. *Chinese Social Security Review* 1,4: 116–126.
[86] In Chinese culture, filial piety, or "Xiao," represents the moral and cultural values of respecting and caring for one's parents. The character for Xiao (孝) consists of two parts: the older generation (老) on top and the son (子) below, symbolizing the family's hierarchical structure and the young's duty to support the elderly.
[87] Originating in the Zhou Dynasty, it was a system that provided preferential treatment and benefits to the elderly ("elderly" is defined here in two ways by Chinese historians as either over 60 or over 65 years old).
[88] 郑功成.(2014).中国社会保障演进的历史逻辑.中国人民大学学报(01),2-12. Zheng, G. (2014), The Historical Logic of the Evolution of China's Social Security History. *Journal of Renmin University of China*, (1), 2–12.

officials, ensuring their well-being after leaving public service.[89] Successive dynasties also enacted preferential policies for military personnel, including burial benefits, medical care, exemption from "徭役" (yao yi)[90] labour and taxes, and support for soldiers and their families. This emphasis on caring for military personnel and their families has continued into the present-day Chinese social security system.

China's social security system has historically been characterized by a flexible inheritance, relying on the preservation of traditional culture to maintain continuity. Although regime changes often led to the abolition or adjustment of old systems, the patriarchal social structure under Confucian thought, the borrowing of old policies by new dynasties, and the path dependency in social security practices allowed many social security measures to persist. This continuity is not based on the rigid extension of legal institutions but rather on the strong influence of traditional culture, which has allowed the system to adapt with each dynasty while maintaining internal cultural consistency.[91]

The following Table 2 illustrates the institutional welfare practices through the ancient Chinese dynasties, some of which can be seen as early practice to modern social security and LTC.

Table 2 Institutional Practices in Ancient China and Their Relevance to LTC

Period / Dynasty	Core Practice	Mechanism	Link to Social Security and LTC
Zhou Dynasty (1046–256 BC)	Huang Zheng (famine relief); early retirement for officials	Tax relief, food distribution, official pensions	Early public relief + proto-pension system
Han Dynasty (206 BC–220 AD)	Ever-Normal Granary ; Wangzhang for elderly	Stabilised grain prices; provided material & symbolic support for elderly	Institutional precedent for elderly support schemes
Tang Dynasty (618–907)	Charitable Granary ; integration of Buddhist welfare	Community-based relief, medical aid for poor	Early public-private mix in benefits, like today's NGO role in LTC

[89] 郭亚雄. (2005). 中国古代社会保障思想及其行为探究. 江西财经大学学报, (05), 58-61.Guo, Y. X. (2005). Exploration of ancient Chinese social security thought and its practices. Journal of Jiangxi University of Finance and Economics, (05), 58-61.

[90] In ancient China, rulers forced commoners to perform unpaid labour. The term "yaoyi" (徭役) referred to any labour activities that rulers requisitioned from people of all social classes without compensation. Yaoyi included two main components: corvée labour (liyi, 力役) and military service (bingyi, 兵役).

[91] 郑功成.(2014).中国社会保障演进的历史逻辑.中国人民大学学报(01),2-12. Zheng, G. (2014), The Historical Logic of the Evolution of China's Social Security History. *Journal of Renmin University of China*, (1), 2–12.

Song Dynasty (960–1279)	Juyangyuan, (elderly homes), Anjifang (relief shelters)	Permanent institutions for elderly, poor, orphans	Proto-LTC facilities, precursors of nursing homes
Ming & Qing Dynasties (1368–1912)	Expansion of famine relief, porridge distribution; community granaries	Local/state partnership in disaster relief	Community participation in benefits provision
Han–Qing (continuity)	Preferential treatment for soldiers and families	Burial benefits, tax exemptions, medical support	Occupational LTC-like benefits for specific groups
All dynasties (continuity)	Respect and privileges for elderly	Longevity rewards, legal leniency, symbolic honour	Reinforced cultural legitimacy of ageing support

Source: Compiled by the author

2.3. Social Security Thought and Practice in China during Times of Chaotic (1840-1949)

During the late Qing Dynasty (1840-1911), external invasions and internal uprisings, like the Opium Wars[92] and Taiping Rebellion[93], strained the government's ability to provide social relief. Traditional famine relief and aid to vulnerable groups persisted, but in its final decade, the Qing introduced shelters and relief centers for the homeless, marking a move toward more institutionalized social support. However, these efforts quickly fell apart after the dynasty's collapse in 1911. In the chaotic period of the early Republic of China (1911-1927) under the Beiyang Government[94], some shelters and poorhouses were restored, and labour protection laws for factories and workers were enacted. These measures were rudimentary but laid the groundwork for future social policies. During the twenty years of Nationalist rule (1927-1949), the Nationalist government (Kuomintang, KMT)[95] developed

[92] The Opium Wars were two mid-19th century conflicts between China and Western powers. The First Opium War (1839-1842) occurred when China's efforts to ban opium, including destroying British merchants' stocks, led Britain to launch a naval expedition to demand reparations and reopen trade. The Second Opium War (1856-1860), fought by Britain and France against China, ultimately forced China to legalize opium.

[93] Also known as the Taiping Civil War or Taiping Revolution, was a 14-year conflict (1850-1864) between the Manchu-led Qing dynasty and the Hakka-led Taiping Heavenly Kingdom. It was one of the largest wars in Chinese history, it also ranks among the deadliest civil wars in world history, ending with the fall of Taiping-controlled Nanjing, where was been renamed Tianjing ("Heavenly Capital").

[94] The Beiyang government, based in Beijing, was the internationally recognized government of the Republic of China from 1912 to 1928, dominated by generals from the Beiyang Army. Beiyang general Yuan Shikai supported Sun Yat-sen in overthrowing the Qing dynasty in 1912, quickly consolidating control over the Republic. Though the government was nominally civilian under the Republic's constitution, Yuan and his generals held real power. After Yuan's death in 1916, the army fractured into competing warlord factions, sparking the Warlord Era. Despite the chaos, the government retained legitimacy, receiving diplomatic recognition, loans, and tax revenue.

[95] KMT Founded as Xingzhonghui in 1894 in Honolulu, it evolved into the KMT in 1919. After unifying China in 1928, the KMT lost control of the mainland to the Communist Party by 1949 and relocated to Taiwan. As of 2024, it is a center-right party, the largest in the Pan-Blue Coalition, with Eric Chu as the current chairman.

social security concepts and policies, including relief institutions and labour insurance in the 1930s, as well as social relief and social insurance in the 1940s.

2.3.1. Transformation of Charity and Introduction of Sociology

After the mid-19th century, the Qing Dynasty's central finances deteriorated due to internal and external crises, leading to a reduction in famine relief efforts. This decline prompted the local gentry to establish private charitable initiatives, which played an increasingly significant role in social relief[96] Meanwhile, Western missionaries established schools and charitable organizations in China to promote their missionary activities. This "active" approach to charity management inspired Chinese elites to reform traditional relief institutions. In 1895, Yan Fu[97] introduced sociology to China, drawing parallels between Spencer's sociology and Darwin's theory of evolution in his work *Yuan Qiang* (On the Origin of Strength). He translated Spencer's *The Study of Sociology* in 1903 under the title "群学肄言" (Qunxue Yiyan*)* and he also translated Thomas Huxley's *Evolution and Ethics* and Adam Smith's *The Wealth of Nations*. Through these works, he conveyed the ideas of evolutionism, such as "survival of the fittest," to inspire people to seek ways to resolve China's societal crises[98]. Spencer's sociological thought viewed society as an organic whole and regarded sociology as "a comprehensive, natural, and evolutionary social science." This had a profound influence on Chinese intellectuals in the early 20th century[99].

2.3.2 Rise of Marxism and the Sinicization of Welfare Thought

[96] 梁其姿. (2001). *施善与教化: 明清的慈善组织. 石家庄*: 河北教育出版社. Liang, Q. Z. (2001). *Charity and education: Charity organizations in the Ming and Qing dynasties.* Shijiazhuang: Hebei Education Press. (ISBN 7-5434-4305-8)

[97] He was a Chinese military officer, newspaper editor, translator, and writer. He was most known for introducing Western countries' ideas to China in the late 19th century.

[98] 邓伟志. (2015). *中国社会学的过去、现在与未来* Deng, Weizhi. (2015). *The past, present and future of Chinese sociology*. http://www.dengweizhi.com/index.php?id=639

[99] Breslau, D. (2007). The American Spencerians. In *University of Chicago Press eBooks* (pp. 39–62). https://doi.org/10.7208/chicago/9780226090962.003.0002

At the same time, Marxism rapidly spread in China following the 1917 Russian Revolution, the 1919 May Fourth Movement, and the establishment of the Chinese Communist Party in 1921. This significantly impacted discussions of social issues and social policy.[100]

In the 1920s, Chinese intellectuals began to engage deeply with social issues. At the time, the mainstream intellectuals in China were largely composed of students who had studied abroad, first in Japan[101] and later in Europe and the United States. In the late nineteenth and early twentieth centuries, socialist ideas entered China through missionary publications, translated European works. Many Chinese students studying in Japan encountered Marxism through Japanese translations and brought these concepts back home, integrating them into domestic debates on capitalism, reform, and national salvation.[102] Early advocates such as Sun Yat-sen[103] viewed socialism not as a revolutionary doctrine but as a moral and economic corrective to capitalist inequality, and regarded the land issue as the most fundamental social problem.[104]

Li Dazhao[105] is widely recognized as the pioneer who systematized and popularized Marxist thought in China. His writings in *New Youth* and his lectures at Peking University introduced historical materialism to Chinese intellectual circles, interpreting Marxism as both a

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[100] Chiang, Y. C. (2001). Social Engineering and the Social Sciences in China, 1919-1949. *Cambridge University*.

[101] The term *sociology* itself first appeared in Tan Sitong's *Renxue* (仁学, *The Study of Benevolence*) and was a transliteration from Japanese. During this period, numerous sociological works were translated from Japanese, which had, in turn, translated them from Western sources. These translations were introduced into China largely through Chinese students returning from Japan

102 Dirlik, A. (1989). The origins of Chinese communism. Oxford University Press.

[103] Sun Yat-sen was a Chinese revolutionary, statesman, and political philosopher who served as the provisional first president of the Republic of China and was the founding leader of the Kuomintang (KMT). Uniquely among 20th-century Chinese leaders, Sun is revered by both the Republic of China in Taiwan—where he is officially honored as the "Father of the Nation"—and by the People's Republic of China, where he is recognized as the "Forerunner of the Revolution." Sun played a pivotal role in the 1911 Revolution, which successfully overthrew the Qing dynasty, marking the end of over two millennia of imperial rule in China.

[104] Hu, A. (2021). The Early Rise of Social Security in China: Ideas and Reforms, 1911–1949. In: Leisering, L. (eds) One Hundred Years of Social Protection. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-54959-6_2

[105] Li Dazhao was a Chinese intellectual and revolutionary who participated in the New Culture Movement in the early years of the Republic of China, established in 1912. He co-founded the Chinese Communist Party (CCP) with Chen Duxiu in July 1921. He helped build a united front between the CCP and Sun Yat-sen's Nationalist Party (KMT) in early 1924. During the Northern Expedition, Li was arrested and executed by warlord Zhang Zuolin in Beijing in April 1927.

philosophy of history and a revolutionary guide for national rejuvenation.[106] The May Fourth and New Culture Movements (1915–1919) provided fertile ground for its dissemination, as radical intellectuals sought alternatives to liberalism and Confucian moralism. By the time the Chinese Communist Party was founded in 1921, Marxism had evolved from a borrowed Western theory into a localized ideological framework—one that fused scientific socialism with China's socio-political realities. This early synthesis marked the beginning of the "Sinicization of Marxism," setting the intellectual foundation for China's subsequent revolutionary transformation.[107]

2.3.3. Kuomintang and the Chinese Communist Party Social Policy and Early Labour Protection (1920s–1930s)

During the Nanjing decade (1927–1937), the Kuomintang (KMT) government introduced a series of regulations aimed at addressing poverty. The Ministry of Social Affairs introduced labour laws, social relief institutions, and charitable regulations that reflected partial adaptation of Western welfare-state models. The 1929 Labour Law Draft, though never enacted, by 1935, existing relief institutions and poorhouses were consolidated, and private charities were placed under state control.[108] and the 1943 Social Relief Law drew heavily from European precedents such as the German and British systems. However, since these laws were modelled after Western systems, they were overly complex and exceeded China's practical circumstances at the time, making them difficult to implement. Moreover, these laws were primarily aimed at curbing communist influence rather than genuinely improving labour conditions[109].

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[106] Knight, N. (2005). *Marxist philosophy in China: From Qu Qiubai to Mao Zedong, 1923–1945*. Springer, Dordrecht. https://doi.org/10.1007/1-4020-3806-2_3

[107] Karl, R. E. (2010). *Staging the world: Chinese nationalism at the turn of the twentieth century*. Duke University Press. https://www.dukeupress.edu/staging-the-world

[108] 蔡勤禹. (2003). *国家、社会与弱势群体——民国时期的社会救济(1927—1949)*. 天津: 天津人民出版社, 25.Cai, Q. Y. (2003). *The state, society, and vulnerable groups: Social relief during the Republican period (1927–1949)*. Tianjin: Tianjin People's Publishing House, 25.

[109] Hu, A. (2021). The Early Rise of Social Security in China: Ideas and Reforms, 1911–1949. In: Leisering, L. (eds) One Hundred Years of Social Protection. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-54959-6_2

Meanwhile, the Chinese Communist Party (CCP) established revolutionary bases in rural areas and, with Soviet support, formulated laws similar to the Soviet model, such as the *Labour Law* of 1933. However, due to unrealistic wage levels and impractical welfare provisions, these laws were severely out of touch with China's actual conditions, leading to their limited implementation.[110]

2.3.4. Wartime Relief and the Rise of Welfare Internationalism (1937–1945)

After the outbreak of the Second Sino-Japanese War (the Second World War), the KMT's social policies remained largely unchanged. In response to the refugee crisis, the KMT established the National Relief Commission in 1938 and the Ministry of Social Affairs in 1939 to enhance control over the population. The 1940s were marked as the "decade of welfare internationalism"[111], during which the concept of "social security" began to frequently appear in international documents such as the *Atlantic Charter* in 1941 and the *Beveridge Report* in 1942.[112] Under these influence, in May 1945, the KMT's Sixth National Congress passed four major social policies, with the post-war social security program, for the first time, the concept of "social security" was introduced, with key tasks focused on vocational guidance, social insurance, and social relief[113]. And the *Social Relief Law* was promulgated in 1943, drawing from the welfare state models of the West but continuing to emphasize increasing productivity rather than redistributing resources. Chinese policies still stressed the country's unique conditions and adhered to the principles of Sun Yat-sen's Three People's Principles[114]. In 1947, the KMT passed China's first Social Insurance Law, in 1948, China not only participated in the drafting of the United Nations' Universal Declaration of

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[110] The *Labor Law*, modelled after the 1920s Soviet labour code, applied to all workers in various enterprises and mandated an eight-hour workday, 175 paid public holidays, high wages, and comprehensive social insurance. However, these unrealistic benefits led to the collapse of many small enterprises and widespread unemployment. In response, the Chinese Communist Party (CCP) issued a revised *Labour Law* on October 15, 1933, making labour conditions more flexible to suit local realities. Despite this adjustment, the law was never fully implemented due to the CCP's forced retreat and the onset of the Long March in 1934.

[111] Kaufmann, F. (2012). *European Foundations of the Welfare State*. https://doi.org/10.3167/9780857454768

[112] Hu, A. (2021). The Early Rise of Social Security in China: Ideas and Reforms, 1911–1949. In: Leisering, L. (eds) One Hundred Years of Social Protection. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-54959-6_2

[113] Chinese Ministry of Information. (1947). *China Handbook, 1937-1945: A Comprehensive Survey of Major Developments in China in Eight Years of War*. Macmillan Company.

[114] 秦孝仪主编. (1983). *革命文献* (第 99 卷). 台北: 中国国民党党史委员会. Qin, X. Y. (Ed.). (1983). *Revolutionary documents* (Vol. 99). Taipei: Committee on Party History of the Kuomintang.

Human Rights but also ratified it. The declaration recognized social security as a fundamental human right, reflecting China's commitment to this principle.

Meanwhile, the Chinese Communist Party (CCP) adopted a wartime labour policy between late 1940 and 1941, abandoning its earlier radical labour policies in favour of a "New Democracy"[115] approach, which advocated class cooperation between workers and national capitalists[116]. This shift resulted in the disappearance of social insurance provisions in the labour protection regulations of CCP-controlled areas, replaced instead by labour compensation measures. After the war, the CCP also proposed social insurance policies and began implementing a Soviet-style labour insurance system in the Northeast in 1948. Both sides of the Taiwan Strait introduced labour insurance systems in 1950 and 1951, respectively.

This period illustrates an early stage of external reception and internal adaptation. Western legal and social welfare concepts were selectively absorbed and reinterpreted within China's Confucian moral framework which set the intellectual stage for the socialist security system that emerged after 1949.

The following Table 3 summarized the main social security practices during that period

Table 3 Social Security Practices in China during Times of Chaos (1840–1949)

Domain	Key Policies / Institutions	Features	Legacy for LTC and Social Security
Famine & Disaster Relief	National Relief Commission (1938), traditional granaries	From local philanthropy to centralized state control	Foundation of public disaster and poverty relief systems
Labour Protection	Labour Law Draft (1929), CCP Labour Law (1933)	Early legal frameworks for workers' rights	Prototype of post-1949 labour insurance system

[115] New Democracy, as envisioned by Mao Zedong, represents a form of governance tailored to the specific social and material conditions of post-revolutionary China, distinct from Western-style representative democracy. Mao described Western democracy as serving the bourgeoisie and land-owning classes, while New Democracy aimed to establish a government reflecting the interests of four revolutionary classes: the peasantry, proletariat, petite bourgeoisie, and national bourgeoisie. In his 1940 text "On New Democracy," Mao proposed a system of people's congresses with universal and equal suffrage, promoting democratic centralism to ensure that the government genuinely represents and serves the revolutionary people, while avoiding private control by a few. This system was designed to embody the principles of New Democracy and effectively combat revolutionary enemies.

[116] 毛泽东. (1940). *新民主主义论* (一九四○年一月). Mao, Z. (1940). *On New Democracy* (January 1940). Retrieved from https://www.marxists.org/chinese/maozedong/marxist.org-chinese-mao-194001.htm

Social Insurance & Relief	Social Relief Law (1943), Social Insurance Law (1947)	Borrowing from Western welfare models	Early institutionalization of "social security"
Charity & Welfare Organizations	Missionary hospitals, poorhouses, local philanthropy	Hybrid of traditional benevolence and Western practice	Integration of social care with community structures
Ideological Influence	Confucianism, Marxism, International Social Welfare	Cultural continuity and ideological adaptation	Shaped normative expectations of family-based care in modern LTC

Source: Compiled by the author

2.4. Social Security System of the People's Republic of China (1949-Present)

The establishment of the People's Republic of China on October 1, 1949, marked a new era in Chinese history and set the stage for the development of a modern social security system. Prior to this, although the Kuomintang government had considered social insurance legislation, it had never succeeded in establishing a comprehensive modern social security system.[117] The evolution of this system since then can be divided into four major phases: institutional formation (1949–1958), stagnation (1958–1976), reform and reconstruction (1976–2000), and integration and diversification (2000–present).

2.4.1 From Relief to Institutionalization (1949–1958)

In 1949, following the end of the civil war and the establishment of the People's Republic of China, the country was left in a dire state of poverty and devastation. With natural disasters frequently occurring, around 40 million people across the nation were affected, including 7 to 8 million disaster victims in urgent need of relief. In urban areas, approximately 4 million workers faced unemployment and hardship, which represented about half of the total employed workforce at the end of 1949.[118] In this context, in December 1949, the State

[117] According to Zheng Gongcheng (2019), the modern social security system is fundamentally marked by the social insurance programs introduced in Germany between 1883 and 1889, which included health insurance, accident insurance, and old-age insurance adapted to industrialization. This is a basic consensus among social security scholars both domestically and internationally. In contrast, some domestic literature misinterprets practices such as the rickshaw puller mutual aid insurance in the Shanghai concession of 1936, life insurance starting in 1935, and the trial of the Sichuan salt workers' insurance in 1943 as examples of social insurance under the Kuomintang government. However, mutual aid insurance was merely internal support among industry members, life insurance was a commercial insurance product for individuals, and the Sichuan salt workers' insurance was limited to a regional experiment. Therefore, during the Republican era, no comprehensive social insurance system was established, and thus it did not align with the modern social security system.

[118] 中共党史编写组.(1991). *中共党史导读（下册)*北京，中国广播电视出版社. Compilation Group for the History of the Communist Party of China. (1991). *An introduction to the history of the Communist Party of China (Vol. 2)*.China Radio and Television Publishing House.

Council issued the first social security policy document of the new China—*Instructions on Production and Disaster Relief*.[119]The document emphasised that production and disaster relief are key to launching the upcoming production campaign and building the new China. In response, the Central Disaster Relief Committee was established to organize nationwide relief efforts, distributing large quantities of relief grain and encouraging disaster-stricken areas to engage in self-help and mutual aid. the State Council issued *Instructions on Relief for Unemployed Workers*, which addressed the severe unemployment in major cities like Shanghai, Nanjing, Wuhan, Chongqing, and Guangzhou. The instructions called for the establishment of relief committees and departments to formulate and approve relief plans and budgets, allocating 200 million kilos of grain for unemployment relief. By 1952, over 1.2 million people regularly received aid in 152 cities, with winter figures reaching more than 1.5 million, representing 20-40% of the urban population.[120]

On Feb 25, 1951, China's State Council released regulations for labour insurance with seven chapters. Marked the establishment of China's modern social security system. The regulations aim to protect worker health, reduce hardships and cover topics such as insurance scope, expense administration, and item standards and operations supervision.[121] In June 1952, the State Council issued the *Instructions on Implementing Publicly Funded Medical Prevention for National Government Employees, Political Parties, Organizations, and Their Affiliated Institutions*. On Jan 26, 1953, the Ministry of Labour released amendments to the regulations for implementing China's labour insurance. The amendments include scope, wages, benefit calculation, work injury, disability, death, sickness, non-work injury and disability, old-age benefits, maternity benefits, and exceptional insurance benefits. They also

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[119] 中央人民政府政务院. (1949 年 12 月 20 日). 关于生产救灾的指示. 《人民日报》. Central People's Government Council. (1949, December 20). *Directive on production and disaster relief*. People's Daily, Retrieved from https://www.rmrb.zhouenlai.info/%E5%91%A8%E6%80%BB%E7%90%86%E4%B8%93%E6%A0%8F/%E6%80%BB%E7%90%86%E7%9B%B8%E5%85%B3/1949/1949-12-20%200030129%20%E4%B8%AD%E5%A4%AE%E4%BA%BA%E6%B0%91%E6%94%BF%E5%BA%9C%E6%94%BF%E5%8A%A1%E9%99%A2%E3%80%80%E5%85%B3%E4%BA%8E%E7%94%9F%E4%BA%A7%E6%95%91%E7%81%BE%E7%9A%84%E6%8C%87%E7%A4%BA.htm

[120] 多吉才让. (2001). *中国最低生活保障制度研究与实践*. 北京:人民出版社. Duojicairang. (2001). *Research and practice of China's minimum living security system*. People's Publishing House.

[121] Zexin G, Ruiz Estrada M A, Mohamed A, et al. The Development of Social Security in China (1949-2019)[J]. Available at SSRN 3450976, 2019. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3450976

outline practical issues such as premium custody and payment, as well as operation supervision and inspection. The amendments expanded coverage to half of the factories, mines, transportation units, and state-run construction firms and increased treatment levels for some insurance items.[122] In December 1955, the State Council issued the *Interim Measures for the Retirement of State Organs Staff* and the *Interim Measures for the Resignation of State Organs Staff.* In 1956, China completed its socialist transformation, and the state-owned economy became central. This led to further expansion of labour insurance to 13 sectors, including commerce, foreign trade, marketing, finance, civil aviation, petroleum, geology, aquaculture, and state-run ranching and forestry. This established the basic labour insurance system for enterprises in the planned economy.[123] In 1958, the State Council issued the *Interim Regulations on the Retirement of Active-Duty Officers* among other regulations. These policies established a social security system for public servants, including state officials, institutional staff, and military officers, incorporating publicly funded medical care and retirement provisions. During this time, the national social insurance system had many problematic provisions, such as numerous insurance benefits, rapid growth not matching social and economic development, confusion between insurance and welfare benefits, poor fund management, lax payments, and wastefulness.[124] And social security was limited and only available to eligible employees in urban areas, such as those working for companies and in public sector jobs. However, a large portion of the population, those in agriculture accounting for over 70%, were not included in this coverage.[125]

One characteristic of the labour insurance plan during the planned economy period[126] was the absence of unemployment insurance, as unemployment was viewed as a pathological condition of capitalist economies and was not considered (or should not be) a feature of

[122] Zheng Shangyuan. A review of the history of China's social insurance system and the prospect of the formation of the legal system [J]. Contemporary jurisprudence, 2013, 27(2):123-129.
[123] Zexin G, Ruiz Estrada M A, Mohamed A, et al. The Development of Social Security in China (1949-2019) [J]. Available at SSRN 3450976, 2019. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3450976
[124] Sun Chenglin. Investigation and consideration of Chinese Social insurance system innovation [D]. Dalian University of Technology, 2006.
[125] Sha Y. China's social security system; present status and issues [J]. Aging Population in Asia: Experience of Japan, Thailand and China, 2007.
[126] The planned economy period in China (1953–1978) refers to a phase when the state exercised centralized control over production, distribution, and resource allocation, primarily through five-year plans and state-owned enterprises, following the Soviet model.

socialism. In practice, the labour insurance system reinforced the image of the state caring for its citizens from cradle to grave. The implicit social contract between the state and urban workers ensured that the state took on the responsibility for job security in exchange for the workers' lifelong dedication. Organizations, or "work units,"[127] served as the interface between the state and urban workers, taking on the responsibility of caring for employees. For urban workers, joining a unit meant exchanging labour for economic resources, gaining political power through organizational hierarchy, and receiving symbolic social respect.[128,129]

Due to the strict household registration system (*hukou*[130]), farmers were unable to freely migrate or choose their place of residence. They were often confined to the People's Communes, which provided only minimal public benefits. In this system, land and family became the primary sources of social support.[131] After the 1950 rural land reform[132], farmers gained access to land, improving their livelihoods. However, due to limited financial resources, urban social security systems could not extend to rural areas. In June 1956, the first National People's Congress approved the *Model Charter for Advanced Agricultural Production Cooperatives*, and in April 1960, the second NPC passed the *1956-1967 National*

[127] Work units (also called "Dan wei") is the name given to a place of employment in the People's Republic of China. The term "*danwei*" remains in use today, as people still use it to refer to their workplace. And it can be categorized by their nature into government agencies (*机关单位*), public institutions (*事业单位*), and enterprises (*企业单位*). They can also be classified by size into "large units" (*大单位*) and "small units" (*小单位*).

[128] Cheng, T., & Selden, M. (1997). The construction of spatial hierarchies: China's hukou and danwei systems. *New perspectives on state socialism in China*, 23-50.

[129] Lu, X., & Perry, E. J. (Eds.). (1997). *Danwei: The changing Chinese workplace in historical and comparative perspective*. Me Sharpe.

[130] A household registration record officially identifies a person as a permanent resident of an area and includes identifying information such as name, parents, spouse and date of birth. A hukou can also refer to a family register in many contexts, since the household register.

[131] Shi, SJ. (2021). Social Security: The Career of a Contested Social Idea in China During the Reform Era, 1978–2020. In: Leisering, L. (eds) One Hundred Years of Social Protection. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-54959-6_3

[132] Before the founding of the People's Republic of China, the country was a semi-colonial, semi-feudal society where land was highly concentrated. Landlords and rich peasants, who made up less than 10% of the rural population, controlled 70% to 80% of the arable land, while the remaining 90% of the population, consisting of poor and middle peasants, owned only 20% to 30% of the land and lived in poverty. In 1950, the Land Reform Law of the People's Republic of China was enacted, abolishing the land ownership of the landlord class and establishing land ownership for the peasants. By the end of 1952, land reform had been largely completed across China, except for some minority regions and Taiwan. Over 300 million landless or land-poor peasants received 700 million mu (approximately 46.7 million hectares) of land, fundamentally altering rural land ownership patterns. Poor and middle peasants came to own over 90% of the land.

Agricultural Development Plan. These two legal documents provided the foundation for establishing the "Five Guarantees" (*wubao*)[133] system, China's first rural collective welfare system. It aimed to provide a safety net for the most vulnerable rural members, including those without family support such as the elderly, orphans, and widows. The system ensured basic provisions like food, clothing, fuel, education for children, and funeral arrangements, offering comprehensive support for these individuals.[134] At the same time, the rural cooperative medical system gradually took shape. The 1956 *Model Charter for Advanced Agricultural Production Cooperatives* was the first to stipulate that agricultural cooperatives were responsible for providing medical care for members injured or sick due to work and could subsidize lost workdays, assigning medical responsibility to rural collective organizations. In 1960, the Central Committee of the Communist Party of China circulated the *Ministry of Health's Opinions on Several Issues in People's Commune Health Work*, incorporating cooperative medical care into the government's rural healthcare system. In 1965, Mao Zedong's "6.26 Directive" emphasized shifting the focus of healthcare towards rural areas, accelerating the development of rural healthcare services. Although rural residents did not receive the free medical benefits enjoyed in urban areas, the government trained "barefoot doctors"[135] and leveraged collective economies to provide basic medical care in rural communities.[136]

During this period, China's social security system was largely derived from the 1931 *Labour Law of the Chinese Soviet Republic*[137], which drew inspiration from the Soviet state-unit

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[133] The 'Five Guarantees' (Wubao) is a Chinese social welfare policy that ensures basic living needs—food, clothing, shelter, medical care, and burial expenses—are provided for elderly, disabled, orphans, and those without family support, especially in rural areas.

[134] 宋士云. (2007). 新中国农村五保供养制度的变迁. 当代中国史研究, (1), 93-101. Song, S. Y. (2007). A Historical Investigation of the Changes in the Five-Guarantee System in Chinese Rural Areas. *Contemporary China History Studies*, (1), 93-101. https://doi.org/10.3969/j.issn.1005-4952.2007.01.016

[135] Barefoot doctors are a special product of China's rural medical history, referring to those rural medical personnel who are not formally trained in medicine and who still hold an agricultural hukou. In some cases, they are "half-farmers, half-doctors", i.e., they practise medicine while working in agriculture and are able to treat common diseases and deliver babies. Their main task is to reduce infant mortality and combat infectious diseases.

[136] 郑功成. (2019). 中国社会保障 70 年发展（1949—2019）：回顾与展望. *中国人民大学学报*, 33(5), 1-16.Zheng, G. (2019). Seventy years of social security development in China (1949—2019): Retrospect and prospect. *Journal of Renmin University of China*, 33(5), 1-16.

[137] The Chinese soviet republic was proclaimed on 7 November 1931 (the anniversary of the 1917 Russian October Revolution) by Chinese Communist Party (CCP) leaders Mao Zedong and Zhu De in the early stages of the Chinese Civil War. The Chinese Soviet Republic was dissolved on 22 September 1937 when the Chinese

model. At that time, China was transitioning from New Democracy to socialism, and the Soviet Union, as the first socialist state with over 30 years of experience in economic and social construction, became a model for China to follow. Lenin's 1912 state insurance proposal emphasized that the state should provide protection for workers who lost their ability to work or were unemployed, covering all employed workers and their families, with insurance costs shared by employers and the state. This model became the foundation for the Soviet social security system. China adopted a similar approach: based on socialist public ownership and the urban-rural dual structure, the state and work units or collectives assumed full responsibility for funding, with no personal contributions required. The coverage extended to workers, farmers, and their families.[138] This system was the most important comprehensive social security framework established after the founding of the People's Republic of China. It remained in place until the 1990s, when it was replaced by a new social insurance system. The earlier system, characterized by state and work unit responsibility for welfare, played a central role in China's social protection for several decades before market reforms prompted the shift towards a more modern social insurance model.

2.4.2. Stagnation and Fragmentation (1958–1976)

China has achieved remarkable success in reducing the threat of hunger and poverty to its citizens in the early 1950s.[139,140] However, success came with setbacks. The Chinese authorities acknowledge that natural disasters from 1959-1961 and the chaos of the *Great*

Communist Party issued, in the Second United Front, its manifesto on unity with the Kuomintang.

[138] 华颖, (2019). 中国社会保障 70 年演进的国际经验及借鉴. *中国人民大学学报*, 33(5), 17-26.Hua, Y. (2019). The evolution of China's social security system over 70 years: International experiences and lessons. *Journal of Renmin University of China*, 33(5), 17-26.

[139] China's relative success in reducing hunger and poverty in the early 1950s can be attributed to its centralised planning system, agricultural collectivisation, and strong state capacity. Through the establishment of people's communes, the government organised large-scale agricultural production and implemented grain distribution systems that helped secure basic subsistence for most rural populations. In addition, social welfare measures such as the 'Five Guarantees' ensured minimal support for the most vulnerable groups. Compared to many other developing countries facing political instability or weak state institutions, China's cohesive political structure enabled effective mobilisation of resources to address basic needs.

[140] Lim, E., Wood, A., Porter, I., Taylor, R. P., Byrd, W., Tidrick, G., King Tee., Tims, W., & Pohl, G. (1985). *China : long-term development issues and options. The report of a mission sent to China by the World Bank*.

Leap Forward[141] caused the premature death of millions, estimated between 10 to 30 million.[142]

The Chinese Cultural Revolution[143](1966-1976) saw the rejection of the "Labour Insurance Regulations," labelling it revisionist, resulting in a shift from social to enterprise insurance and a major setback for social insurance in China. In 1968, the Chinese government abolished the Ministry of Internal Affairs, which had overseen disaster relief and social welfare, and many local civil affairs departments were also disrupted. This led to the loss of effective central coordination for disaster relief and welfare, with greater emphasis placed on local responsibility, self-reliance, and production-based recovery. At the same time, the All-China Federation of Trade Unions, responsible for labour insurance, became incapacitated, making it unable to manage national labour insurance matters, while the functions of labour administration departments were also weakened.[144] In February 1969, the Ministry of Finance issued the *"Draft Opinions on Several Reforms in the Financial Work of State-Owned Enterprises."* the Ministry of Finance stopped collecting labour insurance premiums, and the National Federation of Trade Unions' management of these premiums ended.[145] From that point on, the social security system primarily relied on individual work units for its maintenance and continuation. The responsibility for social security increasingly shifted to these units, leading to a rapid expansion of the phenomenon where urban enterprises and institutions took on comprehensive social welfare functions. As a result, the social security system largely became self-contained within these units, becoming more isolated and self-reliant. During this period, social security operations were

[141] The Great Leap Forward (1958-1962) was an economic and social campaign led by the Chinese Communist Party under Chairman Mao Zedong, aimed at transforming China from an agrarian economy into an industrialized society through the creation of people's communes. However, the campaign resulted in widespread famine, with estimates of deaths ranging from 15 to 55 million, marking it as one of the deadliest famines in history.

[142] Coale Ansley J. *Rapid Population Change in China 1952-1982*. National Academy Press 1984. *INSERT-MISSING-DATABASE-NAME* http://site.ebrary.com/id/10056782. Accessed 30 Jan. 2023.

[143] From 1966 to 1976, a socio-political movement initiated by China's then president, Mao Zedong, whose goal was to remove the remaining capitalist and traditional elements of Chinese society and preserve communism, the revolution failed to achieve its main objective.

[144] 郑功成. (2019). 中国社会保障 70 年发展（1949—2019）：回顾与展望. *中国人民大学学报*, 33(5), 1-16.Zheng, G. (2019). Seventy years of social security development in China (1949—2019): Retrospect and prospect. *Journal of Renmin University of China*, 33(5), 1-16.

[145] Ministry of Labour, Department of Insurance and Welfare, China Food Press, 1989, pp. 330-331, 541

disrupted and disorganized, leading to many workers being unable to retire and a shortage of new workers.[146]

During this period, while the social security system in urban areas faced challenges, rural areas saw significant improvements. In 1968, Mao Zedong endorsed the cooperative medical system, leading to its rapid development across rural China. The "Five Guarantees" system was strengthened, and by 1976, 93% of rural production brigades had implemented cooperative medical care, covering 85% of the rural population. This created a robust three-tiered healthcare network that effectively addressed the lack of medical resources in rural areas, contributing to the substantial improvement in the health of rural residents before the reform and opening-up period.[147]

Before the 1980s, the state played the role of the establisher and guarantor of the social security system, while each work unit became a self-financing, closed-off organizer and implementer of social security. The state and work units were mutually dependent; social members were divided into different units (in urban areas, these were various governmental, public institutions, and enterprises, while in rural areas, they were collective organizations such as people's communes and production brigades or teams). These members formed an inseparable "strong dependency" relationship with their respective units, and they enjoyed welfare and security benefits without cost. Therefore, the traditional social security system established in the early years of the People's Republic of China can be characterized as a typical "state-unit" model of social security.[148]

2.4.3. Reform and Reconstruction (1976-2000)

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[146] Sun Chenglin. Investigation and consideration of Chinese Social insurance system innovation [D]. Dalian University of Technology, 2006.

[147] 郑功成. (2019). 中国社会保障 70 年发展（1949—2019）：回顾与展望. *中国人民大学学报*, 33(5), 1-16.Zheng, G. (2019). Seventy years of social security development in China (1949—2019): Retrospect and prospect. *Journal of Renmin University of China*, 33(5), 1-16.

[148] 郑功成.从国家单位保障制走向国家社会保障 30 年来中国社会保障改革与制度变迁,社会保障研究(北京),2008 (2). Zheng Gongcheng. From State unit System to State society System: the Reform and Constitutional Transformation of Social Security in Recent Thirty Years. Social Security Research .02(2008):1-21.

The 1978 Reform and Opening-Up policy redefined China's welfare paradigm. As the economy shifted from planned to market-oriented, the state–unit model became unsustainable. Reforms in the 1980s and 1990s aimed to decentralize welfare responsibility, expand funding sources, and create a social insurance system compatible with market mechanisms.

In 1978, the Third Plenary Session of the 11th Central Committee of the Communist Party of China marked the beginning of the Reform and Opening-up era, responding to the people's urgent demand for an improved standard of living and set the goal of "developing productive forces to achieve common prosperity." Against this backdrop, China shifted its focus from class struggle to economic development, with a policy orientation that prioritised efficiency.

After the household responsibility system reform[149], state-owned enterprise reforms and other sectors progressed rapidly. The economy shifted from state monopoly to a mixed ownership structure, and employment transitioned from government control to marketisation. These reforms led to significant social changes, with urban residents becoming "societal people" instead of "unit people," and rural residents shifting from "collective people" to "free people." As market competition and SOE reforms dismantled the lifetime employment system and weakened the rural collective economy, the Soviet-style social security system became unsustainable, and the need for reform grew urgent as the burdens on enterprises and the government increased.

The amendment to the Constitution of the People's Republic of China, adopted at the first session of the Fifth National People's Congress on 5 March 1978, makes principled provisions for the welfare of workers, old age, medical treatment for illness and material assistance for incapacity to work, as well as for the livelihood of disabled soldiers and the

[149] The household responsibility system was introduced in China in 1979 and officially established in 1982, replacing collective farming. Under this system, land remained publicly owned, but production became the responsibility of individual households, which were accountable for profits and losses. While households were still required to meet state quotas, they could decide what to plant on contracted land and sell surplus produce through a multi-tier pricing system: a fixed price for state quotas, a higher price for surplus sales to the state, and market prices for sales at fairs.

families of martyrs, as reflected in Articles 48, 49 and 50 of the Constitution respectively.[150] In May 1978, the State Council promulgated the Provisional Measures on the Resettlement of Old, Weak, Sick and Disabled Cadres and the Provisional Measures on the Retirement and Retirement of Workers, which played an important role in restoring the retirement pension system that had been destroyed by the Cultural Revolution. In October 1980, the State Council issued the Temporary Provisions on the Retirement and Rest of Old Cadres, which established a retirement system with special treatment - the Retirement System.[151] The new amendment to the Constitution of the People's Republic of China, adopted at the Fifth Session of the Fifth National People's Congress on 4 December 1982, has quite extensive regulation of citizens' rights and interests in social security in Articles 43, 44, 45, 46, 48 and 49.[152]

The real turning point came in 1986, when the Seventh Five-Year Plan[153] for National Economic and Social Development was adopted at the Fourth Session of the Sixth National People's Congress on 12 April, introducing the concept of social security[154] for the first time and setting out a separate chapter on the reform and socialisation of social security. On 12 July, the State Council promulgated the Provisional Provisions on the Implementation of the Labour Contract System in State-owned Enterprises and the Provisional Provisions on Workplace Insurance for Employees of State-owned Enterprises, which not only clearly provided for the replacement of the "iron rice bowl"[155]of the planned economy by the labour

[150] Constitution of the People's Republic of China (1978). Adopted by the Fifth National People's Congress on 5 March 1978. https://dqjjjc.daqing.gov.cn/dqsjw/fgcx/xfflfg/xf/2017-05-17/457.html

[151] 郑功成.从国家单位保障制走向国家社会保障 30 年来中国社会保障改革与制度变迁,社会保障研究(北京),2008 (2). Zheng Gongcheng. From State unit System to State society System: the Reform and Constitutional Transformation of Social Security in Recent Thirty Years. Social Security Research .02(2008):1-21.

[152] Constitution of the People's Republic of China (4 December 1982). Adopted at the Fifth Session of the Fifth National People's Congress on 4 December 1982 Promulgated and put into effect by a proclamation of the National People's Congress on 4 December 1982, http://www.npc.gov.cn/zgrdw/npc/zt/qt/gjxfz/2014-12/03/content_1888093.htm

[153] The five-year plan is an essential part of China's national economic planning, constituting a long-term strategy. It primarily outlines major national construction projects, the distribution of productivity, and significant proportions within the national economy. It sets goals and directions for future economic development. China began formulating its first "Five-Year Plan" in 1953.

[154] The concept of social security did not exist in China before 1986, and social security policies were usually expressed in terms of a number of concepts such as labour insurance, social assistance and publicly funded medical care.

[155] The term refers to a career with job security and can be compared to the similar (but not identical) concept of a 'job for life' in English. Traditionally, those considered to hold such positions include military personnel,

contract system in state-owned enterprises, but also stipulated that the retirement pension of contract workers would be socially co-ordinated and shared between enterprises and individuals. This was a key symbol of the fundamental change in China's social security system. The year 1986 was a landmark year for China's social security system to truly move from state-work unit protection to state-social security.[156] During this period, social welfare began to transition toward "socialization," with new methods such as raising funds through the issuance of welfare lotteries becoming important avenues for financing social welfare. However, the broader context of these reforms was primarily focused on advancing state-owned enterprise (SOE) reforms, and the social security reforms inevitably became closely tied to supporting these SOE changes.[157]

In 1988, the National People's Congress passed the "Law of State-Owned Industrial Enterprises," which granted SOEs greater autonomy to operate under the discretion of their managers. However, as SOEs distanced themselves from the planned economy, this shift led to massive layoffs and a reduction in welfare benefits, as SOEs sought to alleviate the heavy burden of employee welfare. The resulting large-scale job losses and the suspension of pension payments created a new impoverished demographic, posing significant challenges to the existing social security system.[158] To address the unemployment crisis, the government introduced the *xiagang* (下岗) system[159], which required SOEs to pay laid-off workers a monthly allowance while technically keeping them "employed." This system allowed the CCP to avoid acknowledging the existence of unemployment in a socialist economy, where it was not supposed to exist. However, many SOEs failed to fulfill their

civil servants and employees of various state-owned enterprises (through the mechanism of the work unit).

[156] Zheng Gongcheng. From State unit System to State society System: the Reform and Constitutional Transformation of Social Security in Recent Thirty Years. Social Security Research .02(2008):1-21.

[157] 郑功成. (2019). 中国社会保障 70 年发展（1949—2019）：回顾与展望. *中国人民大学学报*, 33(5), 1-16.Zheng, G. (2019). Seventy years of social security development in China (1949—2019): Retrospect and prospect. *Journal of Renmin University of China*, 33(5), 1-16.

[158] Shi, S. (2020). Social Security: The career of a contested social idea in China during the reform Era, 1978–2020. In *Global dynamics of social policy* (pp. 91–117). https://doi.org/10.1007/978-3-030-54959-6_3

[159] "Xiagang" (下岗) is a term unique to mainland China, referring to workers who lost their jobs during the restructuring of state-owned enterprises. These long-term employees were nominally still associated with their original work units under an "agreement to retain labour relations" (协保), but they no longer received wages, effectively making them unemployed. The term was first introduced by Chinese authorities in the 1990s and became widely used in mainland China.

financial obligations, leading to payment deferrals and defaults, which worsened the plight of the affected workers. Concerns about the decline of the work unit system were coupled with doubts about the sustainability of the shrinking socialist welfare system.[160]The welfare retrenchment also created a generational hierarchy, with older workers benefiting more from the occupational welfare system, while younger cohorts who joined the workforce later were more vulnerable to welfare cutbacks. The late 1990s saw the peak of mass layoffs, affecting millions of urban workers.

In response, the State Council issued the "Opinions on Accelerating the Socialisation of Social Welfare" in 2000, which aimed to involve various societal sectors in welfare production. The term "socialisation" (shehuihua) in this context refers not to a greater public recognition of the state's responsibility for social welfare but rather to the transfer of financial responsibilities to non-state entities, such as enterprises and employees themselves[161]. This marked a shift from the traditional work unit system, where SOEs bore the majority of welfare burdens, to a model where the state sought to delegate its welfare responsibilities, encouraging community-level service arrangements due to its contracting fiscal capacity.

Since the 1990s, China has undergone a major transformation, transitioning from a planned economy to a socialist market economy; this shift has been accompanied by a corresponding shift in the macro-social environment. The social welfare perspective that was prevalent during the planned economy has been largely replaced by the concept and theory of social security, which has become the dominant discourse.[162] The urban minimum subsistence security system was first established in Shanghai in 1993 and was later promoted nationwide by the Ministry of Civil Affairs and officially announced by the State Council on September 2 1997, as a notice of the establishment of a nationwide minimum subsistence security system for urban residents.[163] In 1997, the Central Committee of the Communist Party of

[160] Shi, S. (2020). Social Security: The career of a contested social idea in China during the reform Era, 1978–2020. In *Global dynamics of social policy* (pp. 91–117). https://doi.org/10.1007/978-3-030-54959-6_3

[161] Wong, L. (1995). Reforming welfare and relief–socializing the state's burden. *Social change and social policy in contemporary China*, 50-69.

[162] National Economic Reform Commission, Reform of the Social Security System, Reform Press, 1995, 'Foreword', pp.1-2

[163] Zheng Gongcheng. "Social Security Reform and Institutional Construction in China." Journal of Renmin

China and the State Council promulgated the first Decision on Health Reform and Development. After years of reform and development, the healthcare system has undergone significant changes.[164] In 1998, the State Council made a landmark decision to create a medical insurance system for urban workers, ushering in a new era of social, medical insurance in China, replacing the traditional labour insurance medical care and enterprise unit-based medical insurance.[165] The Regulations on Minimum Living Security for Urban Residents were officially issued by the State Council on September 28, 1999, institutionalizing and standardizing social security measures for urban residents.[166] China also introduced a multi-pillar pension system, inspired by recommendations from the World Bank (1994)[167]. The State Council's 1995 notice on deepening enterprise employee pension reforms (State Council [1995] No. 6) formally established a pension system consisting of basic social insurance and individual accounts (commonly known as the social pooling and individual accounts model). The goal of creating individual accounts was to expand the funding base, reduce employer contributions, and incentivize employee participation. Each worker had an individual fund account that could be transferred throughout their career. The personal contribution rate was set at no more than 3% of the worker's previous year's average wage, increasing by 1% every two years. On July 16, 1997, the State Council issued the "Decision on Establishing a Unified Basic Pension Insurance System for Enterprise Employees" (State Council [1997] No. 26), which set detailed guidelines for implementing the individual account system. Pension contributions were to be shared by enterprises and individuals, with the individual contribution gradually reaching 8% of their wages. Individual accounts would be based on 11% of the worker's wage, with full contributions from individuals and shortfalls covered by employer contributions, which were to be

University of China 1(2003):9.

[164] Xu Rongkai and Cao Ronggui, eds: Study and Guidance Materials for the Decision of the CPC Central Committee and the State Council on Health Reform and Development, People's Health Publishing House, 1997, pp. 1-2

[165] Liu Jitong. "Historical experience, structural dilemmas and reform directions of China's social health insurance system in the past 40 years." Journal of Humanities 3(2019):10.

[166] Zhu Xiaochao. Urban Minimum Livelihood Security: Who will fill the gap? [J]. Finance and Economics 2002 (14)

[167] World Bank. (1994). *Averting the old age crisis: Policies to protect the old and promote growth*. Washington, D.C.: World Bank Group. Retrieved from http://documents.worldbank.org/curated/en/973571468174557899/Averting-the-old-age-crisis-policies-to-protect-the-old-and-promote-growth

gradually reduced to 3%. Starting January 1, 2006, the contribution to individual accounts was unified at 8% of wages, entirely paid by individuals, with no further employer contributions to the individual accounts.

Although the traditional social security system entered a period of comprehensive reform in the mid-1980s alongside the opening-up policy, the new and old systems coexisted for an extended period. It wasn't until 2014, when the pension system for public sector employees was unified with that of enterprise employees under the social insurance system, that the traditional system was fully phased out, having lasted for over 60 years.[168]

In the early 1980s, the Chinese government began exploring the socialization of the welfare system. Officials visited Denmark, Norway, and Sweden to study their welfare programs and drew on Singapore's experience, launching the housing provident fund system in Shanghai in 1991, which was later implemented nationwide. At the same time, international organizations like the World Bank (WB) and the ILO played key roles in pushing for social security reforms in China. Influenced by the WB's neoliberal ideas and Chile's private pension account model, China established a unified pension system in 1997 that combined social pooling with individual accounts. In building a multi-tiered social security system, China also referenced the experiences of countries like Germany and the United States, seeking to balance public protection and market mechanisms to ensure sustainable development and shared responsibility. By integrating these international insights, China gradually developed a unique social security model.[169]

2.4.4. Integration and Diversification (2000-present)

The Hu-Wen era (2002-2012) brought significant, substantive changes, marking a reversal in the trend of "welfare socialization"[170]. Under the slogans of "people-centred" development

[168] 郑功成. (2019). 中国社会保障 70 年发展（1949—2019）：回顾与展望. *中国人民大学学报*, 33(5), 1-16.Zheng, G. (2019). Seventy years of social security development in China (1949—2019): Retrospect and prospect. *Journal of Renmin University of China*, 33(5), 1-16.

[169] 华颖, (2019). 中国社会保障 70 年演进的国际经验及借鉴. *中国人民大学学报*, 33(5), 17-26.Hua, Y. (2019). The evolution of China's social security system over 70 years: International experiences and lessons. *Journal of Renmin University of China*, 33(5), 17-26.

[170] Howell, J., & Duckett, J. (2018). Reassessing the Hu–Wen era: a golden age or lost decade for social policy in China? *The China Quarterly*, *237*, 1–14. https://doi.org/10.1017/s0305741018001200

and the creation of a "harmonious society," the Hu-Wen leadership signalled a clear return of the state to the social welfare domain. On November 12, 2001, the General Office of the State Council released the Circular on Enhancing the Minimum Livelihood Security Work for Urban Residents, providing strong support for the development of this social security system.[171] The expansion of social policies included the establishment of a comprehensive basic social security system for all, with a particular focus on vulnerable groups such as farmers, migrant workers, unemployed workers, and urban poor. In 2002, China established a new rural cooperative medical system, with government implementation and central financial subsidies. The pilot program was launched in 2003 in select rural areas and gradually extended to all rural areas by 2004, benefiting over 96% of China's rural residents. In 2007, a unique social health insurance was established for primary and secondary school students, children, and other urban non-employed individuals, including elderly urban residents. In 2009, China introduced a new rural social pension insurance for those aged 16 and older, excluding students and rural residents not covered by urban employee pension insurance, with government financial support for basic operations. In 2010, China's Social Insurance Law was enacted and took effect on July 1, 2011, represents a milestone in the construction of the social insurance legal system, elevating the ideals of social equity from the policy level to legal norms.[172] A basic social pension and medical insurance plan covering both urban and rural residents was established.[173] Before this, the social insurance system mainly benefited employees and excluded farmers and urban non-workers.

Meanwhile, policies to address the challenges faced by the migrant population began to take shape. Many regions allowed migrant workers to participate in urban employee social insurance, though many still hesitated to take advantage of this benefit. Variations in insurance plans across different regions often hindered the transfer of benefits for insured migrant workers when they moved. Significant progress was also made in improving rural

[171] Zhu Xiaochao. Urban Minimum Livelihood Security: Who will fill the gap? [J]. Finance and Economics 2002 (14)

[172] Zhou Hong, Zhang Jun. Towards a society with security for all: institutional changes of social security in contemporary China [M]. China Social Science Press, 2015.

[173] Shi, S. J. (2012). Towards inclusive social citizenship? Rethinking China's social security in the trend towards urban–rural harmonisation. *Journal of Social Policy*, *41*(4), 789-810.

livelihoods, including the establishment of the New Rural Cooperative Medical Scheme in 2003, the abolition of the agricultural tax in 2006, and the guarantee of nine years of free education for children in the following year. Even within the remaining social assistance framework, the modern "Minimum Living Guarantee" system (dibao) replaced the traditional Five Guarantees. It became the primary support for impoverished families in both urban (since 1999) and rural areas (since 2006)[174,175]. In 2014, the *hukou* system underwent fundamental reform, removing the barriers between urban and rural hukou, as a result, farmers who work and live in small and medium-sized cities for a period are granted urban resident status.[176]

As for the elderly care perspective, In 2012, Qingdao, Shandong Province, became the first to separate nursing care insurance from medical insurance and established a independent long-term care insurance system (see detail information afterward), which was expanded to all urban and rural areas in 2015.[177] The success of the Qingdao pilot led to a second round of national pilots in 15 cities, including Changchun, Nantong, Chengdu and Shanghai, in 2016.[178] In September 2020, with the approval of the State Council, the National Health Insurance Administration, in conjunction with the Ministry of Finance, issued the Opinions on Expanding the Long-term Care Insurance System, increasing the number of pilot cities for long-term care insurance to 49.[179]

The new social insurance system was initially scattered across the 1994 "Labour Law" and the 2008 “Labour Contract Law”. It wasn't until 2011 that these scattered laws and regulations were unified under the “Social Insurance Law”, forming the comprehensive

[174] Leung, J. C., & Xiao, M. (2015). The institutionalisation of social assistance. In *China's Social Policy* (pp. 33-50). Routledge.
[175] Gao, Q. (2017). *Welfare, work, and poverty: Social assistance in China*. Oxford University Press.
[176] The 2014-2020 National New-Type Urbanization Plan aimed to grant urban hukou to 100 million people by 2020. It eased restrictions in small cities (with fewer than 500,000 people) and medium-sized cities (with more than 1 million people), while maintaining stringent hukou controls in cities with populations exceeding 5 million.
[177] An Pingping, Chen Ning, Xiong Bo. Long-term care insurance in China: system practice, experience insights and development direction--a comparative analysis based on the Qingdao and Nantong models [J]. China Health Policy Research, 2017, 10(8): 1-6.
[178] Li Jia. A study on the sustainability of the financial burden of China's long-term care insurance system - based on 17 pilot schemes [J]. Social Security Review, 2020, 4 (4): 53-71
[179] Liu Meng, Wang Chen, Yin Ling. Overview of issues related to long-term care insurance [J]. Health Soft Science, 2022, 36(1):78-80.

framework of the national social insurance system.[180] The following Table 3 summarises the main social security practices after 1949

Table 4. Institutional Evolution of China's Social Security System (1949–Present)

Phase	Key Features	Representative Policies / Laws	Theoretical Interpretation
1949–1958	Formation of socialist social security system under state–unit model	Labour Insurance Regulations (1951); Retirement Measures (1955–1956)	Legal reception from Soviet model; institutional path formation
1958–1976	Decentralization and stagnation; growth of rural medical cooperatives	Cooperative Medical Scheme (1960); "Barefoot Doctor" program (1965)	Institutional resilience under disruption; community-based adaptation
1976–2000	Market reforms; partial socialization of welfare	Pension Reform (1997); Urban Medical Insurance (1998)	Selective policy reception from Western welfare models; gradual transformation
2000–Present	Universalization and diversification; emergence of LTC	Social Insurance Law (2011); LTCI Pilots (2012–2020)	Hybridization of foreign LTC systems with Confucian family ethics

Source: Compiled by the author

2.5. The Current Structure and Problems of the Chinese Social Security System

China's proposal for the formulation of the 7th Five-Year Plan for National Economic and Social Development in 1986 clearly defined social security as consisting of four elements: 1) Social Insurance, 2) Social Assistance, 3) Social Welfare[181], and 4) Social Special Care.[182]

As the central of the Chinese Social Security System, social insurance in China can be divided into six main parts[183]: 1). pension insurance, 2). medical insurance, 3). unemployment insurance, 4). employment injury insurance, 5). maternity insurance and 6). long-term care insurance. All employees—including migrant workers—are formally expected to be covered under this comprehensive framework. As of June 2022, the number

[180] China's social security system. (2021). China Labour Bulletin. https://clb.org.hk/en/content/china%E2%80%99s-social-security-system

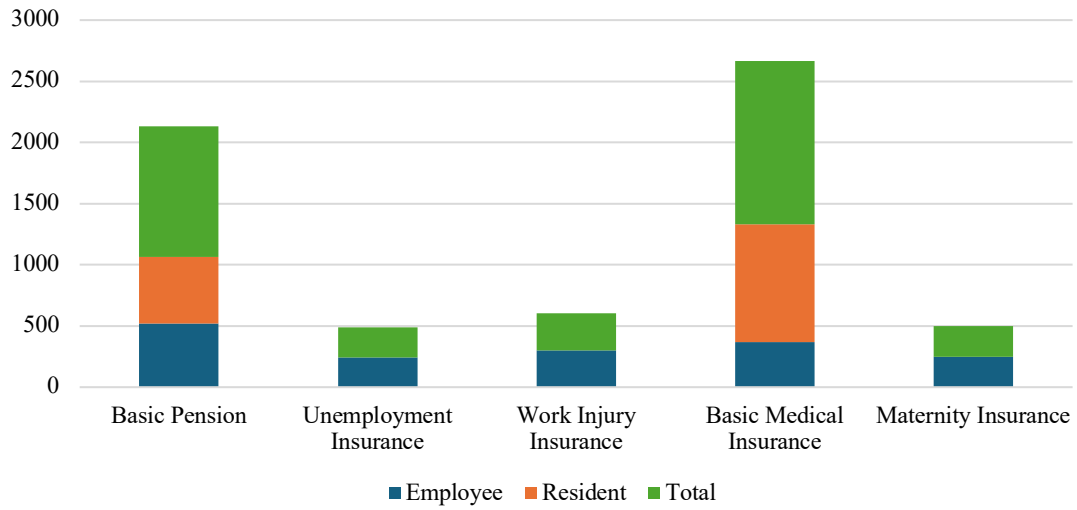
[181] Chinese Social welfare is provided for groups such as the elderly, orphans, and persons with disabilities, with legal bases including the *Law of the People's Republic of China on the Protection of the Rights and Interests of the Elderly*, the *Law of the People's Republic of China on the Protection of Minors*, and the *Law of the People's Republic of China on the Protection of Persons with Disabilities*.

[182] It is a system through which the Chinese government provides material support and psychological comfort to military personnel and their families as the primary recipients of preferential treatment and resettlement. The legal bases include the *Regulations on Honoring Revolutionary Martyrs*, the *Regulations on Pensions and Preferential Treatment for Servicemen*, the *Military Service Law of the People's Republic of China*, and the *Regulations on the Resettlement of Demobilized Conscripts*, among others.

[183] Long-term care insurance is not yet compulsory, but in China, it is known as the "sixth insurance". This article, based on Chinese government policy and research by Chinese scholars on China's long-term care system, shows that China's long-term care system is currently classified as social insurance rather than as social assistance or social welfare.

of participants had increased substantially: basic old-age pension (1.04 billion), unemployment insurance (230 million), and work injury insurance (290 million), compared to 790 million, 150 million, and 190 million in 2012, respectively.[184] Figure 1 shows that as of the end of 2023, the participation in China's social insurance programs: 52.12 million people were covered by urban employee basic pension insurance, 54.52 million by urban and rural resident basic pension insurance, 133.39 million by basic medical insurance, 24.37 million by unemployment insurance, and 30.17 million by work injury insurance. In addition, 6.64 million urban residents and 33.99 million rural residents received minimum living guarantees (dibao)

Figure1. Number of Participants at the End of 2023 (in millions)



Source：Data from the 中华人民共和国国家统计局. (2024 年 2 月 29 日). 2023 年国民经济和社会发展统计公报. 国家统计局.National Bureau of Statistics of China. (February 29, 2024). *2023 Statistical bulletin on national economic and social development*. National Bureau of Statistics of China. https://www.stats.gov.cn/sj/zxfb/202402/t20240228_1947915.html

Since 1978, China has developed the world's most extensive basic healthcare coverage network over more than 40 years.[185] Based on the latest officially sourced percentage figures,

[184] China's employment situation is generally stable and social security coverage continues to expand, Ministry of Human Resources and Social Security of the People's Republic of China, http://www.mohrss.gov.cn/SYrlzyhshbzb/zhuanti/jinbaogongcheng/jbgcshehuibaozhangka/jbgcshbzkmeitijujiao/202209/t20220922_487567.html

[185] 国家医疗保障局. (2021 年 8 月 13 日). *国家医疗保障局对十三届全国人大四次会议第 2334 号建议*

by the end of 2021, 1.03 billion people were participating in basic pension insurance,[186] and basic medical insurance covered 1.36 billion people in China, with a participation rate consistently above 95%, achieving near-universal coverage. The reimbursement rate for inpatient expenses under the resident insurance policy reached approximately 70%, and the maximum payment limit from the pooled fund was about six times the per capita disposable income of local residents.[187]

Despite impressive coverage expansion, China's social security system faces three interrelated structural challenges—fragmentation, inequality, and sustainability.

1) Financial Sustainability and Population Ageing. China's social security system faces serious funding shortages due to an ageing population and a declining workforce, necessitating urgent reforms. The system's challenges stem from the dismantling of the state-owned economy, large-scale rural-to-urban migration, and the family caregiving pressures from the one-child policy. In 2019, to alleviate enterprise burdens and sustain fund solvency, the State Council reduced the employer contribution rate for pension insurance from 20% to 16% (State Council, 2019). During the COVID-19 pandemic, contribution exemptions were extended for up to six months to support businesses. However, these measures also deepened the structural imbalance between revenues and expenditures, prompting concerns about long-term fiscal viability.[188]
2) Urban–Rural and Regional Inequality. Institutionally, China's social security system remains segmented along the hukou (household registration) line. Urban employees

的答复. 国家医疗保障局. National Healthcare Security Administration. (2021, August 13). *Response to Proposal No. 2334 of the Fourth Session of the 13th National People's Congress*. National Healthcare Security Administration. https://www.nhsa.gov.cn/art/2021/8/13/art_26_5776.html

[186] 中国政府网. (2022 年 9 月 22 日). *老龄工作取得显著进展和成效 全国10.3 亿人参加基本养老保险*. 中国政府网. Chinese Government. (2022, September 22). *Significant progress in aging work: 1.03 billion people participate in basic pension insurance nationwide*. Chinese Government. https://www.gov.cn/xinwen/2022-09/22/content_5711003.htm

[187] 国家医疗保障局. (2021 年 8 月 13 日). *国家医疗保障局对十三届全国人大四次会议第 2334 号建议的答复*. 国家医疗保障局. National Healthcare Security Administration. (2021, August 13). *Response to Proposal No. 2334 of the Fourth Session of the 13th National People's Congress*. National Healthcare Security Administration. https://www.nhsa.gov.cn/art/2021/8/13/art_26_5776.html

[188] China Labour Bulletin. (2021, August). *China's social security system*. China Labour Bulletin. https://clb.org.hk/en/content/china%E2%80%99s-social-security-system

enjoy more comprehensive benefits than rural residents or informal workers.[189] While official statistics claim near-universal coverage, coverage depth and benefit levels differ dramatically. For example, by 2020, only about 71% of urban workers had pension insurance, and 47% were covered by unemployment insurance.[190] By the end of 2023, among 298 million migrant workers, roughly 40% of China's laborforce, only 22% participated in employee pension insurance.[191] However, most migrant workers either have not participated in pension insurance or are only covered by urban and rural resident pension insurance.[192] Many small and medium-sized enterprises evade contributions due to high rates and weak enforcement. Local governments, prioritizing investment attraction, have often turned a blind eye to non-compliance. Instead of stricter enforcement, responded by gradually lowering contribution rates and promoting the voluntary urban–rural resident insurance schemes, which combine individual contributions with state subsidies.[193] These plans are based on individual contributions, supplemented by government subsidies. This allows the government to claim near-universal coverage of social insurance.[194]

3) Institutional Fragmentation and Coordination Issues. China's social security system is legally comprehensive but administratively fragmented. Although the national framework defines the major programs, implementation is decentralized: different branches of insurance are managed by separate ministries or local agencies, and funds are administered at provincial or even municipal levels.[195] Workers who move between

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[189] Gao, Q. (2021). *Welfare, work, and poverty: Social assistance in China.* Oxford University Press.

[190] 国家统计局. (2021, 2 月 28 日). *中华人民共和国 2020 年国民经济和社会发展统计公报*.National Bureau of Statistics (China). (2021, February 28). *Statistical Communiqué of the People's Republic of China on the 2020 National Economic and Social Development*. https://www.stats.gov.cn/sj/zxfb/202302/t20230203_1901004.html

[191] 中华人民共和国人力资源和社会保障部. (2024). *2023 年度人力资源和社会保障事业发展统计公报*. Ministry of Human Resources and Social Security of the People's Republic of China. (2024). *2023 Statistical Bulletin on the Development of Human Resources and Social Security*. https://www.mohrss.gov.cn/SYrlzyhshbzb/zwgk/szrs/tjgb/202406/W020240617617024381518.pdf

[192] China Labour Bulletin. (2021, August). *China's social security system*. China Labour Bulletin. https://clb.org.hk/en/content/china%E2%80%99s-social-security-system

[193] Wing Chan, K., & Buckingham, W. (2008). Is China Abolishing the Hukou System? *The China Quarterly*, *195*, 582–606. doi:10.1017/S0305741008000787

[194] China Labour Bulletin. (2021, August). *China's social security system*. China Labour Bulletin. https://clb.org.hk/en/content/china%E2%80%99s-social-security-system

[195] International Labour Organization (ILO). (2017). *World social protection report 2017–19: Universal social protection to achieve the Sustainable Development Goals.* https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40dcomm/%40publ/documents

provinces often face incomplete procedures to transfer pension entitlements or medical benefits, which discourages labor mobility and leaves many migrant workers under-insured. Apart from that, although the central government has encouraged unification, provinces retain discretion over benefit levels, contribution rates, and eligibility criteria, producing wide disparities and administrative duplication.[196]

2.6. Chinese Long-term Care and Social Security System

Long-term care (LTC) represents the most recent and conceptually complex addition to China's social security system. Unlike traditional branches such as pensions or health insurance, LTC involves a cross-sectoral combination of medical, welfare, and family responsibilities. Its development in China has evolved within the broader context of social insurance reform, demographic ageing, and changing family structures.

2.6.1. Identify the Chinese Long-term Care with Other Chinese Social Insurances

The legislative goal of the pension is to provide workers with basic living needs after they retire. Still, when faced with a situation of disability or dementia, the pension is often difficult to meet the expenses of long-term care costs. According to the 2018-2019 Long-Term Care Research Report, the median actual cost of care is RMB 2,000, which is much higher than China's monthly per capita pension entitlement.[197] And while pension primarily provides a monthly pension for those who have retired and does not provide any form of care, long-term care can provide services in cash or in kind for people who need it, depending on the circumstances or specific policy.[198]

The legislative goal of medical insurance is to provide necessary medical services and material assistance to citizens due to illness or injury. However, as incapacity and dementia

/publication/wcms_604882.pdf

[196] OECD (2019), *OECD Economic Surveys: China 2019*, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-chn-2019-en.

[197] According to data from the Ministry of Human Resources and Social Security bulletin, China's monthly per capita pension entitlement in 2019 was RMB 1,539

[198] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

do not affect the health of bodily functions, China's medical insurance system does not include this in the scope of medical insurance. Medical care plays a vital role in maintaining and improving people's health, encompassing various services to prevent, diagnose, and treat physical and mental conditions. Provided by professionals in fields like medicine and nursing. But long-term care is not only disease-oriented care; it tends to be a long period of care for people who need it, not only just in the hospital or institutions, but also at home or rely on the community. Although there is considerable overlap in their target populations, merging them under the same umbrella is not advisable. Incorporating long-term care into the medical care insurance system could deplete resources and hinder the smooth operation of medical care services. Additionally, in situations of limited medical resources, prioritising LTC needs within the medical care system might neglect urgent medical needs, resulting in inefficiencies.[199]

Article 38(5) of China's Social Insurance Law stipulates that the Labour Injury Insurance Fund shall pay for living care expenses resulting from work-related injuries, and Article 34 of the Regulations on Labour Injury Insurance stipulates that the Labour Injury Insurance Fund shall pay for living care expenses every month by regional standards and by grades. However, the existence of a labour relationship is a prerequisite for the activation of work-injury insurance. Therefore, to sum up, in China's social context, long-term care must be established and developed as a separate insurance.[200]

2.6.2. The Development Path of the Chinese Long-term Care System

In the early 2000s, the government began to recognize LTC as a distinct policy field. The "National Medium- and Long-Term Plan for Population Ageing (2006–2020)" first highlighted the need for integrating medical and eldercare services. But the first LTC policy emerges in Qingdao City, which with a fast-growing elderly population and huge challenges in elderly care services. In order to solve the problems of an increasing number of disabled

[199] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343
[200] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

elderly and insufficient support, in 2012, the Qingdao government adopted t*he Opinions on the Establishment of Long-term Medical Care Insurance System (for Trial Implementation)* jointly drafted by nine departments, including the Bureau of Human Resources and Social Security. In 2013, the People's Congress of the People's Republic of China revised and ratified the Law on Protecting the Rights and Benefits of Older Persons, emphasizing several aspects of LTC. Firstly, it mandates that family members and caregivers ensure timely treatment for older individuals in poor health, bearing the financial burden if economic hardships arise. Secondly, if older persons are unable to care for themselves, families or caregivers must take on the responsibility of providing care, either directly or by arranging care from nursing homes or other trusted facilities, with the older person's consent if they are unable to provide care themselves. Moreover, the law acknowledges the importance of establishing community care services in both rural and urban areas, and it encourages and supports professional institutions, organizations, and individuals in providing essential daily care, emergency assistance, medical attention, emotional support, and mental health counselling for older persons.[201] But at that period, China has only treated long-term care merely as an aspect of elderly care, without elevating it to the level of institutional construction for a long time, It wasn't until 2016 when the Ministry of Human Resources and Social Security issued the "*Guiding Opinions on Launching the Pilot Programme of the Long-Term Care Insurance System* " (HRSS Office Letter [2016] No. 80), launching pilot projects[202] for long-term care insurance in 15 cities. In February 2019, municipal-level medical insurance bureaus were successively established across China, and the management functions of "long-term care insurance" in pilot cities were transferred to local medical insurance bureaus. China officially began to consider include LTCI as part of social insurance.[203]

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[201] Standing Committee of the National People's Congress (2013). Law on Protecting the Rights and Benefits of the Older Persons of the People's Republic of China, Order No. 72 of the President of the People's Republic of China. Beijing: People's Republic of China.

[202] According to Yan, Y. F. (2017). Policy piloting": An important way for the Chinese Communist Party to govern the country. *Soc. Sci*, *10*, 72-76.: Pilot programs make it easier to manage the various risks involved in implementing the system and in the decision-making process, thereby enhancing the scientific rigor and controllability of risk prevention and mitigation. They also allow policies to be adjusted based on accumulated experience, dispersing the costs of trial and error.

[203] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik

In the Government Work Report of March 2019, it was proposed to "*expand the pilot programmes of the long-term care insurance system*"; in April 2019, the State Council issued the "Opinions on Promoting the Development of Elderly Care Services," proposing to "accelerate the implementation of the long-term care insurance system" and to expedite the establishment of a basic elderly care service system covering all elderly people. With the joint release of the " *Guiding Opinions on Expanding the Pilot Programme of the Long-Term Care Insurance System* " (Medical Insurance Letter [2020] No. 37) by the National Healthcare Security Administration and the Ministry of Finance in September 2020, China's LTCI expanded the number of pilot cities up to 49. By the end of 2022, the number of people covered by China's long-term care insurance had reached 169 million, with a cumulative 1.95 million people getting benefits.[204,205]

On November 18, 2021, the State Council released the "Opinions on Strengthening Work for the Elderly in the New Era" explicitly identified the establishment of a long-term care insurance system as a crucial measure to address the ageing society. In March 2023, during the First Session of the 14th National People's Congress (NPC), a representative proposed a motion to enact a law on long-term care which pointed out that with the exacerbation of China's population ageing, the large number of people becoming disabled due to old age will undoubtedly become a significant risk faced by society in the future. It's important to accelerate the legislative work related to long-term care for disabled individuals and enact specialized laws and regulations to safeguard the rights and interests of disabled individuals.[206,207] And in the “Opinions on Deepening the Reform and Development of

Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[204] Based on the briefing by the State Council Information Office on "Implementing the Major Decisions and Deployments of the 20th CPC National Congress and Promoting the High-Quality Development of Healthcare Insurance" held on 18 May 2023 by the Information Office of the State Council.

[205] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[206] 全国人大社会委:推动长期护理保险法治化_中国人大网. Social Committee of the National People's Congress: Promoting the Rule of Law for Long-Term Care Insurance_Chinese National People's Congress. http://www.npc.gov.cn/npc/c2/c30834/202401/t20240123_434374.html

[207] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

Elderly Care Services" issued by the Chinese government in December 2024, it states that by 2025, "the establishment of a long-term care system will be accelerated."[208]

2.7 The Current Chinese Long-term Care Insurance

2.7.1 The Coverage of Chinese Long-term Care Insurance

The geographic and demographic coverage of China's LTCI system reflects a gradual and selective institutional experimentation, rather than a universal statutory entitlement. As of 2024, LTCI pilots have been launched in 49 cities, all pilot sites include participants of the basic medical insurance for employees, while 26 cities further extend coverage to participants of the basic medical insurance for urban and rural residents (see Table 5).[209] Among these, certain regions such as Chengde, Shangrao, Anqing, Chengdu, Qiqihar, Chongqing, Guangzhou, and Ningbo narrow down the coverage to participants of urban employee Medical insurance, constituting the narrowest scope. Changchun, Nantong, and Shanghai expanded the coverage to include participants of both urban employees and urban residents basic medical insurance, broadening the scope of protection. Conversely, cities like Qingdao, Shihezi, Jingmen, and Suzhou cover participants of both urban employees and urban and rural resident medical insurance, essentially achieving comprehensive coverage.[210,211] This variation demonstrates China's cautious and adaptive approach to social policy reform, one that prioritises fiscal containment and administrative feasibility over legal universality.

From the perspective of jurisprudential reception theory, this fragmented coverage pattern can be interpreted as an early stage of "selective legal reception." Rather than directly transplanting the comprehensive coverage seen in Germany's Social Code Book XI (SGB

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[208] Chinese State Council (2024). *Opinions on deepening the reform and development of elderly care services*. https://www.gov.cn/zhengce/202501/content_6996775.htm

[209] 49城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau. 、 https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[210] 武亦文. 中国式现代化背景下长期护理社会保险制度的法治实现[J]. 当代法学,2023,37(5):64-75. Wu, Yi-wen. Rule of law realisation of long-term care social insurance system in the context of Chinese-style modernisation[J]. Contemporary Law,2023,37(5):64-75. DOI:10.3969/j.issn.1003-4781.2023.05.006.

[211] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

XI) or Japan's LTCI system, China's approach reflects a process of institutional translation and localisation. The selective inclusion of target groups allows policymakers to observe system performance under diverse demographic and fiscal conditions before any potential codification.

At present, China's LTCI focuses mainly on providing coverage for disabled individuals. The primary function of long-term care insurance is to provide the most basic medical and caregiving services for insured individuals who are in a long-term disabled state. In the first batch of pilot cities, Changchun and Suzhou provide coverage for moderately and severely disabled individuals, Shanghai covers all types of disabled individuals, Shangrao and Chengdu provide coverage for severely disabled and demented individuals, while Nantong, Qingdao, and Guangzhou include both severely and moderately disabled individuals as well as demented individuals in their coverage. In the second batch of pilot cities, except for Huhehaote city, which extends coverage to moderately disabled individuals, the other 13 cities only focus on providing coverage for severely disabled individuals, and no city includes demented individuals.[212,213] This narrow and inconsistent coverage scope reveals a significant equity gap. The emphasis on severe disability thresholds risks excluding individuals with progressive cognitive or moderate impairments, thereby undercutting the preventive function of social insurance. In contrast, both Germany and Japan have evolved towards graded entitlement models, recognising partial dependency as a valid basis for benefit access. The lack of uniformity in China's eligibility design thus underscores a broader tension between fiscal prudence and social citizenship, which exemplifies a partial and experimental reception of international LTC models.

Table 5: The Coverage and financing modalities of LTCI in pilot cities

Coverage	Financing modalities		Number of pilot cities
	Single Funding	Medical insurance funds OR	2

[212] 李畅,陈婷,朱旋 邹照婉.(2024).老龄化背景下长期护理保险法律制度研究.经济师(01),56-58.Chang Li, Ting Chen, Xuan Zhu, Zhaowan Zou. (2024). Research on the legal system of long-term care insurance in the context of aging. Economist(01),56-58.

[213] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

Employee medical insurance[214] (covering all 49 pilot cities)		Individuals	
	Diversified funding	Individuals, employers	22
		Individuals, medical insurance funds	1
		Medical insurance funds, financial subsidies	2
		Individuals, medical insurance funds, financial subsidies	13
		Individuals, employers, medical insurance fund	2
		Individuals, employers, and financial subsidies	6
		Individuals, employers, medical insurance funds and financial subsidies	1
Resident medical insurance (covering 26 pilot cities)[215]	Single Funding	Medical insurance funds	3
	Diversified funding	Individuals, financial subsidies	13
		Individuals, medical insurance funds	1
		Medical insurance funds, financial subsidies	4
		Individuals, medical insurance funds, financial subsidies	5

Resource: based on local Long-term care system policy documents of pilot cities.

2.7.2 The Criteria for Accessing the Chinese Long-term Care Insurance

Chinese LTC eligibility isn't solely based on age but is determined by criteria established by health and social service sectors, in China, often based on the local government and local policies. Nearly half of the pilot cities used the Barthel Index of Activities of Daily Living (ADL scale)[216] as the basis for disability assessment. Examples include Chengde, Qingdao, Nantong, Ningbo, Guangzhou, and Nanning. Its main assessment items cover eating, dressing, bathing, mobility, and stair-climbing, but do not include any evaluation of dementia. Many cities used an ADL score ≤ 40 as the criterion for determining severe disability; Nantong and Qingdao used ADL ≤ 50 and ≤ 60, respectively, as the threshold for disability. In Qingdao, for individuals with dementia, an MMSE (Chinese version of the

[214] Resident medical insurance covers rural and urban non-employed residents, students, and some city residents with residence permits, while employee medical insurance is for employed workers, flexible employees, and self-employed individuals. Residents can opt for employee medical insurance for higher reimbursement rates and retirement benefits. Resident insurance is paid annually by individuals with partial government subsidies, while employee insurance is paid monthly by employers and employees or fully by individuals for flexible employees with potential subsidies. Reimbursement rates are slightly lower for resident insurance compared to employee insurance. Resident insurance no longer includes personal accounts, while employee insurance has coordinated and personal accounts.

[215] The main reason for taking the urban employees' basic medical insurance as a reference is that its mature experience in financing structure, fund management and other aspects, especially the reform of the payment method and the means of controlling medical costs in recent years, can provide useful reference for the development of the long-term care insurance system in the future.

[216] It is an ordinal scale used to measure performance in activities of daily living (ADL). Each performance item is rated on this scale with a given number of points assigned to each level or ranking.

Mini-Mental State Examination) score ≤9 was also included among those eligible for long-term care insurance benefits. Some cities, based on local circumstances, used their own assessment instruments. For example, in 2006, the Shanghai Civil Affairs Bureau introduced the Shanghai Standardised Care Needs Assessment Mechanism for Elders to regulate community care. This mechanism assessed various aspects, leading to three levels of care needs: normal/mild, moderate, and severe, determining subsidies and services. By 2013, the Shanghai Civil Affairs Bureau further fortified the Standardized Assessment Mechanism with criteria such as Standardized Care Need Assessment, Hospital Admission and Discharge, and assessments for the oldest old, enhancing the precision of elderly care services[217,218]. Similar to Shanghai, Suzhou's Long-Term Care Insurance Disability Grading Assessment Parameter Table (trial), Qiannan Prefecture's LTCI Disability Grading Assessment Standard, Kunming's LTCI Disability Grading Assessment Standard (trial). These local instruments are based their local situation, and sometimes cover more dimensions. For instance, Suzhou's tool includes four primary categories—perception ability, cognitive ability, behavioural ability, and special nursing tasks, with a total of 19 secondary items, [219] A small number of cities, such as Gannanzhou, Jincheng, Panjin and Kaifeng, do not have explicit provisions on disability assessment standards.[220,221]

On August 3, 2021, the National Healthcare Security Administration Office and the Office of Civil Affairs jointly issued the "*Notice on the Issuance of the for Long-Term Care Disability Level Assessment Standards <Trial>*" (see table 6). This national standard

[217] SDD-SPPS project working papers series long-term care for older persons in Asia and the pacific, Long-term care for older persons in China, https://www.unescap.org/sites/default/files/Long%20Term%20Care%20for%20older%20persons%20in%20China.pdf

[218] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[219] 社会科学报. (2024 年 9 月 24 日). 建言 | 长护险试点：构建全民覆盖的护理保障体系. 腾讯新闻. Social Sciences Daily. (2024, September 24). Policy advice | LTCI pilot: Building a universal care protection system. *Tencent News*. https://news.qq.com/rain/a/20240924A096DT00

[220] 戴卫东,汪倩格,朱儒城 林雯洁.(2022).长期护理保险试点政策的特征、问题与路径优化——基于两批 29 个国家试点城市政策的比较分析.中国软科学(10),41-50.Dai, W. D., Wang, C. G., Zhu, R. C. Lin, W. J.. (2022). Characteristics, problems and path optimisation of long-term care insurance pilot policies - A comparative analysis based on the policies of two batches of 29 national pilot cities. China Soft Science (10), 41-50.

[221] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

represents a significant advancement compared to the fragmented disability assessment standards in various regions. The assessment content covers the ability to perform daily life activities, cognitive abilities, perception, and communication skills evaluation. And it requires that the 14 newly added pilot cities in the second phase of the long-term care insurance program implement the disability assessment standard, while the original pilot cities should revise and improve their local standards with reference to it, aiming to align fully with the national standard within two years. [222], and the multidimensional assessment of the disability status of the elderly will become a developmental trend. Even though this standard serves as the foundation and prerequisite for establishing a unified LTCI system. However, until now, it has yet to be widely implemented across the country,[223] and it's still lack of enough evidence to prove its effectiveness.

Table 6: Chinese long-term Care assessment indicators and care levels

Indicatiors		Care Levels			
Primary Indicator	Secondary Indicators	Full Capacity	Severe Disability Level I	Severe Disability Level II,	Severe Disability Level III
Ability in Daily Living Activities	Eating, dressing, facial and oral cleansing, bowel control, urination control, toileting, walking on level ground, transferring from bed to chair, walking up and down stairs, bathing	100 points	65–95 points	45–60 points	0–40 points
Cognitive Ability	Time Orientation, Person Orientation, Spatial Orientation, Memory	16 points	4–15 points	2–3 points	0–1 point
Sensory and Communication Ability	Vision, Hearing, Communication	12 points	4–11 points	2–3 points	0–1 point

Source: 中华人民共和国国务院. (2021 年 8 月 6 日). *长期护理失能等级评估标准（试行）* [PDF]. State Council of the People's Republic of China. (2021, August 6). *Standards for the Assessment of Long-Term Care*

[222] 国家医疗保障局(2021) 政策法规 国家医保局办公室 民政部办公厅关于印发《长期护理失能等级评估标准(试行)》的通知. National Healthcare Security Administration Office & Ministry of Civil Affairs Office. (2021). *Notice on the issuance of the Trial Disability Assessment Standard for Long-Term Care.*. http://www.nhsa.gov.cn/art/2021/8/3/art_37_5692.html

[223] ZHAO Yuanping, DING Rui, XIE Hong. Validation of the National Disability Rating Criteria for the Elderly with Long-term Care: a hierarchical model-based empirical analysis[J]. *Chinese Journal of Public Health*, 2023, 39(4): 467-471. DOI: 10.11847/zgggws1139527

Disability Levels (Trial) [PDF].Retrieved from https://www.gov.cn/zhengce/zhengceku/2021-08/06/5629937/files/7c636db0008244b3a0987325b6c5dd9d.pdf

Regarding the assessment procedure, most pilot cities generally follow a workflow of "application - initial review - disability assessment - public announcement - notification of conclusion - dispute resolution -reevaluation". Among them, 25 pilot cities adopt a process of "initial assessment + reevaluation", while another 24 pilot cities have only one round of assessment. Some pilot cities, such as Panjin City in Liaoning Province, add a review process after the disability assessment stage, where the results are reviewed by the Disability Assessment Committee or the healthcare security agency.[224, 225] By May 2024, a "Designated Management Measures" regulation was issued to accredit and supervise professional LTCI assessment agencies, ensuring assessments are performed by trained, standardized bodies.[226]

Despite these advances, the national standard remains non-binding and inconsistently applied. Many pilot cities continue to use local tools, and there is limited empirical evidence on the reliability of the new framework. Without statutory force, the standard functions more as an administrative guideline than a legal guarantee. For China to move toward a rights-based system, the assessment procedure will need legal codification to ensure procedural fairness and portability of entitlements.

2.7.3 The Services Provided by Chinese Long-term Care Insurance.

As mentioned before, "Respect for the elderly"[227] stands as a cornerstone of traditional Chinese values, emphasizing the collective responsibility of both society and families to

[224] 49城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau. 、 https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[225] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[226] 国家医疗保障局. (2024年5月6日). *国家医保局出台长期护理保险失能等级评估机构定点管理办法*. 国家医疗保障局. National Healthcare Security Administration. (2024, May 6). *NHSA issues guidelines for designated management of institutions assessing care dependency levels in long-term care insurance*. https://www.nhsa.gov.cn/art/2024/5/6/art_14_12582.html

[227] The "respect for the elderly." Is rooted in Confucian values, and it emphasizes honoring and caring for seniors through filial piety, politeness, seeking their wisdom, providing support, and preserving traditions. It

provide dedicated support and care for senior citizens. Yet, entrenched in traditional beliefs, some individuals may struggle to accept care from non-family members initially.[228] Families and society favour "ageing at home" over institutional care.[229] Nevertheless, China's evolution over recent decades has seen a shift towards smaller family units and declining birth rates, leading to a significant weakening of familial caregiving roles. Simultaneously, the contemporary landscape demands higher standards of professionalism and diversity in elderly care. [230,231]

Currently, LTCI services in pilot cities are delivered through three principal forms: 1). Institutional care in designated facilities; 2). Home-based institutional services, where professional caregivers visit beneficiaries; and 3). Independent home or community-based care, often provided by families or neighbourhood organisations.[232] At present, all pilot cities provide designated care services in institutions, 45 cities also provide institutional home care services at home, while 10 cities provide home-based independent care services. According to the LTCI system documents of the pilot cities, a total of 32 cities have stipulated a list of long-term care insurance service items. These types of service items include basic living care, medical care services, preventive care, functional maintenance, assistive device services, and chronic disease care services.[233,234]

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underscores the importance of maintaining harmonious intergenerational relationships and recognizing the wisdom and contributions of older generations to society.

[228] Wang, K., Ke, Y., Sankaran, S., & Xia, B. (2021). Problems in the home and community-based long-term care for the elderly in China: A content analysis of news coverage. *The International Journal of Health Planning and Management*, *36*(5), 1727–1741. https://doi.org/10.1002/hpm.3255

[229] 石琤. 居家养老的影响因素与政策选择[J]. 社会保障评论, 2019, 3(4):146-159.Hang Seng Shi. Influencing Factors and Policy Options of Aging in Place[J]. Social Security Review, 2019, 3(4):146-159.

[230] 邓清文,魏艳,陈英耀. 我国长期护理保险的供需分析与建议[J]. 医学与社会,2023,36(1):87-92. Q.W. Deng,Y. Wei,Y.Y. Chen. Analysis of supply and demand of long-term care insurance in China and countermeatures[J]. Medicine and Society,2023,36(1):87-92. DOI:10.13723/j.yxysh.2023.01.016.

[231] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[232] 戴卫东,汪倩格,朱儒城 林雯洁.(2022).长期护理保险试点政策的特征、问题与路径优化——基于两批 29 个国家试点城市政策的比较分析.中国软科学(10),41-50.Dai, W. D., Wang, C. G., Zhu, R. C. Lin, W. J.. (2022). Characteristics, problems and path optimisation of long-term care insurance pilot policies - A comparative analysis based on the policies of two batches of 29 national pilot cities. China Soft Science (10), 41-50.

[233] 49 城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau. 、 https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[234] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik

However, some regions do not fully provide these three forms of services. For example, Ningbo city's programme does not specify home care, while Qiqihar does not provide medical care as a form of service. In rural areas, due to the lack of resources for providing socialised home care, family care has become the main form of home care. Judging from the actual situation in the pilot cities of the long-term care insurance system, on the whole, mildly and moderately disabled elderly persons generally choose home care, while severely disabled elderly persons prefer institutional care, but some severely disabled elderly persons prefer home care due to financial difficulties or life preferences.[235,236]

The prevailing mode of benefit payment primarily revolves around services and cash subsidies. Service payments are primarily allocated for in-agency designated care services and agency home care services. Conversely, mixed service and cash payments offer modest supplementary subsidies for family care and neighbourhood care services, alongside the provision of institutional in-home care services, catering to the demands of home-based family care. These subsidies range from RMB450 to RMB2,152 per person per month.[237,238]

2.7.4. Achievements and Challenges of the Chinese Long-term Care System

Over the past decade, China has witnessed significant strides in the development of its long-term care sector, alongside notable challenges that have come to light. This section dissects the achievements and Challenges encountered within China's long-term care landscape.[239]

Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[235] 戴卫东,汪倩格,朱儒城 林雯洁.(2022).长期护理保险试点政策的特征、问题与路径优化——基于两批 29 个国家试点城市政策的比较分析.中国软科学(10),41-50.Dai, W. D., Wang, C. G., Zhu, R. C. Lin, W. J.. (2022). Characteristics, problems and path optimisation of long-term care insurance pilot policies - A comparative analysis based on the policies of two batches of 29 national pilot cities. China Soft Science (10), 41-50.

[236] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[237] 49 城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau.https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[238] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[239] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

2.7.4.1 Completion of the Chinese Long-term Care System

With the Chinese long-term care insurance coverage, the market expanded, and there are several achievements completed, including involvement in the field of the elderly people industry, the medical and care system, as well as the labour market.[240]

1. *Promoted the elderly care industry and Nursing System Growth.* The Ministry of Civil Affairs (MCA) revoked nursing care institution permits by the end of 2018, actively encouraging the involvement of social entities in the service system. It comprehensively opened up the market for nursing care services, implementing more precise supportive policies including relevant fiscal, tax, financial, planning, and land use measures. Additionally, it improved policy efficiency and services through measures such as information disclosure and streamlined access to services. By the end of 2019, privately-run elderly care institutions outnumbered publicly-run ones for the first time, comprising 54.6% of all institutions.[241]

2. *Alleviated Family Burdens and Enhanced Elderly Health.* An investigation into beneficiaries in pilot areas of long-term care insurance compared the impact of different operational modes on their living conditions, analyzing the reasons behind these variances. The study found that by maintaining the health of disabled individuals and alleviating family economic burdens, long-term care insurance significantly enhances the living conditions of the disabled. even though there are differences in effectiveness among the cash, service, and mixed benefit payment modes. Specifically, the service payment mode showed the most notable improvement in beneficiaries' life satisfaction, while the cash payment mode exhibited relatively poorer results. Furthermore, formal care services had a more pronounced positive effect on beneficiaries' life satisfaction

[240] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[241] According to "Response of the National Health Security Bureau to Recommendation No. 6394 of the Fourth Session of the Thirteenth National People's Congress, Medical Insurance Letter [2021] No. 128."

compared to informal care services.[242,243]

3. *Promoted training of nursing professionals.* In Jinan City, the medical insurance department responded to the long-term care needs of disabled individuals in remote rural areas by training over 2,400 villagers in nursing skills. These individuals subsequently became qualified nursing personnel, collectively providing care services to over 10,000 disabled individuals in remote regions. The pilot outcomes across different regions showcase the smooth operation of the long-term care insurance system.[244] In 2022, the nationwide number of designated service institutions for long-term care insurance reached 7,679, marking a 12.1% year-on-year increase. The total number of nursing service personnel exceeded 331,000, reflecting a 9.6% year-on-year growth.[245] The pilot implementation of long-term care insurance policies has stimulated the development of the nursing service system and the cultivation of personnel, addressing the underlying weaknesses in service provision gradually to some extent.[246,247]

4. *Created New Jobs and Employment Opportunities.* According to data from China's medical insurance network, in Suzhou, the number of residential care institutions has risen from 25 to 147, and home care institutions have increased from none to 101, with 346 home care service sites now available, covering virtually all townships, streets, and communities in the city. Additionally, assessment organizations closely tied to the

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[242] 张文娟,梅真. 长期护理保险对受益人他评生活满意度的影响研究[J]. 中国卫生政策研究,2023,16(4):9-17.Zhang Wenjuan,Mei Zhen. A study on the effect of long-term care insurance on observer-rating life satisfaction of beneficiaries[J]. China Health Policy Research,2023,16(4):9-17. DOI:10.3969/j.issn.1674-2982.2023.04.002.

[243] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[244] 49个城市试点长护险 建立失能人员照护体系_要闻视频_中国政府网. 49 cities to pilot long-term care insurance to establish care system for disabled people_Essentials Video_China.gov.cn. https://www.gov.cn/yaowen/shipin/202306/content_6887207.htm

[245] 49城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau. 、 https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[246] 49城试点长期护理保险,取得哪些成效?_医保要闻_新闻动态_云南省医疗保障局. 49 cities pilot long-term care insurance, what results? _Medicare News_News_Yunnan Medical Protection Bureau. 、 https://ylbz.yn.gov.cn/index.php?c=show&id=4075

[247] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

implementation of long-term care insurance have expanded to encompass 20 related industries, resulting in the creation of over 26,700 jobs.[248, 249]

Collectively, these achievements indicate that LTCI has begun to function as both a social protection mechanism and a developmental policy instrument, enhancing social cohesion while stimulating care-sector growth.

2.7.4.2 Challenges of the Chinese Long-term Care System

From the absence of formal legislation to limited coverage, financing deficiencies, service quality concerns, and disparities in benefit payments, these challenges present significant obstacles in providing care for the elderly.[250]

1. *There's no formal legislation on the long-term care insurance system.* As of now, there hasn't been specialized legislation regarding long-term care insurance, and the analysis of legal relations concerning long-term care insurance is based on regulatory documents issued at both central and local levels, supplemented by inferred analysis from experiences of legislation abroad. In Germany, for example, where the LTC insurance system has been developed for almost 30 years now, the Sozialgesetzbuch (SGB) explicitly grants citizens the right to access quality LTC services, and all authorised service providers are obliged to provide high-quality services in strict accordance with national standards.[251] In China, currently, during the trial phase, China's regulation of long-term care insurance follows an administrative governance approach rather than placing it within an appropriate legal framework.[252]

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[248] *长护险试点惠及 1.7 亿参保人,呈现这些新变化_医保要闻_新闻动态_云南省医疗保障局. Long-term care insurance pilot benefited 170 million participants, showing these new changes_Medicare News_News_Yunnan Medical Protection Bureau.*(n.d.). https://ylbz.yn.gov.cn/index.php?c=show&id=4094

[249] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[250] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[251] Bundesministerium der Justiz, § § 45a bis 45d SGB XI Sozialgesetzbuch (SGB) Elftes Buch (XI) Soziale Pflegeversicherung [EB/OL]. https://www.gesetze-im-internet.de/sgb_11/

[252] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

2. *The scope of coverage for long-term care insurance remains limited.* Geographically, it is only being piloted in select provinces, leaving residents in non-piloted areas unable to access long-term care insurance and associated services. Additionally, from a population perspective, nearly half of the pilot areas only cover participants of urban workers' basic medical insurance, excluding a significant number of rural residents. However, rural areas, precisely where incapacity is more prevalent, have lower health and risk tolerance compared to urban areas. Some pilot cities like Shanghai, Suzhou, and Qingdao have expanded coverage to include both urban and rural residents' basic medical insurance. Nevertheless, Shanghai imposes an age requirement of 60 and above, thereby excluding non-elderly individuals with care needs. This limited geographic and population coverage could exacerbate disparities in social equity, hinder healthcare accessibility, and deepen the urban-rural divide. In contrast, Germany's long-term care insurance system covers almost the entire population, while Japan's coverage rate is above 50 per cent.[253]

3. *There is no independent financing mechanism.* The main source of financing in most pilot cities is the medical insurance fund (see Table 6), which accounts for 82 per cent of revenue, and has not resulted in an independent and stable source of financing. Compared with the basic medical insurance for employees, the balance of the basic medical insurance for residents is relatively small, affecting the operation of the long-term care insurance system. Due to the relatively weak transfer capacity, some regions have not launched residents' long-term care insurance pilots, while among those that have, 10 regions have launched residents' pilots later than employees', with a late start time of 1-5 years. As ageing becomes more acute, the cost of care services will gradually rise, and if the financing of long-term care insurance is overly dependent on the medical insurance fund, it will increase the pressure on the medical insurance fund, reduce the incentives for individuals to participate in the insurance scheme, and create a greater

[253] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

risk.[254,255]

4. *Poor quality of services and service providers.* Currently, the quality of services provided by elderly care institutions in both urban and rural areas of China, especially in certain rural regions, is far from satisfactory. It's common to see women around the age of 50 employed as elderly care nurses in both public and private institutions, with a prevalence of unqualified management personnel. Some care facilities only handle the daily needs of elderly residents, lacking cultural and recreational activities (see Table 6), and unfortunately, incidents of elder abuse occur frequently. After residing in these institutions for a period, elderly individuals often experience loneliness, mood changes, self-harm, and incidents of harming others. Furthermore, medical care and psychological support services in long-term care are still lacking in China's elderly care services. Undoubtedly, the improvement in the quality of life for elderly individuals receiving long-term care is closely related to the professional competence of the LTC service providers.[256,257]

5. *The payment of benefits is unreasonable.* Across pilot cities, the payment of benefits can be broadly categorized into three cases: Firstly, in locations like Guangzhou, Suzhou, Nantong, Anqing, Changchun, Jingmen, Shangrao, and Jiashan, a wide array of costs are covered, spanning medication, treatment, bed charges, nursing care, consumables, and equipment. Secondly, areas such as Chengdu and Qingdao offer slightly narrower coverage, encompassing bed charges, medication, treatment, service fees, consumables, and equipment use fees. Lastly, regions like Chengde, Ningbo, Shanghai, and Shihezi have the most restricted coverage, with only nursing care costs included, while other

[254] 应对老龄化,49 个城市试点长期护理保险,长护险走向何方? Coping with aging, 49 cities pilot long-term care insurance, where is long-term care insurance headed? https://m.bjnews.com.cn/detail/1701436680169717.html

[255] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

[256] 戴卫东.(2015).日本、韩国长期护理教育培训体系比较及思考.老龄科学研究(10), 72-79.Weidong Dai. (2015). Comparison of long-term care education and training systems in Japan and South Korea and reflections. Scientific Research on Aging (10), 72-79.

[257] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

expenses are overlooked. Despite variations in benefit scope, these discrepancies underscore the lack of uniformity and the need for national-level policies to regulate and standardize benefit provisions.[258,259]

2.8 Conclusion

In summary, the development of China's social security system reflects a profound transformation from traditional charitable and mutual aid concepts rooted in Confucian ideals of benevolence and government responsibility, to a modern institutionalized framework influenced by both domestic needs and international experiences. From ancient practices of community support and relief for the poor, through the gradual introduction of social insurance ideas in the early 20th century, to the establishment of a comprehensive multi-tiered social security system since the reform and opening-up, China's social protection has continuously evolved to meet the demands of a changing society. Today, as China confronts rapid population aging, urban-rural disparities, and fiscal sustainability issues, the social security system faces significant challenges that require ongoing reform and innovation.

Particularly, the development of LTC services has become a critical component of China's social security framework, which respond to the pressing challenges of rapid ageing and societal transformations underscores the critical need for robust legal frameworks and sustainable funding mechanisms. Despite nearly a decade of piloting, the sector grapples with significant Challenges, including limited coverage, workforce shortages, and financial instability. Thus, prioritizing the reinforcement of legal infrastructure, the establishment of an autonomous long-term care insurance apparatus, and targeted support for vulnerable demographics emerge as imperative imperatives. By addressing these pivotal areas, China can enhance the responsiveness, quality, and inclusivity of its long-term care provisions,

[258] 戴卫东 徐谷雄.(2018).长护险的"有所为"和"有所不为".中国社会保障(05),24-25. Dai, W. D. Xu, G. X. (2018). The "do's" and "don'ts" of long-term care insurance. China Social Security (05), 24-25.
[259] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

ultimately fostering the well-being of older individuals and fostering societal resilience and stability.[260]

Chapter III. The German LTCI Model: Legal and Institutional Design

3.1 Introduction

The preceding analysis has shown that China's LTCI system, though still in an experimental stage, demonstrates a clear trajectory toward institutionalisation and legal consolidation. Yet, its development remains constrained by fragmented governance, uneven coverage, and the absence of statutory codification. These limitations raise a fundamental question central to this dissertation's comparative inquiry: how can China move from an administratively driven pilot mechanism to a sustainable, rights-based system

To address this question, this chapter turns to the German LTCI (Pflegeversicherung), which represents the world's first comprehensive statutory model of care insurance. Established under Book XI of the German Social Code (SGB XI) in 1995, Germany's system embodies a legally codified approach that balances solidarity, subsidiarity, and fiscal discipline. Its institutional design anchored in the Bismarckian social insurance tradition, offers valuable insights for China.

This chapter situates the German LTCI within its broader legal and institutional development. First traces the historical foundations of eldercare protection, and then examines the major legal reforms enacted since the SGBXI introduction, after that, it provides an overview of the current institutional design, including the scope of application, benefit structures, financing arrangements, and decision-making procedures; finally, discusses the persistent challenges that threaten the system's sustainability. Taken together, this analysis highlights both the strengths and vulnerabilities of the German model, offering a critical reference point for comparative reflections with China and Japan.

3.2. The Legal History of German Long-term Care Insurance before 1994

[260] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

Rooted in the constitutional principles of human dignity and the social state (Grundgesetz，GG, the Basic Law),[261] Germany's welfare system progressively evolved to address the major social risks of modern life. Yet, until the 1990s, LTC remained legally underdeveloped, handled largely through residual welfare measures rather than rights-based social insurance. Germany began experiencing demographic ageing in the early 20th century. While it had not yet reached the threshold of an "ageing society" by the time of World War II, in the decades following the war, Germany became one of the most rapidly ageing countries in Europe.[262] Before the introduction of the LTCI system in Germany, a clear distinction was made between "sickness" and "care".

3.2.1 From Family Responsibility to Public Concern (1945–1970s)

Before 1960s, elderly individuals in need of care could access limited support through means-tested public assistance, family-based care, and benefits under the statutory health insurance system. Institutional care was minimal and largely provided by religious or charitable organisations. In 1962, the German federal law of welfare assistance, known as the Bundessozialhilfegesetz, introduced provisions for long-term care support, termed "special public long-term care assistance" (Hilfe zur Pflege). This assistance was means-tested and aimed at aiding individuals in need of care, although the criteria for such need were not explicitly defined. Eligibility was primarily based on one's level of helplessness. This situation can be considered quite humiliating, as applicants are required to deplete all their income and savings before becoming eligible for social assistance. During that period, dependence on LTC was a direct precursor to poverty.[263] The administration of allowances varied across states due to Germany's federalist structure, with local welfare providers, such as counties or independent cities, handling processing and funding.[264]

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[261] Grundgesetz für die Bundesrepublik Deutschland §1, subparagraph 1

[262] 韩璐 & 褚福灵. (2020). 长期护理保险制度国际经验与反思——以日本、德国、美国为例. *北京劳动保障职业学院学报(03)*, 31-37.Han, L., & Chu, F. (2020). International Experience and Reflection on Long-Term Care Insurance System: A Case Study of Japan, Germany, and the United States. *Journal of Beijing Vocational College of Labor and Social Security(03)*, 31-37.

[263] Reinhard, H. J. (2018). long-term care in Germany. In: Becker, U., Reinhard, HJ. (eds) Long-Term Care in Europe: A Juridical Approach, 121-175. https://doi.org/10.1007/978-3-319-70081-6_5

[264] Heinicke, Katrin; Thomsen, Stephan L. (2010): The social long-term care insurance in Germany: origin,

3.2.2 Socio-Economic Pressures and Legal Debates (1970s–1980s)

By the mid-1970s, structural changes undermined the traditional model of unpaid family care. Economic 75ealization7575, women's workforce participation, and the 1974 recession accelerated the need for dual-income households, further reducing the pool of available caregivers as both partners entered or remained in the workforce.These interconnected factors contributed to a growing demand for long-term care services, particularly as the ageing population expanded, placing significant pressure on existing support systems and leading to increased reliance on nursing homes and municipal social assistance programs.[265] Meanwhile, with the increasing demand for LTC and the cumbersome approval process, the social assistance system is no longer able to meet the needs of the elderly population. On the other hand, the high cost of care places a burden on social assistance programmes, undermining the rights of the elderly and increasing social pressure,[266] the financial burden on individuals and local authorities increased as more people required care, with the number of beneficiaries doubling from 1963 to 1973 and peaking in 1992.[267] Several legislative initiatives, such as the Care Improvement Act (1986) and the Health Reform Act (1988), sought partial remedies through health insurance, but none addressed the core problem of legal entitlement.

3.2.3 From Welfare to Legal Entitlement (1990–1994)

After a protracted debate, Baden-Württemberg initiated a proposal in the Federal Council (Bundesrat) to address the rising costs of long-term care, driven by the increasing burden on

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situation, threats, and perspectives, ZEW Discussion Papers, No. 10-012, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim

[265] Götze, Ralf and Rothgang, Heinz, Fiscal and Social Policy: Financing Long-Term Care in Germany (2014). Companje, Karel-Peter (ed.): Financing High Medical Risks. Amsterdam: AUP, 63-100, Available at SSRN: https://ssrn.com/abstract=2191995 or http://dx.doi.org/10.2139/ssrn.2191995

[266] 韩璐 & 褚福灵. (2020). 长期护理保险制度国际经验与反思——以日本、德国、美国为例. *北京劳动保障职业学院学报(03)*, 31-37.Han, L., & Chu, F. (2020). International Experience and Reflection on Long-Term Care Insurance System: A Case Study of Japan, Germany, and the United States. *Journal of Beijing Vocational College of Labor and Social Security(03)*, 31-37.

[267] The number of eligible beneficiaries surged, starting from 165,000 in 1963 to 335,000 in 1973, reaching its zenith at 675,000 in 1992.

social assistance.[268, 269]A universal, non-means-tested, contribution-financed long-term care insurance was finally integrated into the German social insurance system in 1994, from June 1st, 1994, long-term care insurance funds were established within every health insurer, with contribution payments starting from January 1st, 1995. Benefit payments for outpatient care commenced on April 1st, 1995, followed by inpatient care on July 1st, 1996, allowing for the accumulation of an initial savings stock.

The Implementation of Pflegeversicherungsgesetz (PflegeVG), whichi is the Social Long-Term Care Insurance (SLTCI) in Germany in 1995, also called Sozialgesetzbuch XI (SGBXI), the 11th book of the Germany Social Code, marked a departure from the previous welfare assistance model for LTC. This transition addressed two primary shortcomings: 1. the stigma associated with welfare assistance and 2. the strain on municipal finances due to increasing benefit recipients. The new SLTCI system operates similarly to other social insurance systems, financed through contributions from gross income. This obligatory insurance scheme covers all age group residents of Germany except those who opt for private insurance against long-term care risk. It aims to provide partial comprehensive coverage for beneficiaries, following the pay-as-you-go system typical of German social insurance.[270] The table 7 below demonstrates the important legislation during the long process of enacting the German LTCI.

Table 7 Key Legislative Milestones Related to Long-Term Care (1962-1994)

Year	Legislation	Related to LTC
1962	Bundessozialhilfegesetz (Federal Social Assistance Act)	Introduced provisions for long-term care support, termed“"special public long-term care assistanc”" (Hilfe zur Pflege), primarily based on on’'s level of helplessness.
1985	Federal Compensation Act (BVG)	Provides benefits for individuals who suffer personal harm for which the state bears some responsibility.
1986	Care Improvement Act PflVG	Benefits for people with very severe care needs.

[268] By 1991, around 543,000 individuals in need of long-term care received benefits totalling 12.7 billion Deutsche Marks (6.5 billion euros), which made up over one-third of total social assistance expenditures.
[269] Reinhard, H. J. (2018). long-term care in Germany. In: Becker, U., Reinhard, HJ. (eds) Long-Term Care in Europe: A Juridical Approach, 121-175. https://doi.org/10.1007/978-3-319-70081-6_5
[270] Heinicke, Katrin; Thomsen, Stephan L. (2010): The social long-term care insurance in Germany: origin, situation, threats, and perspectives, ZEW Discussion Papers, No. 10-012, Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim

1988	Health Reform Act	Proposed providing nursing services payments through health insurance, but limited to severely home-based care recipients.
1988	Social Security Code V (SGB V)	Regulates the provision of medical treatment, intersecting with long-term care needs.
1989	Social Security Code VI (SGB VI)	Deals with invalidity benefits in cash, intersecting with long-term care needs.
1994	German Long-Term Care Insurance Act (SGB XI)	Established a comprehensive long-term care insurance system covering the entire population, marking the fifth pillar of the German social security system.

Source: based on: Reinhard, H. J. (2018). long-term care in Germany. *Long-Term Care in Europe: A Juridical Approach*, 121-175.; Yang, C., & Yu, X. (2015). The long-term care insurance system in Germany: Origin, planning, effects and reflections. *Chinese Journal of Health Policy*;(12): 36-42, 2015. | WPRIM. https://pesquisa.bvsalud.org/portal/resource/pt/wpr-468454 and Author's collation.

The German trajectory demonstrates how legal codification evolved as a response to demographic and ethical imperatives, wchich is turning care from a private duty into a public, insurable risk. This historical process exemplifies the jurisprudential reception of new social risks within an established welfare state framework, offering a valuable comparative reference for China's ongoing experimentation with LTCI.

3.3. The Legal Reforms of the LTCI after 1994

The introduction of the SGB XI in 1995 laid the foundation for German''s LTCI system, like all major welfare schemes, the LTCI has undergone continuous reform to respond to demographic ageing, fiscal constraints, and evolving social expectations. The following table 8 demonstrated the key legislations after 1995, and these reform efforts have been characterised by incremental adaptation rather than structural overhaul, and reflect a dynamic process of maintaining system stability while gradually expanding the scope of benefits, diversifying care settings, and improving governance.

Table 8 The Key Legislation and Reform Related to LTC After 1995

Year/Reforms	Main Reform Highlights
1995 Long-Term Care Insurance Act (SGB XI)	Introduction of LTCI as the 5th pillar of social insurance. Outpatient benefits from April 1995, inpatient benefits from July 1996.

2008 Long-term Care Further Development Act (PfWG)	Higher benefit rates, more services for dementia patients, 4,000 care support centres, unpaid leave (up to 6 months) for family caregivers, contribution rate up to 1.95% (2.2% childless).
2012/2013 Care Reorganisation Act (PNG)	Contribution rate up to 2.05%. New benefits for "Pflegestufe 0 (Null)", support for home care and rehab. Caregivers recognized in pension insurance.
2015 First Care Strengthening Act (PSG I)	Contribution rate up to 2.35% (childless +0.25%). Creation of Vorsorgefonds (reserve fund). Benefit thresholds up to 4%. More flexible respite care. And a special fund called *Vorsorgefonds der sozialen Pflegeversicherung*[271] has been set up.
2016/2017 Second Care Strengthening Act (PSG II)	Contribution rate up to 2.55% (2.8% childless) in 2017. New definition of care dependency and the New Assessment Assessment (NBA) are introduced. Old Pflegestufen replaced by care grades (1–5)[272]. Expanded cash/benefit options.
2017 Third Care Strengthening Act (PSG III)	New care definition integrated into long-term care assistance (SGB XII) and in the Federal Care Act.Stronger local care counselling, anti-fraud measures, wage negotiations recognized.
2021 Healthcare Further Development Act (GVWG)	Outpatient benefits up to 5%, short-term care up to 10%. Contribution surcharge childless up to to 0.35%. Federal gov. adds €1 billion annually.
2023/2024 Care Support and Relief Act (PUEG)	Contribution rate up to 3.4% (0.6% childless, reductions for multiple children). Outpatient and allowance benefits up to 5% (2024). Own contributions for inpatients reduced from 2024.
2023 The Budget Financing Act	Federal subsidy (€1 billion annually) suspended 2024–2027; instead, €700 million/year into LTC reserve fund.

Source: autho''s collation based on Federal Statistical Office of Germany, https://www.destatis.de/ and Portal Sozialpolitik, http://www.portal-sozialpolitik.de/

3.3.1. The Early Adjustments (1995–2014): From Consolidation to Expansion

During the late 1990s and 2000s, the incremental amendments of LTCI focused on administrative refinements, cost containment, and limited benefit adjustments. In this period, the countr''s ageing population intensified, and the cost of care services steadily increased, leading to a corresponding rise in care expenses. This, in turn, imposed a greater financial

[271] From 2015 to 2033, 0.1 % of the previous year's income from social long-term care insurance will be allocated to this fund. From 2035 onwards (after a 20-year savings period), the fund can be used to ensure that contribution rates are stabilised.

[272] In principle, long-term care insurance benefits are only provided for care grades 2 to 5. The following services are provided so that those in need of care in care grade 1 can easily find and realize the entitlements to which they are entitled and thus remain as independent as possible in their familiar home environment: Care counselling (§§ 7a and 7b); counselling in their own home (§ 37 III); additional benefits for people in need of care in outpatient assisted living groups (§ 38a); provision of care aids (§ 40 I to III and V); financial subsidies for measures to improve the individual or shared living environment (§ 40 IV); additional care and activation in inpatient care facilities (§ 43b); care courses for relatives and voluntary carers (§ 45). They also receive (by way of cost reimbursement) the relief amount (§ 45b I p. 1) of 125 euros per month; in the case of full inpatient care, they receive this amount as a subsidy.

burden on care recipients and their families. Additionally, the increasing participation of women in the workforce and the growing trend of intergenerational separation weakened the traditional family-based caregiving structure. More importantly, in its initial phase, long-term care insurance determined eligibility for benefits based on four criteria: personal care, nutrition, mobility, and household tasks. This approach overlooked the special caregiving and supervisory needs of individuals with cognitive impairments and behavioural disorders, resulting in an overly narrow definition of "care dependency."[273]

The LTCI system remained largely unchanged until 2008. The Long-term Care Further Development Act (PfWG) which enact in 2008, expanded eligibility criteria to include individuals with cognitive impairments, especially those with dementia, acknowledging that dependency was not solely a physical condition. This represented a gradual but significant shift toward a functional and inclusive understanding of care dependency, aligning the LTCI more closely with the principles of equality and human dignity embedded in the Basic Law.

By 2012, Germany had reached broad consensus on the need for comprehensive reform. Public and parliamentary debates increasingly emphasized Selbstbestimmung (self-determination) and Teilhabe (social participation), moving the system beyond its original focus on physical incapacity. These discussions set the stage for the three Care Strengthening Acts (Pflegestärkungsgesetze, PSG I–III) adopted between 2015 and 2017.

3.3.2. Three Care Strengthening Acts (PSG I II III) from 2015-2017

From 2015 to 2017, the Care Strengthening Acts (PSG) I, II, and III were successively enacted, they represent the largest care reform in Germany's history.[274] They have made the care system stronger and more needs-based, while most importantly ensuring greater fairness for individuals with cognitive or mental health conditions, as well as providing a more

[273] Müller, R., Mundhenk, R., & Unger, R. (2014). BARMER GEK Pflegereport.
[274] Siegl, J. (2024, August 22). *Die Pflegestärkungsgesetze: PSG 1, PSG 2, PSG3*. pflege.de. https://www.pflege.de/pflegegesetz-pflegerecht/pflegestaerkungsgesetze/

comprehensive definition of long-term care needs and more precise categorization of care grades.[275] The following are the development aspects of these three reform.

3.3.2.1 The New Long-term Care Assessment System (Pflegegrade)

When Germany introduced its compulsory LTCI scheme, it established three care grades. These grades were determined based on the frequency and duration of assistance required for personal hygiene, nutrition, mobility, and household tasks. Notably, other activities such as social engagement, communication, and general care were deliberately excluded from consideration. In response to criticism that the assessment process overly emphasized physical capabilities, a "level 0" was later introduced. This new category extended small benefits to individuals with cognitive impairments, such as dementia, who did not have physical care needs but demonstrated limited ability to manage daily activities. Furthermore, the highest care grade was refined to distinguish "hardship cases",[276] characterized by extremely high and intensive care requirements that exceeded the standard threshold for care grade III (see Table 9).[277]

Table 9 The Care Grades and Criteria in German''s LTCI Scheme Before the PSG Reform

Care Grade	**Assistance for Basic Activities (Personal hygiene, feeding, mobility)**	**Housekeeping Assistance**	**Minimum Time for Non-Professional Caregiver**
Care Grade 0	Qualified for professional advice and a lump sum for services.		
Care Grade I	At least once a day	Several times a week	90 minutes per day (≥ 45 minutes for basic activities)
Care Grade II	At least three times a day		3 hours per day (≥ 2 hours for basic activities)
Care Grade III	Daily, around the clock (including night)		5 hours per day (≥ 4 hours for basic activities)
Hardship Cases	At least 6 hours per day (including ≥ 3 times at night) or care requiring multiple caregivers		Exceeds care level III, usually extreme cases (e.g., terminal illnesses, coma, severe dementia)

[275] 苏健. (2019). 德国长期护理保险制度:演化历程、总体成效及其启示. *南京社会科学*(12), 67-73. doi:10.15937/j.cnki.issn1001-8263.2019.12.009. Su, J. (2019). The Long-Term Care Insurance System in Germany: Evolutionary Process, Overall Effectiveness, and Implications. *Nanjing Social Sciences(*12), 67-73. doi:10.15937/j.cnki.issn1001-8263.2019.12.009.

[276] Hardship cases are particularly common in conditions such as terminal cancer, advanced-stage AIDS, severe paraplegia and tetraplegia, coma vigil, and advanced stages of dementia, among others.

[277] Link, S. (2019). Long-term care reform in Germany – at long last. *British Actuarial Journal*, *24*, e17. doi:10.1017/S1357321719000096

Resource: autho''s collection

In 2016, the Zweites Pflegestärkungsgesetz (PSG II) introduced significant changes to German''s SLTCI system by redefining the concept of "neediness of care" with a focus on "independence".[278] Before that, higher levels of care were only granted to those requiring extensive time for physical care, resulting in a clear prioritization of individuals with physical illnesses. I ndividuals with dementia or mental health conditions often faced poor financial conditions, receiving minimal care and relying heavily on family members for support. The new reform integrates cognitive disorders into the five new care grades. Under the new grading system, existing grades are adjusted upward; for instance, grades 1, 2, and 3 are raised to grades 2, 3, and 4, respectively. Those with cognitive impairments affecting daily living and mobility see a two-level increase: grade 1 with cognitive impairment moves to grade 3, grade 2 to grade 4, and grade 3 to grade 5. Additionally, previously unclassified individuals with mild disabilities are now included in the new LTCI grade 1(see Table 10).[279]

Table 10 The Changing of the Care Grade After the PSG II

Previous Care Grade	Current Care Grade
Previously Not Included (Mild Care Needs and Grade 0)	Grade 1
Grade 1	Grade 2
Grade1 with Cognitive Impairment Limiting Daily Living Activities	Grade 3
Grade 2	
Grade 2 with Cognitive Impairment Limiting Daily Living Activities	Grade 4
Grade 3	
Grade 3 with Cognitive Impairment Limiting Daily Living Activities	Grade 5

Resource: autho''s collation

The new care grades allow the type and scope of care insurance benefits to be tailored to individual abilities and needs, regardless of physical, mental or psychological impairments. The care levels are based on the severity of the impairment of independence or the abilities of the person in need of care. The level of care is determined with the help of an assessment tool based on care expertise. The five care grades are graded: from minor impairments of

[278] Su, J. (2020). The effect and enlightenment of long-term care insurance reform in Germany: Taking three "Nursing Enhancement Laws" as the main line. *Social Policy Research*, (4), 39–49.

[279] 刘涛. (2021). 德国长期护理保险制度的缘起, 运行, 调整与改革 [The origin, operation, adjustment, and reform of Germany's long-term care insurance system]. *安徽师范大学学报 (人文与社会科学版)* [*Journal of Anhui Normal University (Humanities & Social Sciences)*], 49(1).

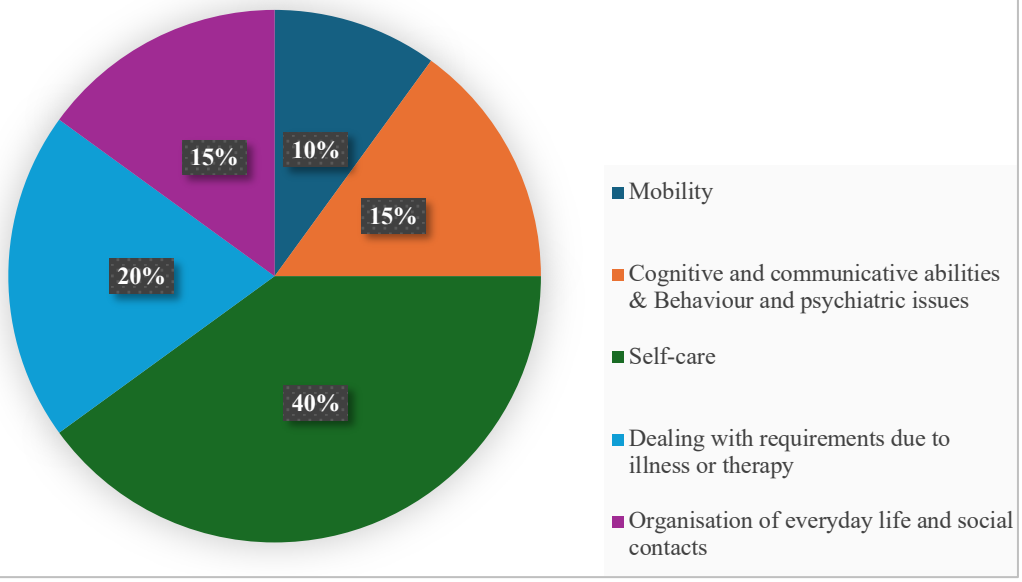
independence or abilities (care grade 1) to the most severe impairments of independence or abilities, which are accompanied by special care requirements (care grade 5). People in need of care with special needs constellations who have a specific, exceptionally high need for assistance with special requirements for nursing care can be assigned to care grade 5 for professional reasons, even if the required total number of points is not achieved.

Before the reform of the grade system, Germany classified long-term care insurance into three levels based on four assessment criteria: 1)Personal Care: This includes activities such as bathing, grooming, toileting, changing diapers, and managing urinary bags. 2)Meal Preparation: This assesses the ability to prepare three meals a day and the ability to eat independently. 3) Mobility: This evaluates the ability to get in and out of bed, dress and undress, move around outdoors, walk, climb stairs, and relocate. And 4) Household Management: This covers tasks like shopping, cooking, cleaning, and maintaining daily household hygiene, including laundry.

Under the new system, the criteria expanded to six areas, focusing on the degree of support required due to Mobility, Cognitive and communicative abilities, Behaviors and psychological issues, Selfcare, Managing and independently handling illness- or therapy-related demands and burdens (Dealing with requirements due to illness or therapy) and organization of everyday life and social contacts.[280] The previous model for“"mobilit”" remains unchanged and is now labelled as the new model 1, accounting for 10% of the total scale. The previous three criteria are personal care, meal preparation, and household management, which have been merged into a single new standard (model 4), which represents 40% of the total scale. The remaining new assessment criteria focus primarily on cognitive, psychological, and psychiatric factors, which collectively account for 50% of the overall evaluation (see Figure 2)[281,282].

[280] According to Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §14
[281] Cognitive and communicative abilities (model 2) and Behaviour and psychiatric problems (model 3) is in total 15%)
[282] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §15(2)

Figure 2 Evaluation of determining the need of care



The practical consequence was a more equitable distribution of benefits and recognition that cognitive impairments impose substantial care needs even where physical dependency is limited.

3.3.2.2. Increasing the Contribution Rate

As LTCI did not yet have any financial resources when it was established on 1 January 1995. To address this, a phased approach was adopted. Contribution payments became mandatory from the outset, while home care benefits only became accessible from April 1995, followed by inpatient care benefits in July 1996. Concurrent with this expansion, the contribution rate was raised from the initial 1.0% to 1.7%, a level that remained stable until 2007. Operating on a pay-as-you-go model, the system is jointly financed by employers and employees, who share the majority of costs, with the remainder covered by federal sources. Premiums are income-based, reflecting the solidarity principle of social insurance.[283] Since January 2004, pensioners have been required to pay the full LTCI contribution themselves. Additionally, childless insured individuals aged 23 and above are subject to a surcharge of 0.25%.

[283] There are also relief measures for those unable to afford contributions. For instance, spouses and children whose household income is below a certain threshold (set at €355 per month as of January 1, 2008) can be insured for free.

Subsequent adjustments increased the base contribution rate to 1.95% (2.20% for the childless) in July 2008, and further to 2.05% (2.30% for the childless) as of January 2013.[284]

After the three reforms, the contribution rate increased to 2.35% or 2.60% (for those without children) from January 1st 2015,[285] and rose from 2.35% (2.6% for childless individuals) to 2.55% (2.8% for childless individuals) in 2017.[286] Table 11 shows the coverage and the participation method of the German social long-term care system after the three reforms. According to a 2019 report by the German Federal Ministry of Health, while the financial situation of Social LTCI was in a net negative state from 2003 to 2008, the system experienced a long-term surplus from 2008 to 2016 due to the rising contribution rates.[287] Additionally, starting in 2015, 0.1% of monthly premium income was allocated to a reserve fund, which will be accumulated from February 2015 to December 2033, ensuring stability to meet the increased demand and financial pressures anticipated by the ageing baby boomer population in 2035.[288]

Table 11 Participation of German Social LTCI after the PSG reforms

Long-term Care Insurance Participants	**Participation Method**	**Mandatory or not**
Employees	Pay 2.55% of income as the contribution, childless employees pay a 2.8% contribution[289]	Yes
Non-working spouses	Covered for free under the main participant	Yes
Minor children	Covered under the parent(s)	Yes
Low-income individuals	Individuals with an income between 450 to 850 Euros contribute at a reduced rate; employers' contributions increase accordingly;	Yes

[284] Portal Sozialpolitik. *Pflegeversicherung* [Long-term care insurance]. https://www.portal-sozialpolitik.de/index.php?page=pflegeversicherung

[285] Göpfert, R. H. (2024, February 22). *Geschichte der Pflegeversicherung*. Sozialversicherung Kompetent. https://sozialversicherung-kompetent.de/sozialversicherung/allgemeines/29-geschichte-der-pflegeversicherung.html

[286] Portal Sozialpolitik. *Pflegeversicherung* [Long-term care insurance]. https://www.portal-sozialpolitik.de/index.php?page=pflegeversicherung

[287] Liu, T. (2021). The origin, operation, adjustment, and reform of the long-term care insurance system in Germany. *Journal of Anhui Normal University (Humanities & Social Sciences)*, 49(1), 74–86.

[288] Qi, T. J. (2022). *The long-term care system in Germany: From the perspective of welfare pluralism*. China Social Sciences Press.

[289] On January 1, 2019, the *Fifth Act to Amend the Eleventh Book of the Social Code* was enacted, and the contribution rate was increased by 0.5 percentage points**,** raising it from 2.55% to 3.05%**.** After PUEG, from April 7, 2022, the contribution surcharge for members without children was increased from 0.35 to 0.6 contribution points**.** At the same time, members with multiple children receive a reduction of 0.25 contribution points for each child from the second to the fifth child.

	individuals earning less than 450 Euros are fully covered by the employer.[290]	
Unemployed individuals	Contributions are paid by unemployment insurance agencies	Yes
University students	Covered under a fixed contribution	Yes
Foreign students		Yes
Social assistance recipients	Contributions are paid by social assistance agencies	Yes
Retired individuals	Contributions are paid by pension funds	Yes
Federal military personnel	Contributions are calculated based on the combination of federal military income and state pension	Yes
Farmers	Required to participate in agricultural long-term care insurance (subsidized by taxes)	Yes
Self-employed individuals	Can choose between statutory long-term care insurance or private long-term care insurance, must select one	No
High-income individuals		No

Data resource: According to 刘涛. (2021). 德国长期护理保险制度的缘起，运行，调整与改革 [The origin, operation, adjustment, and reform of German''s long-term care insurance system]. *安徽师范大学学报 (人文与社会科学版)* [*Journal of Anhui Normal University (Humanities & Social Sciences)*], 49(1).

3.3.2.3 Improving the Benefits of the German LTCI

German''s SLTCI system provides standardized benefits across both social and private schemes, with eligibility requiring at least two years of contributions within the preceding ten-year period. Benefit assessments are conducted by the Medizinischer Dienst der Krankenversicherung (MDK), comprising healthcare professionals who evaluate care needs. Beneficiaries may select between cash benefits, in-kind services, or a combination, with this choice subject to semi-annual reviews. Significant reforms between 2008-2012 substantially increased home care benefits while maintaining limited adjustments for inpatient care, reflecting a policy preference for home-based care models. This orientation is further evidenced by evolving assessment patterns, with care grade 1 allocations rising from 40.1% to 58.7% between 1996-2016, while grades 2 and 3 proportions declined.[291] Concurrently,

[290] In October 2022, Germany implemented the *Law to Increase Protection through the Statutory Minimum Wage and Amendments in the Area of Marginal Employment***,** raising the marginal employment earnings threshold from €450 to €520 per month**.** This threshold is now defined as the monthly income for working 10 hours per week at the general statutory minimum wage. It is calculated by multiplying the minimum wage (set at €12 per hour starting October 2022) by 130, dividing by three, and rounding to the nearest euro. Consequently, individuals can earn up to €520 per month (minimum wage) without exceeding the marginal employment limit, with a weekly workload of 10 hours translating to 43 hours and 20 minutes per month**.**

[291] Fang, L. (2018). The German social long-term care insurance system: Operation ideas and enlightenment.

caregiver support mechanisms were strengthened through legislative measures including the 2008 PfWG, which introduced unpaid care leave,[292] and the 2011 Familienpflegezeitgesetz (FPfZG), establishing extended leave provisions of up to 24 months with employment protection and partial income replacement.[293]

Since January 1, 2015, the PSG I increased nearly all benefits in LTCI, expanded short-term and respite care services for better combination options, and broadened eligibility for low-threshold outpatient support services. Funding for modifications like barrier-free showers was raised to €4,000 per measure, helping care recipients stay in their familiar environments longer. People with dementia also benefited, gaining access to day and night care services under the previous care grade 0, along with additional benefits for outpatient-supported living groups. As of January 1, 2017, these individuals were automatically transitioned to the new care grade 2.[294] With the introduction of PSG II, the new definition of care needs and a new assessment instrument were introduced, which replaced the previous three care grades with five care grades. Since 2017, all individuals in need of care have equal access to benefits from long-term care insurance, regardless of whether they are affected by physical, mental, or psychological impairments.[295] PSG III implements recommendations from a working group between the federal government, states, and municipal associations to strengthen the role of municipalities in care, focus on the care provision, consultations and recommendations for additional care and relief services.[296]

In sum, the three reform increased cash and in-kind entitlements, with particular strengthening of home care benefits and new entitlements for people with dementia.

Deutschland-Studien, 33(1), 61–76, 135.

[292] Portal Sozialpolitik. (n.d.). *Pflegeversicherung* [Long-term care insurance]. https://www.portal-sozialpolitik.de/index.php?page=pflegeversicherung

[293] Rosenberg, M. (2024, July 16). *1*. pflege.de. https://www.pflege.de/pflegegesetz-pflegerecht/familienpflegezeitgesetz/

[294] *Erstes Pflegestärkungsgesetz (PSG I) | BMG*. https://www.bundesgesundheitsministerium.de/service/begriffe-von-a-z/p/pflegestaerkungsgesetz-erstes-psg-i

[295] Bundesministerium für Gesundheit. *Pflege-Stärkungsgesetz II (PSG II)* [Nursing care strengthening law II]. https://www.bundesgesundheitsministerium.de/service/gesetze-und-verordnungen/detail/psg-ii.html

[296] Bundesministerium für Gesundheit. *Pflegestärkungsgesetz: Drittes PSG (PSG III)* [Nursing care strengthening law: Third PSG (PSG III)]. https://www.bundesgesundheitsministerium.de/service/begriffe-von-a-z/p/pflegestaerkungsgesetz-drittes-psg-iii

Importantly, the option to choose between cash, in-kind services, or a mixed model was preserved, but the relative value of in-kind services was increased to promote professional care services and preventive measures.

The PSG I–III between 2015 and 2017 marked a turning point by redefining "care dependency," expanding benefits, and improving administrative coordination. These reforms embedded the principles of self-determination, inclusiveness, and local governance into the legal framework, aligning the system with contemporary understandings of care as both a social and human right. For China, the PSG experience suggests that conceptual reform (how "need" is defined) should precede or accompany governance and financing changes: definitions determine who is entitled, and entitlement expansion requires administrative and fiscal preparation.

3.3.3. The Latest Reform- PUEG

With the social LTCI faces increasing financial pressure, making a (comprehensive) political reform unavoidable. In the future, further expenditure increases (surpluses) are expected, necessitating significant contribution rate hikes.[297] The "Care Reform 2023", adopted by the German federal government on April 5, 2023, and passed by the Bundestag on May 26, 2023, introduces the Care Support and Relief Act (Pflegeunterstützungs- und -entlastungsgesetz, PUEG), which is take effect on January 1, 2024.[298] This reform aims to ensure the financial sustainability of LTCI while improving benefits for care recipients and family caregivers. It represents a continuation of the policy path initiated by the Care Strengthening Acts, but with a renewed focus on intergenerational fairness and household-based support.[299]

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[297] Ärzteblatt, D. Ä. G. R. D. (2024, January 15). *Gesundheitsexperten: Pflegebeiträge werden weiter steigen*. Deutsches Ärzteblatt. https://www.aerzteblatt.de/nachrichten/148596/Gesundheitsexperten-Pflegebeitraege-werden-weiter-steigen

[298] Rosenberg, M. (2024, September 16), pflege.de, *Pflegeunterstützungs- und Pflegeentlastungsgesetz* [Care support and relief law]. https://www.pflege.de/pflegegesetz-pflegerecht/pflegeunterstuetzungsgesetz-pflegeentlastungsgesetz/

[299] Deutsche Familienversicherung. (2024, October 2). *Pflegeunterstützungs- und Entlastungsgesetz (PUEG) 2023* [Care support and relief law 2023]. https://www.deutsche-familienversicherung.de/pflege/pflegezusatzversicherung/ratgeber/artikel/pflegeunterstuetzungs-und-entlastungsgesetz-pueg-2023/

A key component of the PUEG is the adjustment of the contribution rate to secure the system's financial stability. Before the PUEG, the Federal Constitutional Court had already ruled in April 2022 that parents' contributions to SLTCI must be calculated differently. Parents paid 0.35% less than childless individuals, known as the "childless ness surcharge." After the PUEG, the contribution was increased from 3.05% to 3.4%, with the existing 0.6% surcharge for childless individuals retained. At the same time, the Act introduces a child-dependent contribution model, under which insured persons with children pay slightly lower rates. This adjustment88ealization8888n88ess the principle of intergenerational solidarity (Generationengerechtigkeit) within the financing structure, 88 ealizationg that families contribute to the sustainability of the care system not only through taxes but also through caregiving responsibilities. (see Table 12)

Table 12 The Contribution Rate After The PUEG

Insured Status	Contribution Rate	Employee Share
Without children	4%	2.3%
With one child (fixed for life)	3.4%	1.7%
With two children	3.15%	1.45%
With three children	2.9%	1.2%
With four children	2.65%	0.95%
With more than 4 children	2.4%	0.7%

Resource: According 88 ealize Pflegeunterstützungs- und -entlastungsgesetz (PUEG). (2023). BMG. https://www.bundesgesundheitsministerium.de/ministerium/gesetze-und-verordnungen/guv-20-lp/pueg

The PUEG also enhances benefits for care recipients and informal caregivers. One of the measures is a 5% increase both in care allowance[300] and benefit in kind for the caregivers from January 1, 2024. On January 1, 2025, the care allowance and the benefits-in-kind are increased by 4.5%. Afterwards, will be adjusted to inflation every three years, starting on January 1, 2028. (see Table 13).

Table 13 Benefits for Informal Caregivers after the PUEG

	Before 2024.1.1		2024.1.1-2025.1.1		2025.1.1-2028.1.1	
	Care Allowance	Benefits in Kind	Care Allowance	Benefits in Kind	Care Allowance	Benefits in Kind

[300] The concept of a care allowance as a wage replacement for informal caregivers. which is being promoted by German policymakers, also appears to be suitable for mitigating the induced demand for nursing homes.

Care Grade 2	316 €	724 €	332 €	761 €	347 €	796 €
Care Grade 3	545 €	1,363 €	573 €	1,432 €	599 €	1497 €
Care Grade 4	728 €	1,693 €	765 €	1,778 €	800 €	1859€
Care Grade 5	901 €	2,095 €	947 €	2,200 €	990€	2299 €

Source: According 89 ealize Pflegeunterstützungs- und -entlastungsgesetz (PUEG). (2023). BMG. https://www.bundesgesundheitsministerium.de/ministerium/gesetze-und-verordnungen/guv-20-lp/pueg

Moreover, the Act advances the 89 ealization 8989 nn and transparency of LTCI administration. Under SGB XI Article8 §8, funding programmes for digital infrastructure and technological equipment in care institutions are extended until 2030, ensuring sustained support for innovation. Reimbursement rates for digital health applications, negotiated between the National Association of Statutory Health Insurance Funds and manufacturers, are binding for both parties and care recipients. Furthermore, insurers are required to inform beneficiaries in advance—either in writing or electronically—about any supplementary costs related to digital care services. Beginning 1 July 2025, all long-term care institutions will be obliged to connect to the national telematics infrastructure (TI), creating a secure digital "data highway" linking healthcare providers. According to SGB XI § 106b, initial and ongoing connection costs will be reimbursed through the LTCI funds. These measures collectively aim to enhance interoperability, reduce administrative burdens, and promote transparency across the care system.[301]

In essence, the PUEG reaffirms Germany's commitment to a solidarity-based care system while adapting it to new demographic and economic realities. However, despite its improvements in benefit levels and family support, it remains an incremental reform rather than a structural transformation. Persistent challenges, such as the shortage of care professionals, uneven regional provision, and rising institutional costs, continue to threaten the system's long-term viability.

3.4. The Current German Social Long-term Care System

[301] Pflegeunterstützungs- und -entlastungsgesetz (PUEG). (2023). BMG. https://www.bundesgesundheitsministerium.de/ministerium/gesetze-und-verordnungen/guv-20-lp/pueg

This part will give an overview of the current German SLTCI system, from the application field, application for benefits and the evaluation, care services and benefits (both in kind and in cash) aspects to analysis.

3.4.1. The Field of Application of German SLTCI

The German SLTCI coverage is typically provided through either social or private long-term care insurance. All individuals covered by statutory health insurance (Gesetzliche Krankenversicherung, GKV) are automatically insured under SLTCI, while those with private health insurance are required to hold equivalent private LTCI (Private Pflegepflichtversicherung, PPV). The system thus ensures universal protection, with equal benefit levels guaranteed across both statutory and private schemes by law (§23 SGB XI). The dual structure reflects Germany's corporatist welfare tradition, combining social solidarity with individual responsibility. Additionally, people receiving unemployment benefits, citizens' income (Bürgergeld), or other allowances from the Third or Second Book of Social Code (SGBIII or SGB II) are insured, along with self-employed artists, journalists, and agricultural workers. Specific groups like students, individuals in youth welfare services, people with disabilities employed in recognized workshops, and retirees who meet eligibility requirements for pensions are also covered. Volunteers in statutory health insurance are automatically insured under social care insurance, and the same applies to religious trainees. There are special considerations for individuals in early retirement or receiving benefits such as pre-retirement wages. If such individuals were previously insured and their benefits meet specific conditions, they remain insured.[302]

Persons who are insured with private sickness insurance concerning the risk of sickness with entitlement to general hospital services have to conclude respective insurance to cover LTC. The laws governing statutory health insurance and social long-term care insurance continue to distinguish between individuals who are "mandatorily insured" and those who are "voluntarily insured," even though insurance is now mandatory for everyone.[303] Apart from

[302] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung § 1(1), § 20
[303] Bundesministerium für Gesundheit. (2020). *Long-term care guide: Everything you need to know about*

that, Employees with an annual income exceeding the statutory insurance threshold (€69,300 in 2024), along with self-employed individuals, freelancers, and civil servants, can choose private long-term care insurance.[304]

3.4.2. Application for Benefits and Assessment Procedure

Access to SLTCI benefits begins with a formal application submitted to the relevant LTC fund (Pflegekasse), typically associated with the applicant's statutory health insurer. Upon receipt, the insurer commissions the Medical Service of the Health Insurance Funds (MDK) or, in the case of privately insured persons, the Medicproof agency, to conduct an on-site assessment.

As mentioned before, after the PSGII, the individuals in need of care are assigned 5 care grades (Pflegegrad) based on the severity of impairments to their independence or abilities, determined through a professional assessment instrument divided into six modules aligned with legal criteria. Each module evaluates specific impairments and assigns points categorized by severity, ranging from no impairments (0 points) to most severe impairments (4 points), with weighted contributions to the final score as follows: mobility (10%), cognitive and communicative abilities or psychological issues (15%), self-care (40%), handling health-related or therapeutic demands (20%), and everyday life/social contacts (15%). Modules 2 and 3 are scored together, using the higher weighted points of either. The total points determine the care level: Level 1 (12.5–27 points, mild impairments), Level 2 (27–47.5 points, significant impairments), Level 3 (47.5–70 points, severe impairments), Level 4 (70–90 points, most severe impairments), and Level 5 (90–100 points, most severe impairments with special care needs).[305]

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long-term care.p.18https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Pflege/Broschueren/200320_BMG_Ratgeber-Pflege_DINA5_ENG_bf.pdf

[304] Siegl, J. (2024, October 10). *Soziale Pflegeversicherung*. pflege.de. https://www.pflege.de/pflegekasse-pflegefinanzierung/pflegeversicherung/

[305] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §15

LTC benefits are provided only upon application by the insured individual or their representatives (e.g., parents for children under 15 or legal representatives for the elderly) as outlined in § 33 SGB XI. The insurer must decide on the application within five weeks and provide a written response; failure to do so obligates the insurer to compensate the applicant regardless of the assessment outcome.[306] The necessary assessment of care needs and recommendations for assignment to a care grade is conducted by members of the Medical Service of the Health Insurance Funds, primarily nurses and doctors, who visit applicants at home. Applicants have the right to object to any LTCI decision, and if a complaint is rejected, the case can be brought before social courts. Applicants who do not consent to the evaluation may have their benefits applications denied, with further guidelines on non-cooperation governed by §§ 65 and 66 SGB I.[307]

The evaluation may also cover out-of-home activities and household management tasks, facilitating individualized care plans, case management, and appropriate assistance. In urgent cases, such as those involving hospital stays, rehabilitation, or requests for caregiving leave under relevant laws, the assessment must occur within strict timeframes to ensure continuity of care. For such evaluations, the focus is on determining care dependency and fulfilling at least the criteria for care grade 2, with more detailed assessments to follow. The evaluators, including the Medical Service, private insurers, or independent experts, must document their findings and consider input from treating physicians, caregivers, or related parties, ensuring the process is thorough and collaborative. The evaluator'' independence and objectivity are emphasized, with private insurers also required to align with these standards to ensure uniformity in care-grade determinations.[308]

3.4.3. Benefits of the Germany SLTCI System

The German SLTCI program provides flat-rate benefits, which are not influenced by income or assets but vary based on the level of disability, the care setting, and the type of benefit

[306] Fleßa, S. (2025). Social Long-Term Care Insurance in Germany. In: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (eds) Sustainable Aging. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-69139-7_4

[307] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §18(a)(1)-(2)

[308] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §18(a)(3)-(12)

selected. The people in need of care and their family members are entitled to comprehensive advisory services from LTCI for organizing care (§7a SGB XI) when they apply the benefits.[309] After that, the SLTCI provides both in-kind services (Sachleistungen) and cash benefits (Pflegegeld) for the entitled applicants, allowing beneficiaries to choose between formal professional care and informal family care, or to combine both (Kombinationsleistung), but the benefits excludes accommodation and food expenses, as these are considered regular living costs.[310]. This dual system reflects Germany's long-standing principle of subsidiarity, under which state support supplements, but does not replace the family responsibility.

The benefits entitlements are linked to the assessed degree of care dependency (care grade 1–5), Each grade determines both the amount and type of benefits available, with a strong emphasis on supporting care at home whenever possible (see below).

3.4.3.1. The Benefits for the Care Receivers under the Care Grade 1

Care grade 1 under Germany's SGB XI addresses individuals with minor impairments in their independence or abilities. The benefits for this grade include a range of benefits designed to support these individuals in maintaining their autonomy and managing daily life.

The benefits at this grade focus on maintaining or regaining independence and preventing the escalation of care needs. And the key provisions include: 1) A monthly relief allowance (Entlastungsbetrag) of €125, which can be used for domestic assistance, day care, or community-based support.[311] 2) Care counselling (Pflegeberatung) and93ealization93d care planning, provided as a statutory right under §7a SGB XI. 3) Home modification subsidies up to €4,000 per measure, with a cap of 16,000 Euros per shared living space for housing

[309] Applicants and beneficiaries are entitled to free, individualized care advice from trained LTCI advisors, who are named by insurance providers and must offer an appointment within two weeks of receiving a benefit application.

[310] Fleßa, S. (2025). Social Long-Term Care Insurance in Germany. In: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (eds) Sustainable Aging. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-69139-7_4

[311] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §43(3).

adaptations related to care needs,[312] and facilitating barrier-free environments. 4) Access to care courses and training for family members, promoting informal caregiving skills. Apart from that, beneficiaries may also receive support for nursing care aids, such as consumable products or technical devices, and access to digital care applications (DiPA) that facilitate daily care routines.[313]

While Grade 1 does not involve direct cash or in-kind payments for personal care, its preventive nature aligns with the system's policy goal of fostering self-reliance and early intervention.

3.4.3.2. The Benefits for the Care Receivers under the Care Grade 2-5

Care grades 2 to 5 indicate more severe impairments or health-related challenges that make individuals dependent on regular support. Those assigned to these care grades are entitled to a broader range of LTC benefits, which can be applied to various care settings. The care receivers can choose between two main types of benefits: Mobile Care (ambulante Pflegesachleistung) and Long-Term Care Allowance (Pflegegeld). Additionally, if adequate home care cannot be provided or partial in-patient care is required to supplement or reinforce home care, they are entitled to receive partial in-patient care at day or night care facilities. Mobile care refers to professional care services provided by registered mobile caregivers or individual carers. The costs are covered by the LTCI up to a specified limit, which depends on the care grade of the individual in need. Long-Term Care Allowance (Pflegegeld) refers to the cash benefit that enables individuals requiring care to organize their own care, typically involving relatives or volunteer caregivers. The allowance provides flexibility for those preferring informal care arrangements. Care recipients also have the option to combine cash and non-cash benefits. This hybrid approach allows them to tailor the support to their specific needs and personal circumstances, ensuring a more customized care experience.[314] These benefits increase progressively according to the severity of dependency.

[312] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §40(4).
[313] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §28a
[314] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total*

1) Benefits in Cash (Pflegegeld)

Since 2017, beneficiaries of all care grades (1 to 5) have been entitled to a monthly support allowance (Entlastungsbetrag) of €125, which can be used to offset costs associated with part-time institutional day or night care, short-term institutional care, or other home care services. For beneficiaries in care grade 2 or higher, monthly care allowances range from €316 to €990 (from 1st of January, 2025), while reimbursements for mobile care services range from €689 to €1,995, depending on the care grade. In addition to these core benefits, LTCI provides supplementary support, such as reimbursements of up to €40 per month for consumable care supplies and access to durable care equipment, such as nursing beds. Grants for home modifications to accommodate care needs are also available, with up to €4,000 per project or €16,000 for collective living arrangements. Other services include advisory home visits, free care training courses for relatives and volunteers, and social security benefits for voluntary caregivers. To encourage innovative care models, LTCI offers a collective accommodation[315] allowance (Wohngruppenzuschlag) of €214 per person per month and a start-up grant of up to €10,000 for establishing senior-friendly group living arrangements.2)

2) Mobile Care (ambulante Pflegesachleistung)

German"s SLTCI system recognizes the family as the primary provider of care for individuals in need of nursing assistance.[316] The system is structured to enable those requiring care to remain in their homes and familiar environments for as long as possible, reflecting the preference of many care recipients to live with their families. To support this goal, the legal framework prioritizes benefits that improve the conditions for home care and reduce the burden on caregivers.

summary. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

[315] requires living in a small group (2–11 individuals) where at least two are in need of nursing care and a care assistant is appointed for shared support tasks.

[316] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §3

For individuals opting for professional home-based services, the SLTCI reimburses ambulante Pflegesachleistungen, mobile care delivered by licensed providers in the recipient's own residence. These services cover assistance with home-based personal hygiene, mobility, nutrition, medication, wound care, and basic household activities. Payments are made directly from the care fund to the provider, ranging from €689 to €1,995 (for care grades 2-5), for individuals in care grade 1, the support allowance of up to €125 per month can be used for day and night care services.[317]

Mobile care represents the core pillar of Germany's LTCI, as around two-thirds of all beneficiaries choose this form of care. It allows professional support to be delivered within a familiar environment, thereby preserving autonomy while reducing institutional admissions.

3) Supplementary and Institutional Services

When home care is insufficient, individuals are entitled to Institutional Care, which is divided into two forms: part-time institutional care (also known as day and night care) and full-time institutional care.

The Part-time Institutional Care provides professional care in a specialized facility for part of the day, offering relief to family caregivers. It is ideal when home care is not fully available or when caregivers are occupied during the day. The financial support for this care is aligned with the mobile care benefits, with monthly allowances ranging from €689 to €1,995 for Care Grades 2 to 5.[318]

The Full-time Institutional Care is for individuals requiring permanent residential care. The LTCI covers care-related expenses, supervision, and medical treatment care through96ealization96d monthly allowances: from €770 for Care Grade 2 to €2,005 for Care Grade 5. If the allowance exceeds care-related expenses, the insurance also contributes to accommodation and meals. Individuals in Care Grade 1 opting for full-time institutional care

[317] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §41
[318] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §41

receive a €125 monthly subsidy for care-related expenses. During temporary absences from the care home, benefits for full-time institutional care continue as long as conditions outlined in Section 87a, Paragraph 1, Sentences 5 and 6 are met.[319,320]

Some people in need of nursing care only need full-time institutional care for part of the time. Short-term care, in this case, will be one of the options for the care receivers. Short-term care provides individuals in Care Grades 2 to 5 with temporary full-time institutional care when home or part-time care is insufficient, such as during crises or following hospital stays. The entitlement is limited to eight weeks per calendar year, with costs covered up to €1,774, including care-related expenses, supervision, and medical treatment. This amount can be increased by up to €1,612 from unused stand-in care funds, raising the total to €3,386 annually, though the additional amount reduces the stand-in care entitlement. In special cases, care may be provided in facilities for persons with disabilities or other suitable institutions if accredited short-term care facilities are unavailable or inappropriate, with 60% of inclusive fees eligible for reimbursement.[321] And since 2017, individuals in Care Grade 1 have also been eligible for this benefit. This support applies when home nursing care or home help is insufficient to meet the individual's needs.[322]

4) Combined Benefits (Kombinationsleistungen)

Recipients may combine cash and in-kind benefits, receiving partial payments from both sources in proportion to the professional services used (§38 SGB XI). This flexibility enables families to integrate professional assistance without relinquishing their caregiving role.

Essentially, a key reform since 2017 has standardized the out-of-pocket costs for care-related expenses across Care Grades 2 to 5, as a result, individuals are no longer burdened with

[319] Section 87a, Paragraph 1, Sentences 5 and 6 outline the following conditions: 1. Temporary Absence from the Care Home: The care home must reserve the resident's place for up to 42 days per calendar year during temporary absences. 2. Extended Absence for Medical Stays: For hospital or rehabilitation stays, the reservation period extends to cover the entire duration of the stay.
[320] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §43
[321] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §42
[322] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

higher excess costs when their need for care increases and they transition to a higher care grade.[323]

The following table (Table 14) summarises the benefits for the German SLTCI receivers.

Table 14 The Care Benefits for the German SLCTI Receivers

Care Benefits	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Home Car—-Mobile Care Services)[324]	-	Up to €689/month	Up to €1,298/month	Up to €1,612/month	Up to €1,995/month
Home Car—-LTC Allowance (Pflegegeld)	-	€316/month	€545/month	€728/month	€901/month
Part-time institutiona—-(Day/Night) care	-	Up to €689/month	Up to €1,298/month	Up to €1,612/month	Up to €1,995/month
Full-time Institutiona—(Short-term) Care[325]	Up to €1,612/calendar year (8weeks)				
Full-time Institutional care (no time limited)	-	Up to €770/month	Up to€1,262/month	Up to€1,775/month	Up to€2,005/month
Reimbursement for Consumable Nursing Aids	Up to €40/month				
Subsidies for Home Modifications	Up to €4,000/project; €16,000 for collective living arrangements				
Collective Accommodation Allowance (Wohngruppenzuschlag)	€214/month				
Support Allowance (Entlastungsbetrag)	€125/month				
Start-up Grant for Collective Accommodation	-	Up to €2,500/person			

Noted:“"“" indicates that the benefit is not applicable for the specified care grade.

Benefits may vary based on individual circumstances and regional laws.

Source: Autho’'s compilation based on relevant information, for textual description, see: Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

[323] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

[324] The beneficiary or their relatives may choose a professional ambulatory nursing service to provide care. The caregiver must be registered with the social long-term care (LTC) insurance, which is billed directly. The social LTC insurance covers a portion of the costs for these services, up to a maximum amount determined by the assigned care grade.

[325] Some individuals needing nursing care may only require short-term full-time institutional care, especially during home care crises or after hospital stays. In such cases, short-term care is offered in appropriate facilities.

3.4.3.3.The Benefits for the Informal Carers

Home caregiving places significant burdens on the informal carers, the majority of whom are women. Many carers must either reduce their working hours or leave their jobs entirely to meet these caregiving responsibilities.[326] In response, long-term care insurance provides social security benefits to support these carers.

1) Pension and Accident Insurance Contributions. Under the §44 SGB XI, individuals are considered carers if they provide unpaid nursing care at home to one or more individuals classified in care grades 2 to 5, for at least 10 hours per week, spread across at least two days. If a carer works fewer than 30 hours per week, their pension insurance contributions are covered by LTCI. The contribution rate depends on the care grade and the types of benefits received, which may include long-term care allowance, mobile care services, or a combination of both. Carers who provide care for a relative at home are also covered by statutory accident insurance, with no personal contribution required. This coverage extends to the activities involved in caregiving as defined under long-term care insurance, as well as to household support tasks. Additionally, carers who do not live with the person they care for are also covered by statutory accident insurance for accidents that occur while travelling directly to or from the care recipient's home.[327]

2) Employment Protection and Temporary Leave. Since 1 January 2017, if a carer leaves employment that is subject to social insurance to care for a relative, long-term care insurance covers their unemployment insurance contributions for the entire duration of caregiving. This ensures that carers remain eligible for unemployment benefits and active employment services if they cannot transition back to work immediately after caregiving ends. This provision also applies to those who stop receiving unemployment benefits to take on caregiving duties.[328] If a caregiver for a person in care grades 2 to 5 is temporarily unable

[326] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

[327] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §44

[328] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

to provide care due to reasons such as a holiday or illness, the long-term care insurance fund covers the cost of a replacement caregiver (stand-in). This support is available provided the caregiver has been offering care for at least six months. If the stand-in caregiver is a professional (e.g., from a mobile care service) or a non-relative such as a neighbour, the insurance covers costs up to €1,612 per calendar year. If the stand-in is a first- or second-degree relative/in-law or someone living in the same household as the care recipient, the amount reimbursed depends on the level of long-term care allowance (Pflegegeld). Typically, this is capped at 1.5 times the long-term care allowance for the assessed care grade. However, if documented expenses (e.g., travel costs or lost earnings) are provided, the maximum reimbursement can increase to €1,612.[329]

Apart from the STCLI, The Caregiver Leave Act (PflegeZG) and Family Caregiver Leave Act (FPfZG) also support home care by enabling employees to take leave to care for close relatives in need, and provide flexibility for different care situations. According to the PflegeZG, Employees can take up to 10 days of temporary leave in urgent cases to organize or provide care for a relative. During this time, they may apply for a carer's grant (Pflegeunterstützungsgeld), an income replacement benefit that covers 90% of lost net pay, capped at 70% of the contribution assessment ceiling. Additionally, employees may take caregiver leave (Pflegezeit) for up to six months or family caregiver leave (Familienpflegezeit) for up to 24 months, allowing reduced working hours to care for relatives at home. These rights apply based on the employer's workforce size, with caregiver leave requiring over 15 employees and family caregiver leave requiring over 25 employees.[330] Caregiver leave can extend to situations involving children, adolescents, or terminally ill relatives, allowing up to six months of full-time or part-time leave or 24 months of reduced working hours.[331] To ensure flexibility, leave under the Caregiver Leave Act (PflegeZG) can be followed by family caregiver leave, but the total duration cannot exceed

[329] Federal Ministry of Labour and Social Affairs (BMAS). (2020, January). *Social security at a glance: Total summary*. Retrieved from https://www.bmas.de/SharedDocs/Downloads/DE/Publikationen/a998-social-security-at-a-glance-total-summary.pdf?__blob=publicationFile&v=2

[330] Rosenberg, M. (2024, October 11). *Das Pflegezeitgesetz (PflegeZG)*. pflege.de. https://www.pflege.de/pflegegesetz-pflegerecht/pflegezeitgesetz/

[331] Rosenberg, M. (2024, July 16). *Familienpflegezeitgesetz (FPfZG)*. pflege.de. https://www.pflege.de/pflegegesetz-pflegerecht/familienpflegezeitgesetz/

24 months. Employees taking leave may apply for interest-free state loans to offset income losses. Employers are prohibited from dismissing employees during the leave period, with rare exceptions approved by designated authorities.[332] In smaller enterprises, leave arrangements are negotiated between the employer and employee, who may also access state loans. Social insurance coverage is maintained during caregiver leave. Statutory health and long-term care insurance typically continue under family coverage, or voluntary contributions can be made. Pension, accident, and unemployment insurance are also preserved, provided the caregiver meets requirements, such as dedicating at least 10 hours per week over two days to care for someone in care grades 2–5. Contributions for these insurances are covered by the long-term care insurance fund or private insurers. Private health insurance coverage remains intact, with contributions for the individual in care subsidized upon application.[333] Employees can combine leave under both FPfZG and PflegeZG, provided the total combined leave does not exceed 24 months**,** and there is no gap between periods of leave.

3) Training, Counselling, and Respite Measures. The SLTCI mandates care counselling services (Pflegeberatung) under §7a SGB XI, providing caregivers with101ealization101d advice on benefit options, coordination of services, and psychological support. In addition, LTC funds101ealizate free care training courses (Pflegekurse) to enhance caregiving skills and reduce physical and emotional strain. For recovery, caregivers are entitled to short-term replacement care (Verhinderungspflege) for up to six weeks per year, during which the care fund covers the cost of substitute services.

3.4.4. How does the German SLTCI financed

The German Social Long-Term Care Insurance (SLTCI) is financed primarily through a pay-as-you-go (Umlageverfahren) system, based on income-related contributions shared equally by employers and employees. Since July 1, 2023, different contribution rates apply to parents

[332] *Pflegezeit Freistellung nach Pflegezeitgesetz*. (2017). BMG. https://www.bundesgesundheitsministerium.de/service/begriffe-von-a-z/p/pflegezeit.html

[333] Rosenberg, M. (2024, October 11). *Das Pflegezeitgesetz (PflegeZG)*. pflege.de. https://www.pflege.de/pflegegesetz-pflegerecht/pflegezeitgesetz/

in LTCI depending on the number of children they have. And there is a surcharge for childless individuals.[334] Since 2005, all childless members of the SLCI must pay an additional surcharge on top of the“"norma”" contribution rate. Since January 1, 2025, the contribution rate raised to 3.6% of gross income, and for childless individuals, it is 4.2% of gross income (the contribution rate plus a surcharge for childlessness). This is another increase in the contribution rate, following the PUEG reform. Employees and employers share the contribution (see Table 15). Equally, each paying 1.8%, except for the childlessness surcharge, which employees pay alone. A different rule applies in the federal state of Saxony, where, unlike other regions, no holiday was removed when the long-term care insurance was introduced. In Saxony, 2.3% of the 3.6% contribution is borne by employees, and 1.3% by employers (see Table 16).[335]

Table 15 Contribution rate after January 1st 2025

Insured Status	Contribution Rate	Employee Share
Without children	4.20%	2.40%
With 1 child (lifelong)	3.60%	1.80%
With 2 children	3.35%	1.55%
With 3 children	3.10%	1.30%
With 4 children	2.85%	1.05%
With 5 or more children	2.60%	0.80%

Resource: Bundesministerium für Gesundheit. (2025). *Finanzierung der sozialen Pflegeversicherung*. Retrieved May 21, 2025, from https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/die-pflegeversicherung/finanzierung.html

Table 16 Distribution of contributions in social long-term care insurance

	Employee	Childless Employee	Employer
Saxony	2.3%	2.9%	1.3%
Other states	1.8%	2.4%	1.8%

Resource: Bundesministerium für Gesundheit. (2025). *Finanzierung der sozialen Pflegeversicherung*. Retrieved May 21, 2025, from https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/die-pflegeversicherung/finanzierung.html

[334] Exceptions include childless members born before January 1, 1940, members up to age 23, and recipients of citizen's benefits under SGB II. The reasons for childlessness are not relevant. For childless retirees born after January 1, 1940, the surcharge is deducted from the pension by the pension insurance provider and transferred to the long-term care insurance.

[335] Bundesministerium für Gesundheit. (2025). *Finanzierung der sozialen Pflegeversicherung*. Retrieved May 21, 2025, from https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/die-pflegeversicherung/finanzierung.html

Since 2015, revenue from 0.1 percentage points of the contribution rate, currently about 1.8 billion euros annually, has been transferred to the social long-term care insurance reserve fund (long-term care reserve fund), which is managed by the Bundesbank. The 2023 contribution will be made in 2024; from 2024 to 2027(included), annual contributions of 0.7 billion euros will be made. The fund is intended to ensure reliable financing of long-term care insurance in the future and to help stabilize the contribution rate from 2035, when the generation of the baby boomer[336] may start needing care.[337]

3.5. Current Problems Facing by Germany SLTCI

Despite its well-developed legal structure and long-standing normative foundation, Germany's SLTCI now faces growing systemic pressures. These pressures stem from demographic ageing, persistent workforce shortages, and increasing financial burdens. While the SLTCI was designed to ensure equal and dignified access to care, recent developments reveal widening implementation gaps between the system's legal entitlements and its practical realisation.

3.5.1 Rising Demand and Regional Disparities of Germany SLTCI

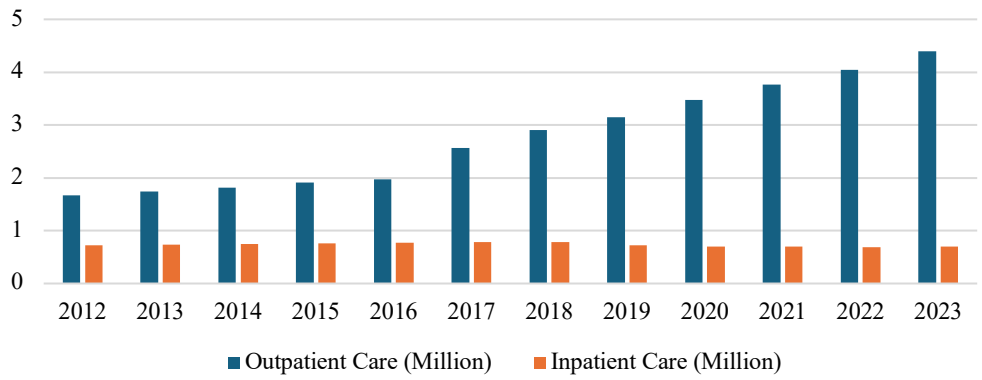
Since the SLTCI's introduction in 1995, the number of beneficiaries has more than tripled, exceeding 4.6 million in 2021. This rapid growth reflects both demographic ageing and the expanded definition of care dependency under the 2017 reform (PSG II). The redefinition of Pflegebedürftigkeit broadened eligibility, immediately increasing beneficiaries by more than 20%, and the trend continues to accelerate. Figure 3 illustrates the development of the

[336] Baby boomers defined as individuals born between 1946 and 1964 during the post-World War II baby boom. This generation, shaped by varying demographic, cultural, and historical factors across countries, often experienced childhoods in the context of significant educational reforms in the 1950s and 1960s, influenced by the Cold War and the aftermath of the interwar period. Boomers grew up during times of economic prosperity and rapid technological advances. As a large and influential group, their transition into adolescence and adulthood in the 1960s and 1970s fueled major social movements, such as the counterculture of the 1960s, along with political and social instability in many regions, including China, where they experienced the Cultural Revolution. In the West, many boomers grew up in a time of increasing affluence, benefiting from government housing and education subsidies. By the 21st century, they became one of the largest demographic groups in developed countries due to declining fertility rates and aging populations.

[337] Bundesministerium für Gesundheit. (2024.9.18). *Finanzierung der Pflegeversicherung* [Funding of long-term care insurance]. https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/die-pflegeversicherung/finanzierung/

number of individuals in need of care between 2012 and 2021. The causes of this development include societal ageing as well as changes in eligibility criteria. Accompanying the redefinition of the concept of care dependency in 2017, there was a direct increase in individuals requiring care by 21.5%. Furthermore, the growth rate has remained higher than before the redefinition. While the number of individuals requiring care increased by an average of 3.5% annually from 2012 to 2016, this growth rate jumped to 8.4% between 2017 and 2021 and keeps increasing until now.[338] This figure far exceeded earlier projections for care needs in Germany. When statutory long-term care insurance was introduced in 1995, experts estimated that the number of people requiring care would reach four million by 2040. However, this threshold was already surpassed in 2019.[339]

Figure 3 Development of the Number of People in Need of Care in the SLTCI



Source: Bundesministerium für Gesundheit. (2024). *Zahlen und Fakten zur Pflegeversicherung*. https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/3_Downloads/Statistiken/Pflegeversicherung/Zahlen_und_Fakten/Zahlen-Fakten_Pflegeversicherung.pdf

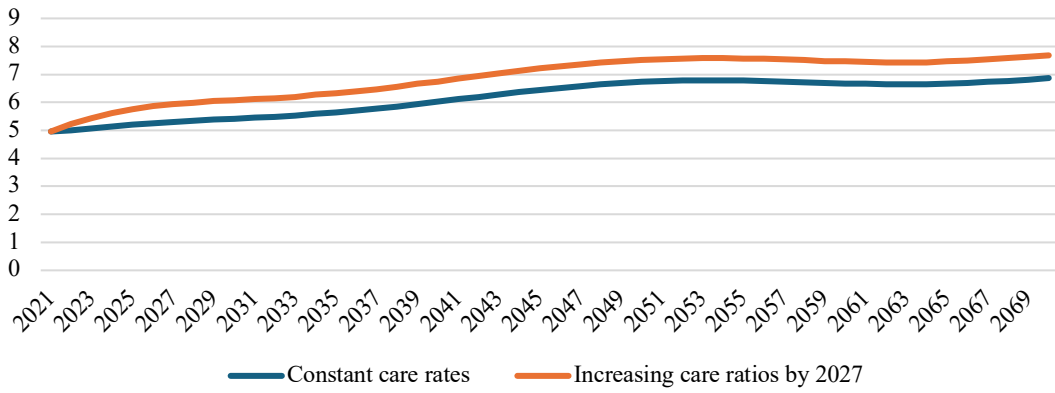
Figure 4 illustrates the future development of the number of people in need of care which is outlined in several scenarios in the care forecast. This forecast is based on the results of the 15th coordinated population projection and care statistics. It includes two assumptions regarding care rates, which refer to the proportion of people in need of care within specific age groups for each gender. The first assumption predicts moderate demographic changes

[338] Bahnsen, Lewe; Wild, Frank (2023): Soziale Pflegeversicherung heute und morgen: Stand und mögliche Szenarien, WIP-Analyse, No. März 2023, ISBN 978-3-9824068-2-4, WIP - Wissenschaftliches Institut der PKV, Köln

[339] Schrehardt, A. (2023). Reform der sozialen Pflegeversicherung mit dem Gesetz zur Unterstützung und Entlastung der Pflege. In: Meissner, H., Schrehardt, A. (eds) Kompass 3/2023. Die bAV und Vorsorge Themenreihe – Der Kompass, vol 13. VVW, Karlsruhe. https://doi.org/10.33283/978-3-86298-662-0_1

with constant care rates[340]. In this scenario, the number of people needing care could increase due to ageing—from 5.0 million at the end of 2021 to 5.6 million by the end of 2035, reaching 6.8 million by 2055, and finally, around 6.9 million by 2070. The second assumption considers an increase in care rates, influenced by the broader definition of care needs introduced in 2017, which is expected to continue growing until 2027[341]. Under this assumption, the number of people needing care could rise to around 6.3 million by 2035 and approximately 7.6 million by 2055.

Figure 4 People in need of care from 2021 to 2070 (Million)



Resource: Statistisches Bundesamt (Destatis). https://www.destatis.de

However, demand is unevenly distributed across regions. Southern states such as Bavaria and Baden-Württemberg face far steeper increases in care demand—over 50% by 2055—compared to eastern states like Saxony-Anhalt, where growth will remain below 10%. These disparities stem from differing demographic structures, migration patterns, and fiscal capacities.[342]

From a legal perspective, this uneven distribution challenges the constitutional principle of equality (Art. 3 GG) and the social state principle (Art. 20 GG), both of which underpin the uniform application of SGB XI. While the SLTCI guarantees equal legal entitlements

[340] For the individual federal states, the number of people needing care was calculated using the assumption of constant care rates.
[341] Still effects from the introduction of the expanded definition of care dependency
[342] *Pflegevorausberechnung: 1,8 Millionen mehr Pflegebedürftige bis zum Jahr 2055 zu erwarten*. (2023, March 20). Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2023/03/PD23_124_12.html

nationwide, the accessibility and quality of care vary significantly due to regional fiscal and institutional capacities. This reveals a tension between formal equality of rights and substantive equality of care within the federal welfare framework.

3.5.2 Inadequacy of the Caregivers

A second structural challenge lies in the acute shortage of professional caregivers. Germany currently faces the longest vacancy durations in the healthcare sector, averaging over 200 days to fill a nursing position.[343] According to the projection by the German Federal Statistical Office, in the worst-case scenario, as the baby boomer generation retires, projections indicate a deficit of 350,000 caregivers by 2034, rising to nearly 700,000 by 2049, equivalent to 43% of the total workforce in the caregiving sector in 2019.[344] Currently, 115,000 positions remain unfilled.[345] One recent research also indicates that as Germany's age distribution aligns with Japan's, the demand for nursing homes and the need for additional funding will increase significantly. In economically disadvantaged regions, a higher proportion of the population will require social assistance, escalating demand for nursing homes and creating a risk of inadequate local care provision.[346]

3.5.2.1 Informal Caregiver's Dilemma

In Germany, more than 80% of LTCI beneficiaries receive care at home, predominantly provided by informal, non-professional caregivers such as family members.[347] Approximately one-quarter of these family caregivers are spouses, while the majority are the children or daughters-in-law of the care recipients, with nearly three-quarters being women.

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[343] Deutschlandfunk. (2024, May 30). *Zukunft der Pflege: Wie kann Deutschland alte Menschen auch 2040 gut versorgen?* https://www.deutschlandfunk.de/pflege-fachkraeftemangel-zukunftsaussichten-100.html

[344] *Bis 2049 werden voraussichtlich mindestens 280 000 zusätzliche Pflegekräfte benötigt*. (2024, January 24). Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2024/01/PD24_033_23_12.html

[345] Deutschlandfunk. (2024, May 30). *Zukunft der Pflege: Wie kann Deutschland alte Menschen auch 2040 gut versorgen?* https://www.deutschlandfunk.de/pflege-fachkraeftemangel-zukunftsaussichten-100.html

[346] Wende, D., Karmann, A. & Sugawara, S. (2024). Does the Design of Welfare Programs Stipulate Nursing Home Utilization? A Comparative Analysis of Long-Term Care Systems in Japan and Germany. *Review of Economics*, *75*(1), 43-61. https://doi.org/10.1515/roe-2024-0011

[347] *Pflegestatistik - Pflege im Rahmen der Pflegeversicherung - Deutschlandergebnisse - 2021*. (2022, December 21). Statistisches Bundesamt. https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Gesundheit/Pflege/Publikationen/Downloads-Pflege/pflege-deutschlandergebnisse-5224001219005.html

This trend partly reflects the behaviour of older adults and their families, who often adhere to traditional caregiving values, prioritizing mutual support between spouses and across generations. [348]

Policies introduced in 2015, such as rights to caregiving leave, reduced working hours, and protection against dismissal (see 3.4.3.3), have made it easier for these caregivers to balance family, caregiving, and work responsibilities. However, research indicates that women, who are expected to shoulder the majority of caregiving tasks, experience greater reductions in lifetime income and benefits.[349] Apart from that, a wealth of evidence[350,351,352] indicates a clear association between informal caregiving and adverse health outcomes, particularly a decline in mental health. clinical observations and early empirical studies suggest that caregiving roles can lead to significant stress and burden.[353] Which also associated with the social isolation or loneliness.[354,355]

Figure 5 illustrates the changes in the number of individuals receiving LTC in Germany from 1999 to 2021. And figure 6 demonstrate the changes in the proportion of home care and institutional care among total LTC recipients in Germany. In 1999, the number of beneficiaries covered under Germany's LTCI system was 1.611 million, increasing to 3.497 million by 2021—a growth of 217%. The number of individuals choosing home care rose

[348] Eichler, M., & Pfau-Effinger, B. (2009). The 'Consumer Principle' in the Care of Elderly People: Free Choice and Actual Choice in the German Welfare State. *Social Policy & Administration*, *43*(6), 617-633. https://doi.org/10.1111/j.1467-9515.2009.00684.x

[349] Fischer, B., & Korfhage, T. (2021, November). Increasing employment and family care? A structural analysis of pension and long-term care policy reforms. In *Online seminar* (Vol. 25).

[350] Bauer, J., Sousa-Poza, A. Impacts of Informal Caregiving on Caregiver Employment, Health, and Family. *Population Ageing* **8**, 113–145 (2015). https://doi.org/10.1007/s12062-015-9116-0

[351] Kaschowitz, J., & Brandt, M. (2016). Health effects of informal caregiving across Europe: A longitudinal approach. *Social Science & Medicine*, *173*, 72-80. https://doi.org/10.1016/j.socscimed.2016.11.036

[352] Hajek, A., & König, H. H. (2016). Informal caregiving and subjective well-being: evidence of a population-based longitudinal study of older adults in Germany. *Journal of the American Medical Directors Association*, *17*(4), 300-305.

[353] Biegel, D.E., Sales, E., & Schulz, R. (1991). Family caregiving in chronic illness: Alzheimer's disease, cancer, heart disease, mental illness, and stroke. Newbury Park, CA: Sage Publications; 1991. Family Caregiver Applications; 1.

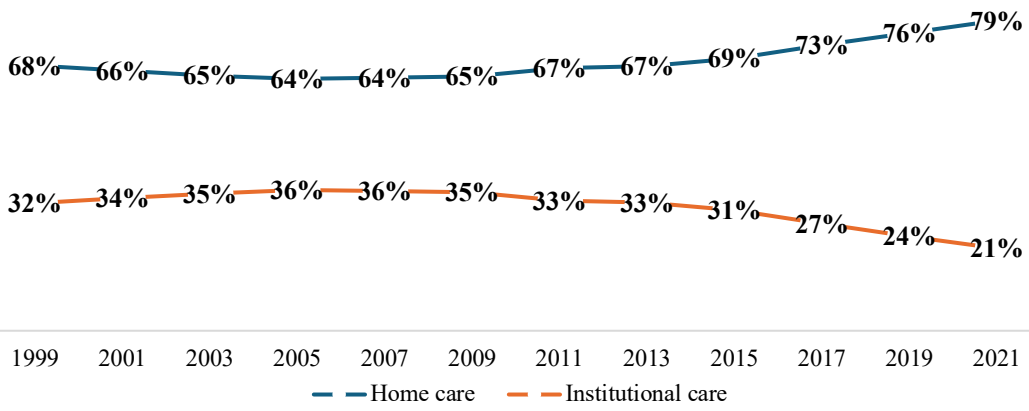
[354] Zwar, L., König, H., & Hajek, A. (2020). Psychosocial consequences of transitioning into informal caregiving in male and female caregivers: Findings from a population-based panel study. *Social Science & Medicine*, *264*, 113281. https://doi.org/10.1016/j.socscimed.2020.113281

[355] Schüz, B., Czerniawski, A., Davie, N., Miller, L., Quinn, M. G., King, C., Carr, A., Elliott, K. J., Robinson, A., & Scott, J. L. (2015). Leisure time activities and mental health in informal dementia caregivers. *Applied Psychology Health and Well-Being*, *7*(2), 230–248. https://doi.org/10.1111/aphw.12046

from 1.087 million in 1999 to 2.763 million in 2021, a growth of 254%. Meanwhile, the number choosing institutional care increased from 523,000 in 1999 to 734,000 in 2021, reflecting a smaller growth rate of 140%.

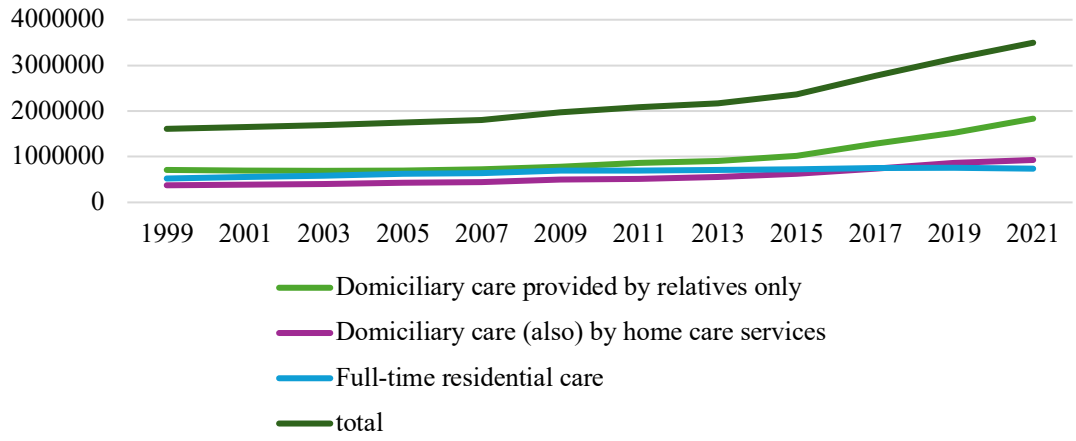
It is evident that institutional care has not gained a significant share over the 20+ years since the establishment of the long-term care insurance system. Its proportion decreased from 32% in 1999 to 21% in 2021, while home care rose from 68% to 79% over the same period. There are two interesting turning points that emerged in 2007 and 2017. Between 1995 and 2007, the number of individuals choosing home care experienced a slight decline, followed by a gradual increase after the 2008 PfWG reform. This upward trend became more pronounced after the 2017 reform, which introduced significant changes to the LTC grading system. Conversely, the number of individuals choosing institutional care steadily increased until 2007, after which it began to decline gradually. The downward trend in institutional care has become particularly noticeable in recent years (Figure 5 and Figure 6).

Figure 5. Changes in the Proportion of Home Care and Institutional Care Among Total



Resource: Statistisches Bundesamt. https://www.destatis.de

Figure 6 Trends in the Number of Long-Term Care Recipients and Types of Care in Germany (1999-2021)



Source: Statistisches Bundesamt. https://www.destatis.de

In addition to family members, unqualified caregivers from Eastern Europe, primarily women, also play a significant role in informal caregiving.[356] These individuals often work as self-employed caregivers within households under poor working conditions. For the hiring families, they represent the most affordable, or sometimes the only affordable alternative to institutional care. For profit-driven caregiving agencies serving families, the financial pressures are shifted onto these caregivers to maintain profitability.[357]

These migrant caregivers filling systemic labour gaps at the expense of legal protections and fair remuneration, which is estimated that 150,000 to 200,000 individuals operate within this grey, or even black, market.[358] This semi-formal care economy, tolerated by policymakers, would provoke politically risky resistance[359], and for families, employing migrant caregivers is often the most practical solution, the traditional gender roles continue to shape caregiving

[356] Gottschall, K., Noack, K., Rothgang, H. (2022). Dependencies of Long-Term Care Policy on East–West Migration: The Case of Germany. In: Nullmeier, F., González de Reufels, D., Obinger, H. (eds) International Impacts on Social Policy. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_40

[357] Müller, B. (2019). The Careless Society—Dependency and Care Work in Capitalist Societies. *Frontiers in Sociology*, *3*, 347621. https://doi.org/10.3389/fsoc.2018.00044

[358] Tießler-Marenda, E. (2012). Pflege und Migration in Europa, neue caritas Jahrbuch.

[359] Lutz, H., & Palenga-Möllenbeck, E. (2010). Care Work Migration in Germany: Semi-Compliance and Complicity. *Social Policy and Society*, *9*(3), 419–430. doi:10.1017/S1474746410000138

arrangements.[360] exposes a fundamental discrepancy between the SLTCI's legal framework and actual delivery.

3.5.2.2. Work Environment and Conditions of Formal Caregivers

About 20% of care recipients reside in care institutions, such as nursing homes. With the continuous increase in the number of people requiring care, the demand for care services, care facilities, and related infrastructure has also grown. This rising demand, coupled with the dual pressures on outpatient and inpatient care, has significantly increased the need for caregivers and care professionals, such as elderly care workers. However, the long-standing issue of workforce shortages in the care sector, exacerbated by its limited appeal, has further intensified the imbalance between supply and demand.

The German long-term care sector is grappling with a critical imbalance between rising demand and a constrained workforce. While about 20% of care recipients reside in institutions, the growing need for care services has intensified pressure on both outpatient and inpatient facilities, exacerbating a persistent shortage of care professionals. This workforce is characterized by a significant demographic skew: it is predominantly female (e.g., 85% in home care), employs a high rate of part-time work (68% among women), and is aging, with 28% of workers aged 50-60.in contrast, only 2% of workers are under the age of 20.[361]

To address the challenge of attracting more young people to the caregiving profession, Germany integrated its specialized nursing training into a unified curriculum in 2020. Although this reform has attracted tens of thousands of trainees, the sector's attractiveness remains hampered by systemic issues.[362] A primary concern is remuneration; in 2022, the average income for elderly care workers was €3,559, substantially below the national

[360] Weiss, H. (2024). Family ideology: Uneasy entanglements of eldercare in Germany. *Journal of the Royal Anthropological Institute*, *30*(3), 555-570. https://doi.org/10.1111/1467-9655.14092

[361] *Altenpflegekräfte arbeiten sehr häufig in Teilzeit*. (2021, December 8). Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2021/12/PD21_N068_2313.html

[362] *Altenpflegekräfte arbeiten sehr häufig in Teilzeit*. (2021, December 8). Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2021/12/PD21_N068_2313.html

average of €4,105,[363] a gap widened by widespread part-time employment in the LTC sectors.[364] Furthermore, caregivers face considerable occupational hazards, including physical strain from patient handling, exposure to infections, and psychosocial stress[365], which collectively impair both health and quality of life.

Overall, the LTC sector faces the dual pressure of increasing demand and a shortage of human resources. Issues such as low wages, high occupational risks, and deteriorating health collectively diminish the attractiveness of the caregiving profession. In future policy planning, key strategies to address the challenges of the LTC industry will include raising salary levels, improving working conditions, strengthening occupational health protection measures, and providing greater support for caregivers.

3.5.3. Financial Sustainability of Germany STCI

The implementation of SGB XI (the law regulating long-term care insurance) aims to eliminate or at least significantly reduce the number of applications for social assistance related to LTC. Initially, the new legislation did indeed decrease the number of social assistance recipients and prevented many dependent individuals from falling into poverty. However, in recent years, the situation has shifted. The rising costs of care, especially in residential facilities, have outpaced the growth of benefits provided under SGB XI, leading to a growing gap between the resources available to seniors (such as pensions) and the actual costs of care. This financial strain is exacerbated by the decreasing income replacement rates of pensions, which have dropped from over 60% of last-earned income to under 50%, with predictions suggesting they could fall to 42% in the coming years, even though The Federal Government intends to permanently keep the replacement rate at its current level of 48% after 2025, Compared to the current system, the contribution rate will be much higher under

[363] *Gehaltsvergleich 2022: Neben dem Beruf ist der Bildungsabschluss entscheidend*. (2023, May 23). Statistisches Bundesamt. https://www.destatis.de/DE/Presse/Pressemitteilungen/2023/05/PD23_200_62.html?nn=208696

[364] OECD (2019), *Education at a Glance 2019: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/f8d7880d-en.

[365] Eurofound, 2020, Long-term care workforce: Employment and working conditions, Publications Office of the European Union, Luxembourg. https://www.eurofound.europa.eu/publications/customised-report/2020/long-term-care-workforce-employment-and-working-conditions (29.10.2022)

the government's plan, reaching 29% by 2070. This will also require significantly more government funding, which will put a lot of pressure on the federal budget.[366] Consequently, more individuals may find themselves facing financial difficulties and being forced to rely on social assistance to cover care costs once again.[367] As the baby boomer generation gradually enters the phase of highest care dependency, demand pressures are mounting. A 2014 forecast by the German Economic Institute (IW) indicated that population ageing could lead to a funding gap in the care system of between €170 million and €4 billion by 2030, potentially expanding to approximately €16 billion by 2050[368].

Concurrently, the revenue base is weakening. In the first half of 2017 alone, the number of LTCI beneficiaries grew by 12.9%, with a 17.9% increase in those relying solely on family care. This trend not only presents human resource challenges but also contributed to the system's first deficit since 2007.[369] This discrepancy between income and expenses is exacerbated by the PUEG reform, which has resulted in a significant rise in both the number of beneficiaries and the associated costs. Under this new condition, the care funds are projected to face a deficit of €3.5 billion in 2025 due to inadequate financing and insufficient high contribution increases.[370] The rising cost of care is another significant financial challenge. The care sector is labour-intensive, with wage growth far outpacing productivity growth. To address wage increases for caregivers and the continuously growing demand for care, the operating costs of many care facilities have reached historic highs.[371,372] Although

[366] Deutsche Bundesbank. (2022). *Data on pension insurance: Statistical information and indicators*. https://www.bundesbank.de/resource/blob/893080/588460eb21cfeed3e726e1e53f451bdb/mL/2022-06-rente-data.pdf

[367] Reinhard, H. J. (2018). long-term care in Germany. In: Becker, U., Reinhard, HJ. (eds) Long-Term Care in Europe: A Juridical Approach, 121-175. https://doi.org/10.1007/978-3-319-70081-6_5

[368] Kochskämper, Susanna; Pimpertz, Jochen (2014) : Finanzierung des Pflegefallrisikos: Reformperspektiven im demografischen Wandel, IW-Analysen, No. 99, ISBN 978-3-602-45562-1, Institut der deutschen Wirtschaft (IW), Köln

[369] M Blümel, A Spranger, R Busse, Germany's long-term care system– Who is eligible and what does it cost after recent major reforms?, *European Journal of Public Health*, Volume 28, Issue suppl_4, November 2018, cky213.684, https://doi.org/10.1093/eurpub/cky213.684

[370] Apotheke Adhoc. (2024, February 13). *Pflegeversicherung im Februar pleite* [Long-term care insurance bankrupt in February]. https://www.apotheke-adhoc.de/nachrichten/detail/politik/pflegeversicherung-im-februar-pleite/

[371] Baumol, W. J. (1967). Macroeconomics of unbalanced growth: The anatomy of urban crisis. *American Economic Review, 57*(3), 415–426.

[372] Pomp, M., & Vujić, S. (2008). *Rising health spending, new medical technology and the Baumol effect* (CPB Discussion Paper No. 115). Den Haag.

part of the costs is reimbursed through care rate adjustments, as mentioned before, the excess costs incurred by care facilities still need to be borne by long-term care recipients. In many cases, as care allowances cannot fully cover the expenses of home care, caregiving arrangements are ultimately pieced together, integrated, and economised by responsible family members. The rising cost of professional care has increased the financial burden on families with elderly dependents, creating additional pressure to economize.[373]

This creates a double burden. First, the fundamental structure of the LTCI, based on a "partial cost coverage" model, means it only reimburses a portion of overall care costs. The remaining balance must be covered by care recipients themselves, often from their pension income. Against a backdrop of declining purchasing power of pensions, a growing number of older adults face the risk of asset depletion, potentially forcing them to revert to means-tested social assistance. This vulnerability is especially pronounced among those who have not fulfilled the minimum insurance contribution period, ultimately transferring a greater financial burden onto the social safety net.[374] Second, the pay-as-you-go financing structure shifts the financial pressure onto the shrinking working-age population. Rising contribution rates threaten labour market stability. Increased contribution rates can lead to higher tax burdens, which may, in turn, impact the labour market by reducing employers' willingness to hire or prompting tax evasion. Additionally, higher labour costs place greater employment pressure on low-productivity workers, further exacerbating social inequality.[375] According to existing projections, the growing demand for LTC may further widen the gap between revenue and expenditures. By 2040, the total social security contribution rate is expected to approach 50%, posing a significant threat to the sustainability of the social security system.[376]

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[373] Deutschlandfunk. (2024, May 30). *Zukunft der Pflege: Wie kann Deutschland alte Menschen auch 2040 gut versorgen?* https://www.deutschlandfunk.de/pflege-fachkraeftemangel-zukunftsaussichten-100.html

[374] Reinhard, HJ. (2018). Long-Term Care in Germany. In: Becker, U., Reinhard, HJ. (eds) Long-Term Care in Europe. Springer, Cham. https://doi.org/10.1007/978-3-319-70081-6_5

[375] Kochskämper, Susanna; Pimpertz, Jochen (2014) : Finanzierung des Pflegefallrisikos: Reformperspektiven im demografischen Wandel, IW-Analysen, No. 99, ISBN 978-3-602-45562-1, Institut der deutschen Wirtschaft (IW), Köln

[376] Stuttgarter Zeitung. (2024, February 13). *Pflegeversicherung: Das sind die Finanzierungsprobleme der Kassen* [Long-term care insurance: These are the financing problems of the funds]. https://www.stuttgarter-zeitung.de/inhalt.pflegeversicherung-das-sind-die-finanzierungsprobleme-der-kassen.fbffc152-11e4-40e2-b8df-6a83915b9e5d.html

From a jurisprudential perspective, this fiscal tension exposes an inherent paradox within SGB XI: the system's solidarity-based financing ensures equity within each generation but strains intergenerational fairness over time. Balancing the constitutional commitments to solidarity, equality, and sustainability thus remains one of the most pressing challenges for Germany's long-term care law.

3.6. Conclusion

The development of Germany's SLTCI reflects a deliberate legal response to demographic ageing and changing care needs. Since its establishment in 1995, the SLTCI has provided a formal legal entitlement to care services, grounded in principles of solidarity and dignity, and financed through a mandatory insurance model. Over time, successive reforms, such as the PSG I II III from 2015-2017 and the PUEG (2023), have expanded benefits, diversified care options, and strengthened users' rights.

Legally, the German LTCI has matured from a residual welfare instrument into a codified social right, characterised by universality, compulsory participation, and clear administrative procedures. Institutionally, it operates on a pay-as-you-go model supported by contribution-based funding, with benefits distributed according to individual care needs. Functionally, the system upholds the principle of *ambulant vor stationär*, prioritising home-based care and recognises the indispensable role of family caregivers within a pluralistic mix of public, private, and non-profit providers.

Nevertheless, this chapter has shown that the SLTCI now faces three interconnected structural tensions. First, the rapid demographic ageing and regional disparities threaten the equal realisation of care rights nationwide. Second, the persistent shortage of professional and informal caregivers challenges the implementation of the legal promise of accessible and quality care. Third, the financial sustainability of the system remains fragile despite recurrent contribution increases, most recently under the PUEG (2023) and the 2025 rate adjustment to 3.6% (4.2% for childless individuals). These short-term fiscal corrections

underscore a deeper systemic imbalance: the contradiction between expanding entitlements and a shrinking contributor base.

From a jurisprudential perspective, Germany's experience illustrates both the resilience and the limits of the social insurance paradigm under conditions of demographic stress. The SLTCI continues to embody the Sozialstaatsprinzip of the Grundgesetz, yet its sustainability increasingly depends on redefining intergenerational equity (Generationengerechtigkeit) and the balance between public responsibility and private autonomy. In this sense, Germany's LTC regime serves as a valuable reference point for other ageing societies, such as Japan and China, offering both normative insights and cautionary lessons on the legal governance of care.

Chapter IV. The Japanese LTCI Model: Integrated Care and Community Governance

4.1 Introduction

Japan's LTCI system represents one of the most distinctive welfare innovations in response to rapid demographic change. While traditionally elder care in Japan was provided within families, particularly by women, the acceleration of population aging and shifts in household structures during the late twentieth century rendered such arrangements increasingly unsustainable. In this context, Japan embarked on a transformative legal and institutional reform, culminating in the enactment of the Long-Term Care Insurance Act in 1997 and the introduction of the public LTCI scheme in 2000.

The system was conceived during a period of rapid population ageing, rising female labour participation, and declining multi-generational households. In this context, the state redefined LTC as a social right rather than a private duty. From a jurisprudential perspective, the LTCI Act embodies Japan's evolving interpretation of social solidarity, adapting the logic of social insurance, initially inspired by the German model, to a culturally distinct environment where local governments play a central administrative role.

This chapter examines the legal and institutional evolution of Japan's LTCI system. It first outlines the historical and legal context preceding the 2000 reform (Section 4.2), then traces the major legal revisions since its introduction (Section 4.3). Section 4.4 presents the structure and functioning of the current system, analysing coverage, eligibility, assessment, benefits, and financing. Section 4.5 discusses contemporary challenges such as fiscal sustainability, workforce shortages, and regional disparities. The chapter concludes with a reflection (Section 4.6) on the normative implications of Japan's LTCI as a hybrid model of welfare service and social insurance, offering valuable insights for comparative policy learning, particularly for China.

4.2. The Legal History of Long-term Care Insurance before 2000

The roots of Japanese LTC can be traced to religious philanthropy, notably the Hidenin (悲田院) institution (6th century), which embodied Buddhist notions of compassion rather than codified social rights.[377] Later, during the Meiji period (1868–1912)[378], the *ie* family system legally formalised filial responsibility, establishing a normative foundation that long persisted in Japan's civil law tradition.. In this model, the eldest son lived with his parents, inherited the family home, cared for the ancestral altar, and was legally responsible for his parents in old age. Women were expected to be "good wives and wise mothers", helping care for their in-laws. Although the *ie* system was abolished after World War II in favour of the nuclear family, its ideals—rooted in Confucian values—continue to influence gender roles and caregiving expectations.[379]

After World War II, Japan's social welfare system developed based on the framework of the "Measures System," which was established with the enactment of three major laws: the Public Assistance Act (1950), the Child Welfare Act (1947), and the Act on Welfare of Physically Disabled Persons (1949). While the Public Assistance System is fundamentally

[377] Yamada, M., & Arai, H. (2020). Long-Term Care System in Japan. *Annals of Geriatric Medicine and Research*, *24*(3), 174. https://doi.org/10.4235/agmr.20.0037

[378] Before the Meiji period, Japan had diverse family and household structures that varied by region, class, and social group.

[379] Wright, J. (2023). *Robots Won't Save Japan: An Ethnography of Eldercare Automation*. Cornell University Press. http://www.jstor.org/stable/10.7591/j.ctv2fjx0br

based on the principle of in-home assistance, during that time, institutional welfare was regarded as the "core mechanism" of the welfare system. Institutional welfare involved the admission and protection of elderly or disabled individuals who could not receive care or financial support from their families, with the government assuming public responsibility for their welfare.[380] Under this framework, welfare was not recognised as a subjective legal right but was granted through administrative discretion based on need.

In the aftermath of rapid economic growth in the postwar period, especially from the late 1950s to the early 1970s, Japan entered an era of significant transformation in both its economic and social structures. This economic prosperity enabled the state to expand its welfare policies, including those for the elderly. After the first and second baby booms, due to the low birth rate, the increase in nuclear families, and the ageing population, Japan introduced the National Health Insurance (NHI) system in 1961, achieving universal health coverage.[381] another milestone in this development was the enactment of the Welfare Law for the Elderly (老人福祉法) in 1963, which clearly defined the responsibilities of national and local governments in supporting the elderly.[382] However, LTC remained framed as a form of public assistance rather than a universal entitlement. During the post-war economic boom (1950s–1970s), the expansion of institutional welfare, such as public nursing homes, was supported by the Five-Year Plan for the Emergency Improvement of Social Welfare Facilities (1970), reflecting a developmental welfare state approach. In 1973, free medical care for people aged 70 and above was introduced, marking what the Japanese government referred to as "the first year of welfare" (福祉元年). However, the 1973 oil shock triggered economic stagnation and fiscal strain, prompting policymakers to promote a "Japanese-style welfare society" that emphasised familial responsibility for elder care. In the 1980s, reforms

[380] 関川芳考, 2001 「住居保障と社会福祉」日本社会保障法学会編『講座 社会保障法第 5 巻 住居保障`公的扶助法』法律文化社 58—83. Sekikawa, Y. (2001). *Housing security and social welfare*. In Japan Association of Social Security Law (Ed.), *Series on Social Security Law, Vol. 5: Housing Security and Public Assistance Law* (pp. 58–83). Horitsu Bunka Sha.

[381] Ikegami, N., Yoo, B., Hashimoto, H., Matsumoto, M., Ogata, H., Babazono, A., Watanabe, R., Shibuya, K., Yang, B., Reich, M. R., & Kobayashi, Y. (2011). Japanese universal health coverage: evolution, achievements, and challenges. *The Lancet*, *378*(9796), 1106–1115. https://doi.org/10.1016/s0140-6736(11)60828-3

[382] Iwagami, M., & Tamiya, N. (2019). The Long-Term Care Insurance System in Japan: Past, Present, and Future. *JMA Journal*, *2*(1), 67. https://doi.org/10.31662/jmaj.2018-0015

scaled back universal medical benefits: the 1983 Health and Medical Services Law for the Elderly reintroduced cost-sharing and expanded prevention-oriented care;[383] Although free medical care had ended, the co-payment rate for elderly people remained very low. At the same time, the number of nuclear families continued to rise due to urbanization. The post-war welfare system, established through the so-called Measures System, institutionalised state responsibility without recognising legally enforceable social rights. elderly care remained a form of public assistance, not an entitlement, administered through prefectural and municipal discretion.

In the late 20th century, many elderly individuals were admitted to hospitals and remained there because their family members were either unable or unwilling to provide care. This phenomenon, known as "social hospitalization," led to a significant increase in medical expenses and became a serious social issue. In 1989, the government launched the *"Gold Plan"*, a ten-year strategy to expand home-help services, day-care centres, and short-stay care, backed by a ¥6 trillion investment and clear numerical targets. It also mandated municipal-level planning and revised welfare laws to support integrated services,[384] However, early implementation revealed that actual needs far exceeded these projections. revealing structural limits of the welfare-based, means-tested model. This led to the 1994 publication of the *"21st Century Welfare Vision"*, which called for a universally accessible care system, paving the way for broader reform[385] Although the report did not mention long-term care insurance by name, it laid the conceptual foundation for it.

The turning point came with the formation of an internal task force within the Ministry of Health and Welfare in 1994, which began drafting the framework for a social insurance-based long-term care system. After years of policy discussion and preparation, the Long-Term Care Insurance Law (介護保険法) was enacted in 1997 and officially implemented in

[383] Nakamura, S. (2018, December). *Japan's welfare for the elderly—Past, present, and future*. Asia Health and Wellbeing Initiative. Retrieved July 14, 2025, from https://ahwin.org/japans-welfare-for-the-elderly-past-present-and-future/

[384] Yamada, M., & Arai, H. (2020). Long-Term Care System in Japan. *Annals of Geriatric Medicine and Research*, *24*(3), 174. https://doi.org/10.4235/agmr.20.0037

[385] Shinotsuka, E. (1998). The Supply of Manpower for Care Services from the Viewpoint of Care Insurance. *Review of Population and Social Policy*, *7*, 15-43.

April 2000. The system marked a decisive shift away from welfare-based, means-tested elder care to a universal, insurance-based model that shared care responsibilities across society and facilitated equitable access to services, regardless of income.

In summary, the evolution of Japan's LTC framework before 2000 illustrates a gradual transformation from moral obligation to legal entitlement. From Buddhist charity to family-based duty, from administrative welfare to social insurance, each stage reflected a reallocation of care responsibility within the tripartite relationship of the individual, the family, and the state. The 1997 Long-Term Care Insurance Act marked the legal culmination of this track: transforming LTC from an act of compassion into a statutory right grounded in social solidarity.The following Table 17 illustrates the policy and legal history of Japan's LTC system before 2000

Table 17 The Policy and Legal History of Japan's LTC System before 2000

Decade	Aging Rate	Major Policies
1960s Beginning of Elderly Welfare Policies	5.7% (1960)	1963 Enactment of the Elderly Welfare Act 1. Establishment of Special Elderly Nursing Homes 2. Legalization of Home Helpers for Elderly Care
1970s Increase in Elderly Medical Expenses	7.1% (1970)	1973 Introduction of Free Medical Care for the Elderly
1980s Social Issues of Hospitalization and Bedridden Elderly	9.1% (1980)	1982 Enactment of the Elderly Health Act： Introduction of Partial Cost Sharing for Elderly Medical Expenses 1989 Formulation of the "Gold Plan" (Ten-Year Strategy for Promoting Elderly Health and Welfare)： Promotion of Emergency Facility Development and Home-Based Welfare
1990s Promotion of the "Gold Plan"	12.0% (1990)	1994 Formulation of the "New Gold Plan" (New Ten-Year Strategy for Promoting Elderly Health and Welfare): Expansion of Home-Based Care 1996 Policy Agreement Among the Three Ruling Parties: Agreement on "Key Policy Items" for Establishing the Long-Term Care Insurance System 1997 Enactment of the Long-Term Care Insurance Act
2000s Implementation of Long-Term Care Insurance System	17.3% (2000)	2000 Implementation of Long-Term Care Insurance

Source: 厚生労働省老健局総務課. (2015). 公的介護保険制度の現状と今後の役割. 厚生労働省. Ministry of Health, Labour and Welfare, Department of Health and Welfare for the Elderly, General Affairs Division. (2015). *Current Status and Future Role of the Public Long-Term Care Insurance System*. Ministry

of Health, Labour and Welfare. https://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/201602kaigohokenntoha_2.pdf

4.3. The Legal History of Long-term Care Insurance after 2000

The Japanese LTCI Act was enacted on December 17, 1997, and came into effect on April 1, 2000. According to this law, the financing of LTCI must be revised every three years based on the demand for services. In addition, the law must be reviewed every five years in order to improve the LTCI system.

These reforms reflect a dynamic process of legal adaptation aimed at ensuring both financial sustainability and the realisation of users' dignity and independence as enshrined in Article 1 of the Act. Broadly, the progress of Japan's LTCI reforms can be divided into three phases: 1) Institutional adjustment and cost control (2005–2011); 2) Integration and community-based restructuring (2012–2017); 3) New era reforms for sustainability and digitalisation (2018–present). Each phase represents a shift in the legal logic of the system: from expanding benefits to rebalancing costs, from institutional to community-based care, and from analogue to digital governance.

4.3.1. Institutional Adjustment and Cost Control (2005–2011)

Since its establishment in 2000, the LTCI System gradually became well integrated into society. However, within two to three years after its introduction, concerns arose regarding its sustainability due to a rapid increase in the number of certified long-term care recipients. The number of individuals certified as requiring long-term care or support nearly doubled, rising from 2.18 million at the time of implementation to approximately 4 million by 2004,[386] particularly those with mild care needs (Support Required, Care Level 1), who saw a significant rise and now account for half of all certified individuals. A key characteristic of

[386] マチダカホ, & 町田佳穂. (2023). *日本における介護保険制度に関する分析: 形成過程及び改正過程における制度の「変容」に着目して*. 東京都立大学. Machida, K. (2023). *Analysis of the Long-Term Care Insurance System in Japan: Focusing on Institutional "Transformation" in the Formation and Revision Process*. Tokyo Metropolitan University. https://tokyo-metro-u.repo.nii.ac.jp/record/9831/files/T02986-001.pdf

those with mild care needs is that they experience a gradual decline in daily functioning due to falls, fractures, and joint diseases, placing them in or at high risk of developing "disuse syndrome" (a condition caused by inactivity).[387] And during this time, the number of elderly people with dementia is rapidly increasing (see Table 18).

Table 18: Daily Living Independence Level of Elderly People with Dementia Requiring Care (As of the end of September 2002) (Unit: 10,000 people)

	Total	Requiring Care or Support	Home	Special Nursing Home	Geriatric Health Facility	Medical Care Facility for Elderly	Other Facilities
Total	314	-	210	32	25	12	34
Independence Level II or above	149	-	73	27	20	10	19
Independence Level III or above	79 (25)	-	28 (15)	20 (4)	13 (4)	8 (1)	11 (2)

Note:

1. Numbers in parentheses represent reposted figures for elderly people with dementia whose motor abilities have not declined
2. Independence II: Although some symptoms, behaviors, and communication difficulties interfere with daily life, they can live independently as long as they are cared for.
3. Independence Level III: Occasional symptoms, behaviors, and communication difficulties that interfere with daily life and require nursing care.

Source：厚生労働省. (2006). *介護保険制度改革の概要*. Ministry of Health, Labour and Welfare. (2006). *Overview of the Long-Term Care Insurance System Reform*. https://ocw.kyoto-u.ac.jp/wp-content/uploads/2021/03/2010_chiikirigakuryouhougakugairon_03.pdf

Consequently, total long-term care expenditures also doubled, increasing from 3.6 trillion yen initially to 6.7 trillion yen by 2005. Additionally, during this period, the Koizumi administration was advancing structural reforms aimed at addressing Japan's severe fiscal difficulties, and the Long-Term Care Insurance System, which received 50% of its funding from public sources, became a target for cost-cutting measures.[388]

[387] 厚生労働省. (2006). *介護保険制度改革の概要*. Ministry of Health, Labour and Welfare. (2006). *Overview of the Long-Term Care Insurance System Reform*. https://ocw.kyoto-u.ac.jp/wp-content/uploads/2021/03/2010_chiikirigakuryouhougakugairon_03.pdf

[388] マチダカホ, & 町田佳穂. (2023). *日本における介護保険制度に関する分析: 形成過程及び改正過程における制度の「変容」に着目して*. 東京都立大学. Machida, K. (2023). *Analysis of the Long-Term Care Insurance System in Japan: Focusing on Institutional "Transformation" in the Formation and Revision Process*. Tokyo Metropolitan University. https://tokyo-metro-u.repo.nii.ac.jp/record/9831/files/T02986-001.pdf

To maintain fiscal sustainability and adjust institutional design, Japan initiated its first major reform in 2005. The 2005 reform (1) shifting to a preventive care system, (2) adjusting facility benefits, (3) establishing a new service framework, (4) improving service quality, and (5) reassessing the financial burden and system management.[389] Legally, it established a new preventive framework within the LTCI Act, marking a transition from "care provision" to "independence support."

The 2008 revision was primarily focused on regulatory measures in response to the Comsn Scandal, [390] which involved fraudulent activities in the LTC sector. This revision significantly strengthened government oversight and intervention in service providers' operations. The bill was passed in both houses of the Diet and officially enacted on May 28, 2008.

The 2011 reform continued the previous policy focus on prevention and the containment of service use. Within the Community Support Projects, a new Integrated Project for Preventive Care and Daily Life Support was introduced. This integrated project primarily targets insured persons certified at the Support Required level, and grants local insurers significant discretion in implementation. Utilizing diverse community resources, they are able to provide seamless and comprehensive services, including care management, preventive services, and daily life support. Furthermore, the 2014 reform clarified the legal basis of the Community-Based Integrated Care System by positioning it as part of the *"laws related to promoting the integration of medical care and long-term care within the community"*.[391]

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[389] 厚生労働省. (2004). *介護保険制度改革の全体像－持続可能な介護保険制度の構築－*. Ministry of Health, Labour and Welfare. (2004). *Overall Picture of the Long-Term Care Insurance System Reform: Building a Sustainable Long-Term Care Insurance System*.https://www.wam.go.jp/wamappl/bb05kaig.nsf/0/80a59715b386e44249256fac001cf2ce/$FILE/kaikakuan.pdf

[390] The Comsn scandal, which surfaced in 2007, involved Comsn, Inc., one of Japan's largest nursing care providers. The company was found to have fraudulently obtained business licenses by registering fictitious names as home-care workers. In an attempt to evade government intervention, Comsn preemptively reported the closure of these offices before the Ministry of Health, Labor, and Welfare (MHLW) could act to revoke their licenses. Additionally, the company was implicated in unfair billing practices for their nursing care services. This led the MHLW to reject Comsn's applications for new or renewed business licenses, effectively forcing the company to shut down approximately 80% of its 2,081 service offices and withdraw from the home-visit nursing business.

[391] 厚生労働省老健局総務課. (2015). *公的介護保険制度の現状と今後の役割. 厚生労働省*. Ministry of Health, Labour and Welfare, Department of Health and Welfare for the Elderly, General Affairs Division.

The following Table 19 illustrates the overview and the key points of these reforms during this period

Table 19. Overview of LTCI Reforms, 2005–2011

Year	Main Focus	Key Legal Measures
2005	Prevention & cost containment	Preventive benefits; establishment of municipal Community Support Centres; quality disclosure; review of facility benefits
2008	Regulation & compliance	Enhanced provider supervision; penalties for fraud; mandatory service continuity obligations
2011	Integrated community prevention	Legal basis for integrated preventive projects; strengthened cooperation between medical and LTC services

Source：厚生労働省. (2006). *介護保険制度改革の概要*. Ministry of Health, Labour and Welfare. (2006). *Overview of the Long-Term Care Insurance System Reform*. https://ocw.kyoto-u.ac.jp/wp-content/uploads/2021/03/2010_chiikirigakuryouhougakugairon_03.pdf and 厚生労働省老健局総務課. (2015). *公的介護保険制度の現状と今後の役割*. 厚生労働省. Ministry of Health, Labour and Welfare, Department of Health and Welfare for the Elderly, General Affairs Division. (2015). *Current Status and Future Role of the Public Long-Term Care Insurance System*. Ministry of Health, Labour and Welfare. https://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/201602kaigohokenntoha_2.pdf

These institutional adjustments collectively aimed to contain costs while preserving access. Legally, the reforms shifted Japan's LTCI toward a regulated insurance regime emphasising prevention, local governance, and administrative accountability.

4.3.2. Integration and Community-based Restructuring (2012–2017)

From 2012 onward, the Japanese government pursued a strategic restructuring to integrate medical, nursing, and welfare services under the Community-Based Integrated Care System

In 2014, to promote comprehensive medical and LTC services in local communities by establishing an efficient and high-quality healthcare delivery system and developing a community-based integrated care system, necessary revisions and improvements have been

(2015). *Current Status and Future Role of the Public Long-Term Care Insurance System*. Ministry of Health, Labour and Welfare. https://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/201602kaigohokenntoha_2.pdf

made to relevant laws, including the Medical Care Act and the LTCI Act, based on the Act on the Promotion of Reform to Establish a Sustainable Social Security System.

The 2014 reform further strengthened the restraint measures introduced in the 2005 revision, in this reform, the preventive benefits were transferred from the national to the municipal level, and the law restricted admission to special nursing homes to those at Care Level 3 or above. Co-payment for higher-income beneficiaries increased from 10% to 20%,[392] which resulted in a decrease in the number of waiting applicants from approximately 520,000 in 2013 to about 300,000 in 2016.[393] Although this appears to be a reduction, it likely led to an increase in "family caregiving." At the same time, the reform established prefectural-level funds, partly financed by consumption tax to promote regional coordination between medical and LTC facilities, and implemented measures to increase the burden on high-income individuals, effectively reinstating the ability-to-pay principle.[394]

The characteristic of the LTC system is that the proportion of individuals with mild conditions is higher than those with severe conditions, in this reform, we can see that by excluding the larger group of individuals with mild conditions from the benefit recipients, the system aims to reduce the financial burden of the long-term care insurance. This reflects the financial considerations behind the reform. However, with the strengthening of local governments and community involvement, regional disparities in the quantity and quality of

[392] 厚生労働省老健局総務課. (2015). *公的介護保険制度の現状と今後の役割. 厚生労働省*. Ministry of Health, Labour and Welfare, Department of Health and Welfare for the Elderly, General Affairs Division. (2015). *Current Status and Future Role of the Public Long-Term Care Insurance System*. Ministry of Health, Labour and Welfare. https://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/201602kaigohokenntoha_2.pdf

[393] 篠原拓也. (2021, 3 月 15 日). *特養 待機高齢者は減らせるか?-施設の拡充と入居希望者の増加のせめぎ合い. ニッセイ基礎研究所*. Shinohara, T. (2021, March 15). *Can the number of elderly people waiting for long-term care be reduced? - The struggle between expanding facilities and increasing demand for admission*. NLI Research Institute. https://www.nli-research.co.jp/report/detail/id=67222?site=nli

[394] マチダカホ, & 町田佳穂. (2023). *日本における介護保険制度に関する分析: 形成過程及び改正過程における制度の「変容」に着目して. 東京都立大学*. Machida, K. (2023). *Analysis of the Long-Term Care Insurance System in Japan: Focusing on Institutional "Transformation" in the Formation and Revision Process*. Tokyo Metropolitan University. https://tokyo-metro-u.repo.nii.ac.jp/record/9831/files/T02986-001.pdf

care services may arise, and concerns will be raised about the instability of service provision in some municipalities.[395,396]

The 2017 reform, building on the trends of the 2014 reform, further advanced discussions centred on efficiency and prioritization, which echo the goals set out since the 2011 revision are: 1. Realizing the regional comprehensive care system, and 2. Deepening and advancing the efficiency and prioritization of benefits. The focus of the 2017 reform is on deepening and promoting the Community-Based Integrated Care System while ensuring the sustainability of the LTCI system. The reform aimed to support elderly independence, prevent the worsening of care needs, and promote a community-based inclusive society.

As part of efforts to realize a community-based inclusive society, a "symbiosis-type service" model was introduced (see Table 20 and Diagram1), this service model (long-term care insurance system + disability welfare system) was established as a facility to promote the realization of the newly emphasized concept of a "community-based co-living society" introduced in the 2017 reform, which operated under both the long-term care insurance system and the disability welfare system. And emphasizes the function of mutual support within local communities. According to Japanese MHLW[397], a community-based co-living society is defined as: *"A society that responds to changes in social structures by overcoming the vertical segmentation between systems and fields, as well as the conventional roles of 'supporters' and 'recipients.' In this society, local residents and various stakeholders in the community participate together, connecting people and resources beyond generations and sectors, with the aim of co-creating a society that enhances the lives and well-being of every*

[395] Since the decision was made in 2014, municipalities were required to develop comprehensive services within just three years, from April 2015 to the end of fiscal year 2017. As a result, many municipalities were unable to fully establish an independent care service provision system as an alternative to long-term care insurance.

[396] 下野恵子. (2019). *介護保険解体の危機ー誰もが安心できる超高齢社会のためにー*. 法政大学出版局. Shimono, K. (2019). *The Crisis of Long-Term Care Insurance Disintegration: For a Super-Aged Society Where Everyone Can Feel Secure*. Hosei University Press.

[397] 厚生労働省. (2020). *「地域共生社会」の実現に向けて*. Ministry of Health, Labour and Welfare. (2020). *Towards the Realization of a "Community-based Inclusive Society"*https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000184346.html

individual." This concept can be seen as an evolution of the ideas introduced in the 2014 reform, which strengthened the transition to community support projects.

According to the Japanese MHLW, For home-visit care, daycare, and (preventive) short-term residential care under the LTCI Act, service providers designated under the Comprehensive Support for Persons with Disabilities Act or the Child Welfare Act can apply for designation as a " symbiosis-type service ".[398] For example, individuals who had been using disability welfare services under the Comprehensive Support for Persons with Disabilities Act could continue receiving services at the same facility even after turning 65 and transitioning to long-term care insurance services. This policy applies to services shared by both the LTC and disability welfare systems (see diagram1 and Table 20).

Diagram 1 Implementation of Symbiosis-type LTCI Services

<table>
<tr><td colspan="2">Users</td></tr>
<tr><td colspan="2">1. Even if persons with disabilities turn 65, they can continue using the services they previously accessed under disability welfare.
2. Not only elderly individuals but also diverse users, including children and persons with disabilities, can support each other, enriching their lives together.</td></tr>
<tr><td>1) Before the Symbiosis-type service

People need care

<table><tr><th>before 65</th><th>after 65</th></tr><tr><td>Disability Welfare (Living Support)</td><td>Transition to LTC (Day Care) or other services.</td></tr><tr><td colspan="2">*When reaching 65 years old, users may have to transfer from familiar disability welfare facilities to long-term care service providers.</td></tr></table></td><td>2) After the Symbiosis-type service

People need care

<table><tr><th>before and after 65</th></tr><tr><td>Familiar service providers can become Symbiosis-type service providers, allowing users to continue using the same facility even after turning 65.</td></tr></table>
* In both the disability welfare system and the long-term care insurance system, various services are provided. However, if there are long-term care insurance services that are similar ("equivalent") to disability welfare services in terms of content and functionality, the use of long-term care insurance services will, in principle, be prioritized based on Article 7 of the Comprehensive Support for Persons with Disabilities Act.</td></tr>
</table>

[398] 厚生労働省. (2017). *共生型サービスの概要*. Ministry of Health, Labour and Welfare. (2017). *Overview of Symbiosis-Type Services*. https://www.mhlw.go.jp/content/12300000/000897169.pdf

Source: Created by the author based on official documents from the MHLW

Table 18 Implementation of Symbiosis-type Long-term Care Insurance Services

Designated as each service provider	Users
Symbiosis-type LTCI Services	In principle, 65 years old and above
Disability Welfare Services	In principle, under 65 years old

1. Service fees are billed according to the services provided to users.
2. Previously, business establishments designated for disability welfare services such as home help services, day services, and short stays could also obtain designation as Coexisting Long-term Care Insurance Service providers.
3. Depending on the user's age and condition, either Disability Welfare Services or Symbiosis-type LTCI Services will be provided.
4. Financial sources for service fees:

    1) Disability Welfare Services: Funded by taxes under the Comprehensive Support for Persons with Disabilities Act.
    2) Coexisting Long-term Care Insurance Services: Funded by taxes and insurance premiums under the Long-term Care Insurance Act.
    3) Billing is processed separately.

Source: 厚生労働省. (2020). 「地域共生社会」の実現に向けて. Ministry of Health, Labour and Welfare. (2020). *Towards the Realization of a "Community-based Inclusive Society"* https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000184346.html

The following Table 21 illustrate the Overview of LTCI Reforms during this period, Legally, these reforms signify Japan's transformation from a sector-based welfare regime to a territorially integrated care system. The LTCI Act evolved into a legal infrastructure for community governance, embedding social inclusion and fiscal equity as central legal principles.

Table 21 Overview of LTCI Reforms, 2012–2017

Year	Main Focus	Key Legal Measures
2014	Integration of medical and LTC services	Prefectural medical–LTC funds; preventive services under municipal control; restricted admission to Care Level 3+; 20% co-payment for high-income users
2017	Inclusiveness & sustainability	Legal basis for symbiosis-type services; integration with disability welfare; 30% co-payment for high-income; remuneration-based contribution system

Source 厚生労働省老健局総務課. (2015). *公的介護保険制度の現状と今後の役割*. 厚生労働省. Ministry of Health, Labour and Welfare, Department of Health and Welfare for the Elderly, General Affairs Division. (2015). *Current Status and Future Role of the Public Long-Term Care Insurance System*. Ministry of Health, Labour and Welfare. https://www.mhlw.go.jp/file/06-Seisakujouhou-12300000-Roukenkyoku/201602kaigohokenntoha_2.pdf 厚生労働省. (2017). 地域包括ケアシステムの構築の推進等のための介護保険法等の一部を改正する法律の概要].Ministry of Health, Labour and Welfare. (2017). *Key Points of the Law Partially Revising the Long-Term Care Insurance Act and Other Legislation to Strengthen the Community-based Integrated Care System* [PDF]. Retrieved from https://www.mhlw.go.jp/content/000640410.pdf And Japan Association of Health and Welfare Statistics. (2021). Trends in National Welfare and Long-term Care: Health and Welfare Indicators, Special Issue, Vol. 68, No. 10 (No. 1067). Japan Association of Health and Welfare Statistics. and

4.3.3. New Era Reforms for Sustainability and Digitalisation (2018–present)

The most recent wave of reforms in 2020 and 2024, represent a shift toward digital governance, transparency, and expanded municipal responsibility.

The 2020 reform of the LTCI Act was based on the 2017 amendment and aimed to strengthen the Community-Based Integrated Care System, with the broader goal of achieving a "Regional Symbiotic Society". Building on the 2011 and 2014 revisions, it focused on improving benefit efficiency and expanding the system's scope beyond the elderly to all community members facing complex issues. A key change was the introduction of Support for Municipalities in Establishing a Comprehensive Support System, designed to tackle issues like the "8050 problem" and "double care." This was operationalized through the Multilayered Support System Development Project, allowing municipalities to provide integrated support in consultation, participation, and community building.[399]

The legislative process for this reform began in May 2019 when the MHLW established the Regional Symbiotic Society Promotion Study Group. The group submitted its final report in December, proposing the three key support measures. Following an opinion report from the Long-Term Care Insurance Committee, the MHLW submitted the amendment bill to the

[399] 厚生労働省. (n.d.). *地域共生社会推進事業*. Ministry of Health, Labour and Welfare. (n.d.). *Community-based Inclusive Society Promotion Projects*.https://www.mhlw.go.jp/kyouseisyakaiportal/jigyou/

National Diet in March 2020. Despite the COVID-19 pandemic, the bill was deliberated and passed by majority vote in June, being promulgated as Law No. 52 of Reiwa 2 (2020).[400]

However, the reform presents potential issues. Municipalities are not legally required to implement the Multilayered Support System Development Project, which may lead to outsourcing and unclear accountability.[401] This is compounded by the Social Welfare Cooperation Promotion Corporation System, which promotes delegating operations to external entities, further weakening municipal responsibility. Moreover, while the expansion of the system's target is significant, it shifts focus away from essential debates about user-centered care, support for independence, and social insurance models. The revision also strengthens restrictive measures and obscures fiscal considerations, risking a transformation of the LTCI system away from its original core principles.[402]

The 2024 legal reform of the Japan LTCI Act, was promulgated on May 12, 2023, as part of the revisions to social security-related legislation. This reform legally positions long-term care institutions as part of an integrated service system and clarifies the role of nursing care within small-scale multifunctional in-home care facilities. At the same time, it introduces measures to establish an information infrastructure that enables local governments, users, and medical institutions to electronically access care-related information. As a continuation of previous community-based reform strategies, this revision aims to enhance transparency, service quality, and community engagement. However, it also imposes significant operational burdens on care service providers. New legal requirements—such as mandatory

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[400] 社会保険研究所. (2021). *地域共生社会実現のための 介護保険制度 改正点の解説 令和3年4月版*. 社会保険研究所. Shakai Hoken Kenkyujo. (2021). *Explanation of the Revised Points of the Long-term Care Insurance System for the Realization of a Community-based Inclusive Society: April 2021 Edition*. Shakai Hoken Kenkyujo

[401] 芝田英昭 (編著), 河合克義, 服部万里子, 井口克郎, 日下部雅喜, 森周子, 金滉垣, 鈴木森夫, & 藤原るか. (2020). *検証 介護保険施行20年 ―介護保障は達成できたのか*. 生活書院. Shibata, H. (Ed.), Kawai, K., Hattori, M., Iguchi, K., Kusakabe, M., Mori, S., Kim, H., Suzuki, M., & Fujiwara, R. (2020). *Verification: 20 Years of Long-term Care Insurance Implementation – Has Long-term Care Security Been Achieved?* Seikatsu Shoin.

[402] マチダカホ, & 町田佳穂. (2023). *日本における介護保険制度に関する分析: 形成過程及び改正過程における制度の「変容」に着目して*. 東京都立大学. Machida, K. (2023). *Analysis of the Long-Term Care Insurance System in Japan: Focusing on Institutional "Transformation" in the Formation and Revision Process*. Tokyo Metropolitan University. https://tokyo-metro-u.repo.nii.ac.jp/record/9831/files/T02986-001.pdf

financial disclosure, implementation of the LIFE system, and the transition to electronic data management—have increased administrative workloads and system development costs.[403]

The following Table 22 illustrate the Overview of LTCI Reforms during this period, From a legal perspective, these two reforms redefined the LTCI system as part of Japan's digital social security governance. They consolidated decentralisation trends established since 2005 while institutionalising transparency and data accountability as new legal obligations for both public authorities and care providers.

Table 22: Overview of 2020 and 2024 Reforms

Year	Main Focus	Key Legal Measures
2020	Community-based inclusiveness	Legalisation of Comprehensive Support Systems; municipal responsibility for consultation, participation, and community building; creation of welfare cooperation corporations
2024	Transparency & digitalisation	Mandatory disclosure of providers' financial statements; LIFE data system; combined in-home nursing and multifunctional care; promotion of care robots and productivity innovation

Source: According to 厚生労働省. (2020). *地域共生社会の実現のための社会福祉法等の一部を改正する法律（令和2年法律第52号）の概要*. Ministry of Health, Labour and Welfare. (2020). *Overview of the Act Partially Amending the Social Welfare Act, etc. for the Realization of a Community-based Inclusive Society (Act No. 52 of 2020)*. https://www.mhlw.go.jp/content/12300000/000651883.pdf and 厚生労働省. (2024). *令和6年度介護報酬改定における改定事項について*. Ministry of Health, Labour and Welfare. (2024). *Regarding the Revisions in the Long-Term Care Fee Schedule for Fiscal Year 2024*. https://www.mhlw.go.jp/content/12300000/001230329.pdf and Monolith 法律事務所. (2024). [令和6年施行]介護保険法の改正とは？背景と介護事業者がとるべき対応を解. Monolith Law Office. (2024). What are the Amendments to the Long-Term Care Insurance Act for Fiscal Year 2024? An Explanation of the Background and Measures Long-Term Care Providers Should Take https://monolith.law/corporate/long-term-care-insurance-law

4.3.4. Short Summary of the Japan's LTCI Act Reform after 2000

Since the launch of Japan's LTCI Act in 2000, Japan has continuously reformed its approach to meet the challenges of a super-aged society. Early reforms focused on shifting care

[403] 厚生労働省. (2024). *令和6年度介護報酬改定における改定事項について*. Ministry of Health, Labour and Welfare. (2024). *Regarding the Revisions in the Long-Term Care Fee Schedule for Fiscal Year 2024*. https://www.mhlw.go.jp/content/12300000/001230329.pdf

responsibility from families to society and strengthening preventive care. From 2005 onward, Japan emphasized community-based services, introduced local support centers, and gradually transferred service management to municipalities. Subsequent reforms expanded integrated care, enhanced financial transparency, and diversified care models for varying needs, including for those with dementia and mild disabilities.

A central theme throughout these reforms has been the transition toward a community-centered care model. Japan has steadily built a system that enables the elderly to receive care within their familiar neighborhoods, integrating medical, welfare, and preventive services. The government has promoted small-scale multifunctional facilities, 24-hour home-based services, and regional support networks, while recent reforms incorporate digital tools, data infrastructure, and productivity metrics to improve service quality and sustainability. This long-term shift reflects Japan's commitment to building a comprehensive, localized, and resilient care system. The following Table 23 illustrate the key points of the main revisions of the Japanese LTCI Act.

Table 23. The Main Revisions of the Japanese LTCI Act after 2000

Year	Main Revision Themes	Key Points
2000	System Launch	Implementation of the Long-Term Care Insurance Act
2005	Prevention and Community Care	New preventive benefits; Community-based Support Centres; exclusion of meal/accommodation from insurance (subsidies for low-income); community-based services; premium recalibration.
2008	Provider Compliance	Stricter legal requirements for LTC providers; prior notice for suspension/closure; continuity of service obligations
2011	Integrated Care & Transparency	Community-based integrated care (24h/on-demand); preventive & daily life support projects; reduced hospital costs; stronger insurer role; improved financial transparency and end-of-life care.
2014	Fair Burden & Community Services	Enhanced community support projects (medical–LTC, dementia); preventive services shifted to municipalities; expanded low-income relief; 20% co-payment for higher-income (from Aug 2015)
2017	Sustainability & Inclusivenes	Strengthened insurer role in prevention/independence support; medical–LTC coordination; inclusive society initiatives; 30% co-payment for high-income; remuneration-based contributions.
2020	Municipal Role, Data & Workforce	Municipal integrated support systems; dementia measures; LTC–medical data infrastructure; workforce retention and efficiency; Social Welfare Cooperation Promotion Corporation system.

2024	Transparency, Digitalization & Technology	Mandatory financial disclosure for providers; digital care data system (LIFE); clarified combined in-home services; expanded home care support; promotion of care robots and tech.

Source: Compiled by the author based on documents related to the Long-Term Care Insurance Act of the MHLW (2005–2024).

4.4. Japanese Current Long-term Care Insurance System

Japan's LTCI Act has been in effect for 25 years since its implementation in 2000. The introduction of the LTCI Act brought several groundbreaking changes to social welfare services in Japan's post-war welfare history. Unlike the previous government assistance system based on the Elderly Welfare Act, the LTCI Act established a universal social insurance system accessible to everyone, regardless of income. Additionally, instead of being directly provided by local governments, services were designed to be supplied by private for-profit and non-profit organizations in a market-based system. In contrast to the past, when elderly individuals had only two options, either receiving care from family at home or moving into a facility. A large and diverse LTC service market has now developed. The scope and level of benefits under the Long-Term Care Insurance Act are guided by Article 5, Clause 3, which states that the national and local governments are responsible for ensuring that *"insured individuals can, as much as possible, maintain an independent daily life in their familiar community according to their abilities."* In essence, the long-term care insurance system was established to enable people to continue living in familiar communities by utilizing market-based care services and receiving insurance benefits.[404]

The following section will give an overview of the current Japanese LTCI system, from the application field, eligibility, care services, benefits and financial aspects to analysis, which can provide the institutional basis for understanding the system's emerging challenges and enables meaningful comparison with the German and China LTCI model afterwords.

4.4.1. The Field of Application of Japanese LTCI

[404] 仁科, 伸子. (2022). *介護保険制度とデータから見たエイジングインプレイスに関する研究*. 経済志林, 89(2), 369-395. Nishina, N. (2022). *A study on aging in place based on the long-term care insurance system and data*. *Keizai Shirin*, 89(2), 369-395. https://doi.org/10.15002/00025157

The Japanese LTCI Act defines its personal and material scope through a dual structure that distinguishes between *Person Requiring Long-Term Care* and *Person Requiring Support*, reflecting Japan's integrated approach to both care provision and prevention. Eligibility is determined not only by age, but also by the presence of age-related diseases specified by Cabinet Order.[405] In short, the insured population is divided into two legal groups:

(1) A *Person Requiring Long-Term Care* is defined as an individual who meets the criteria for a Condition of Need for LTC and is either s either:(i) aged 65 or older (primary insured persons), or (ii) aged 40–64 with impairments caused by a Specified Disease. Certified persons are classified into Care Levels 1–5, corresponding to increasing severity of physical and cognitive dependency.

(2) A *Person Requiring Support* is someone who meets the criteria for a Needed Support Condition and falls into one of two age groups: 65+, or 40–64 with a Specified Disease. These individuals are certified as Support Level 1 or 2, granting access to preventive and independence-support programmes rather than full LTC services.

As for the certification process, there are two types. One is The Care Certification Process (介護認定), and the other one is The Certification of Needed Support Process (支援認定) both assess an individual's need for LTC but differ in purpose and eligibility. Care Certification is for individuals who require full-time nursing care, while Needed Support Certification is for those who need preventive care to maintain independence. Care Certification applies to Primary Insured Persons (65+) and Secondary Insured Persons (40-64) with a Specified Disease, categorizing them into care levels 1–5 based on the severity of their condition. Needed Support Certification, on the other hand, is for those with mild functional decline, classifying them as Support Level 1 or 2 to receive preventive services like rehabilitation and daily assistance. [406] See Table 24

[405] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 1, § 7.
[406] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 4, § 27-32

The assessment process for both involves an application, investigation, physician's opinion, and Certification Committee review, with the final certification being retroactively effective from the application date. While both require periodic renewals, Care Certification is more comprehensive, granting access to long-term care facilities and extensive medical support, whereas Needed Support Certification focuses on early intervention and lifestyle improvements to prevent deterioration.[407]

Table 24 Eligibility of Japanese LTCI system

	Category 1 Insured Persons	Category 2 Insured Persons
Eligibility	Individuals aged 65 and older	Individuals aged 40 to 64 enrolled in medical insurance
Number of People	35.85 million (Ages 65-74: 16.36 million; Ages 75 and above: 19.49 million)	41.88 million
Eligibility Criteria	Requiring nursing care (e.g., bedridden, dementia requiring assistance) Requiring support (needing assistance in daily life)	Requiring nursing care or support due to: 1. Advanced cancer 2. Aging-related diseases such as joint rheumatism
Number of Certified Care Recipients & Ratio	6.81 million (19.0%) (Ages 65-74: 710,000 (4.3%), Ages 75 and above: 6.1 million (31.3%))	130,000 (0.3%)
Insurance Premium Collection	Collected by municipalities (in principle, deducted from pensions)	Collected by medical insurers together with medical insurance premiums

Note: The number of Category 1 insured persons and those certified as requiring long-term care (or support) is based on the "Long-Term Care Insurance Business Status Report in 2022" and represents the figures as of the end of the fiscal year 2022. The number of Category 2 insured persons is based on reports from medical insurers, which are used by the Social Insurance Medical Fee Payment Fund to determine the amount of long-term care benefit contributions. It represents the monthly average value for the fiscal year 2022

Source：厚生労働省. (2024). *介護保険制度をめぐる状況について*. Ministry of Health, Labour and Welfare. (2024). *Current Situation of the Long-Term Care Insurance System*. https://www.mhlw.go.jp/content/12300000/001364995.pdf

4.4.2. Application for Benefits and Assessment Procedure

In the Japanese LTCI system, the determination of eligibility for LTC benefits is carried out through a highly standardised, municipality-administered certification process that combines

[407] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 4, § 27-32

computer-assisted assessment with expert review, thereby ensuring procedural consistency across the country. Which involves several key steps.

(1) Submit an Application. First, an insured person must submit an application to the municipality, either directly by the insured person or through authorised intermediaries such as designated in-home care providers or Community General Support Centres. They may authorize a designated in-home LTC support provider, a community-based care facility, or a community general support center to apply on their behalf.

(2) Standardised Computerised Assessment (Initial Investigation). Upon receiving the application, the municipality initiates a two-part assessment consisting of a structured home-visit investigation and a medical opinion from the applicant's attending physician. During the investigation, trained assessors evaluate the applicant's physical and cognitive functions, living environment, and daily activity limitations using a nationally unified assessment tool developed by the MHLW. The attending physician's opinion provides complementary information regarding diagnoses, comorbidities, prognosis, and necessary medical interventions; if the applicant has no attending physician, a designated municipal doctor performs the evaluation. These inputs are processed by a computerised algorithm that generates a preliminary classification.

(3) Review by the Certification Committee (認定審査会) The findings from these assessments are submitted to a Certification Committee, which examines and determines the applicant's need for LTC based on standards set by the MHLW. The committee may also provide recommendations on necessary medical care or the appropriate use of designated care services.

(4) Issuance of Certification. Based on the committee's judgment, the municipality issues a Certification of Needed Long-Term Care and records the care category on the applicant's Certificate of Insured Person. If the applicant does not qualify for care, the municipality must notify them with reasons for the rejection. Certifications are valid for a period determined by the MHLW.

(5) Renewal and Deadlines. And individuals expecting continued care needs may apply for renewal. If an applicant is unable to apply for renewal before the certification expires due to a disaster or other unavoidable circumstances, they may apply within one month after the impediment is resolved. The processing time for an application is generally within 30 days, but municipalities may extend the period if necessary, with prior notice to the applicant. If the municipality fails to act within the prescribed time, the applicant may consider their request as denied. The renewal process follows the same procedures as the initial application, and if delayed due to valid reasons, the renewed certification is applied retroactively from the day after the previous certification expires.[408]

This highly structured, computer-supported, and legally circumscribed certification system reflects Japan's emphasis on administrative uniformity, transparency, and medical-functional criteria in determining entitlement. At the same time, the distinction between Support and Care certification levels (absent in Germany) embodies Japan's long-standing policy priority of preventing functional decline and delaying the onset of LTC dependency.

4.4.3. Benefits of the Japanese LTCI System

According to the Japanese LTC Act Article 18, the LTC insurance benefits provided under this Act, which include: (i) Long-Term Care Benefits for individuals with a Condition of Need for Long-Term Care; (ii) Prevention Benefits for individuals with a Needed Support Condition; and (iii) additional insurance benefits specified by municipal ordinances that aim to reduce or prevent the deterioration of a Condition of Need for Long-Term Care or a Needed Support Condition.[409] See diagram 2

Japanese LTCI introduced a new model for accessing and providing services, offering no cash benefits. Like health insurance, services are delivered on a fee-for-service basis, with fees set by the MHLW after deliberation by the LTCI Benefits Sub-committee. Eligibility is

[408] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 4, § 27-28.
[409] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997) ch. 4, § 18.

determined through seven levels, with community care benefits ranging from around 460Euro to 3,300Euro.

And the LTC services can be categorized into three major types (see Table 25): home care services, care facilities services, and community-based long-term care services.

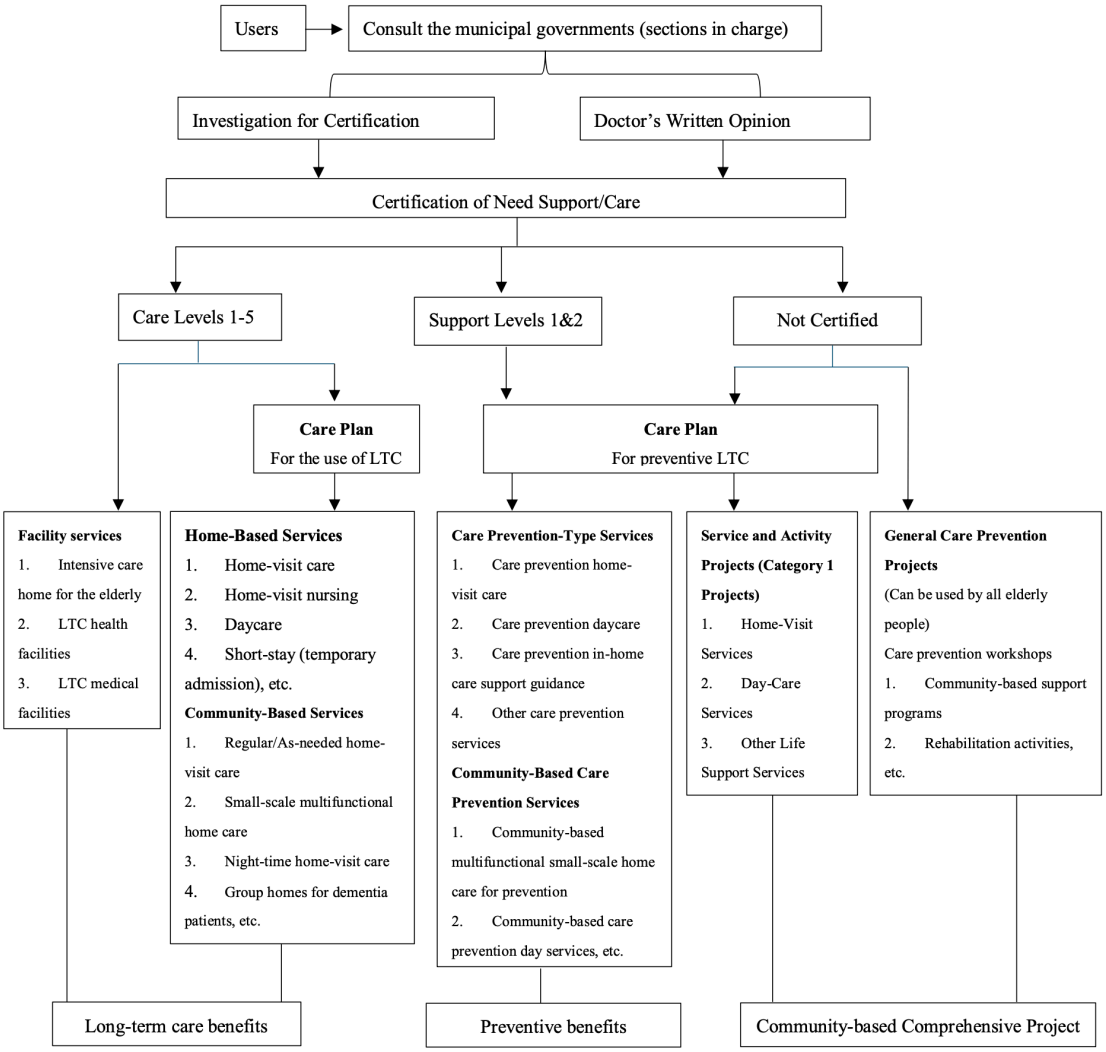
Care facilities include LTC hospitals, health facilities for elders (HFE), and special homes for elders (SHE), with varying levels of medical staffing. Hospitals have 24/7 physician and nurse availability, while HFEs offer care only on weekdays, and SHEs have no staff on workdays. These differences are reflected in fees, yet there is no triage mechanism for admissions. Initially, LTCI covered hotel costs except for food, but since 2005, coverage has been restricted, except for low-income residents, making SHEs highly popular and leading to long waitlists.

The community-based services include “older people’s homes with care services” and some community-linked facilities, such as small-size nursing homes. Although not classified as institutions in government statistics, they function as such. They have relatively higher staffing levels and larger rooms but do not offer fee reductions for low-income residents. home care services, also called “housing with services”, require a barrier-free environment and consulting on available care services.

Many of these residences are linked to home care agencies. This type of care has grown the fastest, now comprising 10% of institutionalized older adults. Apart from institutional care, the expansion of new facility types suggests that, despite the government’s goal of “ageing in place,” families prioritise reducing the caregiving burden.[410]

Diagram 2: Procedure for Using Long-Term Care Services

[410] Barber SL, van Gool K, Wise S, Woods M, Or Z, Penneau A et al. Pricing long-term care for older persons. Geneva: World Health Organization, Organisation for Economic Co-operation and Development; 2021. Licence: CC BY-NC-SA 3.0 IGO.



Source: Author drawing according to reports of Japanese MHLWhttps://www.mhlw.go.jp/english/

Table 25 Japanese Long-term Care Services

Types of Care Services	Specific Services	
Services provided at home	Visiting services	LTC on a visitation basis, nursing on a visitation basis, bathing service on a visitation basis, rehabilitation on a visitation basis, and instructions for medical care at home.
	Commuting services	Commuting care and commuting rehabilitation.
	Facilities and Short-stay services	LTC at care facilities, rehabilitation at care facilities, short-term stay for livelihood care, short-term stay for medical and long-term care, therapy for persons staying at specified facilities
	Other services	The lending of welfare appliances, aid for purchases of welfare appliances, allowances for modifying homes

Services provided at care facilities[411]	These services are available only for those judged as needing LTC.	1) Welfare facilities for the elderly requiring LTC (special nursing homes for the elderly) 2) Health facilities for the elderly in need of LTC (health services facility for the aged) 3) Integrated facilities for medical and LTC
Community based services	This is a framework for providing a wide range of flexible services to enable those who need long-term care to continue living in their familiar home communities. In principle, they are available for use only by residents of the municipality.	1) Small-scale multifunctional LTC at home 2) Group homes for elderly persons with Alzheimer's Syndrome 3) Daytime services available for dementia patients 4) Nighttime long-term care on a visitation basis 5) Daily Life LTC for a Person Admitted to a Community-Based Specified Facility 6) Admission to a Community-Based Facility for Preventive Daily Long-Term Care of the Elderly Covered by Public Aid 7) Nursing on a visitation basis of regular rounds and on-demand response (beginning April 2012) 8) Nursing and small-scale multifunctional domiciliary care services (combination services)

Note: for the support levels, they don't have the home visit service, night time visit service in community-based service and commuting care services,
Source: The author compiled this based on Japanese LTCI Act article 41-62.

Unlike Germany, Japan's LTCI does not provide cash benefits for family caregivers. However, indirect support measures are embedded within the system, including caregiver training, respite care, dementia support programmes, and, more recently, community inclusive support mechanisms. This design reflects the LTCI's guiding philosophy of shifting care responsibility from families to society while still providing structural support to caregivers. Overall, Japan's benefit structure demonstrates a gradual but consistent orientation towards community-based, preventive, and integrated support, with facility care increasingly reserved for higher-need individuals.

4.4.4. How does the Japan LTCI Financed

[411] The LTCI Act defines care facilities as "welfare facilities," "health facilities," and "medical facilities" for the elderly. These facilities provide care services such as bathing, toilet assistance, and meal services. Welfare facilities provide lifelong care for users with care needs levels 3 to 5. Health facilities mainly offer care and rehabilitation for users with any level of care needs, with the goal of returning home after a few months. Elderly users with care needs levels 1 to 5 who require lifelong medical care (such as suction, parenteral nutrition, and wound care) can be admitted to elderly medical facilities, which are referred to as "medical and long-term care integrated facilities."

Same as Germany, Japan's LTCI funds are managed under a pay-as-you-go social insurance system. It's coordinated at the municipal level and administered through a dedicated LTCI fiscal account which for the income and expenses related to Long-Term Care Insurance, as stipulated by Cabinet Orders.[412]

The funding primarily comes from government finances and insurance premiums, each accounting for 50%. Within the public funding portion, half is provided by the national government, one-quarter by prefectural governments, and one-quarter by municipalities. Of the national budget allocation, 25% is sourced from the national LTCI treasury, and an additional 5% consists of adjustment grants designed to balance resources for regions with a high proportion of residents aged 75 and older or low-income populations. The private contribution portion is financed by premiums paid by residents aged 40 and above, which vary slightly each year depending on contributions. Currently, premiums from Category 1 insured individuals account for approximately 23%, while those from Category 2 insured individuals account for about 27%. Any shortfall in contributions is supplemented by a national stabilization fund.[413] (detailed collection method see Table 26)

Table 26 Japanese LTCI Premiums Collection

	Category 1 insured person	Category 2 insured person
Collection method	Collected by municipalities. Collected directly from the pension if the pension benefits total 15,000 yen or more per month. Collected individually if pension benefits total less than 15,000 yen per month.	1. Health Insurance Association insured persons: Collected by the Health Insurance Association from monthly salary and bonuses in the same way as health insurance premiums 2. Health Insurance Association dependents: No premiums collected directly (included in the amount collected from an insured person)
Calculation method	Determined by multiplying the base amount established by the ordinance of each municipality by an income-dependent insurance premium rate.	Value obtained by multiplying the standard monthly remuneration and the standard bonus by the LTCI premium rate (varies by Health Insurance Association)

Source: The author's compilation according to the relevant official documents.

412 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 1, § 3.

413 厚生労働省. (2024). *介護保険制度をめぐる状況について: 社会保障審議会 介護保険部会(第 116 回)*. Ministry of Health, Labour and Welfare. (2024). *Current Situation of the Long-Term Care Insurance System: Social Security Council, Long-Term Care Insurance Subcommittee (116th Meeting)*. https://www.mhlw.go.jp/content/12300000/001364995.pdf

Copayments for LTC services will be 10% (20% or 30% for high-income earners) of the cost of the services, depending on the user's ability to pay. (see Table 27)

Table 27 Category 1 insured persons with copayments of 20% or 30%

Copayment	Income standard
20%	1. Total income of the person: 1.6 million yen or more, 2. Pension income + other total income of Category 1 insured persons in the same household: 2.8 million yen or more for a single-person household, 3.46 million yen or more for a household of two or more persons
30%	1. Total income of the person: 2.2 million yen or more, 2. Pension income + other total income of Category 1 insured persons in the same household: 3.4 million yen or more for a single-person household, 4.63 million yen or more for a household of two or more persons

Note:

1. Copayments are 10% for Category 2 insured persons, those exempt from paying municipal tax, and those receiving public assistance.
2. If your copayment for long-term care exceeds 44,400 yen in a month (measures are available to reduce this amount for low-income earners and other eligible persons), then the amount in excess of this amount will be refunded as high long-term care service costs.

Source: The author's compilation according to the relevant official documents.

From the reform history we can see that the fundamental principles of the Japanese Long-Term Care Insurance System are: the "User-Centered Approach", "Support for Independence" and the "Social Insurance Model"—are explicitly stipulated. Additionally, to ensure that the system reflects local circumstances, municipalities (including the 23 special wards of Tokyo), as the administrative units most closely connected to the public, are designated as the insurers. And, to enhance the financial stability of the insurance system, reduce administrative burdens, and mitigate disparities among municipalities, a multi-tiered support structure has been established, wherein the national government, prefectural governments, medical insurers, and pension insurers provide comprehensive support to municipalities.

4.4.5. Specialities of Community-Based Japanese LTC Services

Since 2006, Japan has advanced the Community-Based Integrated Care System as a cornerstone of LTC reform. Structured around the concept of a "30-minute walking zone,"

It integrates medical care, long-term care, preventive services, daily life support, and housing within each municipality, financed through the LTCI scheme and coordinated by local governments. Legislative revisions in 2012 and 2015 reinforced the system by unifying medical and daily living support, extending preventive care to older adults with mild disabilities, and strengthening municipal community support centers as gatekeepers of home care, prevention, and service coordination.[414] This framework embodies the principle of "self-help, mutual-help, and public support," aiming to sustain older adults in familiar environments while delaying functional decline and reducing reliance on institutional care.[415]

To ensure accountability and quality, the Community-Based Integrated Care System employs a PDCA (Plan–Do–Check–Act) cycle with the 5W2H method, enabling municipalities to assess needs, coordinate across communities, and adapt service provision through continuous feedback and outcome evaluation. Preventive interventions have been shown to improve health, extend healthy life expectancy, and reduce the fiscal burden on LTCI in the long run.[416] Since 2018, financial incentives have been introduced, linking municipal performance in LTC management to national subsidies, thereby institutionalizing evaluation and governance mechanisms.[417] Taken together, Japan's Community-Based Integrated Care System illustrates how community-based integration, preventive orientation, and strong local governance can serve as a model for sustainable eldercare systems.[418]

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[414] Zhou, Ru, and Xiao Zhang. "The Experience and Enlightenment of the Community-Based Long-Term Care in Japan." *Healthcare*, vol. 10, no. 9, 2022, p. 1599, https://doi.org/10.3390/healthcare10091599. Accessed 25 Aug. 2025.

[415] Morikawa, Mie. "Towards Community-based Integrated Care: Trends and Issues in Japan's Long-term Care Policy." *International Journal of Integrated Care*, vol. 14, 2014, p. e005, https://doi.org/10.5334/ijic.1066. Accessed 25 Aug. 2025.

[416] Nakanishi, M., Shimizu, S., Murai, T. *et al.* "Ageing in Place" Policy in Japan: Association Between the Development of an Integrated Community Care System and the Number of Nursing Home Placements Under the Public Long-Term Care Insurance Program Among Municipal Governments. *Ageing Int* 40, 248–261 (2015). https://doi.org/10.1007/s12126-014-9215-x

[417] Otaga, M., Yamaguchi, K., Moriyama, Y. and Kakinuma, T. (2024) 'Changes in Management Initiatives in the Long-Term Care Insurance System by Municipalities in Japan: Toward the Promotion of a Community-based Integrated Care System', *International Journal of Integrated Care*, 24(4), p. 33.

[418] Zhou, Y. R., & Zhang, X. (2022). The Experience and Enlightenment of the Community-Based Long-Term Care in Japan. *Healthcare (Basel, Switzerland)*, *10*(9), 1599. https://doi.org/10.3390/healthcare10091599

Apart from that, Compared with LTC services in other countries, Japan's LTCI system is distinguished by unique provisions such as the coexistence model and housing renovation services. Housing renovation is one of the services covered by the public long-term care insurance. Unlike conventional services, where professional caregivers mainly support clients with self-care and household tasks, housing renovation focuses on modifying the physical living environment of beneficiaries. Certified care recipients are entitled to choose from five predefined types of home modifications: installation of handrails, elimination of floor level differences, replacement of washbasins, upgrading of flooring materials, and replacement of doors.[419] A survey conducted in a Japanese city revealed that the most frequently chosen home modification was the installation of handrails (89.8% of users), followed by the elimination of floor level differences (44.1% of users). Reports further suggest that housing renovations can reduce the risk of functional decline among beneficiaries.[420,421] Research indicates that housing modifications may not only help reduce the risk of functional decline but also alleviate the burden on family caregivers. For instance, assisting with tasks such as paying monthly bills online can be regarded as a form of low-intensity and infrequent care, whereas providing support with daily activities of living (ADLs) is considered high-intensity and more frequent care.[422] From the perspective of the person–environment fit model, housing modifications can reduce the burdens imposed by the built environment and help mitigate the mismatch between an individual's physical capacities and environmental demands.[423] Moreover, professionally guided interventions in housing modifications can, to an appropriate extent, reduce the time required for both formal

[419] Tsuchiya-Ito, R., Iwarsson, S., & Slaug, B. (2019). Environmental Challenges in the Home for Ageing Societies: a Comparison of Sweden and Japan. *Journal of cross-cultural gerontology*, *34*(3), 265–289. https://doi.org/10.1007/s10823-019-09384-6

[420] Liu, S. Y., & Lapane, K. L. (2009). Residential Modifications and Decline in Physical Function Among Community-Dwelling Older Adults. *The Gerontologist*, *49*(3), 344-354. https://doi.org/10.1093/geront/gnp033

[421] Tsuchiya-Ito, R., Mitsutake, S., Kitamura, S., Taguchi, R., Takeuchi, Y., Hattori, S., & Hamada, S. (2024). Housing Adaptations and Long-Term Care Facility Admissions among Older Adults with Care Needs in Japan. *Journal of the American Medical Directors Association*, *25*(12), 105290. https://doi.org/10.1016/j.jamda.2024.105290

[422] Dillon, E. C., & Berg, K. M. (2023). Mortality rates among older female caregivers: Considering what counts and what matters. *Journal of the American Geriatrics Society*, *72*(1), 10-13. https://doi.org/10.1111/jgs.18693

[423] Lawton, M. P., & Nahemow, L. (1973). Ecology and the aging process. In C. Eisdorfer & M. P. Lawton (Eds.), *The psychology of adult development and aging* (pp. 619–674). American Psychological Association. https://doi.org/10.1037/10044-020

and informal caregiving. Such interventions not only alleviate the burden on family caregivers but may also prevent new long-term care institutional admissions, thereby indirectly reducing the overall healthcare costs borne by beneficiaries and insurance providers.[424]

In sum, Japan's community-based care system represents an advanced and evolving model of localised, integrated, and prevention-focused care delivery. Its design reflects both demographic imperatives and policy commitment to enabling older adults to live independently within supportive communities.

4.5. Current Problems Facing Japanese LTCI

Japan's LTCI, established in 2000 and subsequently revised through multiple reform cycles, represents a comprehensive institutional response to the country's unprecedented pace of population ageing. The system has gradually transformed from a welfare-oriented, institution-centred model into a universal, insurance-based and community-integrated structure.

4.5.1. Intensifying the Demographic Ageing Problem

By 2025, the number of elderly people aged 65 and over in Japan is expected to reach 36.53 million. The peak is projected to be in 2043, reaching 39.53 million. Additionally, the proportion of people aged 75 and over within the total population is expected to increase, surpassing 25% by 2060 (see Table 28).

Table 28: Number of Elderly People Aged 65 and Over

Year	Population Aged 65+ (Proportion)	Population Aged 75+ (Proportion)
2015	33.85 million (26.6%)	16.31 million (12.8%)
2020	36.03 million (28.6%)	18.60 million (14.7%)
2025	36.53 million (29.6%)	21.55 million (17.5%)
2030	36.96 million (30.8%)	22.61 million (18.8%)

[424] Tsuchiya-Ito, R., Mitsutake, S., Kitamura, S., Taguchi, R., Takeuchi, Y., Hattori, S., & Hamada, S. (2024). Housing Adaptations and Long-Term Care Facility Admissions among Older Adults with Care Needs in Japan. *Journal of the American Medical Directors Association*, *25*(12), 105290. https://doi.org/10.1016/j.jamda.2024.105290

2060	36.44 million (37.9%)	24.37 million (25.3%)

Source: 総務省統計局. (2023). *人口推計(2023 年(令和 5 年)10 月 1 日現在）-全国：年齢(各歳)，男女別人口·都道府県:年齢(5 歳階級)男女別人口* Statistics Bureau of Japan. (2023). *Population Estimates (As of October 1, 2023): National - Population by Age (Each Year) and Gender; Prefectures - Population by Age (5-Year Age Groups) and Gender*. https://www.stat.go.jp/data/jinsui/2023np/index.html

These trends coincide with an exceptionally low fertility rate (TFR≈1.26 in 2022[425]), implying a shrinking base of working-age adults supporting a growing dependent elderly population. Declining birth rates and smaller family sizes mean that traditional family caregiving networks are eroding. For example, about 20% of households in 2020 were one-elderly–person households,[426] and 50% of households had at least one resident aged 65+. Over one-fifth of Japanese women (22%) and men (15%) aged 65+ lived alone by 2020.[427] In sum, Japan's rapidly ageing society – with more frail elderly, more dementia and disability, and fewer adult children available to care which places immense strain on the LTCI system.

This demographic pressure is path dependent: the combination of low fertility, long life expectancy, and shrinking cohorts of caregivers creates a structural imbalance that no incremental reform can fully resolve. This demographic profile unlike Germany, where population ageing is advanced but still moderated by immigration inflows. Japan faces a rapidly shrinking total population and almost no demographic replenishment. The resulting high dependency ratio significantly increases demand for institutional and community-based care services while simultaneously reducing the pool of contributors to the insurance system. For China also doesn't have immigration policies, there is a core lesson of reception theory: importing a universal LTC entitlement without adequate demographic and fiscal preparation may generate unsustainable obligations.

[425] Jones, R. (2024), "Addressing demographic headwinds in Japan: A long-term perspective", *OECD Economics Department Working Papers*, No. 1792, OECD Publishing, Paris, https://doi.org/10.1787/96648955-en.

[426] "Statistical Handbook of Japan 2024" by Statistics Bureau, Japan

[427] Kenji Kushida. (2024, October 3). *Japan's aging society as a technological opportunity: Japan's extreme demographics are shaping the country's innovation trajectory*. Carnegie Endowment for International Peace. https://carnegieendowment.org/research/2024/10/japans-aging-society-as-a-technological-opportunity?lang=en

4.5.2. Fiscal Sustainability and Rising Expenditures

The greatest challenge is fiscal sustainability. Health and LTC expenditures compose 10.9% of the GDP, the sixth highest among OECD countries.[428] The number of elders 65 and over has been increasing while the working-age population has been decreasing. These trends will not change. Total LTCI expenditures have surged exponentially: benefits paid under LTCI rose from about ¥3.6 trillion in 2000 to ¥11.7 trillion by 2019, and official projections exceed ¥15 trillion by 2025.[429] Correspondingly, per-capita premiums have climbed steeply (from ~¥2,911 per month in 2000 to over ¥6,000 by 2020). Half of LTCI funding comes from premiums paid by the population aged 40+; the other half from taxes at national, prefectural and municipal levels. As costs escalate with more users, municipalities have repeatedly raised premiums and copayments to maintain solvency. (see Table 29) Nevertheless, the system is becoming increasingly unsustainable owing to the ageing population and an increased number of people requiring care and support.[430] In practical terms, this means that LTCI contributions and government subsidies must grow at rates unlikely to be affordable in the long term.

Table 29: The Trends in Category 1 & Category 2 Insured Premiums

Period	Year	Category 1 Insured Monthly Premium (65+) (National Weighted Avg.)	Category 2 Insured (Aged 40-64) Monthly Premium (Incl. Employer & Public Share)
1st Period	2000	¥2,911	¥2,075
	2001		¥2,647
	2002		¥3,008
2nd Period	2003	¥3,293	¥3,196
	2004		¥3,474
	2005		¥3,618
3rd Period	2006	¥4,090	¥3,595
	2007		¥3,777
	2008		¥3,944
4th Period	2009	¥4,160	¥4,093

[428] OECD (2019), *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/4dd50c09-en.
[429] Yamada, Minoru, and Hidenori Arai. "Long-Term Care System in Japan." *Annals of Geriatric Medicine and Research*, vol. 24, no. 3, 2020, p. 174, https://doi.org/10.4235/agmr.20.0037 . Accessed 26 Aug. 2025.
[430] Yamada, Minoru, and Hidenori Arai. "Long-Term Care System in Japan." *Annals of Geriatric Medicine and Research*, vol. 24, no. 3, 2020, p. 174, https://doi.org/10.4235/agmr.20.0037 . Accessed 26 Aug. 2025.

	2010		¥4,289
	2011		¥4,463
5th Period	2012	¥4,972	¥4,622
	2013		¥4,871
	2014		¥5,125
6th Period	2015	¥5,514	¥5,081
	2016		**Until September:** ¥5,192 **From October:** ¥5,190
	2017		¥5,397
7th Period	2018	¥5,869	¥5,353
	2019		¥5,532
	2020		¥5,669
8th Period	2021	¥6,014	¥5,788
	2022		¥5,825
	2023		**Estimate:** ¥6,216
9th Period	2024	¥6,225	**Estimate:** ¥6,276

Note：

1. The secondary insured person's monthly premium figures up to 2022 represent confirmed amounts.
2. For 2023 and 2024, the figures represent estimated average payment amounts per person after excluding previous years' adjustment portions.

Reource: *厚生労働省*. (2024). *介護保険制度をめぐる状況について: 社会保障審議会 介護保険部会（第 116 回）*. Ministry of Health, Labour and Welfare. (2024). *Current Situation of the Long-Term Care Insurance System: Social Security Council, Long-Term Care Insurance Subcommittee (116th Meeting)*. https://www.mhlw.go.jp/content/12300000/001364995.pdf

Unlike Germany, Japan's municipality-based financing creates greater vulnerability to regional disparities. Wealthier municipalities can sustain more generous LTC provision, while rural and depopulating areas face increasing fiscal strain despite having higher concentrations of elderly residents. That's the one of reason why the Japanese government frequently revises co-payment rules and tightens eligibility thresholds. However, these incremental adjustments have not resolved the underlying imbalance between demand growth and financial capacity. The Japanese experience illustrates how, in highly aged societies, for China (the LTCI funding currently also rely on the local government's fical health.), these experiences demonstrate that LTCI financing is a structural fiscal challenge, a mature LTCI system requires stable long-term revenue, not ad hoc local financing or medical-insurance fund diversion.

4.5.3. Workforce Shortages and Employment Issues

One major challenge facing Japan's LTC system is the shortage of formal or paid care workers, who are essential in supporting older adults with care needs. According to the projections of the 9th Long-term Care Insurance Business Plan, Japan employed about 2.15 million care workers in 2022. However, by 2026, the country is expected to face a shortfall of approximately 250,000 workers, necessitating an annual increase of around 63,000.[431] This shortage is exacerbated by low wages combined with the physically and mentally demanding nature of care work. The data from the Table 30 reveal significant disparities in compensation and employment stability for LTC workers in Japan compared to the overall industry average. While the industry-wide average annual compensation stands at 4.22 million yen, LTC workers receive considerably less, averaging only 3.00 million yen. Moreover, LTC personnel tend to have shorter years of service, reflecting either limited career stability or high turnover. Even within the LTC sector, wage gaps persist across occupations: physicians and nurses receive considerably higher salaries than care workers, who form the bulk of the workforce.

Table 30: Wage Status[432] of the Japanese Long-Term Care Personnel

By Industry/Occupation	Average Age (Years)	Years of Service (Years)	Total Compensation Including Bonuses (10,000 yen)
By Industry			
Industry Average	42.8	10.5	369 (3.69 million yen)
By Occupation			
Physicians	41.6	5.9	1,026 (10.26 million yen)
Nurses	40.5	8.5	407 (4.07 million yen)
Associate Nurses	51.2	12.2	335 (3.35 million yen)
Physical Therapists, Occupational Therapists, Speech-Language-Hearing Therapists, Visual Function Trainers	34.6	6.6	346 (3.46 million yen)
Care Managers	52.6	9.8	334 (3.34 million yen)
Care Workers *(Average of C & D)*	44.6	7.7	300 (3.00 million yen)
Visiting Care Workers (C)	48.6	7.2	307 (3.07 million yen)
Care Workers (Medical/Welfare Facilities) (D)	44.3	7.7	300 (3.00 million yen)

Notes:

[431] Ministry of Health, Labour and Welfare. (2024, July 12). *Estimated number of long-term care workers required under the 9th Long-Term Care Insurance Plan* [第９期介護保険事業計画に基づく介護職員の必要数について]. Ministry of Health, Labour and Welfare. Retrieved July 14, 2025, from https://www.mhlw.go.jp/stf/newpage_41379.html

[432] **General Workers, Total for Men and Women**

1. General workers include workers other than short-time workers. Short-time workers are defined as those with shorter daily working hours than general workers or fewer working days per week.
2. "Total compensation including bonuses" refers to the amount calculated by adding one-twelfth of the annual bonus (including special allowances such as retirement bonuses) to the monthly wages of workers who have worked continuously for at least one year.
3. “Care Workers (Medical/Welfare Facilities)” refers to those engaged in work such as bathing, toileting, meal assistance in hospitals and welfare facilities (excluding cleaning and laundry work).
4. By industry, only establishments with 10 or more employees are surveyed. Industry average does not include managers. Industry average figures: Average Age = 43.9 years, Years of Service = 12.4 years, Total Compensation = 422 (4.22 million yen).

Source: Created by the Ministry of Health, Labour and Welfare based on the 2023 “Basic Statistical Survey on Wage Structure” and the “Survey on Employment of the Elderly.”

Employment patterns (see Table 31) further underscore the precarious nature of LTC work, particularly in home-based care. Facility-based care workers are more likely to hold regular employment contracts (60.2%), whereas the majority of home-visit care workers (70.0%) are employed on non-regular terms, such as contract or part-time arrangements. This reliance on non-regular employment suggests that the sector is compensating for labor shortages through flexible but unstable contracts, which may exacerbate workforce insecurity. The lack of stable employment pathways reduces job attractiveness, reinforcing recruitment difficulties and contributing to the persistent shortage of care professionals.

Table 31 Employment Type of LTC Workers

	Regular Employees	**Non-Regular Employees**
Facility-Based Care Workers	60.2%	39.8%
Home-Visit Care Workers	30.0%	70.0%

Note:

1. Regular employees: Workers with no fixed employment term.
2. Non-regular employees: Includes contract, temporary, and part-time workers.
3. Facility-based care workers: Those working at facilities designated as providers.
4. Home-visit care workers: Those working at home-visit service offices.

Source: Based on 2018 Employment Status Survey of Care Workers (Care Work Foundation), aggregated by the Social Welfare Human Resources Countermeasure Office, Welfare and Medical Service Agency.

The demographic composition of LTC workers adds another layer of concern. A large proportion of facility-based care workers are concentrated in the 30–59 age group, while home-visit care workers tend to be older, with many aged 40–59 or above. Additionally, women dominate both facility-based (72.4%) and home-visit (83.0%) care roles, with female

workers over 40 forming the majority. This age and gender distribution raises sustainability concerns, as the sector depends heavily on middle-aged and older female labor, a group that may face increasing health constraints and eventual retirement. Without systematic efforts to attract younger workers and provide more stable, better-compensated employment, Japan's LTC system will face mounting difficulties in meeting the demands of its rapidly aging society (see Table 32).

Table 32 Age Composition of LTC Workers (by Gender and Occupation)

	Under 20	**20–29**	**30–39**	**40–49**	**50–59**	**60–64**	**65–69**	**70+**
Facility-Based Care Workers	0.2%	8.7%	20.3%	28.2%	25.0%	8.9%	5.2%	2.5%
- Male (27.2%)	0.2%	11.8%	22.9%	32.6%	16.5%	4.8%	3.0%	1.3%
- Female (72.4%)	0.2%	7.5%	19.6%	26.7%	28.3%	10.5%	6.9%	2.9%
Home-Visit Care Workers	0.2%	5.3%	11.4%	25.2%	28.4%	13.1%	6.9%	5.7%
- Male (16.6%)	0.2%	7.1%	15.9%	32.4%	17.1%	5.9%	3.2%	1.3%
- Female (83.0%)	0.2%	4.8%	10.6%	24.4%	30.8%	14.5%	7.6%	6.3%

Note:Percentages may not add up to 100% due to non-responses.

Source: Based on the 2023 Survey on Employment of Long-Term Care Workers (Care Work Foundation), aggregated by the Social Welfare Human Resources Countermeasure Office, Welfare and Medical Service Agency.

Immigration-based solutions of EPA caregiver programmes have partially alleviated shortages but the deep-seated cultural norms surrounding language, care expectations, and professional identity restrict the willingness of foreign workers to remain long-term. For China, the key lesson is to act pre-emptively: to professionalize, stabilize, and expand the care workforce before demographic pressures peak. Without such early intervention, China risks replicating the core structural vulnerabilities.

4.5.4. Household Changes and Reliance on Informal Caregivers

Japan's LTC system still relies heavily on unpaid family care, even as social change undermines that resource. Historically, wives and daughters were the main caregivers for frail elders. However, the traditional extended-family model has eroded.[433] Married

[433] Barczyk, D., & Kredler, M. (2018). Evaluating Long-Term-Care Policy Options, Taking the Family

daughters are fewer (as childlessness and later marriage rise), and women's labour force participation has climbed (over 53% of women worked in 2021, up from 45.7% in 1975), reducing available family carers. The OECD notes that *"ageing-driven LTC demand is further intensified by the declining supply of informal or family caregivers"* due to smaller households, greater geographic dispersion of relatives, and more women in paid jobs.[434] Indeed, rising numbers of older people live alone or as older couples without younger caregivers.[435]

According to the 2024 report of the Japanese MHLW [436] Among service users, approximately 84% utilize home-based and community-based services, while about 16% use facility-based services. (See Figure 8) This distribution reflects the strong policy emphasis on "aging in place," which encourages older adults to remain within their homes or communities as long as possible. Such reliance on home-based care is also linked to demographic and household changes in Japan, where smaller family structures and declining co-residency rates have placed greater responsibility on informal caregivers, often spouses or adult children.

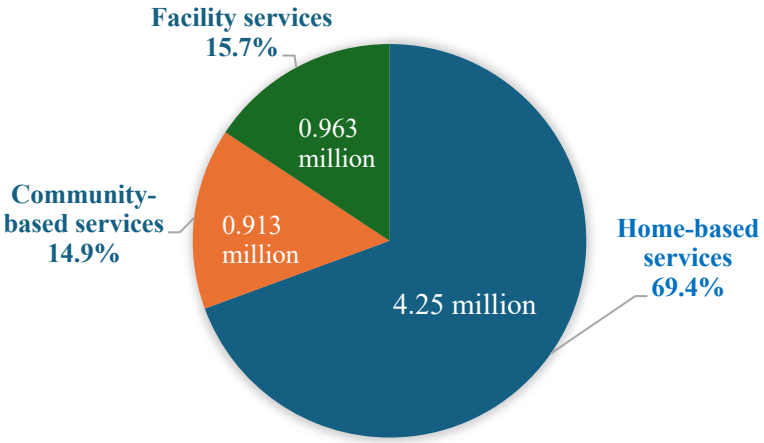
Seriously. *The Review of Economic Studies*, *85*(2), 766-809. https://doi.org/10.1093/restud/rdx036

[434] OECD (2024), *Is Care Affordable for Older People?*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/450ea778-en.

[435] source: "Statistical Handbook of Japan 2024" by Statistics Bureau, Japan

[436] *厚生労働省*. (2024). *介護保険事業状況報告（暫定）令和6年3月分*. Ministry of Health, Labour and Welfare. (2024). *Long-Term Care Insurance Business Status Report (Provisional), March 2024*.https://www.mhlw.go.jp/topics/kaigo/osirase/jigyo/m24/2403.html

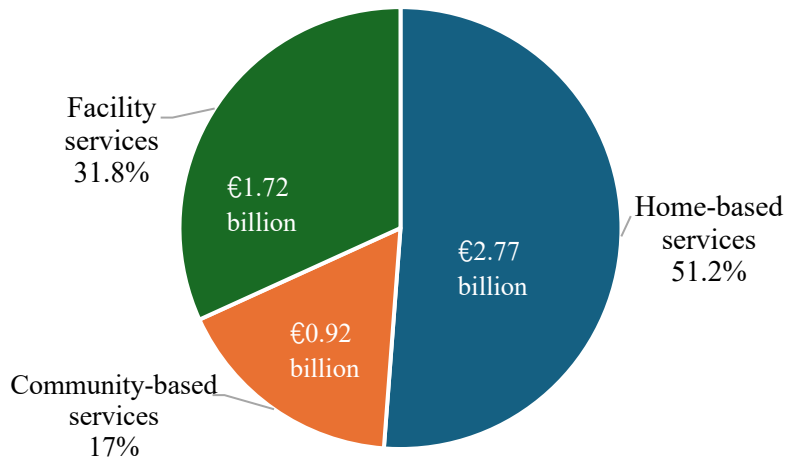
Figure 8: Distribution of LTC Service Users by Setting (2024)



Source: Based on the 厚生労働省. (2024). *介護保険事業状況報告（暫定）令和6年3月分*. Ministry of Health, Labour and Welfare. (2024). *Long-Term Care Insurance Business Status Report (Provisional), March 2024*.https://www.mhlw.go.jp/topics/kaigo/osirase/jigyo/m24/2403.html

However, in terms of benefit expenditures, home-based and community-based services account for around 68%, whereas facility-based services make up about 32%. (See Figure 9) This indicates that institutional care, although serving a smaller population, requires disproportionately higher financial resources per individual. By contrast, home- and community-based care, which accommodates the majority of users, appears to operate under tighter cost constraints. The resulting expenditure patterns suggest that much of the burden in home care is absorbed by unpaid informal caregivers, whose contributions are not captured in official financial statistics.

Figure 9 Expenditure Distribution across LTC Services (2024)



Note: Exchange rate used: ¥1 = €0.00625 (1:160).
Source: Based on the 厚生労働省. (2024). *介護保険事業状況報告（暫定）令和6年3月分*. Ministry of Health, Labour and Welfare. (2024). *Long-Term Care Insurance Business Status Report (Provisional), March 2024*.https://www.mhlw.go.jp/topics/kaigo/osirase/jigyo/m24/2403.html

Currently, China, Japan, and Germany all rely heavily on family caregiving. However, in contrast to Germany's relatively comprehensive welfare provisions for informal caregivers, Japan offers limited direct financial support to such individuals, with its long-term care insurance benefits being provided mainly in the form of services. As a result, Japan's in-home care policies depend heavily on unpaid family labor, while demographic shifts are progressively undermining families' capacity to provide such care. For China, the experiences of both countries suggest that an overreliance on unpaid family care will become increasingly unsustainable amid accelerating demographic and social transitions. Accordingly, in developing its long-term care system, China must strike a balance between leveraging its tradition of family caregiving and avoiding excessive institutional dependence on unpaid labor. This entails providing adequate economic and social security for informal caregivers and expanding community-based support to mitigate the hidden costs borne by families.

4.6 Conclusion

The Japanese LTCI system embodies a fundamental legal and policy transformation, reframing eldercare from a familial obligation into a matter of social solidarity and a legally guaranteed social right. This shift, institutionalized through the LTCI Act, established a universal system characterized by mixed financing and an emphasis on community-based care, demonstrating a capacity for adaptive governance in the face of demographic aging.

Nevertheless, the system's operation is defined by a core structural tension. Its foundational goal was the socialization of care, yet its functionality still implicitly relies on a shrinking pool of informal caregivers, predominantly women, whose unpaid labor remains a critical but officially unaccounted-for pillar of support. This inherent paradox, compounded by persistent workforce shortages and fiscal pressures, has led to a growing misalignment between policy ambitions and institutional capacity. Subsequent reforms focusing on benefit recalibration and technological efficiency have thus far failed to resolve this systemic dependency. This predicament becomes particularly evident when contrasted with the German model, which offers greater stability through more institutionalized support for informal caregivers, including more substantial cash benefits and better integration of care work into the formal labour market.

From a jurisprudential perspective, Japan's experience offers a multifaceted lesson. It provides a model for legally anchoring the right to care while simultaneously warning of the pitfalls of over-relying on informal, unpaid labor. As China develops its own LTC system, it must strategically leverage its family care traditions while proactively building a robust support infrastructure for informal caregivers and a professionalized formal care workforce. Learning from Japan's structural challenges is crucial for China to avoid similar predicaments and build a more resilient and equitable care system from the outset.

Chapter V. Comparative Analysis of LTCI Systems: Germany, Japan, and China

5.1 Introduction

The LTCI systems of Germany, Japan, and China provide a unique opportunity for comparative study, as these countries represent different stages of demographic transition, economic development, and institutional design. Germany represents a mature European social security model with a long history of social insurance, Japan embodies an East Asian social security regime characterized by familialism and social solidarity, while China offers a developing social security state in transition, experimenting with mixed financing and governance approaches. A systematic comparison of their LTCI systems thus not only highlights cross-national differences but also illuminates common challenges in responding to population aging, ensuring financial sustainability, and balancing family, market, and state responsibilities.

This chapter conducts a comparative analysis along several dimensions: the demographic and cultural context, the level of economic development and financial sustainability, the labor market and care workforce supply, the legal protections for caregivers, and the legislative foundations of LTCI system design. Through this multidimensional comparison, the chapter seeks to identify both structural divergences and potential policy lessons that could inform future LTCI reforms, particularly in China.

5.2. Rationale for Selecting China, Germany, and Japan for Comparative Analysis

The selection of China, Germany, and Japan as objects of comparative analysis rests on both historical and practical foundations. First, Germany, as the birthplace of the modern social security system, enacted SGBXI in 1994, thereby becoming the first country to establish a compulsory and universal LTCI scheme through legislation. This institutional innovation not only effectively alleviated the pressures of population ageing and LTC in Germany but also served as a model for other countries, including Japan.

Second, Germany's social policy system has exerted profound influence on the development of China's social security since the Republican era. During the early stages of industrialization in the early 20th century, Chinese scholars and social and labour officials of the Nanjing Government attached great importance to Germany's pioneering role in social

insurance, translating and commenting on German works to draw insights.[437,438] The earliest draft of China's labour insurance legislation—the Labour Law Draft of 1929—was strongly shaped by German social insurance law.[439] At that time, divergent paths emerged: the Nationalist Government adopted a German-oriented model, while the Communist Party favored the Soviet model. This ideological and institutional divergence persisted throughout the Cold War period.[440]

Following the reforms initiated in 1978, China gradually shifted from a planned economy to a market economy, drawing extensively on Western social insurance experiences. Among these, the German Bismarckian model, disseminated through international organizations such as the ILO, provided a critical intellectual and institutional resource. Terms such as "Germany," "the German social protection model," and "the Bismarckian model of social insurance" frequently appeared in the official discourse of China's Ministry of Labour (later the Ministry of Human Resources and Social Security), reflecting this orientation.[441] Since the late 1990s, the European Union has acted as a key supranational actor in fostering Sino-European cooperation on social protection. Within the frameworks of the EU–China Social Security Reform Cooperation Project (EUCSS) and the EU–China Social Protection Reform Project (SPRP), numerous German experts were invited to advise the Chinese government. Bilateral cooperation treaties further facilitated the institutional transfer of German models, such as the introduction of the statutory accident insurance system into China in 2004. Academic and policy exchanges, including lectures by German scholars in China and study visits of Chinese officials and academics to Germany, also deepened mutual learning. [442]

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[437] Li, Q. (2014). The Study on Theory and Practice of Social Insurance During the Period of the Republic of China.

[438] Hu, A. (2016). Social insurance ideas in the People's Republic of China: A historical and transnational analysis. *Transnational Social Review*, *6*(3), 297–312. https://doi.org/10.1080/21931674.2016.1222764

[439] Liu, T., & Tian, T. (2022). Relations between Germany and China and the rise of the social insurance state in China since the economic reform of 1978. In F. Nullmeier, D. González de Reufels, & H. Obinger (Eds.), *International impacts on social policy. Global dynamics of social policy* .Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_33

[440] HU, A. (2012). The Global Spread of Neoliberalism and China's Pension Reform since 1978. *Journal of World History*, *23*(3), 609–638. http://www.jstor.org/stable/23320189

[441] Hu, A. (2016). Social insurance ideas in the People's Republic of China: A historical and transnational analysis. *Transnational Social Review*, *6*(3), 297–312. https://doi.org/10.1080/21931674.2016.1222764

[442] Liu, T., & Tian, T. (2022). Relations between Germany and China and the rise of the social insurance state

In sum, Germany's social protection system has had far-reaching influence on China. As the first country to legislate a nationwide LTCI scheme, Germany adopted a social insurance–based financing model that closely resembles the arrangements currently pilot programs in Chinese cities.[443] The German LTCI system has garnered strong political and public support, provided essential care benefits to an expanding population, established a clear and consistent benefit structure, and fostered a vibrant provider market. Although challenges remain (see Chapter 3), both the achievements and limitations of the German model constitute a valuable reference for the ongoing development and refinement of China's long-term care insurance system.[444]

As discussed in Chapter 4, Japan was the first country in Asia to establish a public long-term care insurance system, with its institutional design largely informed by the German experience. Although descriptive statistics reveal notable differences between Germany and Japan in terms of long-term care utilization,[445] the two systems nevertheless display significant institutional similarities as foundational components of their respective eldercare policies.[446]

Moreover, China and Japan share strong cultural affinities, particularly in their Confucian heritage, which emphasizes filial piety, collectivism, and the continuity of ritual traditions. These cultural commonalities provide both countries with a similar socio-psychological foundation and family-oriented perspective when addressing the challenges of population

in China since the economic reform of 1978. In F. Nullmeier, D. González de Reufels, & H. Obinger (Eds.), *International impacts on social policy. Global dynamics of social policy* .Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_33

[443] 纪文芳. (2020). 德国长护险筹资机制探析及对我国的启示. *上海保险,* (03), 47-50.Ji, Wenfang. (2020). Analysis of the Financing Mechanism of Long-Term Care Insurance in Germany and its Enlightenment to China. *Shanghai Insurance,* (03), 47-50.

[444] 苏健.(2020).德国长期护理保险改革的成效及启示——以三部《护理加强法》为主线.*社会政策研究* (04),39-49.doi:10.19506/j.cnki.cn10-1428/d.2020.04.005.Su Jian.(2020) The Effectiveness and Enlightenment of Germany's Long-term Care Insurance Reform: Taking the Three "Nursing Enhancement Laws" as the Main Theme *Social Policy Research*(04),39-49.doi:10.19506/j.cnki.cn10-1428/d.2020.04.005

[445] Wende, D., Karmann, A. & Sugawara, S. (2024). Does the Design of Welfare Programs Stipulate Nursing Home Utilization? A Comparative Analysis of Long-Term Care Systems in Japan and Germany. *Review of Economics*, *75*(1), 43-61. https://doi.org/10.1515/roe-2024-0011

[446] Tamiya, N., Noguchi, H., Nishi, A., Reich, M. R., Ikegami, N., Hashimoto, H., Shibuya, K., Kawachi, I., & Campbell, J. C. (2011). Population ageing and wellbeing: Lessons from Japan's long-term care insurance policy. *The Lancet*, *378*(9797), 1183-1192. https://doi.org/10.1016/S0140-6736(11)61176-8

ageing. This is evident in the allocation of caregiving responsibilities, the management of intergenerational relations, and the construction of social support systems.[447] While China and Japan are currently at different stages of demographic ageing (see Table 33), their shared cultural values offer a solid socio-cultural basis for China to draw upon and localize the Japanese LTCI model.

Apart from that, Japan has been developing robots for elderly care for over two decades, with both public and private investment accelerating significantly since the 2010s.[448] These care robots generally fall into three main categories: monitoring robots, assistive technology robots, and companion (or social) robots. In China, the advancement of digital and robotic care is drawing increasing attention, especially as the country faces an ageing population and a shrinking workforce. This trend is further supported by the 14th Five-Year National Science and Technology Innovation Plan.[449]

5.3. Comparative Analysis of the Social and Institutional Contexts in China, Japan, and Germany

5.3.1. Demographic Structure and the Pace of Population Ageing

The concept of an "ageing society" was first formally introduced by the United Nations in its 1956 report *The Ageing of Populations and Its Economic and Social Implications*. According to this classification, a society is considered ageing when the population aged 65 and over exceeds 7% of the total. When this proportion reaches 14%, it is defined as an "aged society," and when it surpasses 21%, the society enters the stage of "super-aged." This

[447] 李屿. 中日礼貌语言与其文化价值观比较研究[D]. 重庆:重庆师范大学,2015. Li, Y. (2015). *A comparative study of politeness in Chinese and Japanese language and its cultural values* (Master's thesis, Chongqing Normal University, Chongqing, China).

[448] Wagner, K. (2023, January 9). *Inside Japan's long experiment in automating elder care*. MIT Technology Review. https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/

[449] In the 14th Five-Year National Science and Technology Innovation Plan, China explicitly proposes accelerating the development of intelligent robotics, with a focus on their application in key areas such as healthcare, rehabilitation, and elderly care, in order to enhance health service capacity, address the challenges of an aging population, and promote the industrialization and widespread adoption of smart health technologies.

tripartite framework has since become a widely accepted standard in demographic and social policy research[450]

Table 33: Progression of Population Ageing in Germany, Japan and China

Category	Germany	Japan	China
Entry into Aging Society (7%)	1950	1970	2000
Developing period	25	25	18
Entry into Aged Society (14%)	1975	1995	2018
Developing period	35	15	20
Entry into Super-Aged Society (21%)	2010	2010	Projected around 2035
Year of LTCI implementation	1995	2000	2016 (Pilot programs initiated in 15 cities)
Ageing rate at the time of LTCI adoption	18.7%	17.2%	8.87%

Source: Compiled by the author based on data from OECD, UN Population Division, and national statistical offices.

Although China has not yet reached the same level of population ageing as Germany and Japan, its ageing process is accelerating significantly. Germany used approximately 60 years transition from an "ageing society" to a "super-aged society," while Japan completed this transition in about 40 years. By contrast, China is projected to accomplish the same demographic shift in only 38 years (see Table 33). According to the 2024 Revision of the World Population Prospects,[451] as of 2023, the proportion of the population aged 65 and above was 29.1% in Japan—the highest in the world—22.0% in Germany, and 14.9% in China. Despite China's comparatively lower proportion, the speed of its demographic ageing is the fastest among the three countries (see Table 34 and Figure 10).

Table 34 Comparison of the Basic Data among China, Germany and Japan

Category	China	German	Japan
Total population	About 1,411 million (2023)	About 83.28 million (2023)	About 124.5 million (2023)
% of population aged 65 and over	15.4%（2023）	22.0%（2023）	29.1%（2023）
% of population aged 80 and over	2.8%（2023）	7.2%（2024）	10.4%（2024）
Ageing rate	Rapid Rise	Stably growing	Already highly aged and stable

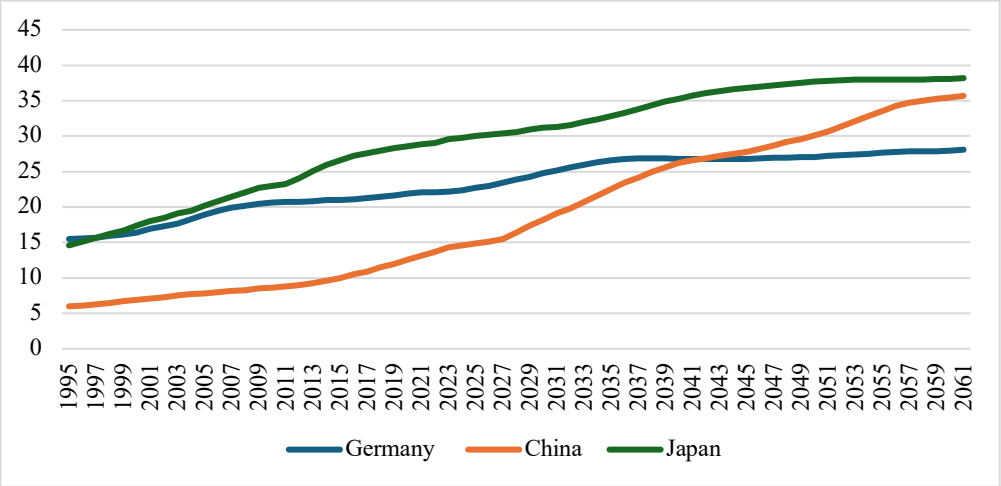
[450] United Nations, Department of Economic and Social Affairs. (1956). *The aging of populations and its economic and social implications* (Population Studies No. 26, ST/SOA/Ser.A/26). United Nations.
[451] United Nations, Department of Economic and Social Affairs, Population Division (2024).*World Population Prospects 2024, Online Edition*.

Total fertility rate	1.02（2023）	1.35（2023）	1.20（2023）

Source：Compiled by the author based on data from the National Bureau of Statistics of China, the Statistics Bureau of Japan, the Ministry of Health, Labour and Welfare of Japan, the Federal Statistical Office of Germany (Statistisches Bundesamt), and the 2024 Revision of the World Population Prospects (United Nations).

Significant differences exist among the three countries in terms of the level, pace, and underlying causes of population ageing. In Japan, ageing is primarily driven by decades of persistently low fertility rates combined with the world's highest life expectancy (currently exceeding 84 years)[452]. In Germany, fertility rates have remained below the replacement level since the 1970s, though large-scale immigration has partially mitigated demographic pressures.[453] In China, population ageing began later, but the combined effects of long-standing family planning policies and steadily increasing life expectancy (currently around 78.2 years) [454] have accelerated the ageing process significantly over the past decade. Given China's vast population base, the social and economic implications of its demographic ageing are expected to be even more profound.

Figure 10: Population projections of the elderly (65 years or over) percentage of the total population in Germany, China and Japan.



Data resource: OECD Data Explorer https://data-explorer.oecd.org/

[452] World Bank. (2022). *Life expectancy at birth, total (years)* – China, Japan, Germany. Retrieved from https://data.worldbank.org/indicator/SP.DYN.LE00.IN

[453] OECD (2023), *Health at a Glance 2023: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/7a7afb35-en.

[454] World Bank. (2022). *Life expectancy at birth, total (years)* – China, Japan, Germany. Retrieved from https://data.worldbank.org/indicator/SP.DYN.LE00.IN

Between 2027 and 2040, the proportion of China's population aged 65 and above is expected to rise sharply, surpassing Germany around 2042 and approaching Japan's level by approximately 2060. In contrast, Germany's ageing trend is projected to stabilize around 2040, while the proportion of elderly in China and Japan will continue to increase. Against the backdrop of constrained fiscal resources and growing demand for LTC services, the LTCI systems of all three countries face significant challenges and must undergo ongoing reforms and adjustments. Germany may further increase contribution rates and potentially accelerate reform measures. However, prior to the stabilization of its elderly population around 2040, the sustainability of the existing system remains highly uncertain, and its capacity to accommodate new demographic structures beyond 2040 is yet to be determined (see Figure 10).

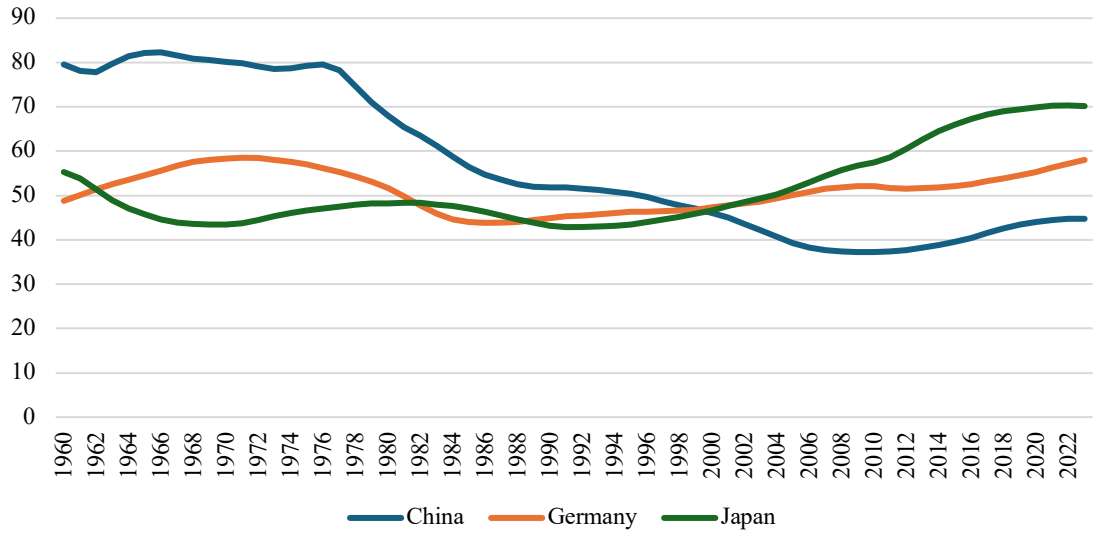
According to the WB the Age dependency ratio is "*the ratio of dependents--people younger than 15 or older than 64--to the working-age population--those ages 15-64."*[455] An increasing dependency ratio implies that each worker must shoulder a greater caregiving burden, thereby exerting direct pressure on the social security system. When Germany formally introduced its long-term care insurance (Pflegeversicherung) in 1995, its dependency ratio was 46.3%; Japan established its corresponding system in 2000 with a dependency ratio of 46.67%. By 2023, Japan's dependency ratio had exceeded 70%, ranking among the highest globally, which has provided the context for policies such as the recruitment of foreign caregivers, delayed retirement, and the promotion of re-employment among women and the elderly. (see Figure 11)

In China, the LTCI pilot program was launched in 2016 when the dependency ratio had already exceeded 40%, rising to 47.3% by 2023—nearly reaching the levels observed in Japan and Germany at the time of their respective system implementations (see Figure 11). Given that LTCI has not yet been implemented nationwide in China, the pressure on the social security system is particularly severe. Projections indicate that by 2050, China's total

[455] World Bank. (2025). *Age dependency ratio (% of working-age population)* [Data set]. World Bank Open Data. https://data.worldbank.org/indicator/SP.POP.DPND

dependency ratio will reach 71%, with the elderly dependency ratio at 51%[456]; during the same period, Germany is expected to reach 51%[457], while Japan may reach as high as 80%.[458] This trend suggests that, given the relative lag in institutional development, the demographic impact of ageing in China could potentially exceed that experienced by Japan and Germany.

Figure 11 Copariation of the Age Dependency Ratio among China, Germany and Japan



Note: *Data are shown as the proportion of dependents per 100 working-age population.*
Source: Based on age distributions of United Nations Population Division's World Population Prospects: 2024 Revision.

5.3.2. Comparison of Family Structures and the Culture of Care

In China and Japan, filial piety – the cultural expectation that children, especially sons, will dutifully care for their parents – has long dominated family care. Both societies teach that children should look after elders at home and avoid institutionalising them.[459, 460]

[456] Fan Zhai and Jae Young Lee (2024). *Demography presents both challenges and opportunities*, China Daily https://www.chinadaily.com.cn/a/202404/11/WS66174eb7a31082fc043c164a.html
[457] European Pensions(2025), *Germany's old-age dependency ratio set to increase to 51 per cent by 2050*, https://www.europeanpensions.net/ep/Germanys-old-age-dependency-ratio-set-to-increase-to-51-per-cent-by-2050.php
[458] World Economic Forum(2019), *Japan faces serious demographic challenges in the coming decades*-here's how it can cope, https://www.weforum.org/agenda/2019/06/japan-faces-serious-demographic-challenges-in-the-coming-decades-here-s-how-it-can-cope
[459] Zhang, L., Zeng, Y., Wang, L., & Fang, Y. (2020). Urban–Rural Differences in Long-Term Care Service Status and Needs Among Home-Based Elderly People in China. *International Journal of Environmental Research and Public Health*, *17*(5), 1701. https://doi.org/10.3390/ijerph17051701
[460] Fukuda, S., Lal, S., Katauke, T., Rahim Khan, M. S., & Kadoya, Y. (2022). Impact of Changing

Historically, female kin (wives, daughters-in-law, and daughters) were expected to take care of responsibilities. In traditional China, the eldest son's wife (the daughter-in-law) was typically the primary caregiver for her in-laws, and daughters often left their own parents upon marriage.[461] Chinese government also emphasises home-based elder care and outlines the responsibilities of family members through The Law of the People's Republic of China on the Protection of the Rights and Interests of Older People. It requires adult children—and their spouses—to respect, support, and care for elderly parents, including providing financial aid, housing, medical care, daily assistance, and emotional support.[462] In Japan, the eldest son and his wife bore a similar burden (the *ie*[463] or family household system).[464] By contrast, Germany has no equivalent of filial piety. There is a general norm of family solidarity, reinforced by law: adult children have a legal duty (*Elternunterhalt*) to support indigent parents, though in practice the state's universal long-term care insurance carries most of the load. Gender roles in Germany followed a similar pattern: women (wives and daughters) typically provide more care than men, despite rising female workforce participation.[465]

All three societies face forces that weaken traditional caregiving norms. Urbanisation and modernisation pull young people away from home: in China, millions of rural residents have moved to cities (though many cannot transfer their "hukou" registry) [466], often leaving elderly parents at home.[467] Economic reform has fostered more independent, nuclear

Socioeconomic Conditions on Family Caregiving Norms: Evidence from Japan. *Behavioral Sciences*, *12*(12), 471. https://doi.org/10.3390/bs12120471

[461] Cooney, R. S., & Di, J. (1999). Primary Family Caregivers of Impaired Elderly in Shanghai, China. *Research on Aging*. https://doi.org/10.1177/0164027599216002

[462] National People's Congress of the People's Republic of China. (2021, October 29). *Law of the People's Republic of China on the Protection of the Rights and Interests of the Elderly*. Retrieved May 21, 2025, from https://www.gov.cn/guoqing/2021-10/29/content_5647622.htm

[463] *Ie* (家) is a Japanese term which translates directly to household. It can mean either a physical home or refer to a family's lineage.

[464] Fukuda, S., Lal, S., Katauke, T., Rahim Khan, M. S., & Kadoya, Y. (2022). Impact of Changing Socioeconomic Conditions on Family Caregiving Norms: Evidence from Japan. *Behavioral Sciences*, *12*(12), 471. https://doi.org/10.3390/bs12120471

[465] Kohli, M., Künemund, H., Motel, A., & Szydlik, M. (2002). Families apart? Intergenerational transfers in east and west Germany. In *The myth of generational conflict* (pp. 88-99). Routledge.

[466] Zhu, J., & Li, Z. (2016). Hukou system reform, individuals flows and regional disparities: Based on the intertemporal model of heterogeneous individuals flows. *The Quarterly Journal of Economics*, *2*, 797-816.

[467] Zhang, L., Zeng, Y., Wang, L., & Fang, Y. (2020). Urban–Rural Differences in Long-Term Care Service Status and Needs Among Home-Based Elderly People in China. *International Journal of Environmental Research and Public Health*, *17*(5), 1701. https://doi.org/10.3390/ijerph17051701

families in China.[468] As a result, many young Chinese people(especially only children) which are “sandwich” generation adults, find it hard to support both children and parents, and filial piety is shifting from unquestioned duty to a more reciprocal, negotiated value.[469] Similarly, in Japan, low fertility and universal education have produced a cohort of single children and working women. Many Japanese now prefer personal autonomy; the rise of universal LTCI in 2000 gave official care options.[470] And the Cabinet Office’s “Public Opinion Survey on Elderly Care” conducted in 1995[471] and 2003[472] with 5,000 respondents aged 20 and above show a decline in the belief that “children are naturally expected to care for their parents” (from 57.3% to 48.6%) and a rise in the view that caregiving is not necessarily a child's duty (from 28.7% to 36.1%). The recent research also shows that both filial responsibility awareness and caregiving intention declined, with a particularly sharp decline in caregiving awareness among women. Older individuals themselves increasingly expressed a desire not to become a burden on their children. [473] In Germany, although home care is actively promoted by health policy and political efforts due to its lower cost to the state and the social security system, [474] several societal changes are challenging the sustainability of informal care. Younger generations tend to feel less attachment to family and a weaker sense of responsibility for caring for elderly relatives.[475] Additionally, the

[468] Wang, L., Gilroy, R., & Law, A. (2023). Shifting elder-care practices in Chinese middle-class families. *PloS one*, *18*(3), e0283533. https://doi.org/10.1371/journal.pone.0283533

[469] Sun, Peizhen et al. “Relations Between Dual Filial Piety and Life Satisfaction: The Mediating Roles of Individuating Autonomy and Relating Autonomy.” *Frontiers in psychology* vol. 10 2549. 29 Nov. 2019, doi:10.3389/fpsyg.2019.02549

[470] Tsutsui, T., Muramatsu, N., & Higashino, S. (2014). Changes in perceived filial obligation norms among coresident family caregivers in Japan. *The Gerontologist*, *54*(5), 797–807. https://doi.org/10.1093/geront/gnt093

[471] 内閣府. (1995). *高齢者介護に関する世論調査*. Cabinet Office. (1995). *Public Opinion Survey on Elderly Care*. https://survey.gov-online.go.jp/h07/H07-09-07-07.html

[472] 内閣府. (2003). *高齢者介護に関する世論調査: 「高齢者介護に関する世論調査」の概要*. Cabinet Office. (2003). *Public Opinion Survey on Elderly Care: Summary of the "Public Opinion Survey on Elderly Care"* https://survey.gov-online.go.jp/h15/h15-kourei/

[473] 乾, 順子. (2024). 介護保険制度導入後の老親扶養・介護意識の変化 : 時代・年齢・コーホート・ジェンダーによる差異. *大阪公立大学女性学研究センター*, 1–22. Inui, J. (2024). Changes in attitudes toward supporting and caring for elderly parents after the introduction of the long-term care insurance system: Differences by period, age, cohort, and gender. *Osaka Metropolitan University Center for Gender Studies*, 1–22. https://doi.org/10.24729/0002000824

[474] Hajek, A., Lehnert, T., Wegener, A., Riedel-Heller, S. G., & König, H. H. (2017). Factors associated with preferences for long-term care settings in old age: evidence from a population-based survey in Germany. *BMC health services research*, *17*(1), 156. https://doi.org/10.1186/s12913-017-2101-y

[475] Ärzteblatt(2014), Bereitschaft zur Pflege von Angehörigen sinkt. https://www.aerzteblatt.de/nachrichten/60070/Bereitschaft-zur-Pflege-von-Angehoerigen-sinkt

rising labour force participation of women, along with increased globalisation and job-related mobility, often leads to greater geographical distance between family members. As a result, while many older adults prefer to age at home, the potential for informal caregiving may decline in the future.[476] In all three countries, educational levels, career expectations, and urban lifestyles are making reliance on family care less automatic than in the past.

5.4. Comparative Analysis of the Economic Development Level and the Financial Sustainability in China, Japan, and Germany

Population ageing is exerting fiscal pressure worldwide. Germany established its LTCI system as early as 1995, when its GDP per capita was approximately USD 31,747,[477] Japan formally introduced its LTCI system in 2000, at which time GDP per capita reached USD 37,431, and social security expenditure accounted for 20.54% of GDP,[478] In the same year, Germany's public health expenditure accounted for around 8% of GDP, while total health expenditure reached 10.6%.[479] By contrast, China initiated the development of its LTCI system during the final stage of the 13th Five-Year Plan (2020), after surpassing the threshold of USD 10,000 in per capita GDP, which stood at USD 11,356 that year.[480] According to the World Economic Outlook published by the International Monetary Fund (IMF) in April 2025, China's GDP per capita is projected to reach USD 13,690 in 2025.[481] Although this figure remains lower than the levels in Japan and Germany when they introduced their LTCI systems, it nonetheless reflects a growing economic foundation. In

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[476] Hajek, A., Lehnert, T., Wegener, A., Riedel-Heller, S. G., & König, H. H. (2018). Informelles Pflegepotenzial bei Älteren in Deutschland : Ergebnisse einer bevölkerungsrepräsentativen Befragung [Potential for informal care of the elderly in Germany : Results of a representative population-based survey]. *Zeitschrift fur Gerontologie und Geriatrie*, *51*(6), 612–619. https://doi.org/10.1007/s00391-017-1181-y

[477] World Bank. (2024). *GDP per capita (current US$) – Germany*. Retrieved May 9, 2025, from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=DE

[478] Japan Institute of Population and Social Security Research. (2000). *Social expenditure statistics for fiscal year 2000* (2000 年度社会保障費用統計概要). Retrieved from https://www.ipss.go.jp/ss-cost/e/cost00/2e/No2e.html

[479] Huber, M., & Orosz, E. Health Expenditure Trends in OECD Countries, 1990-2001. *Health Care Financing Review*, *25*(1), 1. https://pmc.ncbi.nlm.nih.gov/articles/PMC4194835/

[480] World Bank. (2021). *GDP per capita (current US$) – China*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN

[481] International Monetary Fund. (2024). *World Economic Outlook: GDP per capita, current prices – China*. Retrieved May 9, 2025, from https://www.imf.org/external/datamapper/NGDPDPC@WEO/OEMDC/ADVEC/WEOWORLD/CHN

2023, China's social insurance fund expenditure accounted for 7.67% of GDP, still significantly lower than that of Germany and Japan.[482] (see Table 35)

The fiscal strain is amplified by ageing-related expenditures beyond care. All three countries face heavy pension commitments. Germany and Japan devote more than 10% of GDP to public pensions (Germany 10.2% in 2022,[483] Japan 9.3% in 2023[484]), whereas China's public pension system spends around 5.5% in 2021[485], different from the Germany and Japan, Chinese Pension system is under the fragmented administration across provincial governments. According to a government budget report,[486] as the population continues to age, increasing pressure will be placed on the defined-benefit component of the pension schemes. By the end of 2019, the collective surplus of urban workers' pension plans across provinces stood at 5.46 trillion yuan (approximately $790 billion), sufficient to cover only 13.3 months of benefits. This limited financial buffer may further strain local government budgets and raise the likelihood of additional withdrawals from the National Social Security Fund (NSSF) to fill pension funding shortfalls.[487]

[482] National Bureau of Statistics of China. (2024). *China Statistical Yearbook 2010* [中国统计年鉴 2010]. Beijing: China Statistics Press.

[483] Bundesministerium für Arbeit und Soziales. (2024). *2024 Ageing Report: Country fiche – Germany*. Retrieved May 19, 2025, from https://economy-finance.ec.europa.eu/document/download/e8f41d38-6d27-45b4-8919-c9348720fcfc_en?filename=2024-ageing-report-country-fiche-Germany.pdf

[484] Organisation for Economic Co-operation and Development. (2023). *Pensions at a Glance 2023: Country notes – Japan*. OECD Publishing. Retrieved May 19, 2025, from https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/10/pensions-at-a-glance-2023-country-notes_2e11a061/japan_b752f047/6198231e-en.pdf

[485] There is no exact official data on China's public pension expenditure as a share of GDP, and the author's projection is based on the final verified amount of China's GDP in 2021 and the amount of pension fund expenditure in that year (the final verified amount of China's GDP in 2021 is 1.14923 billion yuan of basic pension fund expenditure of 6019.7 billion yuan; urban and rural residents' basic pension fund income and expenditure of 371.5 billion yuan. Extrapolated public pension expenditures of about 5.5%)

[486] Ministry of Finance of the People's Republic of China. (2021). *Report on the execution of the central and local budgets for 2020 and on the draft central and local budgets for 2021: Fourth session of the 13th National People's Congress of the People's Republic of China*. https://www.caixinglobal.com/upload/china_government_budget_report_2021.pdf

[487] CFR (Council on Foreign Relations). (2021, September 22). *What is the Chinese pension system, and why are its problems hard to fix?* Council on Foreign Relations. https://www.cfr.org/blog/what-chinese-pension-system-and-why-are-its-problems-hard-fix

Notably, in 2018, the relative poverty rate for older people (65+) in Japan was 19.6%, and in Germany is 19.4% in 2024[488] which were higher than the OECD average of 13.5%,[489] and the EU average of 16.5%.[490] That means even though the pension levels are high, they still have lagged behind living costs. Different from Germany and Japan, China's relative poverty rate shows the huge imbalance in different regions[491]: In 2020, compared to Eastern China (11.8% poor), the elderly poverty rates in the Central and Western regions were 13.6% and 24.6% higher (at 13.4% and 14.7%), and the elderly living in rural areas experience a poverty rate that is 1.4 times higher than their urban counterparts, with 13.9 percentage points separating the two groups (13.9% in rural areas vs. 9.9% in urban areas).[492]

Lots of evidence suggests that the implementation of LTCI can enhance financial stability and reduce healthcare costs. In Germany, the introduction of public LTCI was associated with improved financial security among citizens as incomes increased,[493] although gender and age related disparities were observed, with older women incurring higher expenditures than men of the same age.[494] In Japan, the launch of public LTCI in 2000 helped households mitigate welfare losses associated with caring for disabled family members[495,496,497] In

[488] Statistisches Bundesamt (Destatis). (2024). *At-risk-of-poverty or social exclusion (AROPE) by age and sex*. Retrieved May 19, 2025, from https://www.destatis.de/EN/Themes/Society-Environment/Income-Consumption-Living-Conditions/Living-Conditions-Risk-Poverty/Tables/arope-age-sex-mz-silc.html

[489] European Parliamentary Research Service. (2020, December). *Continental democracies: Japan's ageing society* (Briefing). European Parliament. Retrieved May 19, 2025, from https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659419/EPRS_BRI(2020)659419_EN.pdf

[490] Eurostat. (2025, April 30). *People at risk of poverty or social exclusion by age and sex – EU-SILC survey*https://ec.europa.eu/eurostat/databrowser/view/ILC_PNS1__custom_2042954/bookmark/table?lang=en&bookmarkId=1bd77f43-417e-42d9-a8f8-145bb413df20

[491] Gong, J., Wang, G., Wang, Y., & Zhao, Y. (2022). Consumption and poverty of older Chinese: 2011–2020. *The Journal of the Economics of Ageing*, *23*, 100410. https://doi.org/10.1016/j.jeoa.2022.100410

[492] Eastern region includes 11 provinces (municipalities); Central region includes 8 provinces and Western region includes 12 provinces (autonomous regions, municipalities).

[493] Zuchandke, A., Reddemann, S., Krummaker, S. *et al.* Impact of the Introduction of the Social Long-Term Care Insurance in Germany on Financial Security Assessment in Case of Long-Term Care Need. *Geneva Pap Risk Insur Issues Pract* 35, 626–643 (2010). https://doi.org/10.1057/gpp.2010.26

[494] Schwarzkopf, L., Menn, P., Leidl, R., Wunder, S., Mehlig, H., Marx, P., Graessel, E., & Holle, R. (2012). Excess costs of dementia disorders and the role of age and gender - an analysis of German health and long-term care insurance claims data. *BMC health services research*, *12*, 165. https://doi.org/10.1186/1472-6963-12-165

[495] Yamada, M., Hagihara, A., & Nobutomo, K. (2009). Family caregivers and care manager support under long-term care insurance in rural Japan. *Psychology, health & medicine*, *14*(1), 73–85. https://doi.org/10.1080/13548500802068990

[496] Iwamoto, Yasushi, et al. "On the Consumption Insurance Effects of Long-term Care Insurance in Japan: Evidence from Micro-level Household Data." *Journal of the Japanese and International Economies*, vol. 24, no. 1, 2010, pp. 99-115, https://doi.org/10.1016/j.jjie.2009.12.009. Accessed 27 Aug. 2025.

[497] Washio, M., Arai, Y., Oura, A., Miyabayashi, I., Onimaru, M., & Mori, M. (2012). Family Caregiver Burden

China, the establishment of public LTCI led to substantial reductions in tertiary hospitals' average length of stay, hospitalization costs, and medical insurance expenditures by 41.0%, 17.7%, and 11.4%, respectively. Cost-effectiveness analysis further indicates that for every additional USD 1 spent on LTCI, medical insurance expenditures decrease by USD 8.6.[498,499]

Table 35 Comparative Indicators of Economic and LTCI in China, Japan and Germany

Indicator	China	Japan	Germany
GDP per capita (PPP)	$11,356 (2020) $13,286 (2024)	$37,431(2000) $33,834 (2024)	$31,747(1995) $52.746 (2024)
Population ≥65 (% total)	15.4%（2023）	22.0%（2023）	29.1%（2023）
Health spending (% GDP)	7.08% (2022)	10.82% (2021)	12.6% (2022)
LTCI start year	Pilot programs since 2012	2000	1995
LTCI funding	Recycled medical funds, city pilots	50% tax, 50% premiums	Payroll contributions (~3% of wages)
LTCI expenditure (% GDP)	(Not yet national)	2% (2019)	2.2% (2019)

Source: Compiled by the author based on relevant official data.

From the financial analysis (see Table 35), Japan and Germany operate near-universal LTCI with sustained high expenditure, supported by advanced economies. China's GDP per capita (PPP) is roughly one-third of Germany and Japan's PPP when they launched the LTCI system and China's current public spending on health and social care is much lower. Even though limited per-capita resources and existing social commitments constrain China's fiscal capacity, rapid ageing and fraying family care norms make action imperative. Lessons from Japan and Germany are clear: broad coverage and financial relief for families are attainable with strong economic foundations. It is important to emphasize, however, that while sufficient economic capacity is a critical precondition for implementing an LTCI system, the level of economic development does not correspond strictly to the maturity of social welfare institutions. System design must be tailored to national circumstances, with a reasonable determination of benefit levels and scope, in order to balance the growing demand for care with the sustainability of the system.[500] China's challenge will be to design a phased LTCI

and Public Long-Term Care Insurance System in Japan. *International Medical Journal*, *19*(3).

[498] Feng, J., Wang, Z., & Yu, Y. (2020). Does long-term care insurance reduce hospital utilization and medical expenditures? Evidence from China. *Social science & medicine (1982)*, *258*, 113081. https://doi.org/10.1016/j.socscimed.2020.113081

[499] Chen, L., Zhang, L., & Xu, X. (2020). Review of evolution of the public long-term care insurance (LTCI) system in different countries: Influence and challenge. *BMC Health Services Research*, *20*, 1057. https://doi.org/10.1186/s12913-020-05878-z

[500] 高春兰. (2019). 老年长期护理保险制度：中日韩的比较研究. 北京: 社会科学文献出版社. Gao, C L.

system that reflects its fiscal realities -deal with the imbalance of the regions (both Geographical and urban-rural disparities) to meet the coming tide of care needs without destabilizing its economy.

5.5. Comparative Analysis of the Labour Market Situation and Supply of Care Workforce in China, Japan, and Germany

The three countries have different designs of LTCI system, which shapes the mix of formal and informal caregivers. As mentioned in the Chapter 3, Germany's LTCI system faces the dual pressure of increasing demand and a shortage of human resources. In Germany, LTCI emphasises home care. Beneficiaries may choose in-kind services or a cash benefit to compensate informal carers.[501] More than 80% of LTCI beneficiaries receive care at home, predominantly provided by informal, non-professional caregivers such as family members.[502] Many families supplement this care by privately hiring live-in aides (often migrant women from Eastern Europe), effectively creating a "migrant-in-family" model[503]. Formal care channels include licensed nursing homes and professional home-care agencies, but persistent staff shortages mean providers also recruit migrants. The proportion of foreign workers in the elderly care sector increased significantly, rising from 6.8% in 2013 to 13.6% in 2019.[504] A bundle of measurements to attract foreign (geriatric) nurses has been taken, The 2013 amendment to Germany's Employment Regulation facilitated the granting of residence permits to non-EU citizens with non-academic qualifications in shortage

(2019). Elderly long-term care insurance system: *A comparative study of China, Japan, and South Korea.* Beijing: Social Sciences Academic Press.

[501] Gottschall, K., Noack, K., Rothgang, H. (2022). Dependencies of Long-Term Care Policy on East–West Migration: The Case of Germany. In: Nullmeier, F., González de Reufels, D., Obinger, H. (eds) International Impacts on Social Policy. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_40

[502] *Pflegestatistik - Pflege im Rahmen der Pflegeversicherung - Deutschlandergebnisse - 2021*. (2022, December 21). Statistisches Bundesamt. https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Gesundheit/Pflege/Publikationen/Downloads-Pflege/pflege-deutschlandergebnisse-5224001219005.html

[503] Gottschall, K., Noack, K., Rothgang, H. (2022). Dependencies of Long-Term Care Policy on East–West Migration: The Case of Germany. In: Nullmeier, F., González de Reufels, D., Obinger, H. (eds) International Impacts on Social Policy. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_40

[504] Gottschall, K., Noack, K., Rothgang, H. (2022). Dependencies of Long-Term Care Policy on East–West Migration: The Case of Germany. In: Nullmeier, F., González de Reufels, D., Obinger, H. (eds) International Impacts on Social Policy. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_40

occupations, such as nursing, while still requiring approval from the Federal Employment Agency.[505] Recent government initiatives are especially targeting South Eastern European non-EU member states, especially Germany has signed several bilateral agreements with countries such as Bosnia and Herzegovina, Serbia, and the Philippines, targeting both skilled nursing professionals and individuals seeking apprenticeship training in the field of elderly care. However, in practice, migrants in the elderly care sector remain predominantly employed in low-skilled positions, indicating a certain degree of labor market segmentation.[506] Overall, Germany's LTCI sustains a mixed supply: professional services are available but under tight labour market conditions, while the generous cash allowance keeps family caregiving prevalent.[507]

Unlike Germany, Japanese LTCI provides no direct cash allowance to family carers; instead, it subsidises professional home helpers, day-care centres and nursing homes (covering 70%~90% of costs)[508]. Adults aged 65+ (and younger disabled) are covered and can access an array of in-kind services. Like Germany and China, Japan also faces a severe care-worker shortage (projected ~680,000 short by 2035[509]. To address this, the government opened its care sector to foreign labour: bilateral Economic Partnership Agreements (EPAs) with Indonesia (2008), the Philippines (2009) and Vietnam (2015) brought certified care-worker trainees to Japan[510]. Additional visa categories (Technical Interns, new "Specified Skilled Worker " since 2019) expand this channel, though strict language and exam requirements

[505] Braeseke, G., & Bonin, H. (2016). 15 Internationale Fachkräfte in der Pflege.

[506] al-Khalil, S., Lietz, A., & Mayer, S. J. (2020). *Systemrelevant und prekär beschäftigt: Wie Migrant* innen unser Gemeinwesen aufrechterhalten*. DeZIM-Institut.

[507] Gottschall, K., Noack, K., Rothgang, H. (2022). Dependencies of Long-Term Care Policy on East–West Migration: The Case of Germany. In: Nullmeier, F., González de Reufels, D., Obinger, H. (eds) International Impacts on Social Policy. Global Dynamics of Social Policy. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-86645-7_40

[508] Copayments for long-term care services will be 10% (20% or 30% for high-income earners)

[509] Aizawa, R., & Shibata, H. (2022). *Agents of care: Technology transfer, trends, and challenges of migration care workers across borders* (ERIA Research Project Report No. RPR-2022-06). Economic Research Institute for ASEAN and East Asia (ERIA). https://www.eria.org/uploads/media/Research-Project-Report/RPR-2022-06/Agents-of-Care-Technology-Transfer-Trends-and-Challenges-of-Migration-Care-Workers-Across-Borders.pdf

[510] Carlos, M. R. D., & Suzuki, Y. (2020). Japan's *Kaigoryugaku* scheme: Student pathway for care workers from the Philippines and other Asian countries. In Y. Tsujita & O. Komazawa (Eds.), *Human resources for the health and long-term care of older persons in Asia* (pp. 1–33). ERIA.

limit retention.[511] And many EPA candidates eventually return home. At present, the vacancy rate in Japan's long-term care sector remains high.[512]

As mentioned in Chapter 2, in China, the care type remains largely informal: traditionally, children or kin provide eldercare. However, demographic shifts (rural migration, one-child families) have weakened this family supply. Formal care services (nursing homes, community centres, etc.) are expanding under government encouragement, but the workforce is still limited, only about 300,000 Chinese are currently employed in formal LTC work,[513], and most have low education[514]. To bolster supply, China is training new cohorts (bachelor's in elder care were introduced in 2019[515]) and in 2022, with the aim of accelerating the training of specialized, professional, and standardized personnel dedicated to long-term care insurance services. [516] In 2024, the government further issued the Implementation Opinions on Promoting the *Professional Skill Level Certification of Long-Term Care Attendants*, which established a three-tier qualification system—junior, intermediate, and senior—thereby promoting stratified training and capacity building within the care workforce.[517] Different from Germany and Japan, foreign care workers are virtually

[511] Ministry of Health, Labour and Welfare. (2019). *Guidebook for care service providers on employment of foreign care workers*. https://www.mhlw.go.jp/content/12000000/000526603.pdf

[512] Wakui, T. (2023). "SIX: Designing a future in longevity societies: integrating long-term care and technology-based services in Japan". In *Care Technologies for Ageing Societies*. Bristol, UK: Policy Press. Retrieved May 20, 2025, from https://doi.org/10.51952/9781447364825.ch006

[513] Xinhua. (2022, July 22). *China Focus: China expands long-term care insurance coverage for disabled*. Xinhua News. https://english.news.cn/20220722/4e87d181241e4774a869ac99f3e92d9b/c.html

[514] Chan, Tuen Ching & Luk, James & Chu, Leung-Wing & Chan, Felix. (2013). Low Education Level of Nursing Home Staff in Chinese Nursing Homes. Journal of the American Medical Directors Association. 14. 10.1016/j.jamda.2013.08.007.

[515] Fan, Y. (2024, September 12). *Elder care graduates in hot demand in China: As China's population rapidly ages, elder care facilities are scrambling to secure access to young talent*. Sixth Tone. https://www.sixthtone.com/news/1015846

[516] 中华人民共和国人力资源和社会保障部、国家医疗保障局. (2024). *健康照护师（长期照护师）国家职业标准（2024 年版）* (职业编码: 4-14-01-03) Ministry of Human Resources and Social Security of the People's Republic of China & National Healthcare Security Administration. (2024). *National occupational standard for health care worker (long-term care worker)* (2024 edition) (Occupational Code: 4-14-01-03) [PDF file]. Retrieved fromhttps://www.nhsa.gov.cn/module/download/downfile.jsp?classid=0&filename=2656f3b3834b4cc4af4dde8f9d407f30.pdf

[517] 国家医疗保障局 & 人力资源和社会保障部. (2024 年 11 月 1 日). *关于推进长期照护师职业技能等级认定的实施意见* (医保发〔2024〕29 号). National Healthcare Security Administration & Ministry of Human Resources and Social Security. (2024, November 1). *Implementation opinion on promoting the recognition of professional skill levels for long-term care workers* (Yibao Fa [2024] No. 29). https://www.gov.cn/zhengce/zhengceku/202411/content_6986661.htm

non-existent, as there is no migration program analogous to Japan's EPAs or Germany's. China's LTCI pilot guidelines "encourage" family members, neighbours and volunteers to provide care, but in practice, benefits are delivered as services, not cash. Indeed, apart from Shanghai, most pilot cities reimburse only facility or home care services (e.g. 50–90% of fees), with no stipends for family caregivers.[518] The National Development and Reform Commission stated that currently, there are more than 42 million elderly people aged 60 and above who have lost the ability to care for themselves, and there is a severe shortage of specialised, highly qualified elderly care workers.[519]

Apart from that, there is no compulsory minimum educational requirement for aged care workers in either China or Japan, which means that, in practice, almost anyone can be employed in this sector. By contrast, Germany stipulates a minimum qualification: a secondary school diploma, equivalent to nine years of general education, is required before entering aged care training. The differences in entry-level education standards among the three countries are presented in Table 36.

Table 36 Education level of aged care workers in China, Japan and Germany (2019)

Country	China	Japan	Germany
Senior high school and below	76.56%	59.56%	93%
Vocational college	15.34%	25.05%	7%
University and above	8.11%	15.60%	

Source：

1. Ministry of Civil Affairs of the People's Republic of China. (2019). *China civil affairs statistical yearbook*. China Statistics Press.
2. OECD. (2020, June). *Who cares? Attracting and retaining care workers for the elderly* (Figure 3.5). OECD Publishing. https://doi.org/10.1787/92c0ef68-en

According to Table 36, Chinese aged care workers tend to have lower educational attainment compared to their Japanese counterparts, with those holding vocational college or university degrees significantly underrepresented. Specifically, the proportion of Chinese care workers with a college degree is about ten percentage points lower than in Japan, and the share of

[518] World Bank. (2019). *Understanding China's long-term care insurance pilots: What is going on? Do they work? And where to go next?* [PDF file]. Retrieved from https://documents1.worldbank.org/curated/en/496061563801421452/pdf/Technical-Note.pdf

[519] Cheng, S. (2024, March 12). National standard set for long-term care workers. *China Daily*. https://www.chinadaily.com.cn/a/202403/12/WS65f07804a31082fc043bc3f8.htmlChi

those with a university degree or higher is only half that of Japan. Unlike Japan, which has institutions like "Welfare specialty universities" (Fukushikei Daigaku) dedicated to training highly educated LTC professionals, China lacks specialized training facilities for elderly care. Japan emphasizes the cultivation of highly educated nursing personnel and maintains a relatively balanced distribution of educational levels among care workers, with approximately 15 percent holding university degrees. In contrast, although the percentage of Chinese care workers with only basic education (senior high school or less) is lower than Germany's 93 percent, this is primarily due to Germany's robust vocational education system. In Germany, students can pursue general or vocational education paths after primary school, often leading to extensive pre-job training, even for those with only junior high school certificates. Conversely, Chinese care workers with similar educational backgrounds typically lack relevant elderly care training. Germany's compulsory education begins at age six and lasts at least nine years, followed by diverse secondary education pathways including Hauptschule, Realschule, Gymnasium, and Gesamtschule, which channel students toward various vocational or academic careers and contribute to a more structured development of aged care competencies.[520]

5.6. Comparative Analysis of the Legal Protections for Caregivers in China, Japan, and Germany

As mentioned in Chapter 3, in Germany, Family caregivers receive extensive protections under LTCI and social security law. Informal carers meeting care-hour thresholds have their social contributions paid by LTCI, and they are also protected from dismissal during care leave (Pflegezeit) and can suspend employment for up to six months (unpaid) to care for a relative. During care leave and Kurzzeitpflege (up to 10 days emergency leave), the carer's health insurance continues (via family coverage or subsidies), and LTCI even pays unemployment contributions. If a care case is new or temporary, up to 10 days of short-term leave (Pflegeunterstützungsgeld) is available, also job-protected. Employers with 16+ staff

[520] Hongbo, C. H. E. N. G. (2023). Characteristics of Chinese Aged Care Workers: A Comparison with Japan and Germany. *立命館国際研究*, *36*, 1.

must honour Pflegezeit requests; smaller firms are exempt. In addition, informal carers get practical support: LTCI funds provide free home-care courses and counselling visits. German LTCI also offers a *Pflegegeld* cash allowance to care recipients, which many recipients redirect to family carers as income. Apart from that, German Government provides non-contributory pension credits, accident insurance and unemployment insurance to unpaid carers that qualify.[521]

Caregivers in Japan have legal leave rights but limited financial support. Under the Child-Care and Family Care Leave Act, eligible workers may take up to 93 days of family care leave (per care recipient), and the 93 days can be taken in up to three instalments.[522]. The 2025 amendments extend eligibility (Employers can no longer exclude employees with less than six months of service from taking nursing care leave.) and require employers to notify staff about the right to caregiving leave.[523] However, Japan provides no dedicated cash benefit to family carers from LTCI, and the benefit amount for each payment period (one month) of caregiver leave benefits is, in principle, calculated as: the daily wage at the start of the leave × number of payment days × 67%.[524] Formal LTC workers are regulated under the *Act on Social Workers and Certified Care Workers*[525] and are required to pass a national qualification examination. They are also protected under the *Labour Standards Act*[526], enjoying standard labour protections. But outside employment, caregivers accrue no pension credits and other insurance benefits for their unpaid care (unlike Germany) unless they simultaneously work part-time.

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[521] European Commission. (2024). *Your rights country by country: Germany*. Directorate-General for Employment, Social Affairs and Inclusion. Retrieved May 21, 2025, from https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/your-rights-country-country/germany_en

[522] Child-Care and Family Care Leave Act, Act No. 76 of 1991, §§ 11–15 (Japan).

[523] 厚生労働省. (2024 年). *育児・介護休業法が改正されました ～令和７年４月１日から段階的に施行～*. Ministry of Health, Labour and Welfare. (2024). *The Childcare and Caregiver Leave Act has been revised – phased enforcement starting April 1, 2025 (Reiwa 7)*. Retrieved from https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000130583.htm

[524] 厚生労働省. (2024). *雇用継続給付*. Ministry of Health, Labour and Welfare. (2024). *Employment Continuation Benefits*. Retrieved from https://www.hellowork.mhlw.go.jp/insurance/insurance_continue.html

[525] Act on Social Workers and Certified Care Workers, Act No. 30 of 1987, ch. 3, (Japan).

[526] Labor Standards Act, Act No. 49 of 1947 (Japan).

In China, nationally, China offers almost no dedicated legal benefits for informal caregivers. Employees have no statutory unpaid leave specifically for eldercare. The elder-rights law's filial mandate is largely symbolic. Only a few locales have enacted caregiver leave: e.g., Beijing and Jiangsu introduced "filial piety holidays" or sick leave for eldercare, especially targeted to the only child.[527] China's LTCI pilots do not include pension credits or unemployment cover for family carers. Instead, formal providers contracted by LTCI pay standard employment contributions. The LTCI benefit itself mainly subsidises services (e.g. a fixed daily rate for nursing home care) [528], with no cash alternative. In some pilot regions, only in-kind services are provided, excluding informal caregivers from financial support. For example, Jinan city allows the elderly to receive a maximum of four hours of formal care per day, yet family caregivers, who often fill the remaining 12+ hours, receive no subsidies. Other regions, such as Jingmen city, have introduced mixed models allowing cash benefits for family caregivers. However, those receiving such payments face strict oversight, including electronic monitoring and video audits, adding to their burden. Even less regulated "kinship care" options offer only symbolic allowances, which do little to ease the caregiving load.[529]

China's approach to caregiver benefits remains underdeveloped compared to Germany or Japan; its emerging policies lean toward supporting care services rather than individual carers. Table 37 summarized the main dimensions of the care labour markets and policies in these three countries, Germany emphasizes social protection and family caregiver support, Japan emphasizes structured but restrictive migrant programs, while China is still in the early stage of formalization and policy development.

Table 37 Comparative of Care Labour Markets and Policies in China, Japan, and Germany

Dimension	China	Japan	Germany

[527] Fan, Y. (2024, September 12). *Elder care graduates in hot demand in China: As China's population rapidly ages, elder care facilities are scrambling to secure access to young talent*. Sixth Tone. https://www.sixthtone.com/news/1015846

[528] World Bank. (2019). *Understanding China's long-term care insurance pilots: What is going on? Do they work? And where to go next?* [PDF file]. Retrieved from https://documents1.worldbank.org/curated/en/496061563801421452/pdf/Technical-Note.pdf

[529] Tang, D., & Hu, Q. (2024, January 9). Building a family-friendly long-term care insurance system. *Chinese Academy of Social Sciences - Social Sciences Daily*. Retrieved May 21, 2025, from https://www.cssn.cn/skgz/bwyc/202401/t20240109_5726537.shtml

Care labour market	Severe shortage; ~300k low-educated formal workers; weakening family supply	Severe shortage; projected 680k gap by 2035; reliant on EPA migrants/technical interns (Indonesia, Philippines, Vietnam), but high language/qualification barriers, low retention	Severe shortage; reliant on Eastern European female migrants, "migrant care-at-home" model
Foreign labour policy	No formal recruitment/visa system	EPA, Technical Intern Program, Specified Skilled Worker visa; strict language/exam barriers	2013 reform eased visas; bilateral deals with Southeast Europe
Protection of formal caregivers	Basic protection in institutions; "Long-term Care Worker" occupation since 2022; training promoted	Qualification certification; protected by Social Workers Act & Labor Standards Act	Full social security; labor protection, unemployment insurance, pensions; many migrants in low-skill jobs
Support for informal caregivers	No national leave/allowance; some cities piloting "filial leave" or subsidies; no unified social security	Up to 93 days leave (3 parts), 67% wage compensation; no allowance or long-term support	"Care allowance" (Pflegegeld); social security contributions; pension & unemployment coverage; leave up to 6 months + 10-day emergency leave

Source: Compiled by the author based on relevant official documents.

5.7. Comparative Analysis of the Legal Foundations and Legislative Basis in China, Japan, and Germany

The statutory framework for Germany's LTCI is the *Social Code, Book XI* (SGB XI), this law mandates universal, compulsory LTC insurance for all residents. The German Federal Ministry of Health's guidance notes that *"the Eleventh Book of the Social Code (SGB XI) contains all relevant long-term care insurance regulations,"* tying LTCI to the social insurance system[530] Under SGB XI, all employees pay income-related premiums (3.6% of wages in January，2025) split between employer and employee[531]; private insurers offer parallel coverage on an equivalent basis. (Germany requires LTC coverage either statutorily or via private mandatory plans for civil servants and high earners).[532]

[530] Bundesministerium für Gesundheit. (2020). *Long-term care guide: Everything you need to know about long-term care*.p.18https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Pflege/Broschueren/200320_BMG_Ratgeber-Pflege_DINA5_ENG_bf.pdf

[531] Childless employees from the age of 23 pay a surcharge of 0.6% (as of January 2024) of their gross salary on top of this (§55 para.3 SGB XI)

[532] Bundesministerium für Gesundheit. (2025). *Private Pflege-Pflichtversicherung*. Retrieved May 21, 2025, from https://www.bundesgesundheitsministerium.de/service/begriffe-von-a-z/p/private-pflege-

Japan's LTCI system is founded on the *Long-Term Care Insurance Act* (Act No.123 of 1997, as amended; last amendment 2024). This law establishes a mandatory social insurance scheme administered by municipalities, outlines LTCI's scope and operation. For example, Article 2 defines LTC insurance as providing *"necessary insurance benefits for a Condition of Need for Long-Term Care"*. The Act makes persons aged ≥65 (and certain 40–64 year-olds with specified diseases) eligible, and requires every municipality to administer LTCI through special accounts. The LTCI Act is regularly amended (e.g. 2000 launch, major reforms in 2005, 2008, 2014, 2018, 2021 and 2024) to adjust benefits and cost-sharing.

As for China, it currently still lacks a dedicated LTCI law. Instead, LTCI is being piloted under existing social welfare statutes. The *Social Insurance Law* of 2010 (effective 2011) lays out China's broad social security framework. It covers pension, medical, unemployment, work-injury, and maternity insurance. The *Law on the Protection of the Rights and Interests of the Elderly* (promulgated 1996, revised 2018) enshrines family-based care. Articles13–14 of the Elderly Law explicitly state that *"The elderly shall be provided for mainly by their families at home"* and that children and relatives have duties to care for them.[533] China launched a nationwide pilot LTCI program in 2016 (Ministry of HRSS Guiding Opinions No.80, 2016)[534]. These government guidelines describe LTCI as a *"social insurance system"* funded by *"social mutual aid"* to provide cash or services for severely disabled persons' daily and medical care, and expend the number of the polit cities to 49 in 2020.

5.7.1 Legislative Objectives and Ideologies

As mentioned in Chapter 3, The stated original goal in introducing the SLTCI in Germany is to reduce dependence on last-resort social assistance. Nowadays, the *social insurance* scheme of the German LTCI grounded in the Solidaritätsprinzip (solidarity). Premiums are

pflichtversicherung.html

[533] National People's Congress of the People's Republic of China. (2021, October 29). *Law of the People's Republic of China on the Protection of the Rights and Interests of the Elderly*. Retrieved May 21, 2025, from https://www.gov.cn/guoqing/2021-10/29/content_5647622.htm

[534]General Office of the Ministry of Human Resources and Social Security of the People's Republic of China. (2016). Guiding opinions on carrying out pilot programs of the long-term care insurance system. https://www.gov.cn/xinwen/2016-07/08/content_5089283.htm

income-based, reflecting the social insurance model. Official publications emphasise that LTCI *"gives people with care needs the opportunity to decide how they want to be cared for and by whom,"* and that its *"top priority is to enable people needing care to maintain their independence as much as possible"*[535]. In practice, LTCI covers only a portion of care costs,[536] with remaining costs borne by individuals or supplemented by private insurance. This "partial coverage" model underscores the *partial self-help* (Eigenanteil) aspect: families and care recipients must make co-payments. The balance of responsibility in Germany tilts away from family mandates, there is no legal obligation for children to provide care, and familial support (beyond informal help) is not codified in LTC law.[537] Instead, the state (via insurance funds) is the primary carrier of care responsibility. In sum, German LTCI ideology is social-solidaristic: compulsory contributions finance collective benefits, with self-help limited to co-payments rather than an explicit family duty.

Indeed, as mentioned in Chapter 4, apart from the political reason, to prevent *"social admission"* of the elderly (deinstitutionalising care) by providing home and community-based services is the reason behind the Japanese LTCI Act. Japanese LTCI explicitly embeds the ideals of social solidarity and individual responsibility. Article 1 of the LTCI Act declares its purpose as improving citizen welfare through the LTCI system *"based on the principle of the cooperation of citizens and solidarity"*. Citizens are also legally obligated to maintain their health: Article 4(1) directs individuals to *"strive to maintain and enhance good health"* to avoid long-term care needs. Article 4(2) then states that all insured persons share expenses *"based on the principle of cooperation and solidarity"*. Relieving families by making cost-sharing a matter of public insurance. Thus, the legal philosophy of Japanese LTCI law combines collectivism (everyone pays premiums/taxes into a pooled fund) with self-help

[535] Bundesministerium für Gesundheit. (2020). *Long-term care guide: Everything you need to know about long-term care*.p.18https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Pflege/Broschueren/200320_BMG_Ratgeber-Pflege_DINA5_ENG_bf.pdf

[536] The cash subsidies for home care are less than half the value of care services, but beneficiaries can opt for a mixed payment option. Inpatient care, however, is solely covered through cash payments.

[537] Bürgerliches Gesetzbuch (BGB)§ 1601 Unterhaltsverpflichtete states that relatives in a direct line (which includes parents and children) are obligated to provide support to each other. And according to § 94 Abs. 1a of the German Social Code Book XII (SGB XII), Adult children in Germany are only obliged to contribute to their parents' long-term care costs if their annual gross income exceeds €100,000.

(healthy citizens should minimise future care costs). The LTCI Act itself assigns the state/municipalities as the provider ("insurer") of care benefits, and changes the care burden from the inner family to social solidarity. and does not designate family as responsible caregivers. In practice, Japan's LTCI covers 90% of expenses (10% co-pay by patients, 20% or 30% for high-income earners) for approved services, reflecting solidarity and shared financing. In summary, Japan's LTCI law is founded on social insurance solidarity (all citizens pay premiums) with an expectation of prudent self-care, and it explicitly shifts primary caregiving responsibility from families to a collective insurance scheme.[538]

Chinese LTCI policy is still emerging within a dual framework of state support and traditional family duty. *The Law on the Protection of the Rights and Interests of the Elderly* (promulgated 1996, revised 2018) strongly endorses the "family as caregiver" model, which is a legal confirmation of the family as the primary care bearer.[539] The 2016 pilot guidelines articulate an emerging *"social insurance"* approach: the State described LTCI as a *"major livelihood project"* and a *"social mutual aid"* system to fund disabled persons' care. Its stated goals are to *protect the basic living rights of persons with disabilities,* to improve their dignified and respectful living standards, and to embody traditional virtues of caring for the elderly. The pilot explicitly calls for *multi-channel financing and shared responsibility* (社会互助共济), combining government, individual, and possibly social (e.g. enterprise or community) contributions.[540] In summary, Chinese LTCI policy blends strong family obligation with a nascent socialist-solidarity scheme: families are expected to provide home care, while the state gradually builds insurance pilots to alleviate costs. The *Solidaritätsprinzip* in China's context is only just forming via the pilot funds; self-help is currently equated with fulfilling family duty, rather than with individual health maintenance.

[538] Yamada, M., & Arai, H. (2020). Long-Term Care System in Japan. *Annals of Geriatric Medicine and Research*, *24*(3), 174. https://doi.org/10.4235/agmr.20.0037

[539] National People's Congress of the People's Republic of China. (2021, October 29). *Law of the People's Republic of China on the Protection of the Rights and Interests of the Elderly*. Retrieved May 21, 2025, from https://www.gov.cn/guoqing/2021-10/29/content_5647622.htm

[540] General Office of the Ministry of Human Resources and Social Security of the People's Republic of China. (2016). Guiding opinions on carrying out pilot programs of the long-ter m care insurance system. https://www.gov.cn/xinwen/2016-07/08/content_5089283.htm

The following Table 38 summarises the legal and ideological foundations of LTCI in these three countries. Germany's LTCI is grounded in social solidarity and broad risk-pooling, with the state as primary guarantor and no explicit family duty. Japan's LTCI emphasizes citizen cooperation and solidarity, combining collective funding with individual responsibility, aiming to shift caregiving from families to society. China lacks a unified LTCI law, relying mainly on strong family responsibility rooted in filial piety, though pilot programs increasingly introduce state and insurance support.

Table 38 Legal and Ideological Foundations of LTCI in Germany, Japan, and China

Country	Germany	Japan	China
Legal Basis	Social Code Book XI (SGBXI) (1994/95, as amended)	Long-Term Care Insurance Act (Act No. 123 of 1997, amended)	(No unified LTCI law.) Other related law and policies: Social Insurance Law (2010), Law on Elderly Protection (2018), and Ministry of HRSS LTCI Pilot Guidelines (2016)
Objectives	1. Enable independence and dignity; 2. Reduce reliance on social assistance.	Ensure citizen welfare through cooperative insurance. Reducing social hospitalisation Political Issues improve health and prevent disability.	Protect elderly rights and respect tradition; guarantee basic living via pensions/healthcare. Emerging LTCI goals: protect the disabled's basic care rights, ensure dignity, embody social stability and virtue. Pilot emphasises social mutual aid and shared funding.
Ideology	Founded on social solidarity (income-related premiums, broad risk-pooling). Limited self-help as cost-sharing (co-payments), but no explicit family duty.	Explicit "cooperation of citizens" and solidarity principle. Legislation includes both collective funding and individual responsibility (maintain health). Aims to *shift the caregiving burden from families to society*	Strong family responsibility (filial piety) coexists with rising state- or insurance-based support.
	State/Social Insurance (via statutory LTC insurance funds)	Society/Insurance (municipal LTC insurers) – families not legally obligated beyond support roles	Family (legally primary per Elderly Law) with increasing state/insurance role for financial support

Source: Author's compilation based on relevant official documents

5.7.2 Legal Structure of LTCI System Design

5.7.2.1 Coverage and Legal Obligations

In Germany, LTCI is a mandatory social insurance under Social Code Book XI (SGBXI). By law *"versicherungspflichtig in der sozialen Pflegeversicherung [sind] die versicherungspflichtigen Mitglieder der gesetzlichen Krankenversicherung"*– in other words, all compulsory members of statutory health insurance must also have care insurance. Equally, privately insured persons must take equivalent private care insurance. The LTCI funds (Pflegekassen) are special accounts of the health insurers (Krankenkassen) and are governed by SGB XI. They are legally obligated to provide benefits and to contract with approved care providers. As for Japan, the LTCI is also mandatory, but it has limitated scope of the age group: for all citizens aged 65 and over and for those aged 40–64 with age-related disabilities. In practice, every municipality (市町村 or designated city ward) acts as the insurer for its residents under prefectural and national oversight. Municipal governments collect premiums and administer benefits under the LTCI Act. Both categories of insured pay into the system by city level insurers.

Different from Germany and Japan, China has no national LTCI law; instead, a patchwork of pilot programs in selected cities (about 49 so far) provides LTC coverage. These pilots are not nationally mandatory – most cover only certain groups (e.g. urban employees insured under basic medical insurance), and the eligibility rules and obligations vary by locale (See Chapter 2). In general, a local social insurance bureau or designated agency administers the pilot. There is no unified national law on insurer obligations or coverage; each pilot has its own regulations (often framed by city governments in concert with or followed the National Healthcare Security Administration).

5.7.2.2 Financing Mechanisms and Legal Regulations

The German LTCI system is financed by income-related contributions split 50/50 between the employer and the employee. SGB XI §58(1) explicitly provides that the contributions "*tragen … jeweils zur Hälfte*". (Currently, the total contribution rate for long-term care insurance in Germany is 4.2% of gross earnings for childless adults aged 23 and over, which includes a 0.6% childlessness surcharge. The rate varies depending on the number of children and is generally shared equally between employer and employee.) There are no

general tax subsidies provided for LTCI; exceptions are rare and typically minor, such as limited federal reimbursements for specific cases like holiday employment. Routine LTCI financing does not involve direct contributions from municipal or state governments.[541] This is different from Japan's LTCI system, which is financed by a combination of premiums and tax subsidies. Under the LTCI Act(*介護保険法*), the statutory rule mandates that 50% of total LTCI funding comes from premiums and 50% from public funds. Premiums are income-based and collected either by municipalities or health insurers, depending on the age category of the insured. The public subsidy is shared among national (25%), prefectural (12.5%), and municipal (12.5%) governments. By law, both prefectures and municipalities are required to transfer their designated shares into the LTCI financing pool.[542] Notably, there are no employer contributions to LTCI in Japan.

In China, LTCI pilots are typically financed by modest premiums plus government funding. From the pilot cities'situation, the financing standard of LTCI in most regions is between 100~200 yuan per year (about 12.5-25 euros). According to the official data, after undergoing a disability assessment, eligible individuals can receive an average annual reimbursement per person is approximately RMB16,000 (about €2,000), with the fund covering around 70% of the basic nursing care costs.[543] Some pilots require additional funding from employers (e.g. Shanghai imposes a 1% employer add-on), but most rely on funds transferred from existing health insurance pools and government budgets. (detailed in Chapter2) The central government's guidance calls for *"多元化"* financing: "financing channels are diversified, and individuals only bear part of the contribution". Local governments must approve budgets and may subsidise shortfalls, but there is no national tax-subsidy program specific to LTCI yet.[544]

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[541] European Commission. (2018, January 11-12). *Peer review on Germany's latest reforms of the long-term care system, Berlin (Germany) - Employment, Social Affairs & Inclusion*. https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9008

[542] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act) Chap 8, Article 122-123

[543] 兰溪市人民政府.(2022 年 10 月 26 日). *长期护理保险已覆盖 1.45 亿人 人均报销水平每年约 1.6 万元*. 央视新闻客户端. Lanxi Municipal People's Government. (2022, October 26). China's long-term care insurance now covers 145 million people, with an average annual reimbursement of about 16,000 yuan per person. CCTV News App. http://www.lanxi.gov.cn/art/2022/10/26/art_1229563761_59267805.html

[544] 国家医疗保障局. (2024 年 11 月 29 日). *国家医疗保障局，呼吁社保"第六险"长期护理保险制度尽快问世*. National Healthcare Security Administration of China. (2024, November 29). *The NHSA urges the*

5.7.2.3. Benefits Comparison: Type, Scope, and Legal Entitlements

In Germany, benefits under SGBXI include cash benefits for informal (usually family) care and in-kind services from professional providers, but the cash and in-kind benefits can be flexibly combined, this is referred to as *Kombinationsleistung*—if only a portion (x%) of in-kind benefits is used, the remaining (100–x%) of the corresponding cash benefit entitlement can still be claimed.[545] From the 1st of January of 2025, the monthly cash benefit for care level (Pflegegrad) 5 is €990, while the corresponding maximum in-kind benefit for professional home care is €2,299. Additional support includes services such as day and night care, short-term respite care, and subsidies for home adaptations (up to €4,000). Day/night care, short-term care and home adaptations are also included. In any case, the insured person must sign a care contract and use the care plan drawn up by a care manager (case manager).[546]

By law, care recipients have no deductible but may pay co-payments to providers: for home care, the insurer covers essentially 100% of the professional care costs, up to statutory limits, depending on the individual's care level. But nursing home residents must pay the full cost of room and board out of pocket. (Practically, LTCI pays only the "nursing care" portion of a nursing home bill, The total average monthly out-of-pocket expenses for the first year of the nursing home in 2025 is around 2,984 euros[547]), Those unable to afford the remaining costs are entitled to social assistance (SGBXII "Hilfe zur Pflege"), which covers any gap.[548]

launch of long-term care insurance as the "sixth social insurance".https://www.nhsa.gov.cn/art/2024/11/29/art_14_14904.html

[545] Rothgang, H., & Igl, G. (2007). Long-term care in Germany. *The Japanese Journal of Social Security Policy, 6*(1), 54–81.

[546] Pflegeunterstützungs- und -entlastungsgesetz (PUEG). (2023). BMG. https://www.bundesgesundheitsministerium.de/ministerium/gesetze-und-verordnungen/guv-20-lp/pueg

[547] VDEK (2025): Finanzielle Belastung (Eigenanteil) Finanzielle Belastung einer/eines Pflegebedürftigen im Pflegeheimhttps://www.vdek.com/content/dam/vdeksite/vdek/presse/pm/2025/20250206_Grafiken_Eigenanteile.pdf

[548] Bundesministerium für Gesundheit. (2020). *Long-term care guide: Everything you need to know about long-termcare*.p.18https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Pflege/Broschueren/200320_BMG_Ratgeber-Pflege_DINA5_ENG_bf.pdf

Family caregivers also have entitlements: the law (§37 SGB XI) recognises informal care and pays into the caregiver's pension fund.

Unlike Germany, Japan's LTCI system does not provide cash benefits. The insured persons certified as needing care or support are entitled to comprehensive services determined by their care level. These include home-visit nursing, home helpers, day-care centres, short-stay (respite) care, rehabilitation, housing modifications, and admission to care facilities (nursing homes). The LTCI Act enumerates dozens of benefit types[549]. Every LTCI service carries a cost-sharing requirement: by law, patients pay 10% of the service cost (20–30% for higher-income persons). Additionally, care recipients have a statutory right to appeal care-level certification decisions.

As mentioned in Chapter 4, the community-based care model introduced in 2012 is a characteristic of Japan's LTC model, this type of service is designed to support local needs and delay the progression of care requirements. The flagship multifunctional LTC in small-group homes combines day care, short-stay, and home-visit care at a single neighborhood site, emphasizing user choice and functional training.[550] For persons with dementia, communal daily LTC in group homes provides a homelike environment that has been shown to stabilize symptoms and slow cognitive decline, leading to its nationwide implementation under LTCI.[551]

Unlike Germany and Japan, China does not have unified national regulations on payment methods, and the payment methods in each pilot city are also different, which can be roughly divided into three forms: service payment, cash payment, and service and cash combined payment. However, not all pilot cities have these payment methods, which are divided into proportional payment, fixed payment and proportional limit payment in cash payment, and the amount of cash payment varies greatly according to the degree of economic development

[549] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act),Articles 40–51

[550] Ministry of Health, Labour and Welfare. (2016). *Long-Term Care Insurance System of Japan*. Ministry of Health, Labour and Welfare. Retrieved July 14, 2025, from https://www.mhlw.go.jp/english/policy/care-welfare/care-welfare-elderly/dl/ltcisj_e.pdf

[551] Ministry of Health, Labour and Welfare. (2023). *Long-Term Care Insurance System*, Ministry of Health, Labour and Welfare. Retrieved July 14, 2025, from https://www.mhlw.go.jp/content/12300000/000614772.pdf

in each region. The payment standards are also very different, such as Shihezi city pays according to the number of years of insurance, while most pilot cities such as Huhehaote, Nantong, Panjin, Guangzhou, etc. pay according to the level of disability. Moreover, in the vast majority of pilot cities (27), only severely disabled people can enjoy the benefits of LTCI, and the standards for disability Chengdu are different in each city. There is usually no formal copayment: any uncovered costs must be borne by families or, in some cases, by local welfare programs. Because the system is still nascent, legal entitlements are not well defined beyond the pilot regulations, and financial protection remains limited.

5.7.2.4. Legal Mechanisms for Care Assessment and Service Delivery

According to the Social Code Book XI (SGB XI), applicants for Germany's LTC services must have paid contributions for at least two years within the past ten years and are required to demonstrate a need for care lasting at least six months. The assessment is conducted by the Medizinischer Dienst der Krankenversicherung (MDK) using the *Neues Begutachtungsassessment* (NBA), a new evaluation tool introduced in 2017. The assessment covers six functional modules: mobility, cognitive and communication abilities, behavioural and psychological issues, self-care, health-related requirements, and managing everyday life. Based on the assessment scores, applicants are categorised into one of five care grades (*Pflegegrad*), with higher levels indicating greater care dependency.[552] If applicants disagree with the assessment results, they have the right to file an appeal through the statutory procedure.

Different from Germany, in Japan, the eligibility assessment for LTC is administered by the Certification Committee of Needed Long-Term Care (*要介護認定審査会*), which is established at the municipal level. The evaluation process includes a 74-85 items questionnaire completed by the applicant, an in-home visit by municipal staff, and a physician's report.[553] The Committee then reviews and decides (*審査判定)* the eligibility level (*要介護度*), and the results categorise individuals into either Support Required Level

[552] Sozialgesetzbuch Elftes Buch [SGB XI] – Soziale Pflegeversicherung §15(2)
[553] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act), chapter3, article14

(two sub-levels) or Care Levels (five sub-levels), and applicants have the right to appeal the outcome to the prefecture level.[554]

Unlike Germany and Japan, China has no unified national assessment law for LTCI in China. Even though in August 2021, China issued a unified *"Trial Disability Assessment Standard"* for LTCI, however, not all pilot cities have adopted national standards.[555] Each pilot city defines its own criteria, typically based on existing disability or functional dependence standards (often the civil affairs disability certificate or a geriatric assessment scale). Nearly half of the pilot cities use the Barthel Index Assessment Scale for Activities of Daily Living (Barthel Index Assessment Scale), and some cities use local assessment scales for the identification of disabled people according to the actual situation in each place, such as Shanghai, Suzhou, Kunming, etc. (see chapter 2) In practice, eligibility rules vary and are set by local policy documents, so there is no single MDK-like or national committee process. No guaranteed right to appeal or standardised reassessment exists under national law.

5.7.2.4. The Regulation of Care Providers

In Germany, the care providers of nursing and home care must be licensed or contracted by the long-term care insurance funds *(Pflegekassen)* and meet standards set in SGB XI and federal regulations.[556] Care homes and home-care agencies require authorization to bill the insurance. Quality oversight is strict: SGB XI §§113–114 requires the MDK and private health auditors to conduct regular quality inspections of every licensed provider, at least annually. Providers must cooperate with audits and meet structural and staffing standards. Poor-quality providers can lose their license or contracts; patients may complain to a state supervisory office (Heimaufsicht) or MDK， even though their complaint-handling functions remain vaguely defined and poorly implemented. [557]

[554] Article 27(2) and 183 of the 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act)
[555] Recently, the state requires the second batch of 14 pilot cities to implement the "Evaluation Standards (Trial)" with reference, and the first bath of pilot cities refer to improving local standards.
[556] §§71–72 SGB XI
[557] Aronson, P., & Mahler, C. (2016, April 5). *Human rights of older persons in long-term care: German national report*. German Institute for Human Rights. https://ennhri.org/wp-content/uploads/2019/10/germany.pdf

In Japan, LTC facilities and agencies operate under detailed licensing laws. For example, Article 94(1) of the LTCI Act says a person must obtain prefectural approval to establish a "Long-Term Care Health Facility". Similarly, home-care agencies and care managers must register with municipal governments. Providers must meet national standards (for staff qualifications, building safety, etc.) set by regulations. Prefectural governors inspect facilities and may cancel or suspend approval for violations. Indeed, Article 104 empowers the governor to revoke an LTC facility's approval if it fails to open within six months or breaches conditions. Complaints by users can be filed with designated local bodies. National and local laws set patient rights (including confidentiality, consent, grievance procedures) that providers must honour.[558]

On September 23, 2024, the General Office of China's National Healthcare Security Administration issued the *Trial Measures for the Designated Management of Long-Term Care Insurance (LTCI) Service Providers*, establishing a system for designating care service providers eligible for LTCI payments. These include various service models such as in-home care, daycare, and institutional care. [559] However, regulation of LTC providers in China's LTCI pilot programs remains under development. While central policy documents and local pilot plans provide general frameworks, they often lack clarity regarding legal responsibilities and oversight mechanisms. With the exception of Shanghai[560], most pilot cities have not paid sufficient attention to establishing detailed regulations for accountability and supervision. Designated providers in many pilot regions are primarily public medical or nursing institutions, with limited involvement from social organisations, home-based elder care providers, and community care institutions. In sum, China's LTCI system lacks a comprehensive and transparent oversight and accountability framework. There is no unified

[558] §183 SGB XI

[559] 国家医疗保障局办公室.(2024 年 9 月 23 日). *关于印发《长期护理保险护理服务机构定点管理办法(试行)》的通知* (医保办发〔2024〕21 号). National Healthcare Security Administration Office. (2024, September 23) Notice on Issuing the *Trial Administrative Measures for Designating Long-Term Care Insurance Nursing Service Institutions* https://www.gov.cn/zhengce/zhengceku/202410/content_6980290.htm

[560] In 2020, the Shanghai Pudong New Area Health Insurance Bureau and the Finance Bureau jointly issued the 'Pudong New Area Long-Term Care Insurance Supervision and Management Measures (for Trial Implementation)', which regulates the subjects including designated assessment agencies, designated service agencies and insured persons, and focuses on the responsibility and supervision of the assessment, service and fund settlement processes, which were more problematic in the pilot project.

national licensing regime for LTC providers; regulation varies by city and by service type.[561]

5.8. Conclusion

The comparative analysis of the LTCI systems in Germany, Japan, and China reveals both the diversity of institutional arrangements and the convergence of policy challenges. Germany demonstrates the strengths and weaknesses of a long-established social insurance system, where universal coverage has improved equity but sustainability pressures persist. Japan illustrates the benefits of a comprehensive and community-based model, though the rapid growth of care demand and financial strain pose ongoing difficulties. China, while still in the pilot phase, reflects the tensions of building an LTCI system in a developing context, with uneven regional implementation, reliance on family care, and the need for stronger legal and institutional frameworks.

Despite these differences, several common themes emerge. All three countries grapple with the dual challenge of ensuring financial sustainability while maintaining adequate care quality. The role of family support is gradually declining, making the availability of a trained care workforce increasingly critical. Moreover, the recognition of caregivers' rights and the legal structuring of LTCI systems have become central issues in promoting both equity and efficiency. China's ongoing LTC reform can draw on many concrete lessons from Germany and Japan, and the details will be explained in the chapter 7.

Chapter VI. Development of the Robocare in the Mirror of Japan

6.1. Introduction

Population ageing is exerting unprecedented pressure on LTC systems worldwide. Japan and China exemplify rapidly ageing societies. Both countries face a sharp rise in care needs amid shrinking workforces. Under this situation, Robocare has been promoted as a key

[561] Han, Y., & Shen, T. (2022). Long-Term Care Insurance Pilot Programme in China: Policy Evaluation and Optimization Options—Taking the Pilot Programme in the Northeast of China as an Example. *International Journal of Environmental Research and Public Health*, *19*(7), 4298. https://doi.org/10.3390/ijerph19074298

technological solution to these demographic challenges, which can augment labour shortages, reduce caregiver burden, and support ageing in place. Japan, as the global leader in robotics, has long invested in eldercare robots (e.g. robotic lift aids, companion "Pepper", therapeutic seal "Paro" etc.), and China is rapidly advancing robocare through industrial policy and pilot programs. This chapter examines the development of robocare in both countries, with a focus on legal, policy, ethical, and cultural dimensions to compare how Japan and China are integrating robocare into LTC systems, and identifies the gaps and needs in China's approach from Japan's experience.

6.2. Types of Robocare in Long-term care Settings.

As mentioned in Chapter 1, this thesis adopts Vallor[562] and Sharkey & Sharkey[563]'s classification, distinguishing robots for daily life support (including social companionship and monitoring) from those focused on medical assistance and testing, and categorises Robocare as: Assistive technology, Monitoring Robot and Companion Robot/Social Robot.

6.2.1. *Monitoring Robot in the Long-term Care Settings*

Monitoring robots are mainly used for tracking the elderly's vital signs and daily activities. They can be divided into health monitoring and telepresence

The health monitoring robots can integrate functions such as vital signs monitoring, health follow-up, case tracking, outcome evaluation, and statistical analysis.[564] Accurate monitoring of vital signs and regular check-ups are crucial for tracking chronic disease trends, while memory decline in the elderly often makes it difficult to recall health conditions accurately.[565] Care robots personalize monitoring and health plans based on patients' chronic conditions. Through tracking the activity data, uploading abnormalities to hospital

[562] Vallor, S. (2011). *Carebots and Caregivers: Sustaining the ethical ideal of care in the Twenty-First Century*. https://philpapers.org/rec/VALCAC-3

[563] Sharkey, A., & Sharkey, N. (2010). Granny and the robots: ethical issues in robot care for the elderly. *Ethics and Information Technology*, *14*(1), 27–40. https://doi.org/10.1007/s10676-010-9234-6

[564] Chen, Q., Zhu, Y. L., Ding, L. C., et al. (2020). Design and application of speech robot for chronic disease management. *Chinese Journal of Health Informatics and Management, 17*(1), 121-124.

[565] Xiao, F. J. (2020). Research on the design of interactive interface for mobile terminal monitoring of chronic diseases in the elderly. *China Packaging, 40*(10), 45-48.

cloud systems, and alerting medical staff and families to reduce response times, improving outcomes, and lowering disease recurrence. Apart from that, it can also structured routines for the elderly, and further reduce stress, boost cognition and independence, and improve life satisfaction.[566,567]

Telepresence is another type of monitoring robot, technology primarily focused on monitoring and surveillance, allowing an individual to perform actions remotely as if they were physically present. This technology not only facilitates communication between the elderly and caregivers but may also enable the use of medical equipment, such as stethoscopes and ultrasound devices, remotely controlled by doctors to interact with patients and on-site medical staff.[568] Compared to other video platforms like Zoom, the advantages of telepresence robots include their mobility [569] and ease of use, which is particularly important for residents with dementia [570]. Moreover, these robots support family involvement by improving their understanding of the patient's health, aiding in care planning, and facilitating communication with caregivers, thereby enhancing overall care quality.[571,572]

6.2.2. Assistive Technology in the Long-term Care Settings

Assistive technologies play a vital role in improving the daily lives of elderly individuals by offering support in mobility, dining, bathing, and task handling. Emerging tools like

[566] Chifu, V. R., Pop, C. B., Demjen, D., Socaci, R., Todea, D., Antal, M., Cioara, T., Anghel, I., & Antal, C. (2022). Identifying and monitoring the daily routine of seniors living at home. *Sensors, 22*(3), 992. https://doi.org/10.3390/s22030992

[567] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[568] This is different from telemedicine, which involves audio or visual communication between patients and physicians in an outpatient setting.

[569] Moyle, W., Jones, C., & Sung, B. (2020). Telepresence robots: Encouraging interactive communication between family carers and people with dementia. *Australasian Journal on Ageing, 39*(1), e127-e133. https://doi.org/10.1111/ajag.12713

[570] Moyle, W., Jones, C., Cooke, M., et al. (2014). Connecting the person with dementia and family: A feasibility study of a telepresence robot. *BMC Geriatrics, 14*, 7. https://doi.org/10.1186/1471-2318-14-7

[571] Niemelä, M., van Aerschot, L., Tammela, A., et al. (2021). Towards ethical guidelines of using telepresence robots in residential care. *International Journal of Social Robotics, 13*, 431–439. https://doi.org/10.1007/s12369-019-00529-8

[572] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

wearable devices and the Internet of Things (IoT) enhance health risk detection and overall quality of life.[573,574]

Mobility robots such as SmartCan and SmartWalker help users navigate safely by detecting obstacles and creating maps[575], promoting autonomy and confidence. In dining, robots like I-feed assist individuals with limited mobility using voice recognition and adjustable features to provide a more independent mealtime experience.[576] Bathing support robots also improve hygiene and dignity through gesture-based interaction, especially for users with limited mobility [577,578,579]

In task handling, robots like RIBA, RoNA, and Robear assist in physical transfers safely and comfortably, reducing reliance on caregivers and enhancing independent living. [580,581] Environmental assistive technologies thus support independent, respectful ageing while managing health conditions[582,583]

6.2.3. Companion Robots in the Long-term Care Settings

[573] Olmedo-Aguirre, J. O., Reyes-Campos, J., Alor-Hernández, G., Machorro-Cano, I., Rodríguez-Mazahua, L., & Sánchez-Cervantes, J. L. (2022). Remote healthcare for elderly people using wearables: A review. *Biosensors, 12*(2), 73. https://doi.org/10.3390/bios12020073

[574] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[575] Spenko, M., Yu, H., & Dubowsky, S. (2006). Robotic personal aids for mobility and monitoring for the elderly. *IEEE Transactions on Neural Systems and Rehabilitation Engineering, 14*(3), 344-351. https://doi.org/10.1109/TNSRE.2006.881534

[576] Liu, F., et al. (2020). I-feed: A robotic platform of an assistive feeding robot for the disabled elderly population. *Technology and Health Care, 28*(4), 425-429. https://doi.org/10.3233/THC-202320

[577] Fu, D. L., Han, J. H., & Hu, Z. G. (2013). Design and research on health care robot auxiliary stand device. *Journal of Mechanical Transmission, 37*(11), 43-46.

[578] Werner, C., et al. (2020). Improving gesture-based interaction between an assistive bathing robot and older adults via user training on the gestural commands. *Archives of Gerontology and Geriatrics, 87*, 103996. https://doi.org/10.1016/j.archger.2019.103996

[579] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[580] Fu, D. L., Han, J. H., & Hu, Z. G. (2013). Design and research on health care robot auxiliary stand device. *Journal of Mechanical Transmission, 37*(11), 43-46.

[581] Werner, C., et al. (2020). Improving gesture-based interaction between an assistive bathing robot and older adults via user training on the gestural commands. *Archives of Gerontology and Geriatrics, 87*, 103996. https://doi.org/10.1016/j.archger.2019.103996

[582] Chifu, V. R., Pop, C. B., Demjen, D., Socaci, R., Todea, D., Antal, M., Cioara, T., Anghel, I., & Antal, C. (2022). Identifying and monitoring the daily routine of seniors living at home. *Sensors, 22*(3), 992. https://doi.org/10.3390/s22030992

[583] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

Companion robots used in LTC settings can generally be categorized into three types: animal-like robots, humanoid robots, and embodied conversational agents. These robots serve the primary functions of providing companionship, emotional support, and enhancing social engagement, especially for older adults with cognitive impairments.

Animal-like robots, such as Paro and AIBO, are widely adopted in nursing homes and private households. Research has shown their effectiveness in reducing agitation and depression[584], alleviating loneliness[585], easing caregiver burden[586], and reducing reliance on psychoactive and analgesic medications[587]. Such robots foster engagement and interaction, bringing comfort and mitigating restlessness and isolation[588]. They are particularly beneficial for individuals with moderate to severe dementia and those experiencing loneliness.[589,590]

Humanoid robots, such as Kabochan or UBTECH's Alpha, Mario, and Ryan, mimic human appearance or body parts. They provide interpersonal warmth and flexibility through physical interaction and emotional expressions. Pet-like robots, such as Sony's AIBO and Romibo, simulate animals' behaviours, encouraging interaction through petting, hugging, and playful activities like storytelling and games[591,592]

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[584] Jøranson, N., et al. (2015). Effects on symptoms of agitation and depression in persons with dementia participating in robot-assisted activity: A cluster-randomized controlled trial. *Journal of the American Medical Directors Association, 16*(10), 867-873. https://doi.org/10.1016/j.jamda.2015.05.002

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[587] Petersen, S., et al. (2017). The utilization of robotic pets in dementia care. *Journal of Alzheimer's Disease, 56*(1), 569–574. https://content.iospress.com/articles/journal-of-alzheimers-disease/jad160703

[588] Abbott, R., Collins, S., et al. (2019). How do "robopets" impact the health and well-being of residents in care homes? A systematic review of qualitative and quantitative evidence. *International Journal of Older People Nursing, 14*(3), e12239. https://onlinelibrary.wiley.com/doi/10.1111/opn.12239

[589] Bradwell, H., et al. (2022). Implementing affordable socially assistive pet robots in care homes before and during the COVID-19 pandemic: Stratified cluster randomized controlled trial and mixed methods study. *JMIR Aging, 5*(3), e38864. https://aging.jmir.org/2022/3/e38864

[590] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[591] Ke, C., et al. (2020). Changes in technology acceptance among older people with dementia: The role of social robot engagement. *International Journal of Medical Informatics, 141*, 104241. https://doi.org/10.1016/j.ijmedinf.2020.104241

[592] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term

In addition, embodied conversational agents—whether integrated into devices or desktops—engage users via social dialogue, facial expressions, and body language. These virtual agents act as coaches, advisors, or companions, supporting elderly individuals emotionally through empathetic communication, particularly in institutional or socially restrictive environments[593]. By fostering social connections, all these forms of companion robots contribute to maintaining older adults' dignity and emotional well-being [594,595]

6.3. Overview of Robocare Development in Japan and China

6.3.1. Robocare Development in Japan

Japan's national support for assistive technologies began with the 1950 Law for Persons with Physical Disabilities, originally targeting war-injured veterans, and was later extended to older adults under the 1963 *Welfare Law for the Aged*. Today, the core policy framework includes the Program to Subsidise Wearable Devices under *the Persons with Disabilities Comprehensive Support Law*, which primarily serves individuals with severe disabilities.[596]

In 2000, Japan introduced a universal LTCI system, which included a Welfare Equipment Rental Program (WERP), legally defined under Article 8 of the LTCI Act.[597] This program allows community-dwelling seniors to rent assistive devices at a subsidised rate, but it initially excluded robotic technologies.[598] During the 2000s, early policy efforts related to

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care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[593] Kramer, L. L., ter Stal, S., Mulder, B. C., de Vet, E., & van Velsen, L. (2020). Developing embodied conversational agents for coaching people in a healthy lifestyle: Scoping review. *Journal of Medical Internet Research, 22*(2), e14058. https://doi.org/10.2196/14058

[594] Sicurella, T., & Fitzsimmons, V. (2016). Robotic pet therapy in long-term care. *Nursing2022, 46*(6), 55-57. https://doi.org/10.1097/01.NURSE.0000482265.32133.f6

[595] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

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[597] Long-term Care Act, article 8

[598] 大橋 謙策（公益財団法人テクノエイド協会理事長）. (2013 年 9 月 2 日). *ICF の視点に基づくケアマネジメントと福祉用具の活用* [PDF]. 公益財団法人テクノエイド協会. Ohashi, K. (2013, September 2). *Care management and utilization of assistive welfare devices based on the ICF perspective* [PDF]. Association for Technical Aids. Retrieved from https://www.techno-aids.or.jp/kyokai/kouen130902.pdf

care robotics emerged primarily through research grants and welfare equipment initiatives.[599]

A strategic shift occurred in 2012, when the MHLW and the Ministry of Economy, Trade and Industry (METI) jointly launched targeted programs, *Priority Fields in the Use of Robot Technology for Long-Term Care* to promote care robotics (updated in 2014, 2017 and 2024). These initiatives defined six priority areas and thirteen application targets, including mobility support, fall prevention, and caregiver burden monitoring.[600,601] The 2015 "Robot New Strategy"[602] further embedded these goals into national industrial policy, with funding support from agencies such as NEDO and JST.

Under the broader framework of the "Society 5.0" vision (2016–2020), robotics and AI were positioned as key technologies for addressing demographic and social care challenges.[603] Subsequent revisions to national plans in 2018[604] and 2020[605], reinforced the role of care robots in supporting independent living. In April 2018， The MHLW has established a

[599] Crume, Y. (2018). assistive Device revolution for the Independence of Older adults in Japan. *Care Robots and Other Technology Innovations. Tokyo: International Longevity Center, August, https://www.ilcjapan.org/studyE/doc/2018_1.pdf*

[600] 厚生労働省(2025) 介護ロボットの開発・普及の促進 Ministry of Health, Labour and Welfare (2025) Priority areas for the use of robotic technology in nursing care https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000209634.html

[601] International Trade Administration, U.S. Department of Commerce. (2025, February 5). *Japan healthcare caregiving technologies*. Retrieved June 27, 2025, from https://www.trade.gov/market-intelligence/japan-healthcare-caregiving-technologies

[602] Headquarters for Japan's Economic Revitalization. (2015, October 2). *New robot strategy: Japan's robot strategy – Vision, strategy, action plan* [PDF]. Cabinet Office, Government of Japan. Retrieved from https://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/robot_honbun_150210EN.pdf

[603] Council for Science, Technology and Innovation, Cabinet Office, Government of Japan. (2015). *The Fifth Science and Technology Basic Plan* [PDF]. Retrieved from https://www8.cao.go.jp/cstp/kihonkeikaku/5basicplan_en.pd

[604] Keidanren (Japan Business Federation). (2018).*Proposal for the Science and Technology Basic Plan: Society 5.0 – Co-creating the future*.https://www.keidanren.or.jp/en/policy/2018/095_proposal.pdf

[605] OECD. (2021). *Mission-oriented innovation policy in Japan: Challenges and opportunities* (OECD Science, Technology and Industry Policy Papers, No. 113). OECD Publishing. https://www.oecd-ilibrary.org/content/dam/oecd/en/publications/reports/2021/04/mission-oriented-innovation-policy-in-japan_7f87500e/a93ac4d4-en.pdf

dedicated office for the development and promotion of nursing robots[606] and in 2019, it called for substantive reforms in the field of medical and nursing services[607]

Concurrently, Japan began addressing the safety and ethical aspects of robocare. In 2023, METI announced the adoption of ISO 31101 for the safe operation of service robots, a standard developed under Japanese leadership.[608] Domestically, in 2024, the *"Priority Fields in the Use of Technologies for Long-term Care"* was updated by METI and MHLW to reflect advances in ICT, IoT, and data platforms, expanding application areas to include exercise support, nutritional management, and dementia care.[609]

Despite strong policy initiatives promoting the use of care robots in LTC, the actual level of adoption remains strikingly limited. Survey results indicate that as many as 81% of care facilities have not introduced any care robots. According to a study conducted by the Care Work Stabilization Center, the most frequently cited barrier was "high introduction costs" (57%), followed by "discomfort with using robots for caregiving tasks" (23%),[610] revealing both financial and psychological concerns at the institutional level. Furthermore, a large-scale national survey covering over 9,000 nursing facilities showed that by 2019, only about 10% of facilities had adopted care robots. In the context of home care, penetration is even lower: a 2021 study[611] found that among 444 family caregivers, only 2% reported having

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606 Ide, H., Kodate, N., Suwa, S., Tsujimura, M., Shimamura, A., Ishimaru, M., & Yu, W. (2021). The ageing 'care crisis' in Japan: is there a role for robotics-based solutions?. *International Journal of Care and Caring*, *5*(1), 165-171. Retrieved Jun 5, 2025, from https://doi.org/10.1332/239788220X16020939719606

607 厚生労働省(2019), 2040 年を展望し、誰もがより長く元気に活躍できる社会の実現 Looking ahead to the year 2040, toward the realization of a society where everyone can actively participate in good health for a longer periodhttps://www.mhlw.go.jp/content/12601000/001471086.pdf

608 Ministry of Economy, Trade and Industry. (2023, November 13). *New international standard for safe operation of service robots originating from Japan's proposal—ISO 31101 issued* [Press release]. https://www.meti.go.jp/english/press/2023/1113_001.html

609 Ministry of Economy, Trade and Industry & Ministry of Health, Labour and Welfare. (2024, June 28).*Priority fields in the use of robot technology for long-term care (revised in June 2024)* [ロボット技術の介護利用における重点分野（2024 年 6 月改訂）].https://www.meti.go.jp/press/2024/06/20240628005/20240628005-a.pdf

610 介護労働安定センター [Care Work Foundation]. (2022 年 8 月 22 日). *令和3 年度 介護労働実態調査 結果報告書* [Results of the 2021 fiscal year survey on the actual state of care labor]. 介護労働安定センター. Retrieved July 7, 2025, from https://www.kaigo-center.or.jp/report/jittai/2022r01_chousa_01.html

611 Ide, H., Kodate, N., Suwa, S., Tsujimura, M., Shimamura, A., Ishimaru, M., & Yu, W. (2021). The ageing 'care crisis' in Japan: is there a role for robotics-based solutions?. *International Journal of Care and Caring*, *5*(1), 165-171. Retrieved Jun 30, 2025, from https://doi.org/10.1332/239788220X16020939719606

used a care robot. Importantly, there is also evidence that even when robots are purchased, they are often used only briefly before being put aside or "locked in storage." [612]

In sum, Japan's policy on LTC robotics has evolved from a technology-neutral welfare model (2000–2010) to a comprehensive, robot-inclusive strategy (2012–present), characterised by coordinated funding, regulatory frameworks, and ongoing integration into national innovation and care policies.

6.3.2. Robocare Development in China

In contrast, China began exploring intelligent eldercare (robocare) in 2012, beginning with the 427th Xiangshan Science Conference, which proposed a four-tier smart home-based eldercare system centered on advanced technologies.[613] This concept was soon adopted by national authorities. In 2013, the Ministry of Civil Affairs and the National Development and Reform Commission (NDRC) launched eldercare reforms that emphasized the use of the Internet and IoT, [614] followed by national pilot projects implementing technologies in 2014, such as fall detection, sleep monitoring, and self-check health assessments. [615] Shanghai also established smart eldercare centers across 40 communities, marking a shift from policy formulation to practical implementation.[616]

Since 2015, the Chinese government has issued a series of guidelines promoting the "Internet Plus" strategy, big data and AI in elderly care, laying the groundwork for robocare infrastructure. By the end of 2016, nearly all provinces had adopted local smart eldercare initiatives. In 2017, three major national strategies—the "13th Five-Year Plan for Ageing

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[612] Wagner, K. (2023, January 9). *Inside Japan's long experiment in automating elder care*. MIT Technology Review. https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/

[613] Zhang, Q., Li, M. & Wu, Y. Smart home for elderly care: development and challenges in China. *BMC Geriatr* 20, 318 (2020). https://doi.org/10.1186/s12877-020-01737-y

[614] 民政部办公厅 & 发展改革委办公厅. (2013 年). *关于开展养老服务业综合改革试点工作的通知* (民办发〔2013〕23 号). General Office of the Ministry of Civil Affairs & General Office of the National Development and Reform Commission. (2013). *Notice on conducting comprehensive reform pilot programs in the elderly care service industry* (Minbanfa [2013] No. 23).

[615] Wang Z. National policies and measures to promote smart home for elderly care. China Social Work. 2017;6(17):30.

[616] Li S. Shanghai has explored and taken measures to build the smart home for elderly care service system under the background of "internet plus" plan. Hum Resour Manag. 2016;9(11):245–6.

Services,"[617] the "Healthy Ageing Plan,"[618] and the "Smart Health and Elderly Care Action Plan (2017–2020)"[619], collectively defined intelligent eldercare as a key innovation area, outlining specific goals in R&D, service delivery, platform development, and regulatory standard-setting.

Following 2020, this agenda was further institutionalized. The joint directive of the Ministry of Industry and Information Technology (MIIT) and the Ministry of Civil Affairs (2025–2027)[620] promoted scenario-based pilot programs for eldercare robotics, aiming to enhance care quality and address workforce shortages. The *"14th Five-Year Plan for Ageing Services"* identified service robots as a core component of future care systems.[621] Concurrently, the "Robot+ Action Implementation Plan" encouraged industry-academic partnerships, experience centres, and demonstration zones.[622] Notably, in 2025, the IEC released the China-led standard IEC 63310 for Ambient Assisted Living (AAL) robots in connected home settings, highlighting China's global ambitions in setting robocare standards.[623]

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617 国务院 [The State Council of the PRC]. (2017, March 6). *国务院关于印发"十三五"国家老龄事业发展和养老体系建设规划的通知* [Notice of the State Council on issuing the "13th Five-Year Plan" for the development of national ageing undertakings and the construction of the pension system] (国发〔2017〕13号). https://www.gov.cn/zhengce/content/2017-03/06/content_5173930.htm

618 国家卫生健康委员会 [National Health Commission of the PRC]. (2017, March). *关于印发"十三五"健康老龄化规划的通知* [Notice on issuing the "13th Five-Year Plan" for healthy aging]. National Health Commission website:https://www.nhc.gov.cn/jtfzs/jslgf/201703/63ce9714ca164840be76b362856a6c5f.shtml

619 工业和信息化部、民政部、国家卫生计生委员会 [Ministry of Industry and Information Technology, Ministry of Civil Affairs & National Health and Family Planning Commission]. (2017, February 6). *智慧健康养老产业发展行动计划（2017–2020 年）* [Action Plan for the Development of the Smart Health & Eldercare Industry (2017–2020)] (工信部联电子〔2017〕25 号). https://www.gov.cn/xinwen/2017-02/20/content_5169385.htm

620 工业和信息化部办公厅 & 民政部办公厅. (2025 年 5 月 26 日). *关于开展智能养老服务机器人结对攻关与场景应用试点工作的通知* (工信厅联通装函〔2025〕212 号). General Office of the Ministry of Industry and Information Technology & General Office of the Ministry of Civil Affairs. (2025, May 26). *Notice on launching paired R&D and scenario application pilots for intelligent elderly care service robots* *https://www.gov.cn/zhengce/zhengceku/202506/content_7027053.htm*

621 中华人民共和国国务院. (2022 年 2 月 21 日). *关于印发"十四五"国家老龄事业发展和养老服务体系规划的通知* (国发〔2021〕35 号) The State Council of the People's Republic of China. (2022, February 21). *Notice on printing and distributing the 14th Five-Year Plan for the development of the national aging services and elderly care system* (Guofa [2021] No. 35) https://www.gov.cn/zhengce/content/2022-02/21/content_5674844.htm?utm_source=chatgpt.com

622 中华人民共和国国务院. (2023 年 1 月 19 日). *"机器人+"应用行动实施方案* [PDF]. 来源：中国政府网. The State Council of the People's Republic of China. (2023, January 19). *"Robot Plus" Action Plan implementation scheme* [PDF]. https://www.gov.cn/zhengce/zhengceku/2023-01/19/5738112/files/61a45b6de7f34f4197c4d6fe1b9106fb.pdf

623 中华人民共和国中央人民政府 [The Central People's Government of the PRC]. (2025, March 5). *我国*

A comparative overview of Chinese and Japanese robocare policy developments is summarised in Table 39, which outlines their historical development of robocare policies in these two countries.

6.4. Comparison of Japan and China's Robocare Development

6.4.1 Policy Environment and Its Integration with LTCI Systems in China and Japan

The Japan's LTC policy is mature and well-integrated. The 2000 LTCI Act established entitlement to home and facility care, with standardised service fees and government oversight. While LTCI does not explicitly list "robots" as covered services, it does reimburse many assistive devices (e.g. mobility aids, rehabilitation equipment) under the WERP [624] Critically, Japan has pursued a more incremental and consensus-oriented policy framework, characterised by inter-ministerial coordination, primarily between the METI and the MHLW (see Table 39). The 2012, 2014, and 2017 priority fields systematically identified robotics domains (transfer support, toileting, bathing, dementia care, etc.) and funded research and demonstration projects. The 2024 revision further expanded priorities to 16 items in nine areas (adding exercise support, nutrition management, and at-home dementia care).[625] In practice, approved care robots (like mobile lifts, sit–stand aids, exoskeletons) can be reimbursed or subsidized via LTCI's equipment benefits or government grants, and care facilities receive incentives to adopt them. For example, by 2016 the national government was subsidizing nursing homes' robot purchases (so that ~15% of homes had at least one robot) [626]. Through these historical policy developments, we can see Japan's policy

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牵头制定的养老机器人国际标准发布 [International standard for eldercare robots led by China published]. 市场监管总局网站. https://www.gov.cn/lianbo/bumen/202503/content_7010124.htm

[624] 大橋 謙策（公益財団法人テクノエイド協会理事長）. (2013 年 9 月 2 日). *ICF の視点に基づくケアマネジメントと福祉用具の活用* [PDF]. 公益財団法人テクノエイド協会. Ohashi, K. (2013, September 2). *Care management and utilization of assistive welfare devices based on the ICF perspective* [PDF]. Association for Technical Aids. Retrieved from https://www.techno-aids.or.jp/kyokai/kouen130902.pdf

[625] Ministry of Economy, Trade and Industry & Ministry of Health, Labour and Welfare]. (2024, June 28).*Priority fields in the use of robot technology for long-term care (revised in June 2024)* [ロボット技術の介護利用における重点分野（2024 年 6 月改訂）].https://www.meti.go.jp/press/2024/06/20240628005/20240628005-a.pdf

[626] Walter H. Shorenstein Asia-Pacific Research Center (2025)*The Impact of Robots on Nursing Home Care in Japan, Exploring the implications of robotic technologies adoption in aging societies*. Stanford Shorenstein Asia-Pacific Research Center. https://aparc.fsi.stanford.edu/research/impact-robots-nursing-home-care-japan

environment for robocare is technology-driven, which prioritises the basic R&D and safety norms, under the state-led scientific research and establishment of a standard system.

In contrast, China has adopted a top-down, state-led approach to the development of robocare, and its policy-driven instead of technology-driven. China attaches great importance to "intelligence + elderly care" at the national level, and the "smart elderly care" as a national strategic priority within the 14th Five-Year Plan (2021–2025)[627]. And China's strategy has been multi-sectoral but less unified under a single LTCI system (see Table 39). Historically, elderly care fell under the Ministry of Civil Affairs (welfare, old-age homes) and health under the NHC, with no national LTCI until pilots began in 2016 under the Ministry of Human Resources and Social Security (MoHRSS). The LTCI pilots (in 49 cities by 2023) cover nursing and facility/hospice care costs, but to date, they have not explicitly subsidized robotic technologies. Instead, robotics is promoted mainly through industrial and technology policy: ministries of industry, science, and education issue plans linking robotics to smart health. For example, the 2023 "Robot+ Action Plan", designate elderly care as a key application area. [628]

In sum, both China and Japan have incorporated elder-care robots into their industry development plans, but with different emphases. Japan's policy framework places greater focus on technological innovation and industrial growth (technology-driven), In contrast, China's approach emphasizes integration of robotics into broader smart elderly-care solutions, prioritizing pilot demonstrations (policy-driven), such as "Internet + care" initiatives and intelligent senior-service robot trials, and accelerating standardization.

Table 39 Robocare Policies of Japan and China

Year	Japan (Issuing Body & Policy)	China (Issuing Body & Policy)

[627] 中华人民共和国国务院. (2022 年 2 月 21 日). *关于印发"十四五"国家老龄事业发展和养老服务体系规划的通知* (国发〔2021〕35 号) The State Council of the People's Republic of China. (2022, February 21). *Notice on printing and distributing the 14th Five-Year Plan for the development of the national aging services and elderly care system* (Guofa [2021] No. 35) https://www.gov.cn/zhengce/content/2022-02/21/content_5674844.htm?utm_source=chatgpt.com

[628] 中华人民共和国国务院. (2023 年 1 月 19 日). *"机器人+"应用行动实施方案* [PDF]. 来源：中国政府网. The State Council of the People's Republic of China. (2023, January 19). *"Robot Plus" Action Plan implementation scheme* [PDF]. https://www.gov.cn/zhengce/zhengceku/2023-01/19/5738112/files/61a45b6de7f34f4197c4d6fe1b9106fb.pdf

2012	METI & MHLW – Priority Fields in Robot Tech for Long-Term Care	–
2013	Cabinet Office – "Robot Care Equipment" 5-Year Plan	Min. of Civil Affairs & NDRC – Reform Pilot of Elderly Care Industry; State Council – Opinions on Elderly Care Service Industry
2014	MHLW & METI – Revised Priority Fields	Min. of Civil Affairs – Smart Home-Based Elder Care Pilots
2015	Economic Revitalisation HQ – Robot Revolution Initiative (RRI)	NDRC – "Internet Plus" Plan
2016	–	Min. of Civil Affairs & Finance – Pilot Reform of Home-based Elderly Care; State Council – Opening Care Service Market & Improving Quality
2017	MHLW & METI – Revised Priority Fields	State Council – 13th Five-Year Plan for Aging & Elderly Care; NHFPC & others – 13th Five-Year Plan for Healthy Aging; MIIT & Min. of Civil Affairs – Action Plan for Smart Health & Elderly Care (2017–2020)
2019	–	State Council – Opinions on Elderly Care Services
2021	–	State Council – Action Plan for Smart Health & Elderly Care (2021–2025); MIIT + 15 Depts – 14th Five-Year Plan for Robotics Industry
2022	–	State Council – 14th Five-Year Plan for Aging Services & Elderly Care System
2023	–	MIIT – "Robot+" Action Implementation Plan
2024	METI & MHLW – Care Tech Priorities (Jun)	–
2025	METI & MHLW – Care Tech Priority Fields (Apr)	MIIT & Min. of Civil Affairs – Paired R&D & Scenario-Based Pilots for Intelligent Elderly Care Robots (2025–27)

Source: author's collation based on Japan and China's official documents.

6.4.2. Comparison of Robocare in Financial Management between China and Japan

Financially, both governments have prioritised robotics, but differ in approach. Japan uses a mix of METI-led grants, national R&D programs, and industry incentives (government + enterprise + platforms) to support robotics R&D: the government sets standards, provides subsidies and tax incentives, and focuses on the development and promotion of products in areas such as mobility assistance, automated excretion, health monitoring, and wandering prevention.[629] For example, its 2015 strategy targeted

[629] 厚生労働省 [Ministry of Health, Labour and Welfare]. (2022). 介護ロボットの開発・普及の促進. Promote the development and diffusion of nursing care robots Retrieved from https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000209634.htm

¥50 billion in nursing-care-robot sales by 2020,[630] and reported R&D budgets (via Multi-year Plans) on the order of tens of billions of yen. In contrast, China's financial approach is also highly top-down: the 14th Five-Year Plan for Robotics Industry[631] allocates major science-and-tech project funding to robotics, and the plan's fiscal measures call for expanded support via national R&D programs, tax incentives (e.g. R&D tax credits), and industrial guidance funds. For instance, it explicitly encourages key robotics R&D under state projects and invites industrial funds to invest. [632] In March 2025, China's National Development and Reform Commission announced the establishment of a state-backed venture capital fund expected to mobilize nearly ¥1 trillion (approximately EUR 125 billion) over 20 years to support robotics, AI, and other high-tech industries.[633]

In sum, Japan has long maintained a comprehensive incentive system—including R&D grants and purchase subsidies—to stimulate market uptake, whereas China has recently stepped up public investment and the policy ecosystem is evolving rapidly from proof-of-concept toward large-scale application—with support directories and local action plans continually emerging—but remains at an earlier stage of maturity compared to Japan.

6.4.3. Comparison of Robocare Legal Framework between China and Japan

Legislatively, however, Japan did not enact special laws for robocare. Instead, robotics support has been through the amendments to the existing frameworks. Key legal instruments

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[630] Headquarters for Japan's Economic Revitalization. (2015, October 2). *New robot strategy: Japan's robot strategy – Vision, strategy, action plan* [PDF]. Cabinet Office, Government of Japan. Retrieved from https://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/robot_honbun_150210EN.pdf

[631] 工业和信息化部等十五部门 [Ministry of Industry and Information Technology et al.]. (2021, December 21). *关于印发《"十四五"机器人产业发展规划》的通知* [Notice on the issuance of the "14th Five-Year Plan" for the development of the robotics industry] (工信部联规〔2021〕206 号). 工业和信息化部网站. Retrieved July 8, 2025, from https://www.gov.cn/zhengce/zhengceku/2021-12/28/content_5664988.htm

[632] 中华人民共和国国务院. (2022 年 2 月 21 日). *关于印发"十四五"国家老龄事业发展和养老服务体系规划的通知* (国发〔2021〕35 号) The State Council of the People's Republic of China. (2022, February 21). *Notice on printing and distributing the 14th Five-Year Plan for the development of the national aging services and elderly care system* (Guofa [2021] No. 35) https://www.gov.cn/zhengce/content/2022-02/21/content_5674844.htm?utm_source=chatgpt.com

[633] 国家发展和改革委员会 [National Development and Reform Commission of the PRC]. (2025, March 6). *国家发改委：将设立国家创业投资引导基金* [NDRC: National guidance fund for venture capital to be established]. 中国政府网. https://www.gov.cn/yaowen/shipin/202503/content_7011252.htm

include the Long-Term Care Insurance Act (establishing LTC benefits including WERP[634]), and related welfare laws (e.g. The Basic Law on Measures for the Aging Society, the Act on Social Welfare for the Elderly and the Act on Providing Comprehensive Support for the Daily Life and Life in Society of Persons with Disabilities). Periodic LTCI revisions (e.g. 2017's "Regional Care Reinforcement Act"[635]) focused on integrated community care and insurer functions, with technology mentioned broadly (e.g. information linkage, training), but did not prescribe robots by name. In short, although there are no separate regulations for robocare, Japan includes them in the category of auxiliary products covered by "nursing insurance" and guides them through the formulation of industry guidelines and technical standards.

Similar to Japan, China currently lacks specific legislation addressing the use of robots in LTC or nursing contexts. Existing regulation mainly relies on general product-related laws, such as the *Product Quality Law of the People's Republic of China*, the *Standardization Law of the People's Republic of China*, and *the Work Safety Law of the People's Republic of China*. These laws set requirements for production standards and product safety, but they do not provide rules specifically tailored to LTC scenarios. Likewise, China's LTC system is still in the pilot stage and has not yet developed into a comprehensive legal framework. In addition, *the Regulation on the Supervision and Administration of Medical Devices* includes certain care robots with medical functions under its scope. More recently, the *2024 State Council General Office Opinions on Deepening the Reform of Drug and Medical Device Regulation to Promote High-Quality Development of the Pharmaceutical Industry (Guobanfa [2024] No. 53)* emphasized the need to strengthen the approval process and standard-setting for cutting-edge medical devices, including medical robots.[636] However,

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634 Crume, Y. (2018). assistive Device revolution for the Independence of Older adults in Japan. *Care Robots and Other Technology Innovations. Tokyo: International Longevity Centre, August, https://www.ilcjapan.org/studyE/doc/2018_1.pdf*

635 *厚生劳働省*. (2017). *长期护理保险制度等修订纲要* [PDF]. Ministry of Health, Labour and Welfare. (2017). *Outline of the revision of the Long-Term Care Insurance System, etc.* [PDF]. Retrieved from https://www.mhlw.go.jp/english/policy/care-welfare/care-welfare-elderly/dl/ltcis_2017_e.pdf

636 国务院办公厅 [General Office of the State Council]. (2025, January 3). *国务院办公厅关于全面深化药品医疗器械监管改革促进医药产业高质量发展的意见* [Opinions on comprehensively deepening reform of drug and medical device regulation to promote high-quality development of the pharmaceutical industry] (国办发〔2024〕53 号). https://www.gov.cn/zhengce/content/202501/content_6996115.htm

the legal status of artificial intelligence remains undefined. Overall, China's legal framework for robocare is still in its infancy.

In sum, while both China and Japan lack specific legal regulations for robocare, the situations differ in important respects. Japan benefits from a more mature legal system in the field of ageing policy and operates a universal LTCI scheme, which provides an institutional foundation for the wider promotion of care robots. By contrast, China has only recently launched pilot programs for LTCI, and its legal and regulatory framework for eldercare services remains underdeveloped.

6.4.4. Comparison of Robocare Social Environment and Acceptance between China and Japan.

In Japan, the acceptance of robots is deeply rooted in cultural traditions. Since the Edo period, the craftsmanship of mechanical dolls has given machines a sense of life, shaping Japan's lasting appreciation for anthropomorphic technology.[637] Meanwhile, the industrial robots have played a vital role in Japan's economic growth, especially in manufacturing, with per capita robot ownership far exceeding other nations.[638] Unlike Western societies, Japanese companies tend to retrain rather than dismiss workers in response to automation, fostering higher acceptance of robots.[639,640]

Japanese popular culture often depicts robots as friendly and cooperative, as seen in works like Astro Boy[641], portraying robots as companions rather than threats.[642] However, cross-cultural studies offer mixed findings on Japanese public attitudes toward robots. Some study suggest greater acceptance of robots in Japan,[643] for example, the Japanese public

[637] Hornyak, T. N. (2006). *Loving the machine: The art and science of Japanese robots*. Kodansha International.
[638] Castells, M. (2011). *The rise of the network society*. John wiley & sons.
[639] Lynn, L. H. (2002). Engineers and engineering in the US and Japan: A critical review of the literature and suggestions for a new research agenda. *IEEE Transactions on Engineering Management*, *49*(2), 95-106.
[640] Hornyak, T. N. (2006). *Loving the machine: The art and science of Japanese robots*. Kodansha International.
[641] MacDorman, K.F., Vasudevan, S.K. & Ho, CC. Does Japan really have robot mania? Comparing attitudes by implicit and explicit measures. *AI & Soc* 23, 485–510 (2009). https://doi.org/10.1007/s00146-008-0181-2
[642] Hornyak, T. N. (2006). *Loving the machine: The art and science of Japanese robots*. Kodansha International.
[643] Persson, A., Laaksoharju, M. & Koga, H. We Mostly Think Alike: Individual Differences in Attitude Towards AI in Sweden and Japan. *Rev Socionetwork Strat* 15, 123–142 (2021). https://doi.org/10.1007/s12626-

demonstrates a general openness toward humanoid and animal-like robots—particularly those designed to support their daily life (like walking), [644] or provide therapeutic companionship—provided they respect human-to-human interaction norms and enhance elders' sense of purpose[645]. But there is still a strong societal expectation that robots can enhance the quality of life and support social engagement in ageing populations, perceptions of robots are not uniformly positive[646]; ambivalence persists, with public attitudes often shaped by tensions between novelty and familiarity, technological advancement and traditional values. Nevertheless, both government policy and public discourse tend to embrace the development of robotics as aligned with Japan's demographic and structural needs.[647]

In sum, Japan's acceptance of robots is deeply rooted in its cultural and historical context, with high adaptability and openness, particularly in industrial and service applications. Even though academic findings on public attitudes remain mixed, the Japanese government and society generally hold an open and positive attitude toward robots, providing a fertile ground for the development of robocare.

Compared to Japan, China's development of robocare started relatively late. However, recent advances in industrial robotics, automation, and strong government support have influenced public perceptions of artificial intelligence. The government-led "technology to

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[644] Karunarathne, D., Morales, Y., Nomura, T. *et al.* Will Older Adults Accept a Humanoid Robot as a Walking Partner?. *Int J of Soc Robotics* **11**, 343–358 (2019). https://doi.org/10.1007/s12369-018-0503-6

[645] Randall N, Kamino W, Joshi S, Chen W, Hsu L, Tsui K, Šabanović S Understanding the Connection Among Ikigai, Well-Being, and Home Robot Acceptance in Japanese Older Adults: Mixed Methods Study JMIR Aging 2023;6:e45442 URL: https://aging.jmir.org/2023/1/e45442 DOI: 10.2196/45442

[646] A comparison between the UK and Japan (N = 200) found that British participants showed more negative attitudes.Source: T. Nomura, "Cultural differences in social acceptance of robots," 2017 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Lisbon, Portugal, 2017, pp. 534-538, doi: 10.1109/ROMAN.2017.8172354. In another cross-cultural comparison of participants from the Netherlands, Japan, and China (N = 96), it was found that Japanese participants held the most negative attitudes. Source: Bartneck, Christoph & Nomura, Tatsuya & Kanda, Takayuki & Suzuki, Tomohiro & Kato, Kennsuke. (2005). *A cross-cultural study on attitudes towards robots*. 10.13140/RG.2.2.35929.11367. In another study involving participants from seven cultural backgrounds (N = 467), Japanese respondents again scored the most negatively.Source: Bartneck, C., Suzuki, T., Kanda, T. *et al.* The influence of people's culture and prior experiences with Aibo on their attitude towards robots. *AI & Soc* 21, 217–230 (2007). https://doi.org/10.1007/s00146-006-0052-7

[647] Ministry of Internal Affairs and Communication, Japan. (2019). Information and Communications in Japan 2019 (summary). https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/whitepaper/2019/index.html

support ageing" initiative has attracted significant media attention. Despite this, research on attitudes toward care robots remains inconclusive. Many elderly people in China show openness and support for care robots that provide physical or daily living assistance, similar to findings in Japan. For example, the elderly living independently at home tend to accept robots assisting with tasks such as reminders for moving objects or taking medication.[648] Family members across age groups also hope robots can help with household chores.[649] Community-dwelling seniors show moderate acceptance of assistive robots (overall acceptance ≈ 51%),[650] with traditional aids like canes and wheelchairs still most common. About 60% prioritize mobility assistance in care robots.[651] On the other hand, a considerable portion of Chinese elderly are wary or fearful of technology, especially companion or humanoid robots,[652] although about 40% value their companionship function.[653] Recent studies show strong interest in social robots for dining and entertainment in family care homes,[654] but acceptance is lower for robots involved in private or group activities such as playing mahjong or bathing.[655]

In fact, research on Chinese elderly users' attitudes toward robocare remains insufficient. China's vast geography and urban-rural disparities complicate obtaining representative results. For instance, disabled urban seniors are 1.394 times more likely to use care robots than their rural counterparts.[656] Studies identify challenges including insufficient policy

[648] Xu, Q., Ng, J.S.L., Tan, O.Y. *et al.* Needs and attitudes of Singaporeans towards home service robots: a multi-generational perspective. *Univ Access Inf Soc* 14, 477–486 (2015). https://doi.org/10.1007/s10209-014-0355-2

[649] Xu, Q., Ng, J.S.L., Tan, O.Y. *et al.* Needs and attitudes of Singaporeans towards home service robots: a multi-generational perspective. *Univ Access Inf Soc* 14, 477–486 (2015). https://doi.org/10.1007/s10209-014-0355-2

[650] He, Q., He, Y., Liu, Q., & Ma, C. (2023). Acceptance of social assistant robots for the older adults living in the community in China. *Geriatric Nursing*, *52*, 191-198. https://doi.org/10.1016/j.gerinurse.2023.06.006

[651] Wang, Y., Chen, H., Hu, X., & Qi, Y. (2024). ENHANCING HOME-BASED CARE WITH ASSISTIVE ROBOTS: ACCEPTANCE AND PREFERENCES OF OLDER CHINESE. *Innovation in Aging*, *8*(Supplement_1), 108-109. https://doi.org/10.1093/geroni/igae098.0349

[652] He, Q., He, Y., Liu, Q., & Ma, C. (2023). Acceptance of social assistant robots for the older adults living in the community in China. *Geriatric Nursing*, *52*, 191-198. https://doi.org/10.1016/j.gerinurse.2023.06.006

[653] Wang, Y., Chen, H., Hu, X., & Qi, Y. (2024). ENHANCING HOME-BASED CARE WITH ASSISTIVE ROBOTS: ACCEPTANCE AND PREFERENCES OF OLDER CHINESE. *Innovation in Aging*, *8*(Supplement_1), 108-109. https://doi.org/10.1093/geroni/igae098.0349

[654] Chen, N., Song, J., & Li, B. (2019). Providing Aging Adults Social Robots' Companionship in Home-Based Elder Care. *Journal of Healthcare Engineering*, *2019*, 2726837. https://doi.org/10.1155/2019/2726837

[655] Huang, T., & Huang, C. (2021). Attitudes of the elderly living independently towards the use of robots to assist with activities of daily living. *WORK*. https://doi.org/10.3233_WOR-205166

[656] Wang, L., & Jin, L. (2021). Willingness or intention: A study on the attitudes of disabled elderly toward

support, economic burden, and technical issues, [657] yet some find no significant impact of government, market, or community support on disabled seniors' willingness to use care robots. [658] This suggests attitudes vary with health status. To support ageing in place and address growing healthcare and workforce shortages, developing reliable, elderly-friendly robot services tailored to their needs and preferences is essential. [659]

In conclusion, the adoption of care robots in China faces more questions than Japan, and while Japan has been more smoothly integrated into care assistants, China's push is driven by policy rather than demand. Policy development and support will continue to change China's ageing care environment and system.

6.5. Japanese Typical Care Robot Case Studies and Insights

As mentioned above, Japan's government has actively promoted robotics in elder care through research projects and financial incentives. In practice, the Ministry of Economy-led programs (e.g. the 2015 "Robot Care" project) funded the development of devices like transfer-lifting robots, robotic seals, and communication robots.[660,661] Many pilot sites were established: nursing homes in Okayama have used the therapeutic seal Paro for dementia care since 2013[662], and municipalities like Saijo and Kawasaki have demoed communication robots (e.g. Pepper) and monitoring systems for community-dwelling seniors[663]. A 2021

smart elderly care products. *Journal of Northwest University (Philosophy and Social Sciences Edition)*, *51*(5), 89–97.

[657] Luo, C., Yang, C., Yuan, R., Liu, Q., LI, P., & He, Y. (2024). Barriers and facilitators to technology acceptance of socially assistive robots in older adults - A qualitative study based on the capability, opportunity, and motivation behavior model (COM-B) and stakeholder perspectives. *Geriatric Nursing*, *58*, 162-170. https://doi.org/10.1016/j.gerinurse.2024.05.025

[658] Wang, L., & Jin, L. (2021). Willingness or intention: A study on the attitudes of disabled elderly toward smart elderly care products. *Journal of Northwest University (Philosophy and Social Sciences Edition)*, *51*(5), 89–97.

[659] M Leung, A. Y., Zhao, I. Y., Lin, S., & Lau, T. K. (2022). Exploring the Presence of Humanoid Social Robots at Home and Capturing Human-Robot Interactions with Older Adults: Experiences from Four Case Studies. *Healthcare*, *11*(1), 39. https://doi.org/10.3390/healthcare11010039

[660] Miyagawa, M. , Kai, Y. , Yasuhara, Y. , Ito, H. , Betriana, F. , Tanioka, T. and Locsin, R. (2020) Consideration of Safety Management When Using Pepper, a Humanoid Robot for Care of Older Adults. *Intelligent Control and Automation*, **11**, 15-24. doi: 10.4236/ica.2020.111002

[661] Wright, J. (2023). Robots Won't Save Japan: An Ethnography of Eldercare Automation on JSTOR. https://doi.org/10.7591/j.ctv2fjx0br.1

[662] Miyagawa, M. , Kai, Y. , Yasuhara, Y. , Ito, H. , Betriana, F. , Tanioka, T. and Locsin, R. (2020) Consideration of Safety Management When Using Pepper, a Humanoid Robot for Care of Older Adults. *Intelligent Control and Automation*, **11**, 15-24. doi: 10.4236/ica.2020.111002

[663] Sato, M., Yasuhara, Y., Osaka, K., Ito, H., Dino, M. J. S., Ong, I. L., Zhao, Y., & Tanioka, T. (2020). Rehabilitation care with Pepper humanoid robot: A qualitative case study of older patients with schizophrenia and/or dementia in Japan. *Enfermería ClíNica*, *30*, 32-36. https://doi.org/10.1016/j.enfcli.2019.09.021

OECD study notes that "Japan subsidized nursing home robot purchases since 2015", and surveyed seniors gave predominantly positive feedback on robot-assisted care trials[664]. In practice, Japanese facilities have tested a wide variety of robots – from pet-like buddies to industrial exoskeletons – to address different care tasks (e.g. lifting, medication reminders, emotional support).[665] The following are some typical Japanese robocare cases which highlight both the promise and the practical limitations of integrating robotics into LTC.

6.5.1. PARO, the Therapeutic Robot

PARO is a well-known example of a socially assistive robot used in Japanese long-term care. It has been commercialized and used in care settings across multiple countries and regions for over ten years. Compared to other animal-like robots, there has been more research conducted on PARO.[666] PARO is a "baby seal" robot developed by Japan's AIST (Advanced Industrial Science and Technology), designed to respond to touch, light, and sound, mimicking a pet that interacts with elderly users.[667] It is marketed as a therapeutic device; in fact, it is certified in Japan (and by the U.S. FDA) as a "neurological therapeutic device".[668] Research has shown that the use of PARO in nursing homes or among dementia

[664] OECD. (2021, July). *Making life richer, easier and healthier: Robots, their future and the roles for public policy* (OECD Science, Technology and Industry Policy Papers No. 117). https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/07/making-life-richer-easier-and-healthier_c5ef2f6b/5ea15d01-en.pdf

[665] Ureta, A. (2024, July 6). *My robot and I: Japanese stories of technology and old age.El País English Edition*. https://english.elpais.com/technology/2024-07-06/my-robot-and-i-japanese-stories-of-technology-and-old-age.html

[666] Abdi J, Al-Hindawi A, Ng T*, et al* Scoping review on the use of socially assistive robot technology in elderly care *BMJ Open* 2018;8:e018815. doi: 10.1136/bmjopen-2017-018815

[667] Baisch, S., Kolling, T., Rühl, S. *et al.* Emotionale Roboter im Pflegekontext. *Z Gerontol Geriat* 51, 16–24 (2018). https://doi.org/10.1007/s00391-017-1346-8

[668]Inoue, K., Wada, K., & Shibata, T. (2021). Exploring the applicability of the robotic seal PARO to support caring for older persons with dementia within the home context. *Palliative Care and Social Practice*, *15*, 26323524211030285. https://doi.org/10.1177/26323524211030285

patients can reduce agitation and depression,[669] the loneliness,[670] burden of the care givers,[671,672] and the use of psychoactive and pain-relieving drugs.[673]

In practice, PARO has been deployed in many Japanese nursing homes and day-care centers. Especially during COVID-19 lockdowns, facilities even introduced PARO to alleviate isolation; one case study reported a nursing home resident with mild dementia who, isolated from family, found companionship in PARO as visitor-hours were curtailed.[674] However. the most significant concern is its high cost, with each unit priced at approximately €5100.[675] Although countries like the United States and Japan offer government support—since PARO is certified as a medical treatment device—most healthcare institutions in other regions must purchase it independently. This financial barrier limits the number of individuals who can benefit from the robot's interaction. The impact of this cost is evident in the limited real-world implementation of PARO[676]. In addition, alternative robotic pets have received far less research attention, raising concerns about innovation dissemination, equitable distribution, and fairness.[677]

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[669] Jøranson, Nina, et al. "Effects on symptoms of agitation and depression in persons with dementia participating in robot-assisted activity: a cluster-randomized controlled trial." Journal of the American Medical Directors Association 16.10 (2015): 867-873. https://doi.org/10.1016/j.jamda.2015.05.002

[670] Robinson, Hayley, et al. "The psychosocial effects of a companion robot: a randomized controlled trial." *Journal of the American Medical Directors Association* 14.9 (2013): 661-667. https://doi.org/10.1016/j.jamda.2013.02.007

[671] K. Wada, T. Shibata, T. Saito, K. Sakamoto and K. Tanie, "Psychological and Social Effects of One Year Robot Assisted Activity on Elderly People at a Health Service Facility for the Aged," Proceedings of the 2005 IEEE International Conference on Robotics and Automation, Barcelona, Spain, 2005, pp. 2785-2790, doi: 10.1109/ROBOT.2005.1570535.

[672] T. Saito, T. Shibata, K. Wada and K. Tanie, "Relationship between interaction with the mental commit robot and change of stress reaction of the elderly," Proceedings 2003 IEEE International Symposium on Computational Intelligence in Robotics and Automation. Computational Intelligence in Robotics and Automation for the New Millennium (Cat. No.03EX694), Kobe, Japan, 2003, pp. 119-124 vol.1, doi: 10.1109/CIRA.2003.1222074.

[673] Petersen, Sandra et al. 'The Utilization of Robotic Pets in Dementia Care'. 1 Jan. 2017: 569 – 574. https://content.iospress.com/articles/journal-of-alzheimers-disease/jad160703

[674] Shibata, T., Hung, L., Petersen, S., Darling, K., Inoue, K., Martyn, K., Hori, Y., Lane, G., Park, D., Mizoguchi, R., Takano, C., Harper, S., Leeson, G. W., & Coughlin, J. F. (2020). PARO as a Biofeedback Medical Device for Mental Health in the COVID-19 Era. *Sustainability*, *13*(20), 11502. https://doi.org/10.3390/su132011502

[675] Hung, L., Liu, C., Woldum, E. *et al.* The benefits of and barriers to using a social robot PARO in care settings: a scoping review. *BMC Geriatr* 19, 232 (2019). https://doi.org/10.1186/s12877-019-1244-6

[676] Ienca, M., Jotterand, F., Vică, C., & Elger, B. (2016). Social and assistive robotics in dementia care: ethical recommendations for research and practice. *International Journal of Social Robotics*, *8*(4), 565-573.

[677] Ienca, M., Jotterand, F., Vică, C., & Elger, B. (2016). Social and assistive robotics in dementia care: ethical recommendations for research and practice. *International Journal of Social Robotics*, *8*(4), 565-573.

Another critical issue is infection prevention and control. Studies indicate that maintaining the cleanliness of PARO's fur is challenging. [678],[679] The fur covering cannot be removed or machine-washed regularly, which poses potential health risks, particularly for immunocompromised individuals.[680] It is therefore recommended that PARO be cleaned after contact with different users—a requirement that increases the workload for institutional staff.[681]

And from a psychological and social standpoint, some studies fund that patients may feel they are being infantilized when interacting with PARO, viewing it as a "toy," particularly when others are present. This sense of embarrassment can affect their response[682,683] Apart from that some research found that in certain cases, PARO interventions have triggered negative emotional reactions, such as anger, wandering, fear, and agitation.[684] Past negative experiences with animals may exacerbate these reactions, and it is important to consider personal history and preferences when introducing PARO. [685] Additionally, although caregivers often report satisfaction with the robot, issues have arisen in practice. One field research found that one resident persistently attempted to peel off PARO's synthetic fur, while another developed an intense emotional attachment, refusing to eat or sleep unless PARO was present. Ultimately, staff were required to closely monitor interactions between

[678] Moyle, W., Bramble, M., Jones, C., & Murfield, J. (2016). Care staff perceptions of a social robot called Paro and a look-alike Plush Toy: a descriptive qualitative approach. *Aging & Mental Health*, *22*(3), 330–335. https://doi.org/10.1080/13607863.2016.1262820

[679] Robinson, H., MacDonald, B. A., Kerse, N., & Broadbent, E. (2013). Suitability of healthcare robots for a dementia unit and suggested improvements. *Journal of the American Medical Directors Association*, *14*(1), 34–40. https://doi.org/10.1016/j.jamda.2012.09.006

[680] Shibata, T., & Coughlin, J. F. (2014). Trends of robot therapy with neurological therapeutic seal robot, PARO. *Journal of Robotics and Mechatronics*, *26*(4), 418-425.

[681] Bemelmans, R., Gelderblom, G. J., Jonker, P., & de Witte, L. (2015). Effectiveness of Robot Paro in Intramural Psychogeriatric Care: A Multicenter Quasi-Experimental Study. *Journal of the American Medical Directors Association*, *16*(11), 946–950. https://doi.org/10.1016/j.jamda.2015.05.007

[682] Moyle, W., Bramble, M., Jones, C., & Murfield, J. (2016). Care staff perceptions of a social robot called Paro and a look-alike Plush Toy: a descriptive qualitative approach. *Aging & Mental Health*, *22*(3), 330–335. https://doi.org/10.1080/13607863.2016.1262820

[683] Moyle, W., Bramble, M., Jones, C. J., & Murfield, J. E. (2019). "She Had a Smile on Her Face as Wide as the Great Australian Bite": A Qualitative Examination of Family Perceptions of a Therapeutic Robot and a Plush Toy. *The Gerontologist*, *59*(1), 177-185. https://doi.org/10.1093/geront/gnx180

[684] Mervin, M. C., Moyle, W., Jones, C., Murfield, J., Draper, B., Beattie, E., ... & Thalib, L. (2018). The cost-effectiveness of using PARO, a therapeutic robotic seal, to reduce agitation and medication use in dementia: findings from a cluster–randomized controlled trial. *Journal of the American Medical Directors Association*, *19*(7), 619-622.

[685] Shibata, T. (2012). Therapeutic seal robot as biofeedback medical device: Qualitative and quantitative evaluations of robot therapy in dementia care. *Proceedings of the IEEE*, *100*(8), 2527-2538.

PARO and residents, yet this supervision did not reduce the repetitive behaviours typical in patients with severe dementia.[686]

6.5.2. Pepper, the Humanoid Robot

Pepper, a semi-humanoid robot produced by SoftBank, stands at 120 cm tall and is equipped with features like facial and emotion recognition, multi-modal communication, and interactive dialogue systems. [687] It has been adopted in Japanese elder care settings due to its friendly design and its ability to engage older adults through light exercises, songs, games, and group activities.[688] In addition, the latest model of Pepper features an improved and more sophisticated dialogue system, and is capable of storing facial and name recognition through a facial authentication system. [689] Researchers have observed that Pepper can encourage simple interactions—residents follow exercise instructions and engage in brief question-and-answer conversations. [690] Pepper also uses child-like speech patterns to simulate intergenerational interactions, which many older adults respond to with curiosity and affection, including touching and hugging the robot [691]. Moreover, studies show that Pepper has the potential to reduce loneliness, promote mental well-being, [692] and increase

[686] Wagner, K. (2023, January 9). *Inside Japan's long experiment in automating elder care*. MIT Technology Review. https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/

[687] Tanioka, R., Locsin, R., Yasuhara, Y. and Tanioka, T. (2018) Potential Legal Issues and Care Implications during Care-Prevention Gymnastic Exercises for the Elderly Using Pepper in Long Term Health Care Facilities. Intelligent Control and Automation, 9, 85-93. https://doi.org/10.4236/ica.2018.93007

[688] A. K. Pandey and R. Gelin, "A Mass-Produced Sociable Humanoid Robot: Pepper: The First Machine of Its Kind," in *IEEE Robotics & Automation Magazine*, vol. 25, no. 3, pp. 40-48, Sept. 2018, doi: 10.1109/MRA.2018.2833157.

[689] Tanioka, R., Locsin, R., Yasuhara, Y. and Tanioka, T. (2018) Potential Legal Issues and Care Implications during Care-Prevention Gymnastic Exercises for the Elderly Using Pepper in Long Term Health Care Facilities. Intelligent Control and Automation, 9, 85-93. https://doi.org/10.4236/ica.2018.93007

[690] Sato, M., Yasuhara, Y., Osaka, K., Ito, H., Dino, M. J. S., Ong, I. L., Zhao, Y., & Tanioka, T. (2020). Rehabilitation care with Pepper humanoid robot: A qualitative case study of older patients with schizophrenia and/or dementia in Japan. *Enfermería ClíNica*, *30*, 32-36. https://doi.org/10.1016/j.enfcli.2019.09.021

[691] Miyagawa, M. , Kai, Y. , Yasuhara, Y. , Ito, H. , Betriana, F. , Tanioka, T. and Locsin, R. (2020) Consideration of Safety Management When Using Pepper, a Humanoid Robot for Care of Older Adults. *Intelligent Control and Automation*, **11**, 15-24. doi: 10.4236/ica.2020.111002

[692] Scoglio A, Reilly E, Gorman J, Drebing C (2019), Use of Social Robots in Mental Health and Well-Being Research: Systematic Review J Med Internet Res 2019;21(7):e13322 URL: https://www.jmir.org/2019/7/e13322 DOI: 10.2196/13322

social participation among older adults[693], thanks to its emotional recognition model with an average accuracy rate of 84.0%.[694]

Despite these promising outcomes, Pepper has several limitations. The robot's design, such as its moving limbs and mobile base, can pose safety risks for elderly individuals, especially those with limited mobility, increasing the risk of collisions or falls during interaction[695]. While Pepper is capable of initiating exercise routines and activities, its limited repertoire of songs and programs often leads to boredom over time, reducing user engagement. [696] Furthermore, the robot is not fully autonomous and requires close supervision by healthcare staff.[697] Contrary to expectations, caregivers found that using Pepper did not free up their time; instead, they had to actively monitor the robot's interactions in public spaces, perform frequent maintenance, and operate it manually—tasks that were time-consuming and technically demanding. Staff members expressed frustration at the lack of quick-access features and slow response times, raising concerns about Pepper's practical usability and long-term sustainability in elder care settings[698]. Apart from that, the current studies mainly focus on structured clinical environments; there is still a lack of evidence from the more naturalistic settings, such as private homes.[699] Moreover, due to consecutive years of

[693] Shibata, T., & Wada, K. (2011). Robot therapy: a new approach for mental healthcare of the elderly - a mini-review. *Gerontology*, *57*(4), 378–386. https://doi.org/10.1159/000319015

[694] S. Yao, J. Wei, M. Zhou and Y. Wang, "Human-Computer Interactive Elderly Care System: Enhancing Emotional and Physical Well-being through the Pepper robot," *2024 6th International Conference on Robotics, Intelligent Control and Artificial Intelligence (RICAI)*, Nanjing, China, 2024, pp. 175-179, doi: 10.1109/RICAI64321.2024.10911115.

[695] Miyagawa, M. , Kai, Y. , Yasuhara, Y. , Ito, H. , Betriana, F. , Tanioka, T. and Locsin, R. (2020) Consideration of Safety Management When Using Pepper, a Humanoid Robot for Care of Older Adults. *Intelligent Control and Automation*, **11**, 15-24. doi: 10.4236/ica.2020.111002

[696] Wagner, K. (2023, January 9). *Inside Japan's long experiment in automating elder care*. MIT Technology Review. https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/

[697] Blindheim, K., Solberg, M., Hameed, I. A., & Alnes, R. E. (2022). Promoting activity in long-term care facilities with the social robot Pepper: a pilot study. *Informatics for Health and Social Care*, *48*(2), 181–195. https://doi.org/10.1080/17538157.2022.2086465

[698] Kitwood, T., & Brooker, D. (2019). *Dementia reconsidered revisited: The person still comes first*. McGraw-Hill Education (UK).

[699] D'Iorio, A. *et al.* (2024). Development of Tasks for SoftBank Pepper to Prevent the Onset of Mild Cognitive Impairment in Older Adults. In: Fiorini, L., Sorrentino, A., Siciliano, P., Cavallo, F. (eds) Ambient Assisted Living. ForItAAL 2024. Lecture Notes in Bioengineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77318-1_9

financial losses, SoftBank discontinued the production of Pepper around 2021. At present, the successful commercialisation of care robots still faces multiple challenges.

6.5.2. Robear Lift-Assist Robot

The ROBEAR ("gentle bear") robot was developed by Japan's RIKEN and Sumitomo Riko, shaped like a friendly teddy bear, Robear is designed to lift and transfer bedridden patients with safety. It was the first assistive robot capable of transferring a 60 kg elderly person from a bed to a wheelchair.[700] Its weight 140 kg (vs. 230 kg for its predecessor RIBA-II), and its robotic arms are equipped with sensors that enhance the comfort of elderly individuals during lifting or transfer, while ensuring the process is safe and effective.[701] These features allow it to perform strenuous patient transfers (an average caregiver task done ~40 times/day that often causes back injuries) gently and safely. In tests, ROBEAR could lift and turn a person in bed without pinching or dropping them.[702] And its friendly "bear face" was meant to appear non-threatening to the elderly.[703].

Although Robear dominates the Google image search results for both the English and Japanese terms for "care robot," creating the impression that it represents the forefront of robocare in Japan, Robear is in fact still an experimental prototype, and the RIKEN lab responsible for its development was closed in 2015,[704] and it costs €155,000–€230,000; which has never been deployed in care homes due to impracticality and high costs.[705] The

[700] T. L. Chen and C. C. Kemp, "Lead me by the hand: Evaluation of a direct physical interface for nursing assistant robots," *2010 5th ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, Osaka, Japan, 2010, pp. 367-374, doi: 10.1109/HRI.2010.5453162.
[701] Davies, Nicola. "Can robots handle your healthcare?." *Engineering & Technology* 11.9 (2016): 58-61. DOI: 10.1049/et.2016.0907
[702] Iroju, O., Adeniyi, O. O., & Ikono, R. (2017). State of the art: a study of human-robot interaction in healthcare.
[703] RIKEN (2015), The strong robot with the gentle touch https://www.riken.jp/en/news_pubs/research_news/pr/2015/20150223_2/
[704] RIKEN (2015), The strong robot with the gentle touch https://www.riken.jp/en/news_pubs/research_news/pr/2015/20150223_2/
[705] Sharma, A. (2025, February 26). *Robotics in elderly care: Current trends and opportunities*. TechRxiv. https://doi.org/10.36227/techrxiv.174060374.42081817/v1

project has been retired, its creator has also stated that it is not a solution to the challenges confronting Japan's care systems.[706]

6.6. Challenges of Chinese development of Robocare

6.6.1. The Present Situation of Policy-Driven Development

As mentioned before, China's development of elderly-care robots has been largely policy-driven and reliant on foreign technologies[707], especially in the early stages of development, China's elderly-care robot industry was heavily reliant on foreign technology and imported components, particularly from Japan, Germany, and the United States.[708] This dependence extended to both industrial design and core components such as sensors, actuators, and intelligent control systems. Although national policies promoted rapid deployment through top-down pilot programs and industrial incentives, the technical capacity to independently develop high-end service robots remained limited. In contrast to Japan's emphasis on long-term technological accumulation and integration within formal long-term care systems, China's strategy was initially characterised by fragmented market applications and technology adaptation.[709] Even though recent academic and industrial developments indicate a growing shift toward domestic innovation in China's AI-enabled care robotics, with increasing efforts to enhance human–robot interaction, contextual adaptability, and safety in healthcare environments, the gap in core technologies, especially in high-precision, ethics-compliant caregiving systems, still remains.[710]

6.6.2 Cultural and Traditional Value Constraints on the Adoption of Robocare

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[706] Emont, Jon (2017). "Japan Prefers Robot Bears to Foreign Nurses." Foreign Policy, March 1, 2017

[707] Zhang, Q., Li, M. & Wu, Y. Smart home for elderly care: development and challenges in China. *BMC Geriatr* 20, 318 (2020). https://doi.org/10.1186/s12877-020-01737-y

[708] U.S.-China Economic and Security Review Commission. (2019). *China's industrial and military robotics development*.https://www.uscc.gov/sites/default/files/Research/DGI_China%27s%20Industrial%20and%20Military%20Robotics%20Development.pdf

[709] East Asian Institute, National University of Singapore. (2020). *Robotics in elderly care sector in China and Japan: Policies and implications* (EAI Background Brief No. 1531). https://research.nus.edu.sg/eai/wp-content/uploads/2020/12/EAIBB-No.-1531-Robotics-in-elderly-care-sector-in-China-and-Japan-2.pdf

[710] Zhou, L., Li, J., Mo, Y., Zhang, X., Zhang, Y., & Wei, S. (2025). AoECR: AI-ization of Elderly Care Robot. *ArXiv*. https://arxiv.org/abs/2502.19706

China's robotics research began relatively late and has primarily focused on pilot programs within elderly care institutions, lacking the long-term, multi-dimensional promotion seen in Japan—from governmental policies to media narratives and even popular culture like anime. The public awareness and acceptance of elder care robots, especially among older adults in China, remain limited (see 6.4.4.).

On the other hand, while filial piety (孝) is not synonymous with elderly care, it remains a core value that profoundly shapes China's elder care culture (see Chapter 2) Traditionally, Chinese children viewed caring for their ageing parents as a natural moral duty, thereby alleviating the burden on broader social welfare systems.[711] In the past, caring for ageing parents was seen as a moral duty, creating a reciprocal, emotionally bonded parent-child relationship. The rise of robocare, however, risks disrupting this balance. Some children may delegate their responsibilities entirely to machines, becoming less attentive to their parents' emotional needs. This could weaken traditional bonds and lead to a growing separation between "filial piety," caregiving, and respect, ultimately challenging the ethical foundation of family-based elder care. [712]

6.6.3. Digital Divided among the Elderly

According to data from the Chinese General Social Survey (CGSS) conducted by the China Survey and Data Center at Renmin University, the digital skills of older internet users in China are generally low and evenly distributed (mean = 3.0, SD = 1.1), showing little correlation with age or education level.[713] The 52nd Statistical Report on Internet Development in China (2023) further notes that 54.6% of internet users aged 60 and above possess at least one basic digital skill.[714] However, when viewed in the context of the entire

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[711] Zhang, Y. (2020). Can "AI-A Tie" fulfill filial piety? — Challenges of robotic caregiving to medical/bioethics. *Chinese Medical Ethics*, 2020(7). DOI:10.12026/j.issn.1001-8565.2020.07.18.

[712] Wang, J., & Li, H. (2023). The realization and limitations of filial piety through robotic caregiving. *Journal of Dialectics of Nature*, 2023(10). DOI:10.15994/j.1000-0763.2023.10.012.

[713] Piao, W. L. (2021). A study on the differences in the digital divide among the elderly under the basic national condition of aging: Based on the 2017 Chinese General Social Survey data. *Journal of Nanning Normal University (Philosophy and Social Sciences Edition)*, 2021(5), 68–81.

[714] China Internet Network Information Center (CNNIC). (2023, August 28). *The 52nd Statistical Report on China's Internet Development* [EB/OL]. https://www.cnnic.net.cn/NMediaFile/2023/0908/MAIN1694151810549M3LV0UWOAV.pdf

elderly population, this proportion drops to around 27.4%, indicating that a significant number of older adults still lack even basic digital competencies.[715]

China's internet penetration among older adults remains relatively low. By December 2024, the national internet penetration rate up to 78.6%. However, among individuals aged 60 and above, the internet penetration rate was only 52.5%, 26.1 percentage points lower than the national average. This means that nearly half of the elderly population remains offline. Moreover, the elderly have become the largest group among non-internet users, accounting for 46.8% of the total non-user population as of the end of 2024. Apart from that, there is a significant urban-rural digital divide. Rural residents make up 54.4% of the non-Internet population, which is 20.6 percentage points higher than the proportion of rural residents in the national population. This suggests that rural areas face even greater challenges in achieving digital inclusion, especially among older adults.[716]

In addition, both economic and technological barriers continue to limit digital inclusion among older adults. Low disposable income and conservative consumption habits restrict their ability to purchase digital devices.[717] Technologically, mainstream digital products and public service platforms often overlook the physiological and cognitive needs of older users, creating usability challenges. Overall, digital interfaces still lack adequate age-friendly design, and deeper technological adaptations for elderly users are urgently needed. [718]

6.6.4. Legal and Ethical Challenges Facing the Development of Robocare

The legal and ethical problem in Robocare is a worldwide challenge, not only in China. One comparative review conducted by Ono, Dan, and Masaki (2023) analysed 18 representative AI ethics guidelines from both domestic (Japan, 7 documents, including one draft) and

[715] Liu, S., & Yin, S. (2025). From marginalization to integration: The value, dilemmas, and pathways of improving digital literacy among the elderly in China. *Cross-Strait Lifelong Education*, *28*(1), 9–17.
[716] China Internet Network Information Center (CNNIC). (January 2025). *The 55th Statistical Report on China's Internet Development* [EB/OL]. https://pdf.dfcfw.com/pdf/H3_AP202501191642341023_1.pdf
[717] Fan, Y., & Li, Z. (2021). From empowerment to restriction: A study on elderly people's smartphone use. *Future Communication*, 2021(5), 29–37.
[718] Liu, S., & Yin, S. (2025). From marginalization to integration: The value, dilemmas, and pathways of improving digital literacy among the elderly in China. *Cross-Strait Lifelong Education*, *28*(1), 9–17.

international sources (11 documents, including those by the EU, OECD, etc.) summarized seven recurring ethical principles were identified: human dignity, respect for autonomy, fairness, accountability (explainability), safety (non-maleficence), information security, and the appropriate use of AI.[719]

To provides a conceptual foundation for further discussion of the ethical and legal challenges posed by robocare in the LTC system, this thesis grouped three categories clarify to these principles: (1) Foundational ethical values (comprising human dignity and respect for autonomy) in robocare; (2) Social justice and accountability of robocare; and (3) Technical and governance safeguards of robocare.

6.6.4.1. Fundational Ethical Values

A core ethical priority is upholding the elderly's dignity and autonomy in care. Robots must enhance, not erode, human–centred care. Yet many ethicists caution that robots lack true empathy and cannot fully discharge the deeply personal duties of care. Robot caregivers pose risks of "loss of privacy, unwarranted restrictions on autonomy, lack of dignity, deception, and the exacerbation of loneliness" if not carefully designed.[720] And from a Confucian perspective, robots – no matter how "humanised" – struggle to replicate the genuine emotional bond and filial care expected in Chinese culture.[721]

Apart from that, the introduction of robots might disrupt work organization and distribution methods, as well as pose new ethical and legal challenges.[722] Meantime, while deploying communication robots in law enforcement could offer benefits, it also carries potential risks, such as bias, unethical use, and possible system errors.[723] Although some studies suggest

[719] Ono, T., Duan, X., & Masaki, H. (2023). A study on ELSI concerning the introduction of care robots and AI into elderly care facilities: A review of guidelines in Japan and abroad. *Journal of Geriatric Nursing*, 28(1), 36–40. https://doi.org/10.20696/jagn.28.1_36

[720] Johnston C. (2022). Ethical Design and Use of Robotic Care of the Elderly. *Journal of bioethical inquiry*, *19*(1), 11–14. https://doi.org/10.1007/s11673-022-10181-z

[721] Muyskens, K., Ma, Y., & Dunn, M. (2024). Can an AI-carebot be filial? Reflections from Confucian ethics. *Nursing ethics*, *31*(6), 999–1009. https://doi.org/10.1177/09697330241238332

[722] Cresswell, K., Cunningham-Burley, S. and Sheikh, A. (2018) "Health care robotics: Qualitative exploration of key challenges and future directions", *Journal of Medical Internet Research*, 20(7), p. e10410. Available at: https://www.jmir.org/2018/7/e10410/.

[723] Salehzadeh, R., Bordbar, F., Griffin, D. J., Cousin, C. and Jalili, N. (2022) "Public perception, privacy,

that robots might help alleviate loneliness among older adults, assist wheelchair users in regaining mobility, or aid the visually impaired in navigation, the importance of human interaction in personal care cannot be overlooked. The introduction of robots may potentially strip care practices of their humanity.[724,725] This raises questions about the extent to which the use and development of robots in healthcare settings may challenge user dignity.[726,727,728] The European Parliament warned that replacing human contact with robotic technology in sensitive environments, such as care settings, might lead to a loss of human touch in care practices.[729] On the other hand, one of the most challenging aspects is how to achieve and respect patient autonomy. For example, when a person with intellectual disabilities cannot understand what a robot is or what it does, their autonomy is challenged, which may prevent them from giving fully informed consent. This situation poses risks of privacy invasion, manipulation, and even coercion.[730,731]

Currently, no specific laws regulate the use of robots or AI technologies in the elderly care environment, particularly in terms of autonomy. To safeguard user rights, decisions regarding these systems should be based on informed consent, ensuring that robots are not

safety, and ethical considerations of communication robots in law enforcement", in *Proceedings of the 31st IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*, pp. 1586–1591. Napoli, Italy. Available at: https://doi.org/10.1109/RO-MAN53752.2022.9900659

[724] Zardiashvili, L. and Fosch-Villaronga, E. (2020). " 'Oh, Dignity too?' Said the Robot: Human Dignity as the Basis for the Governance of Robotics". *Minds and Machines*, 30(1), pp. 121–143. Available at: https://doi.org/10.1007/s11023-019-09514-6

[725] European Commission (2018) *Communication on enabling the digital transformation of health and care in the Digital Single Market; empowering citizens and building a healthier society (COM(2018) 233 final)*. Brussels, Belgium.

[726] Vallor, S. (2011). "Carebots and Caregivers: Sustaining the ethical ideal of care in the Twenty-First Century". *Philosophy & Technology*, 24(3), pp. 251–268. Available at: https://doi.org/10.1007/s13347-011-0015-x

[727] Sharkey, A. (2014) "Robots and human dignity: a consideration of the effects of robot care on the dignity of older people", *Ethics and Information Technology*, 16(1), pp. 63–75. Available at: https://doi.org/10.1007/s10676-014-9338-5

[728] Zardiashvili, L. and Fosch-Villaronga, E. (2020). " 'Oh, Dignity too?' Said the Robot: Human Dignity as the Basis for the Governance of Robotics". *Minds and Machines*, 30(1), pp. 121–143. Available at: https://doi.org/10.1007/s11023-019-09514-6

[729] European Commission (2017) *European Pillar of Social Rights. Principle 18*. Available at: https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/en/

[730] Vandemeulebroucke, T., De Casterlé, B. D. and Gastmans, C. (2018). "The use of care robots in aged care: A systematic review of argument-based ethics literature". *Archives of Gerontology and Geriatrics*, 74, pp. 15–25. Available at: https://doi.org/10.1016/j.archger.2017.08.014

[731] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

perceived as mandatory interventions.[732] Given the inherent risk of technological failures, users must receive clear, upfront information to understand potential risks.[733] Beyond legal considerations, user perception plays a crucial role in the acceptance of robotic technologies. Research indicates that the more familiar older adults are with robots, the more they perceive them as useful, intelligent, and sociable[734]. This underscores the need for effective education and user engagement strategies when introducing these systems. Providing detailed, user-friendly instructions tailored to different user groups can enhance understanding and usability, ultimately supporting informed decision-making and improving the integration of robotic care solutions.[735,736]

6.6.4.2. Social Justice and Accountability of Robocare

Robocare must also be fair and inclusive, not creating new inequalities. China's urban-rural divide and income disparities pose major challenges. Currently, advanced care robots are expensive and scarce. As one report notes, a smart conversational robot may cost >¥140,000 and rehabilitation robots over ¥100,000. High-end models (exoskeletons, bathing robots) are beyond most families' means, confining them to well-funded institutions or pilot programs. This "luxury care" trend means only affluent seniors benefit, worsening social inequities.[737,738.]

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[732] Wu, D., Pu, L., Jo, J., Hexel, R. and Moyle, W. (2024). "Deploying Robot-Led Activities for People with Dementia at Aged Care Facilities: A Feasibility Study". *Journal of the American Medical Directors Association*, 25(7), p. 105028. Available at: https://doi.org/10.1016/j.jamda.2024.105028

[733] Abdel-Keream, M. (2023) "Ethical Challenges of Assistive Robotics in the Elderly Care: Review and Reflection", in Engel, U. (ed.) *Robots in Care and Everyday Life*. SpringerBriefs in Sociology. Cham: Springer. Available at: https://doi.org/10.1007/978-3-031-11447-2_7.

[734] De Graaf, M. M., Allouch, S. B. and Klamer, T. (2015) "Sharing a life with Harvey: Exploring the acceptance of and relationship-building with a social robot", *Computers in Human Behavior*, 43, pp. 1–14. Available at: https://doi.org/10.1016/j.chb.2014.10.030

[735] Abdel-Keream, M. (2023) "Ethical Challenges of Assistive Robotics in the Elderly Care: Review and Reflection", in Engel, U. (ed.) *Robots in Care and Everyday Life*. SpringerBriefs in Sociology. Cham: Springer. Available at: https://doi.org/10.1007/978-3-031-11447-2_7.

[736] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[737] Hung, J. (2022). Smart Elderly Care Services in China: Challenges, Progress, and Policy Development. *Sustainability*, *15*(1), 178. https://doi.org/10.3390/su15010178

[738] Guangdong Provincial Department of Civil Affairs. (2025, May 28). Is the era of robot eldercare coming? *Guangdong Provincial Department of Civil Affairs*. Retrieved from https://smzt.gd.gov.cn/mzzx/qgmz/content/post_4717092.html

Surveys also show that low digital literacy and connectivity in remote areas create a "double divide" – poorer, rural elders have less access to the internet or training, limiting even basic telecare usage.[739] A typical example is the COVID-19 pandemic, during which the Chinese government rapidly promoted digital governance. Many people relied on remote work tools, online education, and digital platforms to access news, order food, and manage daily life. However, individuals with low digital literacy, especially the elderly, who were facing challenges due to limited access to tools like the health code system. This affected their mobility, access to medical care, and even food delivery. [740] In the first three months of the outbreak, China saw 61 million new elderly internet users—a surge unmatched in the past decade. Yet, this rapid digital shift also exposed many to misinformation and online scams. [741]

Moreover, accountability and responsibility must be addressed. Introducing robots into care raises questions: Who bears the cost? Who is liable if the robot fails? Without a clear policy, families may face exorbitant charges and uncertainty about compensation for injury or neglect.[742] Apart from that, the surveillance capabilities of care robots also run the risk of violating their privacy without a proper accountability system.[743] In conflicting privacy and surveillance, caring robots should always announce their presence. The mental capacity of the care receiver, on the other hand, is also relevant to this issue, especially as some vulnerable people with specific illnesses (e.g. dementia, etc.) may forget that they are being monitored, leading them to act in ways they would not normally act if they knew they were

[739] Chen, H., Hagedorn, A., & An, N. (2023). The development of smart eldercare in China. *The Lancet Regional Health - Western Pacific*, *35*, 100547. https://doi.org/10.1016/j.lanwpc.2022.100547
[740] Liang, F. (2020). <? covid19?> COVID-19 and Health Code: How Digital Platforms Tackle the Pandemic in China. *Social Media+ Society*, *6*(3), 2056305120947657.
[741] Chen, H., Hagedorn, A., & An, N. (2023). The development of smart eldercare in China. *The Lancet Regional Health - Western Pacific*, *35*, 100547. https://doi.org/10.1016/j.lanwpc.2022.100547
[742] China National Committee on Ageing, ESCAP, Renmin University of China, & United Nations Population Fund. (2019, December 16). *Report on 2019 International Meeting on Technology for Ageing in East and North-East Asia* (Meeting held November 13–14, 2019, Beijing, China). Retrieved from https://china.unfpa.org/sites/default/files/pub-pdf/Meeting%2BReport%2Bof%2BTechnology%2Bfor%2BAgeing%2B2019-final.pdf
[743] Sharkey A, Sharkey N. Granny and the robots: ethical issues in robot care for the elderly [J]. Ethics and information technology, 2012, 14(1): 27-40. https://link.springer.com/article/10.1007/s10676-010-9234-6(Accessed on 27.03.2024)

being surveillance.[744,745] Moreover, for caregivers, it is also important to consider the discomfort and stress staff experience when being watched by a robot in a caring environment.[746]

Across many jurisdictions, nursing-care robot manufacturers are subject to traditional product liability regimes that impose strict liability for user injuries caused by defects in design, manufacturing, or instructions. In the European Union, the newly enacted Product Liability Directive (2024), which must be transposed by December 2026, significantly broadens liability: it explicitly covers software updates and AI components, extends liability periods up to 25 years for latent injuries, and shifts burdens of proof in favour of plaintiffs where technical complexity obscures causation.[747] In Japan, legal redress for harm caused by nursing-care robots is provided through the Product Liability Act (1994) and complementary tort liability under Article 709 of the Civil Code. Under the PL Act, If an elderly person were to suffer a medical accident while independently using a care robot to perform preventive exercise routines, liability could potentially fall on the manufacturer of the robot or on the developer of the application software installed on the device, in accordance with the Product Liability Law. Article 709 of the Civil Code stipulates that anyone who intentionally or negligently infringes upon the rights or lawful interests of others shall be liable for damages. Negligence is defined as a failure to exercise due care or a breach of duty of care, specifically when foreseeable and preventable outcomes are not avoided due to inadequate attention.In the context of patient care—such as physical condition assessment, risk management, and CPGE (care-preventive gymnastics exercises)—facility managers may be held liable if negligence in environmental setup (e.g., failure to maintain safe

[744] Sharkey A, Sharkey N. Granny and the robots: ethical issues in robot care for the elderly [J]. Ethics and information technology, 2012, 14(1): 27-40. https://link.springer.com/article/10.1007/s10676-010-9234-6

[745] Sharkey N, Sharkey A. The eldercare factory [J]. Gerontology, 2012, 58(3): 282-288. https://www.karger.com/Article/Abstract/329483

[746] Chen, M. (2022). PRIVACY PROTECTION AND ROBOCARE IN LONG-TERM CARE. *Central and Eastern European Online Library*, 97–109. https://www.ceeol.com/search/article-detail?id=1291439

[747] Reilly, P., Hasic, E., & Spilson, N. G. (2025, April 11). Ten things to know about the European Union's new product liability directive. *Reuters*. https://www.reuters.com/legal/legalindustry/ten-things-know-about-european-unions-new-product-liability-directive-2025-04-11/

distances between patients or remove obstacles) leads to harm, as such risks are both foreseeable and avoidable.[748]

In China, injury caused by nursing-care robots falls primarily under the Product Quality Law (2018 Revision), which imposes strict liability on producers and sellers for defective products that harm life, health, or property. Manufacturers bear responsibility regardless of fault, and victims may claim compensation without proving negligence. Under the Safety Production Law, companies must proactively identify and eliminate hazards in production and deployment environments, which can include robot-human interactions in care settings. Moreover, for robotics integrated into medical systems or services, the Regulation on the Supervision and Administration of Medical Devices mandates registration, technical review, and post-market surveillance, imposing additional safety obligations and liability exposure for products that cross into regulated medical use. [749]

But the rapid progress in AI and robotics is challenging the traditional boundaries of the law. Algorithms are widely employed in decision-making processes. This, in its turn, has an increasing impact on individuals and society. For instance, potential implications of this may include manipulation, biases, censorship, social discrimination, violations of privacy and property rights. Even though some regulations, like the EU Artificial Intelligence Act (Regulation (EU) 2024/1689) introduce a risk-based regulatory framework that classifies care-related AI systems as high-risk, subjecting them to obligations for transparency, human oversight, safety, data governance, and post-market monitoring. However, as artificial intelligence continues to evolve—particularly with the advancement of generative AI and its growing capacity for self-learning and fuzzy reasoning, making it increasingly "human-like"—a critical question arises: how should we address the relationship between generative

[748] Tanioka, R. , Locsin, R. , Yasuhara, Y. and Tanioka, T. (2018) Potential Legal Issues and Care Implications during Care-Prevention Gymnastic Exercises for the Elderly Using Pepper in Long Term Health Care Facilities. *Intelligent Control and Automation*, 9 , 85-93. doi: 10.4236/ica.2018.93007.

[749] 国务院办公厅 [General Office of the State Council]. (2025, January 3). *国务院办公厅关于全面深化药品医疗器械监管改革促进医药产业高质量发展的意见* [Opinions on comprehensively deepening reform of drug and medical device regulation to promote high-quality development of the pharmaceutical industry] (国办发〔2024〕53 号). https://www.gov.cn/zhengce/content/202501/content_6996115.htm

AI and human rights? Clarifying the role of AI in public services and defining the boundaries of responsibility and accountability remain pressing and ongoing challenges. [750]

6.6.4.3. Technical and Governance Safeguards of Robocare.

Although robots can enhance efficiency and handle routine tasks, they cannot completely replace the nuanced care provided by humans. If the automated systems override human judgment in critical care situations, the overreliance on robocare without clear protocols for human intervention could increase safety risks for older adults, particularly if system errors or malfunctions go undetected. On the other hand, the introduction of robots may alter the organisational structure of work in LTC settings, creating new tasks such as supervision and technical management, which could increase the workload of caregivers[751] and influence the quality of care. [752] Due to policy-driven development rather than technological advancement, China's smart home-based elderly care lacks a solid technical foundation. Most companies can only offer basic services like care orders, emergency response, and simple health consultations, but struggle with more complex services such as health management, integrated assistance, and home security. [753] Additionally, the absence of unified industry standards means each company uses its own platform, resulting in poor compatibility between devices and services. This hinders industry growth and causes further issues.[754]

Another critical challenge is the risk of cybersecurity breaches. Many modern robots rely on Wi-Fi or 5G networks for operation and data exchange, making them vulnerable to hacking and data theft. Such breaches could jeopardize patient privacy and lead to unauthorized

[750] Lv, D.-Y., Lang, Y.-K., Fan, B.-N., et al. (2024). Opportunities and challenges of generative artificial intelligence applications in public services. *Journal of University of Electronic Science and Technology of China (Social Science Edition)*, 26(3), 35-45. https://doi.org/10.14071/j.1008-8105(2024)-4001

[751] Burnand, A. *et al.* (2024) "Non-Pharmacological Interventions in the Management of Dementia-Related Psychosis: A Systematic Review and Meta-Analysis", *International Journal of Geriatric Psychiatry*, 39(8), p. e6129. Available at: https://doi.org/10.1002/gps.6129.

[752] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[753] Xu, X. (2019). Resource shortage or resource dependence: resource dilemma of elderly care service in smart community. *Lanzhou Academic J*, *39*(5), 196-208.

[754] Zhang, Q., Li, M. & Wu, Y. Smart home for elderly care: development and challenges in China. *BMC Geriatr* 20, 318 (2020). https://doi.org/10.1186/s12877-020-01737-y

access to sensitive health information. The potential for technical malfunctions or cyberattacks necessitates robust cybersecurity measures and rapid response systems to address issues promptly. Any delay in detecting or mitigating these problems could disrupt healthcare workflows, compromise patient safety, and result in severe legal consequences.[755] Therefore, ensuring that robots are equipped with advanced security features and that protocols are in place for swift resolution of technical issues is crucial for safeguarding both patients and healthcare systems.[756]

Apart from that, Bias and discrimination in algorithmic systems present a significant ethical challenge in AI development. Ethics by design seeks to embed moral reasoning capabilities into autonomous agents, ensuring their behaviour aligns with defined ethical boundaries.[757] Central to this approach is the translation of human values—such as dignity, autonomy, and well-being—into technical requirements. However, as AI systems are shaped by human designers, they inevitably reflect individual priorities and social biases.[758]

Transparency is an inherently complex concept, particularly when considering the vulnerable groups such as older adults and individuals with severe dementia. Actually, few people fully understand the technological devices they use daily, making transparency a context-dependent issue. The gap between policy and practice further complicates this, creating ethical dilemmas that caregivers must address.[759] To bridge this gap and ensure ethical implementation, tailored training and structural support are crucial at both individual and organizational levels. Providing comprehensive education and resources can help

[755] Alnobani, O., Zakaria, N., Temsah, M., Jamal, A. A., Alkamel, N. and Tharkar, S. (2021) "Knowledge, attitude, and perception of healthcare personnel working in intensive care units of mass gatherings toward the application of telemedicine robotic remote-presence technology: A cross-sectional multicenter study", *Telemedicine and e-Health*, 27(12), pp. 1423–1432. Available at: https://doi.org/10.1089/tmj.2020.0469.

[756] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[757] Dignum, V., Dennis, L., van Steenbergen, M., Baroglio, C., de Wildt, T., Smakman, M., Chatila, R., Caon, M., Pavón, J., Baldoni, M., Micalizio, R., Kließ, M. S., van der Toree, L., Génova, G., Villata, S., Haim, G., Tedeschi, S., Lopez-Sanchez, M., & Slavkovik, M. (2018). Ethics by design: Necessity or curse? In *AIES '18: Proceedings of the 2018 AAAI/ACM Conference on AI, Ethics, and Society* (pp. 60-66). ACM. https://doi.org/10.1145/3278721.3278745

[758] Blake, V.K. 2020. Regulating care robots. *Temple Law Review* 92(3): 551-594.

[759] Redmalm, D., Iversen, C. and Persson, M. (2024) "Can robots lie? A posthumanist approach to robotic animals and deceptive practices in dementia care", *Journal of Aging Studies*, 71, p. 101272. Available at: https://doi.org/10.1016/j.jaging.2024.101272

caregivers and institutions overcome barriers, facilitate the responsible adoption of innovations, and ultimately enhance the quality of care.[760,761]

6.6.5 The Challenges of Industrializing Robocare

While large corporations may have institutionalized processes for testing and integrating new technologies—often supported by in-house R&D—many small- and medium-sized care facilities rely on a trial-and-error approach. When these facilities decide to abandon a previously adopted device, the policy shift can result in substantial financial losses, making them more hesitant to embrace future technological innovations.[762] Like Japan, although care robots have been incorporated into caregiver training programs, their actual application remains limited due to high costs. Industry practitioners are still reluctant to introduce robots into care facilities.[763] On the other hand, A significant gap exists in the capacity to engage in digital healthcare transformation. Well-resourced companies with access to experts and capital are advancing rapidly, while smaller community-based care providers struggle to keep pace with these developments. [764]

In China, while robotics uptake is accelerating across manufacturing and logistics, the healthcare and eldercare sectors lag due to misalignment between system designs and local rural workflows, technical usability barriers, and issues concerning transparency and trust in AI-driven decision support systems.[765] Additionally, macro-level evidence shows that rapid robot adoption in Chinese industries may improve physical health outcomes for workers but can exacerbate mental stress, particularly among older or less educated workers, suggesting

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[760] Ren, L. H., Wong, K. L. Y., Wong, J. *et al.* (2024) "Working with a robot in hospital and long-term care homes: staff experience", *BMC Nursing*, 23, p. 317. Available at: https://doi.org/10.1186/s12912-024-01983-0

[761] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076

[762] Vogt, G., & König, A. S. L. (2021). Robotic devices and ICT in long-term care in Japan: Their potential and limitations from a workplace perspective. *Contemporary Japan*, *35*(2), 270–290. https://doi.org/10.1080/18692729.2021.2015846

[763] Nguyen, N. C., & Saito, M. (2025). Issues in applications of nursing care robots, and in the training of care workers in their use in Japan. *Frontiers in Medicine*, *12*, 1459015. https://doi.org/10.3389/fmed.2025.1459015

[764] Vogt, G., & König, A. S. L. (2021). Robotic devices and ICT in long-term care in Japan: Their potential and limitations from a workplace perspective. *Contemporary Japan*, *35*(2), 270–290. https://doi.org/10.1080/18692729.2021.2015846

[765] Wang, D., Wang, L., Zhang, Z., Wang, D., Zhu, H., Gao, Y., Fan, X., & Tian, F. (2021). *Brilliant AI Doctor in Rural China: Tensions and Challenges in AI-Powered CDSS Deployment*. https://doi.org/10.1145/3411764.3445432

broader social adaptation issues that could extend to healthcare contexts and cause more serious problems due to the vulnerability of the care receivers.[766]

These findings illustrate that there are deeply rooted industrialisation challenges of robocare, from financial barriers and workforce dynamics to cultural fit and acceptability, that cannot be addressed by hardware innovation alone but require holistic socio-technical and institutional strategies.

6.7 Conclusion

Japan and China both face severe demographic challenges, including ageing populations and shrinking workforces, and are turning to robotic technologies to ease pressure on LTC systems. Yet the success of robocare depends not only on technological advances but also on sound legal frameworks, ethical oversight, and public trust.

Neither country has enacted dedicated legislation for robocare. Japan has linked assistive technology policy with its LTCI Act and begun exploring governance frameworks, but adoption remains slow due to technical limits, high costs, and user acceptance issues. China, meanwhile, is still in an early phase, with low public acceptance and limited digital literacy among the elderly. These challenges reflect global tensions between innovation, ethics, and accessibility, underscoring the need for robocare to adapt both to societal realities and to the legal and moral questions of human–robot interaction.

Chapter VII. De Lege Ferenda: Recommendations for Reforming China's LTCI System

7.1. Introduction

China's rapidly ageing population has prompted national efforts to establish a formal LTC system. Since 2016, China has piloted LTCI in 49 cities and is exploring nationwide schemes. In Germany and Japan, mandatory LTC insurance has been enacted to meet rising care needs.

[766] Liu, Q., Luo, S., & Seamans, R. (2024). Pain or anxiety? The health consequences of rising robot adoption in China. *Economics Letters*, *236*, 111582. https://doi.org/10.1016/j.econlet.2024.111582

Drawing on their decades of experience, this chapter synthesises key lessons and good practices for China's LTC reform, aims to provide a comparative legal and institutional analysis of LTC systems in China, Germany, and Japan, with particular attention to their historical development, legal frameworks, financing structures, and policy challenges. It also examines the rise of Robocare as a complementary or transformative force in care provision, drawing lessons from Japan's experience for China's ongoing reforms. Finally, the study offers de lege ferenda recommendations for the reform of China's LTCI system, emphasizing the importance of legal codification, equitable coverage, financial sustainability, protection of rights, and responsible integration of technology.

7.2. Legal Reform of the Chinese Long-term Care System

7.2.1 Enact a National Legislative and Regulatory Frameworks of LTCI

Germany and Japan both anchor LTC in legislation that defines entitlements, standards, and quality controls. And both systems are backed by secondary regulations for implementation. Germany's SGB XI is supplemented by various secondary regulations (governing assessment criteria, contributions, and provider contracts) —most notably the *Long-Term Care Insurance Ordinance* (Pflege-Versicherungsverordnung) (PVV) and state-level implementing laws—that detail precise assessment instruments, contribution calculations, and provider contracting procedures.[767] And licensed LTC providers (nursing homes, ambulatory care services), whether non-profit or for-profit, must satisfy national quality standards codified in SGB XI §§ 113–115 and the *Federal Act on Quality Assurance in Long-Term Care* (Pflege-Qualitätssicherungsgesetz[768]); The same as Germany, the detailed implementation is governed by secondary legislation in Japan, such as regulations on care assessment procedures, fee schedules, service provider accreditation, and care manager

[767] For example, since January 2017, the NBA tool (six modules, including "cognitive and communicative abilities" and "behavioural and psychological support") has served as the sole basis for determining the care grades, ensuring that dementia and other cognitive disorders receive adequate weight.

[768] The Pflege-Qualitätssicherungsgesetz aims to ensure that long-term care providers in Germany, such as nursing homes and home care services, meet uniform federal standards in care quality, staffing qualifications, and service procedures. It mandates regular quality assessments (e.g. by the MDK), transparent public ratings (Pflege-TÜV), and corrective measures to protect the safety and rights of care recipients.

qualifications.[769] These allow for consistent nationwide standards while enabling flexible local administration. Standardised needs assessments (using a 74–85 items questionnaire) and a multi-level certification process ensure fairness and transparency.

The Chinese government's work agenda for LTCI has evolved from *"steadily advancing the pilot programs of the LTCI system"* in 2023, to *"promoting the establishment of the LTCI system"* in 2024, and further to *"accelerating the establishment of the LTCI system"* in 2025. This change in wording reflects not only the pace and determination of policy advancement but also signals that the nationwide implementation of the LTCI system is accelerating.[770] Recent official reports have also explicitly called for putting a "Long-Term Care Insurance Law" on the legislative agenda to clarify its "*system positioning, implementing entity, financing mechanism, and regulatory responsibilities*".[771] The good examples from Germany and Japan also underscore the importance of a strong legal foundation.

In designing a LTCI law, China could follow the German model by enshrining entitlements, contributions, and provider responsibilities in primary legislation while relying on secondary regulations for operational detail. Such a framework would allow the law itself to secure basic rights and nationwide quality standards, while ordinances and administrative rules could govern needs assessment instruments, contribution formulas, and provider contracting. At the same time, Japan's approach highlights the importance of standardized needs assessment procedures (e.g., multi-level certification and comprehensive questionnaires)

[769] Including rules on care level certification procedures and the composition of the certification committee (介護認定審査会規則), a fee schedule revised every three years by the Ministry of Health, Labour and Welfare (介護報酬改定), service standards outlining facility, staffing, and operational requirements(介護サービス基準), provider accreditation regulations (指定事業者制度)defining licensing and quality control, and care manager training and certification standards that govern the qualifications and responsibilities of those who develop care plans(介護支援専門員).

[770] 杨倩雯(2025) 连续 5 年被写进政府工作报告,长护险全国落地 "箭在弦上"*第一财经*. Yang, Q. W. (2025). It's written into the government work report for five consecutive years—Long-term care insurance is "on the verge" of nationwide implementation. *Yicai*. Retrieved June 11, 2025, from https://www.yicai.com/news/102498742.html

[771] 中国社会科学院法学研究所. (2022). *中国卫生法治发展报告,(陈甦、田禾主编;吕艳滨执行主编)*. 社会科学文献出版社. Institute of Law, Chinese Academy of Social Sciences. (2022). *Annual report on rule of law on health in China* (Chen Su & Tian He, Eds.; Lü Yanbin, Exec. Ed.). Social Sciences Academic Press.

and professional accreditation mechanisms, which ensure transparency, fairness, and nationwide comparability.

Accordingly, China's LTCI law should combine uniformity and flexibility, establishing national legal standards on eligibility, quality, and accountability, at present, regional development in China is unbalanced, and there is also a significant gap between urban and rural areas. On the basis of mandatory national laws, different provinces and cities can enact provincial or municipal laws and criminal investigation regulations according to their own circumstances, in order to adapt to and meet national standards and levels. At the same time, the system should further institutionalize transparent assessment tools, mandatory provider licensing, and independent complaint mechanisms to safeguard fairness and user rights. This dual approach would strengthen both the legal certainty and the practical effectiveness of China's LTCI system.

7.2.2. Statutory Expansion of LTCI Coverage to Previously Excluded Populations

Following the models of Germany and Japanese LTCI system, both countries mandate universal coverage. At present, only 49 pilot cities in China have established LTCI pilot programmes, and they are mainly provincial capitals; however, there are a total of 691 cities and more than 580,000 administrative villages in China, and there is a need to further expand the pilot programmes and gradually cover the whole country. Secondly, the population covered by long-term care insurance is limited to medical insurance participants (in many places, only employees' medical insurance participants are covered) and does not cover the entire population, which happens to be the most vulnerable (not only rural residents and informal workers but also disabled individuals below retirement age, unregistered urban migrants, and unpaid family caregivers—groups disproportionately affected by care dependency and systemic underprotection). It is important to increase the number of pilot cities and expand the scope and population of the pilot programme.[772] Meantime, according to China's actual circumstances (the household registration system and the high degree of

[772] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

population mobility), China could take a similar path by legislatively linking LTCI eligibility to household registration (hukou)–independent residency and need-based assessment, thereby avoiding the exclusion of internal migrants or informal-sector workers.

7.2.3. Legal Codification of Multi-Pillar Financing Mechanism

Current Chinese LTCI pilots draw on multiple sources – payroll contributions, transfers from medical insurance surpluses, government budgets, and even welfare lottery funds.[773] As the main source of funding for LTCI in China, the medical insurance fund is no longer sustainable due to the ageing environment, with a shortfall in the current year's balance projected to occur for the first time around 2026 and a shortfall in the cumulative balance around 2034. Of these, the cumulative balances of the Employees' Medical Insurance Fund and the Residents' Medical Insurance Fund are expected to fall short around 2039 and 2023, respectively.[774] There is a need to establish independent LTCI following Germany and Japan.[775]

For example, in Germany, the SGB XI is legally parallel to the Social Code Book V (Health Insurance, SGB V) and is independently organised in terms of budgeting and benefit structure. Although LTCI and statutory health insurance (GKV) are administered by the same insurance funds for contribution collection and benefit provision, the premiums for LTC are accounted for separately, earmarked for specific use, and not mixed with health insurance funds. And Germany's LTCI is funded almost entirely by wage contributions (from the Employer and the employee). And there is no separate government tax subsidy for LTCI. Japan's LTCI system is structured with municipalities to be the insurer and the national government, prefectures, medical care insurers, etc., to provide multiple layers of support, so that the municipalities can receive various support to prevent the excessive

[773] Hu, L., Glavin, F. W., Yan, R., Pei, C., Yan, M., & Liu, Y. (2021). Integrating Health and Care in China: Lessons Learned and Future Outlook. *International Journal of Integrated Care*, *21*(4), 18. https://doi.org/10.5334/ijic.5681

[774] 戈艳霞,王添翼. 人口老龄化背景下医保基金可持续发展的风险分析[J]. 中国医疗保险,2021(2):20-25. Gao Yanxia, Wang Tianyi. Risk analysis of sustainable development of medical insurance fund in the context of population aging[J]. China Medical Insurance,2021(2):20-25. DOI:10.19546/j.issn.1674-3830.2021.2.007.

[775] Čen, Mengsuan. (2024). Analysis of the development of China's long-term care system. Glasnik Advokatske komore Vojvodine. 96. 754-777. 10.5937/gakv96-49343

burden of administrative work or financial needs. And in both countries, financing reforms have been periodic to preserve solvency (For example, Japan's triennial reforms of the LTCI Act and Germany's LTC reforms - PSG I, II, and III between 2015 and 2017.)

Although China's economy has developed rapidly, there remain significant gaps between urban and rural areas as well as among regions, and many areas have not yet eradicated poverty. Therefore, the German model of financing LTCI solely through employer and employee contributions is not suitable for broad coverage in China. Instead, China requires a multi-channel financing model, such as national subsidies and local fundraising, the non-contributory entitlements for vulnerable groups through state-subsidised premiums (Japanese Model[776]) (e.g., Article 30 of the *Law of the People's Republic of China on the Protection of Rights and Interests of the Elderly* already mandates local governments to support economically disadvantaged elders). This could be formalised through statutory clauses exempting certain groups from contribution thresholds while still ensuring access to basic LTC benefits. And a legally enforceable multi-source structure can prevent local fiscal exhaustion and enhance national pooling and redistribution (see Table 40).

Table 40 Proposed Financial Structure for the Chinese LTCI System

Source	Description	Legal Reference
Individual Contributions	Income-based, mandatory	§54 SGB XI (Germany); Art. 129-133, Japan LTCI Act
Employer Contributions	Matched with employees	§60 SGB XI; Art. 129-133, Japan LTCI Act
Government Subsidies	For the rural poor and disabled	Art. 127, Japan LTCI Act
Provincial Support	Mandated annual % allocation according to the real situation	Art. 126, Japan LTCI Act Germany's Länder responsibilities in §9 SGB XI

Source: author's collation based on the relevant legislation and official documents.

Apart from that, in both Germany and Japan, substantial out-of-pocket (OOP) expenses are still required from care recipients, despite the presence of publicly funded LTCI systems. In Germany, while home-based care is relatively well subsidised, institutional care places a significant financial burden on individuals, with personal contributions averaging approximately 41% of total care costs.[777] Even after the 2017 reforms, German households

[776] Japan's system ensures redistribution through prefectural and national subsidy formulas, mitigating the fiscal gaps between richer and poorer municipalities.

[777] Geyer, J., Börsch-Supan, A. H., Haan, P., & Perdrix, E. (2023).*Long-term care in Germany* (No. w31870).

continue to face high OOP expenses, particularly for non-care-related costs such as accommodation and meals. By contrast, Japan's LTCI system imposes a standardised co-payment rate of 10% for most users, with increased rates (20–30%) for high-income individuals,[778] and additional charges for meals and housing.[779]

As China advances toward the development of a nationwide LTCI framework, academic consensus has emerged that full public coverage is neither feasible nor necessary.[780,781] Empirical studies suggest that a public reimbursement rate of approximately 70%, leaving 30% to be covered by users, aligns with both the government's Guiding Opinions[782] and public expectations.[783] Nonetheless, significant regional disparities persist. While most pilot cities meet the 70% reimbursement threshold, especially, cities like Qingdao, Changchun, and Shanghai offer coverage rates of up to 90%. But in cities such as Nantong and Anqing, the reimbursement rate for medical institutions stands at only 60%, and even lower (around 50%) in residential care institutions.[784] At the meantime, try to encourage developing the private LTCI like Germany **(**§110 SGB XI**)**, also can be a good solution for meeting the care needs.

Therefore, adopting a co-financing model, drawing on the experiences of Germany and Japan while being adapted to China's unique economic and demographic context, may offer

National Bureau of Economic Research. https://doi.org/10.3386/w31870

[778] Campbell, J. C., & Ikegami, N. (2003). Japan's Radical Reform of Long-term Care. *Social Policy & Administration*, *37*(1), 21-34. https://doi.org/10.1111/1467-9515.00321

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[781] Wang, Q., Abiiro, G. A., Yang, J., Li, P., & De Allegri, M. (2021). Preferences for long-term care insurance in China: Results from a discrete choice experiment. *Social Science & Medicine*, *281*, 114104. https://doi.org/10.1016/j.socscimed.2021.114104

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[784] YANG Ju-hua, WANG Su-su, DU Sheng-hong. Regional comparison and implications of China's long-term care insurance system. Chinese Journal of Health Policy, 2018, 11(4): 1-7.

a balanced and sustainable approach. Specifically, LTCI in China should aim for a public reimbursement level of at least 70%, with OOP payments controlled at no more than 30%. For low-income populations, the system should incorporate means-tested subsidies similar to those in Germany.[785] Additionally, the private LTCI can be the other option to supplement the increasing needs of LTC. Apart from that, complementary support for informal caregiving is also essential to promote a hybrid care model that integrates public provision with family-based care.

7.2.4 Statutory Entitlements and Eligibility

The proposed law must spell out who is covered and what benefits they receive. Eligibility could be linked to an objective "care need" assessment (as in Germany's SGBXI §14 and Japan's certification system[786]) and a minimum contribution period. For example, China could adopt a rule like Germany's two-year contribution requirement (with government support if unmet[787]). It is crucial to promptly introduce national legislation and urge pilot cities to adopt the national *Trial Disability Assessment Standard*. At the same time, given the uneven development among provinces and municipalities in China, as well as the regional differences in the insured population, it is also essential to allow local governments, on the basis of the national standard, to issue specific implementing and adjustment measures according to their own circumstances.

At the same time, a Chinese law could likewise institute trained assessment teams (e.g. under the health insurance funds or community health centers) to evaluate disability and assign a care grade. The evaluation team should receive standardized training and obtain national qualifications, and the legalization of the evaluation process is also crucial. China needs to follow Germany (§ 45a SGB XI[788]) and Japan(LTCI Act § 27-32[789])'s experiences，1. Make

[785] European Commission. (2018, January 11-12). *Peer review on Germany's latest reforms of the long-term care system, Berlin (Germany) - Employment, Social Affairs & Inclusion*. https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9008

[786] 介護保険法 (*Kaigo Hoken Hō*) (Long-term Care Insurance Act, Act No. 123 of 1997), ch. 4, § 27-32

[787] Please see the Hilfe zur Pflege in SGB XII§61

[788] Specifies uniform assessment procedures for care levels; funds must implement these tools nationwide.

[789] Stipulate a unified assessment procedure for the level of care; The Fund must implement these instruments nationwide.

evaluation criteria and evaluation procedures transparent and legal. 2. Guarantee the accuracy and timeliness of care provision in the form of legislation (providing for the maximum period for determining eligibility and compensation).

Apart from that, Clear service categories should be listed in the law. At present, China's pilot cities and national standards have adopted a hierarchical care model similar to Germany, and Japan's "supportive level" is not applicable for the time being. In the future, China could adopt a comparable tiered scale to allocate benefit amounts and co-payments fairly. For example, the law might specify five levels of dependency, with corresponding maximum benefit amounts, paralleling SGB XI's framework.

7.2.5 Implementing Standardised Benefit Provisions Nationwide

China should, within the framework of national legislation, specify the types of benefits provided as well as the implementation details (like Chapter 4 of Germany's SGB XI and Chapter 3 of Japan's LTC Act). Similar to Germany and Japan, the Chinese government also encourages home-based care; however, policy documents need to be codified into binding laws, establishing the priority of service delivery models at the legal level, and further defining the state-standardized modes of benefit provision. In particular, China should move from a single form of benefit to a mixed provision model. Based on the current situation in pilot cities, China should follow Germany's example by developing a combination of service benefits and cash benefits. Moreover, according to the classification of care levels, the amount and form of benefits should be further differentiated, with minimum benefit standards stipulated for each level. At the same time, due to regional disparities, local governments should be allowed to make adjustments based on local economic development, provided that the minimum benefit standards are met. This is imperative for ensuring equity and effectiveness in China's long-term care insurance system. Currently, the significant disparities in benefit coverage across pilot cities underscore the urgent need for uniformity. Standardizing benefits would not only enhance fairness and transparency but also streamline administration and improve overall system efficiency.

7.2.5.1. Adapting Japan's Community-Based Care Model to China's Population and Economic Context

Due to China's current reality of "ageing before getting rich," relying solely on financial subsidies cannot meet the needs of the elderly. As the pace of population ageing outstrips economic growth, depending only on families or the government as providers of care services is far from sufficient to address the actual demand.[790] It is necessary to mobilize social forces to participate in the provision of elderly care services. At present, China has proposed in policy documents to strengthen the construction of community-based elderly care facilities and to integrate their functions with other community services,[791] which aligns with the Japanese experience. However, the development of community-based care and institutional care in China remains highly unbalanced. Most importantly, there is a lack of specific legal provisions and implementation regulations. For example, in Nantong City, by the end of 2021, beds in elderly care institutions accounted for over 96% of all designated care beds in the city, while hospitals and community health service centers providing elderly care numbered only three, accounting for less than 5% of beds.[792] At the same time, while ensuring the provision of routine LTC services, the Chinese law can also incorporate some special services, tailored to China's context (e.g. rural care, traditional Chinese medicine rehabilitation).

7.2.5.2. Legally Protecting the Rights and Benefits of Informal Caregivers

Legislative inclusion of family caregivers as indirect beneficiaries, entitled to training, respite services, or care allowances, can be modelled after Germany's dual cash/in-kind benefit structure (SGB XI §§37–38) and Japan's care manager-supported family service plans. Doing so would formally recognise the unpaid labour of China's millions of family

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[790] 赵春江,孙金霞. 日本长期护理保险制度改革及启示[J]. 人口学刊,2018,40(1):79-89. Zhao, C., & Sun, J. (2018). Japan's long-term care insurance system reform and its implications. *Population Journal*, 40(1), 79–89. DOI:10.16405/j.cnki.1004-129X.2018.01.007.

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[792] Zhou, Ru, and Xiao Zhang. "The Experience and Enlightenment of the Community-Based Long-Term Care in Japan." *Healthcare*, vol. 10, no. 9, 2022, p. 1599, https://doi.org/10.3390/healthcare10091599. Accessed 29 Aug. 2025.

caregivers as a pillar of the LTC system, and ensure they receive institutional support to prevent burnout, gendered exclusion, and health deterioration.

7.2.6 Rights of Care Receivers and Obligations of Care Providers

In addition to specifying the benefit model, China's LTCI law should also clearly define the rights and obligations of both care receivers and care providers.

7.2.6.1. Rights of Care Receivers

China's LTCI law should establish, in legislative form, the rights of care recipients: 1). Care receivers have the right to receive care while maintaining their dignity and independent living. This aligns with China's promotion of home-based and community-based care, and is also consistent with the objectives of long-term care stipulated in the first chapter of the German and Japanese LTCI laws.[793] 2). The care receivers have the right to self-Determination and Participation. SGB XI, § 7 grants every insured person "the right to individual counselling and assistance by a care counsellor" and obliges the Pflegekassen (Long-term care fund) to promote "self-responsibility of the insured through information and advice", § 37 entitles those assessed to receive care, grading decisions, and counselling "at least once every six months," imposing the actual timeframes on insurers. Together, these provisions ensure that care receivers can participate in planning their care, accept or refuse services, and choose their care setting.

7.2.6.1. Obligations of Care Providers (Institutions).

China's LTCI law should, in legislative form, specify the obligations of care providers (institutions). Firstly, they should have the obligation to be transparent and report all procedures, from evaluation to care period. In Germany, Pflegekassen publish annual reports on finances, assessment criteria, and service utilisation; these are publicly accessible on

[793] "Assisting those in need of care who, due to the severity of their condition, rely on solidarity-based support"(SGB XI§ 1) and "to enable persons requiring care to maintain their dignity and live an independent daily life according to their abilities" (介護保険法§ 1) The Article 2 of the Japanese Long-term care Act further mandates that benefits be provided "in a manner that prevents deterioration or promotes the improvement of care needs, with full consideration of coordination with medical care".

federation portals.[794] China's LTCI law should also regulate these procedures. Secondly, the admission requirements and procedures for care institutions also need to be legally established. Building on China's existing "admission law," ongoing improvements should focus on the professionalism and qualifications of care institutions, including the enhancement of an annual review system. Strict regulations should govern both entry and exit mechanisms. According to the specific circumstances of each province, authority can be delegated to provincial governments and municipalities directly under central government control, drawing on Japan's LTCI Act (Articles 8 and 70), where LTC facilities are designated by prefectures or delegated municipalities.

In designing China's unified LTCI Law, it is essential to establish a tiered qualification framework for all categories of care personnel. In 2022, China established a new occupation called "*Long-Term Care Worker"*.[795] In 2024, the *"Implementation Opinions on Promoting the Occupational Skill Level Certification of Long-Term Care Workers"* was issued[796] However, detailed assessment standards and evaluation mechanisms have not yet been established. China should draw on the training and assessment models from Germany (SGB XI §§ 113–114[797]） and Japan (Japanese LTCI Act Articles 69–74[798]). By enshrining similar statutory requirements—defining clear educational prerequisites, codifying examination and internship standards, and imposing regular re-certification, China should ensure that its LTC

[794] SGBXI §17-18

[795] 中华人民共和国人力资源和社会保障部、国家医疗保障局.(2024). *健康照护师（长期照护师）国家职业标准（2024 年版）* (职业编码: 4-14-01-03) Ministry of Human Resources and Social Security of the People's Republic of China & National Healthcare Security Administration. (2024). *National occupational standard for health care worker (long-term care worker)* (2024 edition) (Occupational Code: 4-14-01-03) [PDF file]. Retrieved fromhttps://www.nhsa.gov.cn/module/download/downfile.jsp?classid=0&filename=2656f3b3834b4cc4af4dde8f9d407f30.pdf

[796] 国家医疗保障局 & 人力资源和社会保障部. (2024 年 11 月 1 日). *关于推进长期照护师职业技能等级认定的实施意见* (医保发〔2024〕29 号). National Healthcare Security Administration & Ministry of Human Resources and Social Security. (2024, November 1). *Implementation opinion on promoting the recognition of professional skill levels for long-term care workers* (Yibao Fa [2024] No. 29). https://www.gov.cn/zhengce/zhengceku/202411/content_6986661.htm

[797] Germany requires that ambulatory, day-care and residential providers adhere to nationally negotiated staffing ratios, complete mandatory vocational and continuing-education hours, and successfully undergo annual external quality audits by the Medizinischer Dienst der Krankenversicherung (MDK)

[798] Long-Term Care Support Specialists should pass a prefectural certification examination, fulfil a ministerial-approved internship, and renew their credentials through additional professional training every five years

workforce achieves consistent competency and professionalism across urban and rural settings.

7.2.7. Establish the Independent Oversight and Grievance Mechanism

The Chinese LTCI law should create robust regulatory institutions separate from providers. China should mandate the creation of municipal LTC independent assessment agencies or commissions (possibly within local civil affairs bureaus) staffed by doctors, social workers, and beneficiaries' representatives. These bodies would certify eligibility and hear appeals against denial of benefits. Like the MDK in Germany (SGB XI §§113–114) and Certification Committee of Needed Long-Term Care in Japan (article 14). A national regulatory authority should oversee the entire system: licensing care providers, auditing insurer accounts, setting technical standards, and issuing guidance. The law should vest this authority with investigative and sanctioning power (e.g. fines or license suspension for fraud).

7.3. Integration with Existing Legal Frameworks

Firstly, A dedicated Chinese LTC law would operationalise care service mandate through insurance rather than ad hoc subsidies, aligning statutory goals with funding. Likewise, the Civil Code (Family Law portion) imposes a filial duty on children to support parents, but in practice, many elderly people have inadequate care. The Chinese LTCI law should respect family obligations but avoid penalising those fulfilling them; instead, it can relieve families of financial burden by providing public coverage.

Second, the LTCI system should be legislated as part of the social insurance legal framework, which aligns with China's plan to develop long-term care insurance as a "sixth social insurance."[799] Just as Germany places LTCI alongside health, pension, occupational accident, and unemployment insurance in the Eleventh Book of the Social Code (SGB XI), achieving unified fund collection, risk sharing, and supervisory management (SGB XI § 20),

[799] 国家医疗保障局. (2024 年 11 月 29 日). 呼吁社保"第六险"长期护理保险制度尽快问世. *国家医疗保障局* National Healthcare Security Administration. (2024, November 29). Call for the long-term care insurance system—the "sixth social insurance"—to be launched as soon as possible. *NHSA official website*.https://www.nhsa.gov.cn/art/2024/11/29/art_14_14904.html

China should also clarify the boundaries between LTCI and basic medical insurance in terms of service scope and cost settlement. Drawing on Japan's LTCI Act (Article 36) and Health Insurance Act (Article 56), medical services should be covered by the medical insurance fund, while daily care and rehabilitation services fall under LTCI, avoiding gaps or shirking of responsibility.

The Chinese LTCI law must interlock with China's existing legal system. It should supplement, not duplicate, provisions in the Elder Rights Law and the Civil Code. Drawing on Japan's LTCI Act and Social Welfare Act at the municipal level (Articles 132–134), local civil affairs, health, and social insurance departments should jointly build a "community-based integrated care system." By sharing data and resources among care workers, social workers, and home care institutions, a unified case management platform can be established. China's Elderly Rights Protection Law (revised 2012) already envisions LTC support: Article 30 directs the state to "gradually carry out long-term care security" and mandates local governments to provide nursing subsidies to poor and disabled elders. These provisions should be translated into specific benefits and service standards under the LTCI framework, achieving a true institutional shift from social assistance to social insurance coverage.

Finally, legislation should coordinate administrative review and judicial remedies within the social insurance system, drawing on experiences from Germany SGB X (Social welfare administrative procedure and social welfare data protection) and Japan Administrative Appeal Act. A unified complaint reception and review mechanism should be established. A national or provincial LTCI supervisory committee could review and mediate disputes regarding LTCI fund operations, service quality, and qualification certification. Local social insurance administrative agencies should rapidly handle complaints under the Social Insurance Law and LTCI regulations and provide legal channels for appeal to the courts. In this way, LTCI can be legally integrated with existing social insurance, civil relief, and administrative review systems, ensuring that beneficiaries' rights are not undermined by institutional fragmentation or gaps.

7.4. Robocare Pathways and Innovation Governance

7.4.1. Enact Legal Framework for the Robocare.

China should develop specific laws or regulations that define the status and governance of care robots. This is the trend not only in China but also around the world. The regulation is the foundation of the proper use of robocare. These regulations should include *elder care robotics* or additions to existing healthcare laws that outline safety standards, data use rules, and liability norms for care robots. For example, regulations could require certification of robotics hardware (similar to medical device approval) before deployment in care settings. Liability could be codified to limit the autonomous robots, or if a fully autonomous robot causes harm, liability should be identified; for example, it may reside primarily with manufacturers or programmers unless gross negligence by a care facility is proven. Data privacy regulations should be updated with care-specific provisions (e.g. requiring encryption and strict consent for elderly data collected by robots). Ethical guidelines, perhaps in consultation with the public, hould be established, addressing issues like elder consent, acceptable AI behaviors, and limits on surveillance. China can emulate Japan's approach of issuing *priority guidelines* (like METI/MHLW priority fields) but push further by codifying key principles into law.

7.4.2. Technology-Policy Coordination and Industry Regulation

China should explicitly coordinate its industrial policy with social needs. Industrial subsidies for robotics (e.g. China's New Generation AI Development Plan) should be conditioned on producing technologies suitable for LTC. Regulatory agencies (like National Medical Products Administration) could create certification categories for eldercare robots, ensuring quality and opening markets. Standard-setting bodies should expedite care-robot standards (building on IEC 63310) and ensure compatibility of devices (e.g. data formats for medical interoperability). Moreover, China's central and local governments should align on funding mechanisms: for example, a shared fund involving NDRC, MoCA, and MoHRSS could finance eldercare tech infrastructure. Linkages with LTCI are also crucial. Policy-makers could revise LTCI regulations to allow pilot reimbursement of robot-assisted care services

– for instance, covering 10–20 % of the cost of a government-certified assistive robot for low-income elders. This would mirror Japan's inclusion of assistive devices in LTCI.

7.4.3. Encourage the Public Engagement

To address social barriers, China must invest in public dialogue about robotics like Japan. Educational campaigns (through TV, community events, and senior centers) can demonstrate how robots assist daily activities, easing fears. Communities could host some activities to let the elderly people try out devices under supervision for free. And ethical norms should be discussed openly: for example, emphasizing that robots are a supplement, not a substitute for human care, may alleviate family concerns. By building social consent and understanding, China can accelerate acceptance of Robocare technologies.

7.4.4. Promoting Technological Innovation of Robocare

It is essential to actively promote technological innovation in the field of elderly care，particularly in robocare, not only under strong policy guidance. Moving from policy-driven to a dual approach of policy and technology, and reducing excessive reliance on foreign core technologies, will help lower costs and lay the groundwork for independent research and development, thereby facilitating the widespread adoption of care robots.

However, technological advancement must not come at the expense of responsibility. Innovation must be aligned with ethical principles and social values. Policymakers should establish strategic frameworks that encourage interdisciplinary collaboration among engineers, healthcare professionals, geriatricians, and legal scholars, in order to avoid introducing new forms of ageism from the development side. Responsible robocare innovation requires deliberate attention to usability, inclusivity, and transparency, as well as to the physiological and cognitive changes associated with ageing.

7.4.5. Implementation of Person-Centered Care Methodology and Developing Responsible Robocare

The person-centered care (PCC) is a model where *"individuals' values and preferences are elicited and, once expressed, guide all aspects of their health care, supporting their realistic health and life goals"*[800]. Unlike traditional treatment approaches, PCC prioritizes enhancing quality of life while addressing the needs of caregivers.[801] Within this framework, the elderly are recognized as individuals with unique needs, preferences, abilities, and life experiences, making PCC particularly effective in LTC settings for improving their overall well-being.[802,803]

The active involvement of elderly users in the design and testing phases can help to ensure that the technological products are adapted to their actual needs and environments. Usability testing should take into account physical diversity, levels of digital literacy, and emotional readiness among older adults, ensuring that care robots enhance autonomy rather than create new barriers.

Apart from that, robocare cannot fully replace human caregiving. It is necessary to maintain inclusiveness through hybrid care systems: even as digital tools continue to expand, traditional care models must remain in place to serve older individuals who may not be able—or may refuse—to use robocare. The ethical development of care robots lies not only in technological capabilities but in a PCC approach centred on human dignity, empowerment, and equitable access.

To ensure that robocare evolves in a way that supports rather than undermines human dignity and well-being, China must adopt a proactive and PCC approach. This includes drafting targeted regulations tailored to the specificities of robocare, promoting interagency collaboration across health, technology, and social welfare sectors, and embedding cultural

[800] American Geriatrics Society Expert Panel on Person-Centered Care (2016) "Person-Centered Care: A Definition and Essential Elements", *Journal of the American Geriatrics Society*, 64(1), pp. 15–18. Available at: https://doi.org/10.1111/jgs.13866.
[801] Jennings, Lee A., Karina D. Ramirez, Ron D. Hays, Neil S. Wenger, and David B. Reuben. 2018. Personalized Goal Attainment in Dementia Care: Measuring What Persons with Dementia and Their Caregivers Want. Journal of the American Geriatrics Society 66: 2120–2127. doi:10.1111/jgs.15541.
[802] Williams, J. *et al.* (2013) "An evaluation of a person-centred care programme for long-term care facilities," *Ageing and Society*, 35(3), pp. 457–488. https://doi.org/10.1017/s0144686x13000743.
[803] Mengxuan Chen (2025); Combating abuse for older adults: examining the impact of robocare in long-term care settings. *The Journal of Adult Protection*; https://doi.org/10.1108/JAP-12-2024-0076.

and ethical values into the design and deployment of robotic technologies. By upholding a PCC model of care and developing responsible robocare systems, China can harness the benefits of robotic assistance while mitigating risks such as dehumanization, inequality, and accountability gaps.

These measures will not only enhance the effectiveness and compassion of robocare for the elderly, whether delivered by humans, machines, or a combination of both—but will also set a precedent for the ethical governance of emerging technologies in social care systems around the world.

7.4.6. Bridging the Digital Divide for the Elderly.

To bridge the digital divide for elderly individuals, particularly those in LTC settings, it is essential to promote both digital accessibility and inclusive internet design, and trying to avoid the difference between city and rural area; building accessible internet content—such as programs featuring subtitles, audio descriptions, and user-friendly interfaces—can support the elderly with sensory impairments and enable them to remain informed and socially connected. Authorities should actively encourage the development of media content tailored to the interests and cognitive preferences of older populations, while simultaneously implementing oversight mechanisms to ensure fairness in telecom and media services, and encourage community and institutional support. Establishing accessible complaint mechanisms and offering clear, straightforward guidance are critical to empowering elderly users to navigate the digital environment with greater confidence and autonomy.

In addition to regulatory and technical measures, targeted educational interventions play a crucial role in digital inclusion. Participating in information and communication technology (ICT) training can help elderly individuals reconceptualize themselves as active participants in the digital society rather than passive recipients. The psychological empowerment associated with identifying as a "computer user" enhances engagement and fosters a sense of social belonging. Intervention programs must be designed with sensitivity to variables such as age, gender, education, and socioeconomic status. Encouraging family-based digital

education is particularly effective[804], "digital familialist regime"—can compensate for limited digital literacy by enabling intergenerational assistance and shared technology use. This underscores the importance of family networks in mitigating digital exclusion and promoting meaningful access to digital resources among the elderly.[805]

Chapter VIII. Conclusion

The analysis undertaken in this dissertation demonstrates that the establishment of a sustainable LTC system is not only a demographic necessity but also a legal and ethical imperative for modern welfare states. China's experience reveals both the progress and limitations of a rapidly evolving system: while significant steps have been taken toward piloting LTCI in selected cities, the absence of a national legislative framework, limited coverage, uneven benefit structures, and lack of oversight mechanisms remain key obstacles to universality and fairness.

By contrast, Germany and Japan provide two instructive, though distinct, models. Germany's system is deeply rooted in the tradition of social insurance, codified by law, and financed through a solidarity-based mechanism that ensures broad coverage. However, it faces enduring challenges of financial sustainability, workforce shortages, and rising demand. Japan's LTCI system, in turn, stands out for its emphasis on community-based integrated care, its responsiveness to demographic realities, and its openness to technological innovation. Yet it too confronts fiscal pressures, workforce inadequacies, and the difficulty of balancing formal and informal care responsibilities.

The comparative perspective highlights that no system offers a perfect solution. Instead, each country's LTCI reflects a negotiation between demographic necessity, cultural expectations, economic constraints, and political will. For China, this implies that a viable LTCI reform

[804] Shi, Y., Ma, D., Zhang, J., & Chen, B. (2023). In the digital age: a systematic literature review of the e-health literacy and influencing factors among Chinese older adults. *Zeitschrift fur Gesundheitswissenschaften = Journal of public health*, *31*(5), 679–687. https://doi.org/10.1007/s10389-021-01604-z (Accessed on 2024.11.15)

[805] Alexopoulou, Sofia. 2020. "Borrowed Access: The Grey Digital Divide Meets the Familialist Welfare Model of Greece." *The Journal of Aging and Social Change* 10 (1): 15-33. doi:10.18848/2576-5310/CGP/v10i01/15-33.

must be multi-dimensional: codifying a unified legal framework, expanding statutory entitlements to ensure equity, securing a multi-pillar financing system, and embedding robust oversight mechanisms to guarantee rights protection and quality of care.

Robocare emerges as both an opportunity and a challenge in this reform agenda. Japan's pioneering use of therapeutic, assistive, and monitoring robots demonstrates the potential of technology to mitigate workforce shortages, enhance care quality, and foster dignified ageing. Nevertheless, technological adoption raises profound ethical questions regarding human dignity, privacy, and fairness, as well as practical concerns about digital divides and cultural acceptance. China's path toward industrializing Robocare will therefore require careful legal regulation, policy coordination, and societal dialogue to ensure that technology serves as an aid rather than a substitute for human care.

Ultimately, this dissertation argues that the future of China's LTCI system depends on its ability to balance equity, sustainability, rights protection, and technological innovation. A national legal framework that integrates LTCI with Robocare regulation, coupled with robust financing and oversight, will be indispensable for creating a system that is not only financially viable but also socially just and ethically grounded. The comparative lessons drawn from Germany and Japan suggest that while institutional design must reflect China's unique conditions, international experience offers valuable insights into the pathways and pitfalls of LTC reform.

The challenge of LTC is, at its core, a reflection of how societies value ageing and human dignity. China now stands at a critical juncture: whether it can transform its experimental pilots into a comprehensive, equitable, and sustainable national system will determine not only the well-being of its elderly population but also the resilience of its social security system as a whole.

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