



The Threat of AMR to Japan's  
Super-Aging Society:

# Implications on Health Care, Public Policy, and Economic Well-Being



# Roundtable Overview

This virtual roundtable, held on October 7, 2020 by the Global Coalition on Aging (GCOA), in collaboration with the Health and Global Policy Institute (HGPI), sponsored by Pfizer Japan Inc. explored the multifaceted risks posed by antimicrobial resistance (AMR) in ageing societies, focusing on the particular needs of Japan's super-ageing society. Michael W. Hodin, CEO of Global Coalition on Aging (GCOA), and Dr. Hiroyuki Noda, Cabinet Secretariat, provided opening remarks, followed by comments from Dr. Hajime Inoue, Cabinet Secretariat, on Japan's response to COVID-19. The participants then heard presentations from Dr. Akihisa Harada, President of Pfizer Japan, and Dr. Norio Ohmagari, Director of Japan's National Center for Global Health and Medicine. Afterwards, there was an open discussion about AMR, the threat it poses because of Japan's super-ageing status, and its impact on healthy and active ageing.

## Summary of Key Takeaways

1. AMR is an urgent public health issue, especially for Japan's super-ageing population. Policy support and decisive actions focused on this vulnerable population are needed.
2. The dearth of new antimicrobials represents a major market failure that requires new incentives and market-based policy reform.
3. Empowerment of the ageing population has become increasingly critical in the shadows of COVID-19.
4. A broad-based, society-wide set of multi-stakeholder interests are needed to address AMR issues.
5. As the world's first super-ageing country, Japan is expected to take a leading role on AMR internationally.

# Discussion Summary

COVID-19 has heightened the world's awareness of global health trends and inadequacies, especially in relation to demographic shifts. Older and immunocompromised populations have been acutely harmed by COVID-19 and face high risk from AMR as well. To respond to the challenge of AMR, multiple action plans have been created around the world, including within Japan. Japan's National Action Plan on AMR focuses on six main areas: public engagement and education, increased monitoring, infection prevention and control, defining appropriate use of antimicrobials, investment in research and development and international cooperation.<sup>1</sup> Discussants recognized the urgency to address AMR as an emergent public health issue because of super-ageing and the opportunity to adopt lessons from COVID-19 response.

In Japan, more than 8,000 people nationwide are estimated to have died due to two major drug-resistant bacteria in 2017.<sup>2</sup> The impact of AMR is expected to rise with the growing ageing population and the resulting need for increasing use of antibiotics among those over 65, as infections such as urinary tract infections (UTIs) grow increasingly common with age. Older persons are not only more sensitive to bacterial infections but also are more prone to contract such infections due to increased healthcare visits – to hospitals, doctor offices and clinics. Over the life course, increased use of antibiotics breeds new forms of bacteria resistant to traditional antibiotics. When these bacteria infect humans and animals, the infections they cause are harder to treat than those caused by non-resistant bacteria.<sup>3</sup>

Despite the ever-growing threat of AMR, innovation in the sector has nearly come to a standstill. Globally, only 41 antimicrobials are in clinical trials, and only 13 of these have the potential to treat WHO labelled critical pathogens.<sup>4</sup> Market commercialization of AMR treatments seems to be a stumbling block. Over the last decade, among the 14 FDA-approved antibiotics, half of the firms developing treatments either went bankrupt or are experiencing severe financial hardship. When novel antimicrobials are developed and approved, they are used sparingly to preserve effectiveness and slow the development of further resistance. Even companies that succeed in developing an innovative and effective new antibiotic are not able to survive because of this market failure.<sup>5</sup> The current system makes it impossible to support the level of investment needed to maintain a robust antibiotic pipeline, stifles innovation, and increases the world's exposure to the AMR threat.

However, there are now attempts to fix the antibiotic innovation challenge through funding and the promotion of innovation-friendly policy. In July 2020, more than 20 biopharmaceutical companies announced launch of the AMR Action Fund, a groundbreaking collaboration that aims to bring 2-4 novel antibiotics to market by 2030. Nearly US\$1 billion in new funding has been raised to support clinical research for new antibiotics that are addressing the most resistant bacteria and life-threatening infections.<sup>6</sup> These efforts to 'push' the pharmaceutical market toward research and development are critical for antibiotic innovation. However, push incentives alone will not be able to fix the market failure. 'Pull' incentives are also crucial to provide adequate post-market financial support to those companies investing in and driving essential innovation.

# Key Takeaways

We therefore offer five key takeaways that emerged from the roundtable. These takeaways are presented as suggestions toward spurring urgent action in support of super-ageing Japan's robust silver economy.

**1. AMR is an urgent public health issue, especially for Japan's super-ageing population, and policy support and decisive actions focused on this vulnerable population are needed.** The current lack of action toward solutions for AMR has impact on healthy and active ageing: typically routine procedures such as heart valve replacements and hip or knee replacements, grow increasingly risky with the threat of antibiotic-resistant infections.<sup>7</sup> Innovation for healthier ageing across the life-course and healthier and more active older adults could be the organizing cry for a broader base of support for AMR solutions.

**2. The dearth of new antimicrobials represents a major market failure that requires new incentives and market-based policy reform.** Spending on antimicrobial innovation must be recognized as an investment in healthy and active ageing. This must be viewed as an essential economic and fiscal goal for super-ageing societies like Japan. A resilient healthcare system must adapt to changing healthcare demands (e.g., ageing, COVID-19, or AMR). Therefore, market-based policy reforms that reward upfront investments in antibiotic innovation must urgently be activated.

**3. Empowerment of the ageing population has become increasingly critical in the shadows of COVID-19.** There is a need to educate the ageing population on how to defend themselves from the threat of infectious diseases, i.e., working toward healthy ageing

such that each person is protected from infectious diseases, including COVID-19, that target older vulnerable populations most aggressively.

**4. A broad-based, society-wide set of multi-stakeholder interests are needed to address AMR issues.** Especially during the COVID-19 pandemic, the interests in innovation for prevention ought to require broad-based advocacy support, incorporating direct linkages to keeping people healthier and more active as they age. Leaders in this fight must take steps to fully empower multi-stakeholder and cross-generational sets of interests, joining industry, patient advocates, scientists, health professionals, and older adults themselves in such efforts.

**5. As the world's first super-ageing country, Japan is highly expected to take a leading role on AMR internationally.** From lessons and learnings from the COVID-19 pandemic to the caregiving crisis, Japan is at the forefront of massive global health challenges and should therefore lead in the fight against AMR.

# Conclusion

The roundtable emphasized that we are at a unique moment that highlights the urgency for AMR reform even as the opportunity is appreciated and understood. For Japan's super-ageing needs, *GCOA's AMR Call to Action* emphasizes that AMR is a principal barrier to healthy ageing, threatening 20<sup>th</sup>-century progress in science, medicine, and sanitation that has led to our 21<sup>st</sup>-century miracle of longevity. With these takeaways from the roundtable, together we aim to promote and facilitate collaborations to fight AMR, pursuing more innovative and proactive approaches to prevention and well-being, more effective treatment and rehabilitation, and active and healthy ageing. Super-ageing Japan must be a leader—for individual health and quality of life, economic growth, and a more sustainable future.

*The perspectives described in this report reflect the sentiments uncovered during the roundtable and should not be interpreted as the position of any individual participant.*

# Roundtable Participants

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# Endnotes

1. <https://www.japantimes.co.jp/news/2019/12/05/national/science-health/drug-resistant-bacteria-8000-deaths-related-to-drug-resistant-bacteria-killed-8000-in-japan/>
2. <https://www.who.int/news-room/fact-sheets/detail/antibiotic-resistance#:~:text=Bacteria%2C%20not%20humans%20or%20animals,hospital%20stays%2C%20and%20increased%20mortality>
3. <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2020/04/tracking-the-global-pipeline-of-antibiotics-in-development>
4. <https://www.cidrap.umn.edu/news-perspective/2019/04/achaogen-bankruptcy-raises-worry-over-antibiotic-pipeline>
5. <https://amractionfund.com/about-us/>
6. <https://oversight.house.gov/sites/democrats.oversight.house.gov/files/2019.06.26%20Boucher%20Testimony.pdf>



The Global Coalition on Aging aims to reshape how global leaders approach and prepare for the 21st century's profound shift in population aging. GCOA uniquely brings together global corporations across industry sectors with common strategic interests in aging populations, a comprehensive and systemic understanding of aging, and an optimistic view of its impact. Through research, public policy analysis, advocacy, and strategic communications, GCOA is advancing innovative solutions and working to ensure global aging is a path to health, productivity and economic growth.

**For more information, visit**

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Health and Global Policy Institute (HGPI) is a Tokyo-based, independent, non-profit, and non-partisan health policy think tank established in 2004. Since its establishment, HGPI has been working to realize citizen-centric health policies by gathering together diverse stakeholders and developing policy recommendations. HGPI is committed to serving as a truly independent organization that can provide society with new ideas from a broad, long-term perspective in order to foster fair and healthy communities. HGPI looks forward to continuing to partner with people from all around the world as we continue our work for the development of effective health policy solutions for Japanese and global issues.

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