

The Broader Economic Benefits of COVID-19 Vaccination in Japan

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COVID-19 continues to impose a significant **burden on healthcare systems and the national economy**, particularly when other infectious diseases like **influenza and RSV** co-circulate. Access to annual vaccination remains essential to sustain population immunity, curb variant emergence, and mitigate its burden on the economy.

Methods

We used a cost-of-illness analysis (COI) to quantify the economic burden of COVID-19 and assess the broader economic benefits of immunisation using three main scenarios:

-  No further annual autumn vaccinations
-  Annual autumn vaccination of population aged 65+ years (in line with age-based criteria in the Ministry of Health Labour and Welfare of Japan's 2023 recommendations)
-  Extended annual autumn vaccination of the general population aged 50+ and 18+

Key takeaways

Despite current COVID-19 vaccination efforts, a substantial economic burden persists.

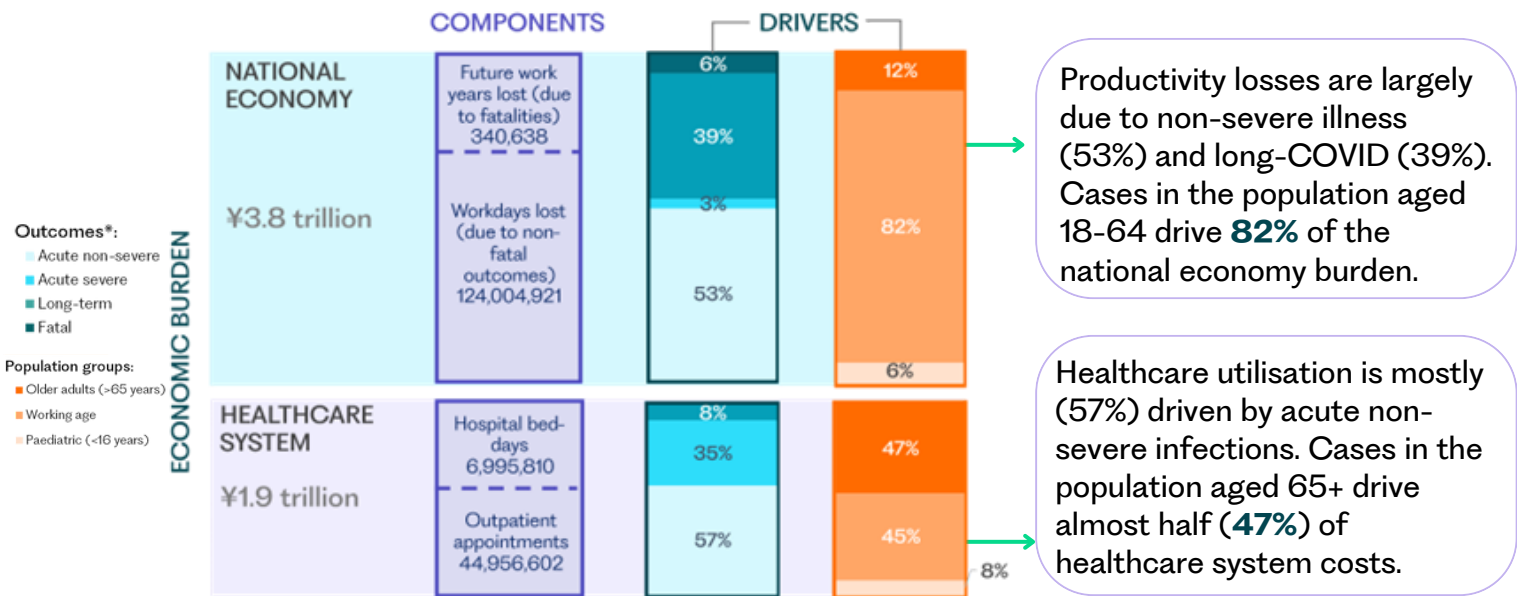
- The **total burden** of COVID-19 without annual autumn vaccination is approximately **¥5.7 trillion per year**.
- The annual cost to the national economy (¥3.8 trillion) is almost double the cost to the healthcare system (¥1.9 trillion).
- This is driven by substantial productivity losses from acute and long-term COVID-19 infections, especially among the population aged 18-64.

Annual autumn COVID-19 vaccination of the population aged 65+ saves approximately ¥397 billion per year, or **7%** of the total economic burden of ¥5.7 trillion.

- Of the ¥397 billion, the national economy benefits ¥151 billion yearly (4% of its COVID-19 burden), while the healthcare system saves ¥246 billion (13% of its COVID-19 burden).

Economic burden of COVID-19 in Japan with no further annual autumn vaccination

Without annual autumn routine vaccination, COVID-19 could cost Japan approximately **¥5.7 trillion** annually (0.97% of GDP), approaching Japan's the proportion of GDP dedicated to military expenditure (1.2% of GDP).¹



¹ World Bank Group, 2023. Military expenditure (% of GDP) - Japan. Available at: <https://data.worldbank.org/indicator/MS.MILXPND.GD.ZS?locations=JP> [Accessed 12 Aug. 2025].

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Economic benefits of COVID-19 vaccination in Japan

COVID-19 vaccination programmes help safeguard national productivity, reduce strain on healthcare systems, and protect vulnerable populations.

Annual autumn COVID-19 vaccination targeting individuals aged 65+, in line with the age-based criteria of 2023 recommendations, would generate

¥397 billion

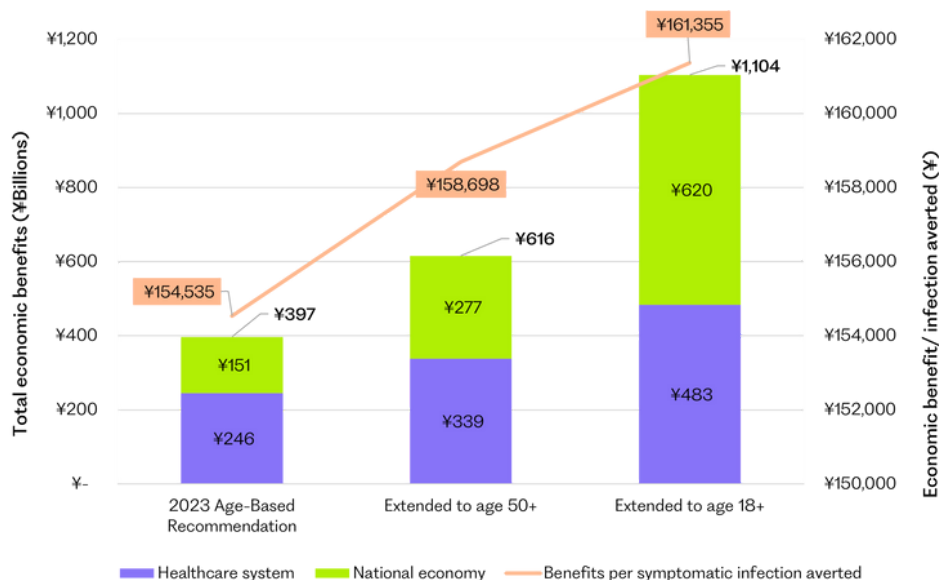
in annual economic benefits, reducing 7% of the total COVID-19 economic burden.

Extending COVID-19 vaccination eligibility to the general population aged 50+ and 18+ would increase the total economic benefit to

¥616 billion and ¥1.1 trillion per year

respectively, which equals 11% and 19% of the total COVID-19 economic burden.

Averted **productivity losses** drive an increasing proportion of the total economic benefits as vaccination eligibility is extended.



We call on policymakers to:



Provide **continued investment in endemic COVID-19 vaccination programmes** and pandemic preparedness to safeguard economic resilience and public health.



Adopt a decision-making and funding approach to routine immunisation that **recognises the broader economic benefits**.

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