

Introduction to the Importance of Enhanced Safety and Infection Control

Healthcare-associated infections (HAIs) are infections that patients contract in a healthcare facility from bacteria, viruses, and other pathogens that are frequently resistant to antimicrobial treatment. They result in serious clinical, public health, and economic costs, including prolonged hospital stays, long-term disability, preventable deaths, increased antimicrobial resistance, excess financial costs to healthcare systems, and high costs for patients and their families. Annually, they affect hundreds of millions of patients worldwide.^{1,2} Fortunately, many HAIs can be prevented when public policy requires and incentivizes healthcare facilities to implement comprehensive infection prevention and control practices.

The World Health Organization (WHO) reports that HAIs affect hundreds of millions of patients worldwide each year, and estimates that their prevalence in hospitals is 5 – 12 percent in developed countries and 5 – 19 percent in developing countries.³ Moreover, HAIs result in massive avoidable healthcare costs. In the United States, the overall direct medical costs associated with treating HAIs ranges from USD28.4 billion to USD33.8 billion each year.⁴ Similarly, an Organisation for Economic Co-operation and Development (OECD) study of three countries reveals that HAIs added USD7 – 8 billion annually to healthcare costs.⁵ It is important to note that these figures do not account for lost healthcare worker productivity or opportunity costs due to resources being directed away from other healthcare initiatives. Because HAIs often cause significantly longer hospital stays for patients – three to five times as long, according to some studies⁶ – they can lead to additional financial and emotional costs to patients and their families.

HAIs can be controlled with effective policies and appropriate actions. For example, a comprehensive approach in Western Australia that included active surveillance and screening of high-risk patients has been credited with significant reductions in the rates of MRSA HAIs in that region.⁸ Similarly, in the United States, the Michigan Keystone Project – a partnership between a major hospital association and a university – achieved a 66 percent reduction in catheter-related bloodstream infections in ICUs, saving an estimated 1,500 lives and USD200 million in the first 18 months. While hand hygiene was a component of the Michigan program and is an essential element of success, comprehensive programs cannot rely on hand hygiene alone. Worldwide, studies have shown that compliance with hand hygiene policy is poor, often ranging from 20 – 50 percent.^{9,10} Importantly, the Michigan effort focused on driving changes in culture and practice along with incentives for cooperation.¹¹

HAIs are a serious problem for healthcare systems worldwide that must be addressed through comprehensive policies that include the implementation of the essential elements of infection prevention and control, healthcare facility oversight, investment in infrastructure including technology, as well as incentives to drive change. As the WHO concluded in its report, we must “alert policy and decision makers to the fact that healthcare-associated infection represents a hidden and serious burden for systems and patients alike – and that action is now required.”¹²

References

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The Nexus between AMR, HAI and MDRO

Drug-resistant infections may be acquired in healthcare settings (e.g., MRSA in ICUs), in the community (e.g., pneumococci), and through the food supply (e.g., salmonella)

Antimicrobial Resistance (AMR) is increasingly appearing in new settings. For example, for 30 years MRSA was almost exclusively a **Healthcare Associated Infection (HAI)**. In the mid-2000s, a community-acquired strain emerged.

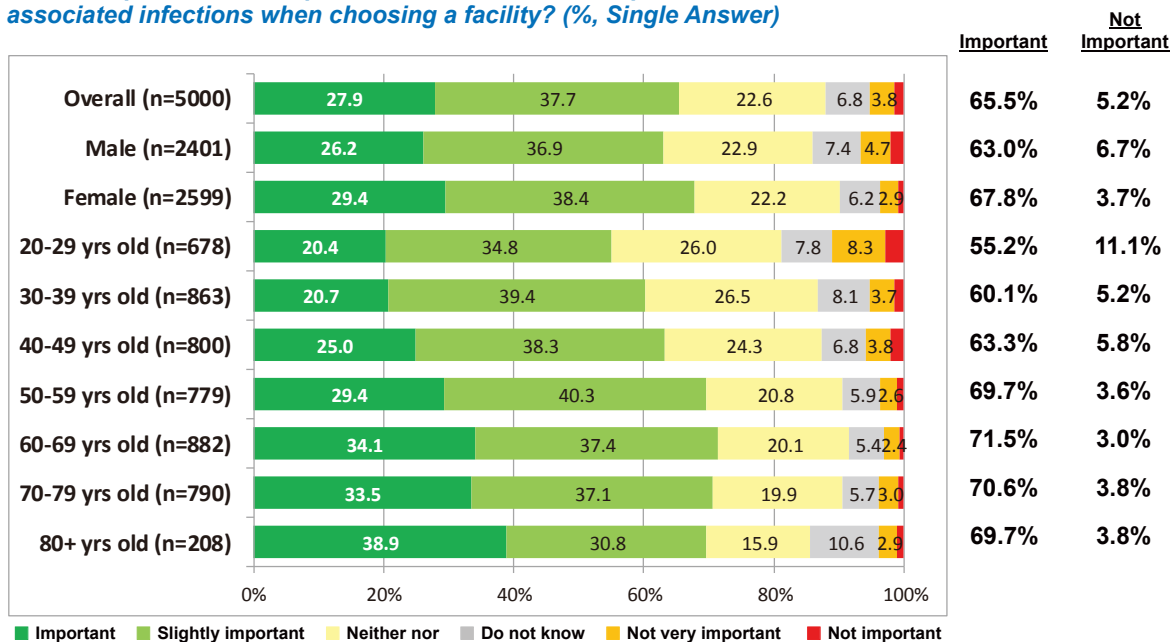


MDROs and HAIs: A Symbiotic Relationship

- Of the fifteen **Multi-Drug Resistant Organisms (MDRO)** U.S. CDC considers either “urgent” or “serious,” eight are acquired primarily in healthcare settings.
- >90% of HAI deaths are due to MDROs.

65% of General Public in Japan Think it is Important to Select Hospitals that Take Measures to Prevent HAIs

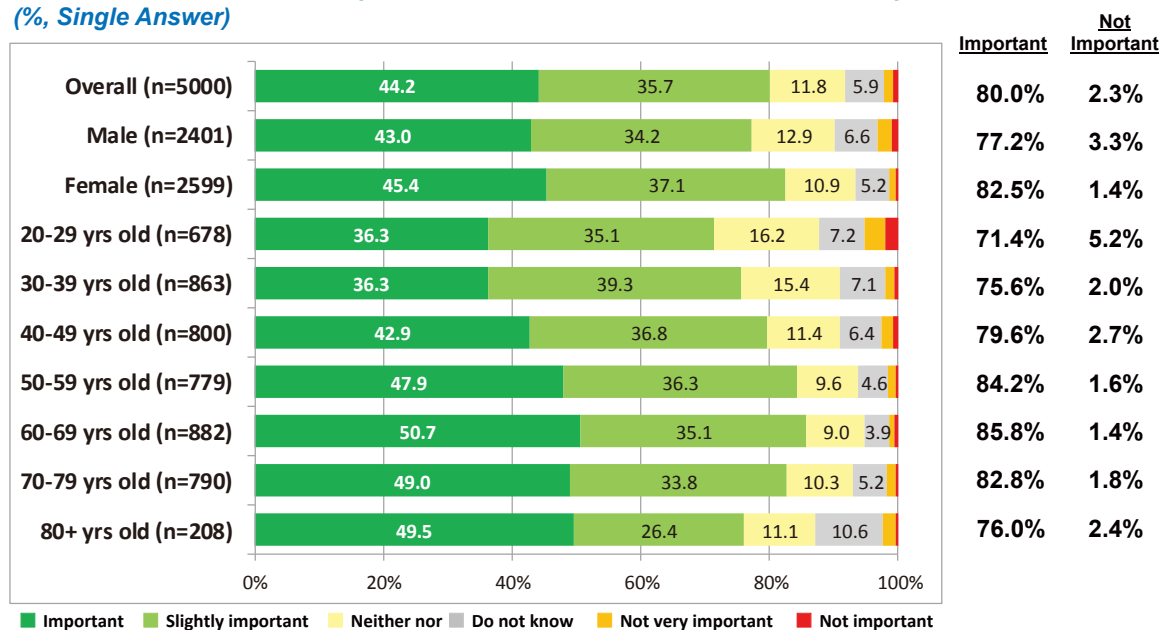
Q. How important is a hospital or clinic’s measures to prevent healthcare associated infections when choosing a facility? (% , Single Answer)



Survey on Prevention, Early Detection and the Economic Burden of Disease in Japan (2011) by The American Chamber of Commerce in Japan. Internet survey conducted October 31 – November 2, 2011. 5,000 respondents from Rakuten Research’s registry that represent the Japanese population.

80% of General Public in Japan Think it is Important for Hospitals to Publicly Disclose Measures to Prevent HAIs

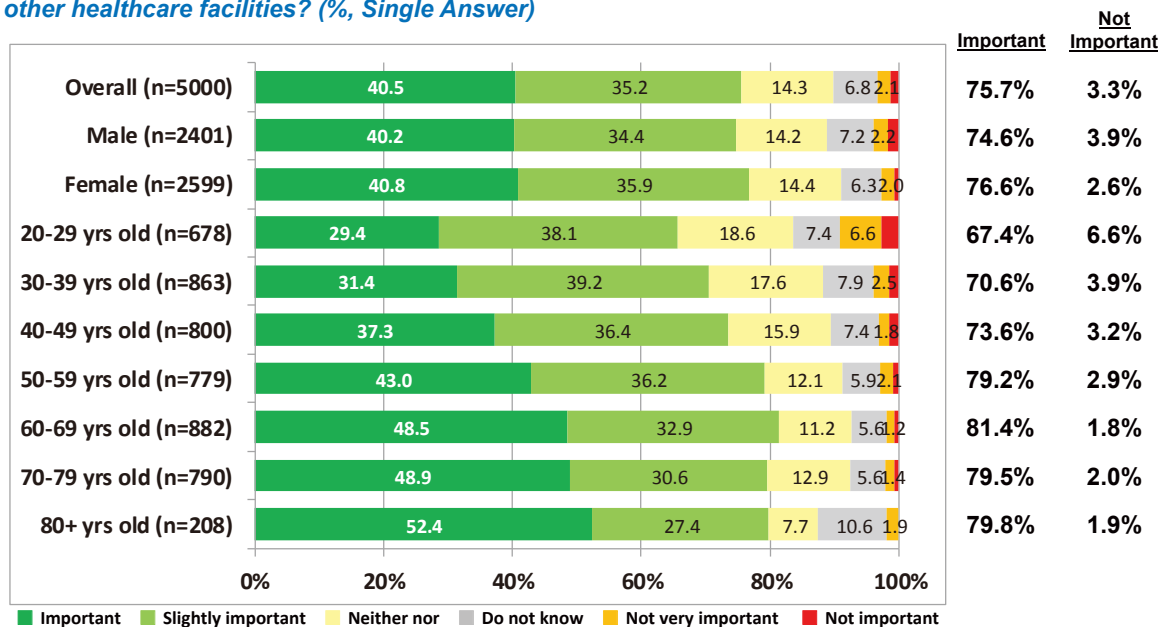
Q. Hospitals and clinics implement many measures to prevent healthcare associated infections. How important is it to disclose these measures to the public? (% , Single Answer)



Survey on Prevention, Early Detection and the Economic Burden of Disease in Japan (2011) by The American Chamber of Commerce in Japan. Internet survey conducted October 31 – November 2, 2011. 5,000 respondents from Rakuten Research's registry that represent the Japanese population.

75.7% of General Public in Japan Think it is Important to Have a National Program to Reduce the Risk of HAIs

Q. How important do you think it is for the government to have a national program to reduce the risk of infections associated with hospitals, clinics or other healthcare facilities? (% , Single Answer)



Survey on Prevention, Early Detection and the Economic Burden of Disease in Japan (2011) by The American Chamber of Commerce in Japan. Internet survey conducted October 31 – November 2, 2011. 5,000 respondents from Rakuten Research's registry that represent the Japanese population.