

### AMR: A Threat to Healthy Longevity and National Security for Japan

Antimicrobial resistance (AMR) and the lack of new drugs available to treat infections pose a growing threat to Japan and the world. Japan's 2023 Presidency of the G7 Summit will be an important opportunity to show AMR leadership on the global stage.

If no significant action is taken, drug-resistant diseases could cause 10 million deaths globally each year by 2050 and could cause damage to the Japanese economy as catastrophic as the 2008-2009 global financial crisis.<sup>1</sup>

### AMR's Threat to Japan- COVID-19 & AMR 2020 Deaths



More than twice as many Japanese die each year from antibiotic-resistant bacteria (8,000) as died from COVID-19 in 2020.\*2.3

\*The true figure is likely substantially more than this estimate, but an exact figure cannot be calculated based on the publicly available data. In January 2022, a report published in The Lancet estimated 1,020,000 deaths associated with resistance in the Eas Asia (Japan, China, and South Korea).<sup>4</sup>

Antimicrobial resistance (AMR) is the natural process by which microbes become increasingly resistant to available drugs.

While AMR is a crisis for all of society, older adults are most at risk. This makes AMR a critical priority for Japan, where close to 40% of the population is over 60.<sup>5</sup>

Older adults account for the majority of new cases of drug-resistant infections and AMR-related deaths in Japan.<sup>6</sup> A full 80% of C.Diff deaths occur in those 65 and older.<sup>7</sup>



## Addressing AMR is an Investment in Healthy Aging for Japan

Incentives for antimicrobial innovation, which makes new infectionfighting drugs available, must be recognized as an investment in healthy aging.<sup>8</sup>

For years, Japan drove innovation in the development of antimicrobials, but today the pipeline is nearly bare. Japan has no active pull incentives qualified by the AMR HUB as contributing to innovation.

Without policy action to spur innovation, AMR will continue to pose a threat to Japan and the world.

A pull incentive rewards successful development by increasing or ensuring future revenue.



\*Assuming 20 years of market exclusivity

## Inappropriate Use of Antibiotics Remains a Challenge for Japan

Left unaddressed, inappropriate use is speeding up the growth of drug resistance.

Between 2012 and 2015, nearly half (41%) of Japanese patients were incorrectly treated with antibiotics for non-bacterial upper respiratory tract infections.<sup>10</sup>

41% PATIENTS INCORRECTLY TREATED WITH ANTIBIOTICS

#### Efforts to Reduce Antimicrobial Use Fall Short of Goals

Though the National Action Plan on Antimicrobial Resistance significantly reduced antimicrobial use in Japan, reduction efforts were 18% less effective than hoped between 2013 and 2020.<sup>11</sup>



## AMR is Undermining Japan's Healthcare System

AMR Threatens Routine Medical Treatment<sup>12,13</sup>



### POTENTIALLY DEADLY DUE TO UNTREATABLE INFECTIONS

### COVID-19: The Perfect Storm for Rising AMR<sup>14</sup>



SETTING THE STAGE FOR A RISE IN AMR AND UNTREATABLE INFECTIONS

### Unsustainable Costs Threaten Japan's National Economy & National Security

AMR accounts for significant economic costs, due to increased healthcare costs, lost productivity, and premature mortality.<sup>15</sup>



#### AMR's Cost to the GDP

By 2050, annual global GDP is projected to fall by 1.1% in the low-impact AMR scenario and 3.8% in the high-impact AMR scenario.<sup>16</sup> This could translate to \$55 billion to \$192.47 billion in losses per year for Japan.





AMR could potentially undo many of the medical advances made over the past 70 years, **eroding the global medical safety net**. Without a fully functioning healthcare system, economic productivity and social cohesion decline, presenting a significant threat to national security.<sup>18</sup>





# How Can We Solve for AMR?

Establish incentive models, like the PASTEUR Act in the US and the subscription model in the UK, to encourage R&D for antimicrobials. Invest in further harmonization for cross-regional antimicrobial development.

 Increase data collection and establish and monitor
surveillance systems for AMR, and strengthen antimicrobial stewardship in healthcare facilities, guided by surveillance data.

Support greater diagnostic and screening capabilities,
including through the development and deployment
of new point of care diagnostic technologies.

4. Invest in education on AMR for the public and medical practitioners.

Make vaccines more accessible and increase uptake of vaccines for all ages, including adults.

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