

Japan's high-quality healthcare system despite physician shortages: Exploring the paradox and pathways toward sustainable healthcare

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Abstract: Japan's rapidly aging population presents significant demographic pressures, and yet the country maintains high standards of healthcare delivery with remarkably low rates of preventable and treatable mortality. According to the latest data from the Organisation for Economic Co-operation and Development (OECD), Japan ranks 35th among 38 countries in physician density (2.6 per 1,000 population), and yet it records 12.1 physician consultations per person per year—among the highest in the OECD. This article analyzes this paradoxical situation—where high medical performance is maintained despite relatively few physicians—by examining both institutional strengths and emerging vulnerabilities. The strengths include universal health insurance with high public funding; a resource-intensive medical infrastructure; and a robust support network of allied healthcare professionals. Simultaneously, we identify the following vulnerabilities: increasing demand intensity; shortages and an uneven distribution of physicians; hospital financial losses; the limitations of effective gatekeeping under free access systems; and the amplified workload resulting from the concentration of authority and responsibility among physicians. Moreover, we examine initiatives needed to ensure the sustainability of insurance-based healthcare, including: redesigning supply-demand planning and education policies; expanding task sharing and securing funding sources; designing incentives for essential and regional healthcare services; and restructuring access models to value-based utilization and need-based care.

Keywords: physician shortage, super-aged society, healthcare workforce, healthcare resource allocation, health policy, Japan

1. Introduction

Japan faces the world's fastest aging of the population. By September 2025, individuals aged 65 years and older constituted 29.4% of the total population (1), representing the highest proportion among the Organisation for Economic Co-operation and Development (OECD) member nations. Even though aging places significant strain on healthcare systems through increased chronic disease prevalence and healthcare demand, Japan has consistently maintained exceptionally high healthcare outcomes—not only in terms of life expectancy but also through low rates of preventable and treatable mortality (2).

Public satisfaction with healthcare access and quality is also remarkably high. Approximately 80% of Japanese residents report satisfaction with the medical care they receive, significantly exceeding the OECD average of about 64% (2). According to the 2025 edition of

Health at a Glance, Japan's annual physician visits per individual stood at 12.1, ranking second in the OECD after South Korea's 17.5 visits (3). However, the same paper reports that Japan has 2.6 practicing physicians per 1,000 population, ranking 35th among 38 OECD member countries (with data for Costa Rica unavailable, Japan ranks third lowest among countries with available data); this ratio is significantly below the OECD average of 3.9 physicians per 1,000 population (Figure 1).

2. Structural strengths of Japan's healthcare system

2.1. A universal health insurance system and public financing

Japan operates a universal health insurance system with nearly 100% coverage, ensuring equal access to necessary medical care regardless of income or employment status (2,3). Out-of-pocket expenses are

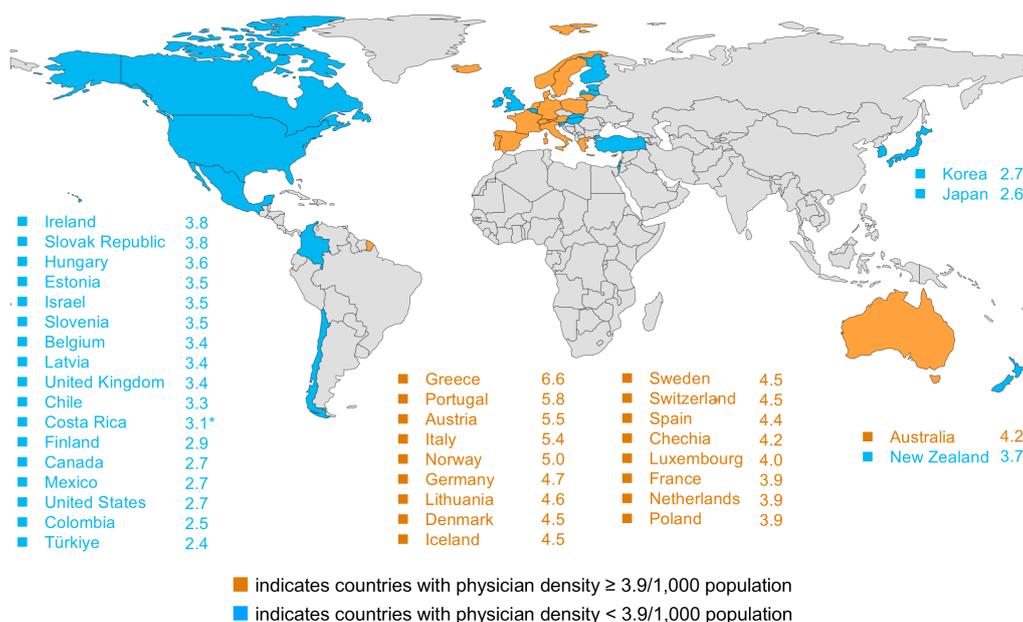


Figure 1. Practising physicians per 1,000 population across Organisation for Economic Co-operation and Development (OECD) countries. The OECD average is 3.9 physicians per 1,000 population; countries shaded in blue indicate physician density below the average, whereas those shaded in orange indicate density above the average. *Data source:* Health at a glance 2025: OECD Indicators (<https://doi.org/10.1787/8f9e3f98-en>). *No data are available for Costa Rica in Health at a Glance 2025: OECD Indicators. The value for Costa Rica was taken from Health at a Glance 2021: OECD Indicators (<https://doi.org/10.1787/ae3016b9-en>).

generally limited to no more than 30% for individuals age 6–69, while those age 70 and older pay 10–30% depending on income, and children under 6 pay 20%. In addition, cost sharing mechanisms such as the High cost Medical Expense Benefit system are designed to prevent households from facing sudden financial burdens due to medical costs. (4). Public funding and mandatory insurance contributions account for approximately 85% of total healthcare expenditures, surpassing the OECD average of 75% (2).

2.2. A robust healthcare infrastructure

Japan possesses one of the most resource-intensive healthcare infrastructures globally. The country maintains approximately 13 hospital beds per 1,000 population – three times the OECD average of 4 beds (2). Japan also leads OECD countries in the per-capita availability of advanced diagnostic equipment, including CT and MRI scanners (2).

2.3. A strong nursing and allied healthcare workforce

Japan's nursing workforce density of 12.2 nurses per 1,000 population significantly exceeds the OECD average of 9.2 nurses (3). The physician-to-nurse ratio (1:4.6) is among the highest among OECD countries, enabling partial task shifting and contributing to improved patient satisfaction (3). Pharmacists also play an expanded role in community-based care, actively participating in prescription drug review and medication management (5).

3. The nature of Japan's physician shortage

3.1. Growing demand among a super-aged society

Japan's physician shortage cannot be simply assessed by raw numbers alone. Older patients typically present with multimorbidity, polypharmacy, and frequent healthcare needs, leading to exceptionally high healthcare utilization rates (6). As mentioned earlier, Japan ranks among the OECD nations with the highest outpatient physician consultation rates per capita (3), significantly increasing physicians' workload even when the absolute number of physicians remains stable.

3.2. Supply constraints due to policy limitations

Historically, Japan has maintained strict control over medical school enrollment as part of efforts to manage healthcare costs while maintaining quality standards (7). However, in response to the emerging physician shortage, the government implemented two measures: the "Comprehensive measures to increase the supply of physicians" in 2006, which added 10 additional students each in 10 prefectures with severe physician shortages, and the "Urgent measures to increase the supply of physicians" in 2007, which increased enrollment quotas by 5 students each in every prefecture. These initiatives raised total medical school enrollment to 7,793 in 2008.

Subsequent efforts to increase the regional number of physicians and train research physicians have led to rising enrollment quotas (7), resulting in an actual increase in the number of physicians (Figure 2).

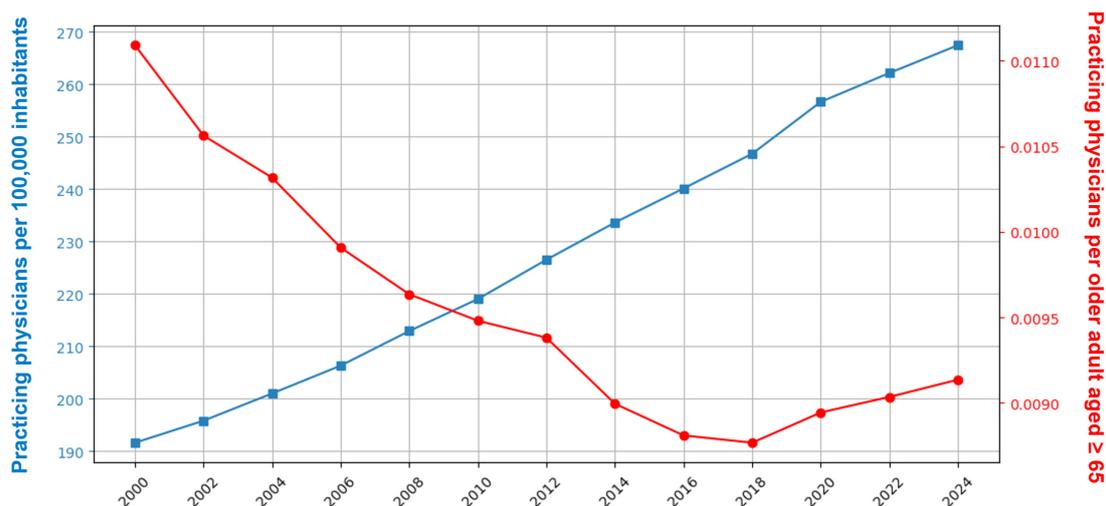


Figure 2. Trends in the number of practicing physicians overall (blue line) and the number of physicians per older adult aged 65 years and older (red line) in Japan, 2000–2024. The blue line represents the number of practicing physicians per 100,000 inhabitants, and the red line represents the number of practicing physicians per older adult aged 65 years and older. *Data source: Ref. (1,10).*

However, the combined effect of expanded medical school enrollments in 2008 and stable growth of the population aged 65 years and older since 2020 has only recently begun to increase physicians per elderly individual, with supply still struggling to keep pace with demand due to the time required for physician training (Figure 2). As of 2024, Japan has approximately 36.24 million people aged 65 years and older and 331,092 physicians. This translates to an average of about 110 older adults per physician when calculated as a population-to-physician ratio (1,10).

3.3. Regional and specialty-specific maldistribution

A critical factor contributing to Japan's physician shortage is not merely the absolute number of physicians, but rather the significant regional and specialty-based maldistribution. The Ministry of Health, Labour and Welfare's incentive policies—which provide financial and professional benefits to physicians who practice in areas with few physicians—have led to an increase in young physicians working in these underserved prefectures in recent years, resulting in gradual reductions in the number of prefectures with a shortage of physicians (8). Nevertheless, rural and peripheral regions continue to face challenges in recruiting and retaining physicians, leaving residents with limited access to emergency care and comprehensive primary medical care (Figure 3).

In contrast, urban areas have experienced a concentration of physicians, particularly in elective and private practice specialties like cosmetic surgery, where physicians are increasingly drawn by higher income potential and better work-life balance opportunities (9). Statistics on physicians, dentists, and pharmacists published by the Ministry of Health, Labour and Welfare every two years indicate that between 2000 and 2024, the

number of surgeons declined from 24,444 to 12,341—nearly half—while the number of physicians specializing in cosmetic surgery increased more than eightfold, rising from 212 to 1,720 (10).

4. Financial burdens and organizational vulnerabilities in hospital administration

Approximately 70% of Japanese hospitals operate at a financial deficit (11), primarily due to: *i*) reduced reimbursement rates under the national medical fee structure; *ii*) rising personnel and energy costs; and *iii*) declining inpatient volumes in rural areas (12). These financial pressures can significantly impair hospitals' ability to attract physicians, particularly in high-demand specialties such as emergency medicine, internal medicine, obstetrics and gynecology, and surgery. Ministry of Health, Labour and Welfare surveys indicate varying levels of financial distress by type of hospital: 40.0% of convalescent hospitals; 56.3% of chronic-care hospitals; 75.0% of super-acute care hospitals; 77.8% of Type A acute-care hospitals; and 73.0% of Type B acute-care hospitals reported a deficit in fiscal 2024, with higher deficits observed in hospitals providing more advanced medical care (12). This situation creates a vicious cycle where the staffing shortages further compromise hospital sustainability.

5. Limitations of effective gatekeeping mechanisms

While Japan formally operates a tiered healthcare delivery system, patients can access secondary/tertiary hospitals without a referral, typically with additional out-of-pocket charges (13). In practice, large hospitals frequently accommodate patients with low-acuity conditions, creating excessive workloads for physicians

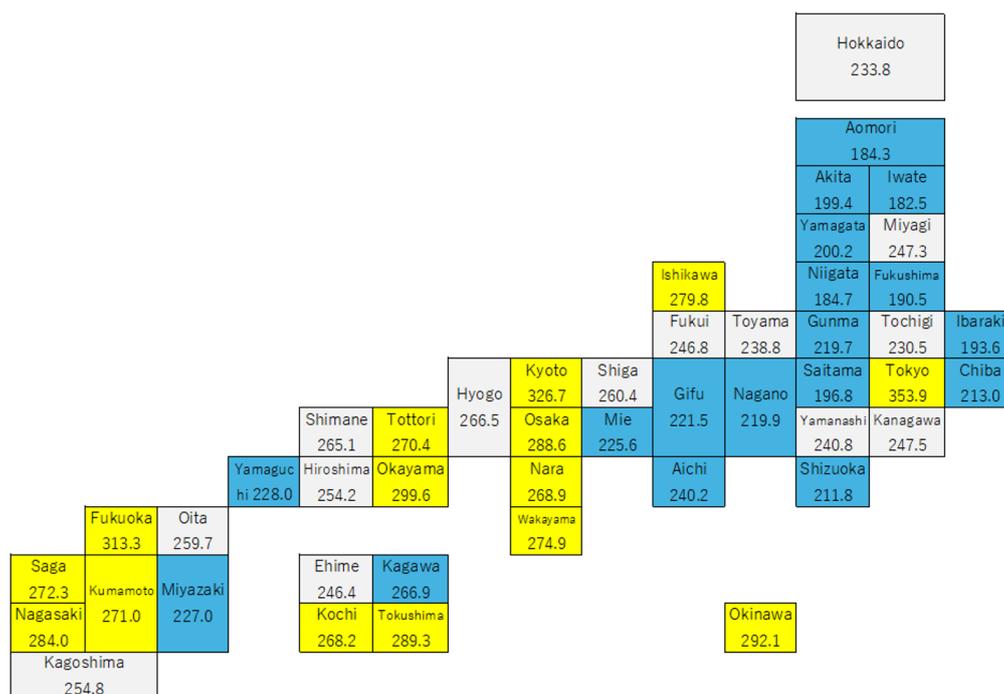


Figure 3. Physician maldistribution across prefectures in Japan. Blue indicates prefectures in the lower third of the distribution (severe maldistribution with a stronger tendency toward physician shortage; index values ≤ 228.0), gray represents the middle range (average distribution; index values 230–266), and yellow denotes prefectures in the upper third (less maldistribution or a tendency toward physician surplus; index values ≥ 266.9). The physician maldistribution index is defined as the ratio of the standardized number of physicians to regional healthcare demand, with regional healthcare demand calculated as the population per 100,000 multiplied by the standardized healthcare utilization rate. *Data source: Ref. (8).*

and reducing the overall efficiency of the healthcare system (13). A 2016 study by Moriwaki *et al.* found that, when analyzing visits per patient, approximately 40% of patients at large hospitals with 200+ beds were presented with low-acuity conditions (14). Legal and societal expectations discourage healthcare providers from refusing treatment, further limiting effective gatekeeping.

6. Physicians as a systemic bottleneck

Despite Japan's extensive medical infrastructure and support staff, physicians remain the primary decision-makers and parties legally responsible for providing healthcare. Regulatory frameworks and professional boundaries constrain task shifting, concentrating diagnostic and treatment authority among physicians and exacerbating workload pressures (15). As a result, physician shortages have emerged as a critical bottleneck resource within the system.

To address physician workload issues, the Ministry of Health, Labour and Welfare established the Committee to Promote Task Shifting/Sharing to identify and publish feasible task transfers to related professions, and particularly nurses and pharmacists (16). Before the committee's establishment, the Japan Medical Association Federation raised concerns that the funding source for task shifting—relying on revised medical fees—

could actually make staff recruiting more challenging for hospitals under financial constraints (17). The association emphasized the necessity of nationwide fiscal measures, including adjusting medical fees, as essential solutions (17).

7. Policy implications

The Japanese case suggests that addressing physician shortages requires structural measures including:

i) Addressing physician shortages and regional imbalances. The supply of physicians should be improved and demand planning and educational policies should be implemented (7,8).

ii) Decentralizing physician authority and workload. Task sharing with nurses, pharmacists, and other allied healthcare professionals should be expanded while securing necessary funding (15-17).

iii) Implementing financial incentives for rural healthcare and essential medical care (8). Additional allowances for physicians working in regions with a shortage of physicians should be enhanced and career development for physicians graduating from medical schools with regional quotas should be supported.

In conclusion, Japan's physician shortage is not caused by failures in universal health coverage, but rather stems from structural imbalances involving extreme demand intensity, a limited healthcare workforce, and

mechanisms of institutional allocation., Ensuring that there is one physician per person aged 65 years and older will become increasing difficult, as the graph shows, so both types of measures are needed: maintaining healthcare quality with minimal regional disparities, and implementing strategies to keep physicians working in each region and specialty. Without more effective institutional reforms, this imbalance risks undermining the long-term sustainability of one of the world's most highly regarded healthcare systems.

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