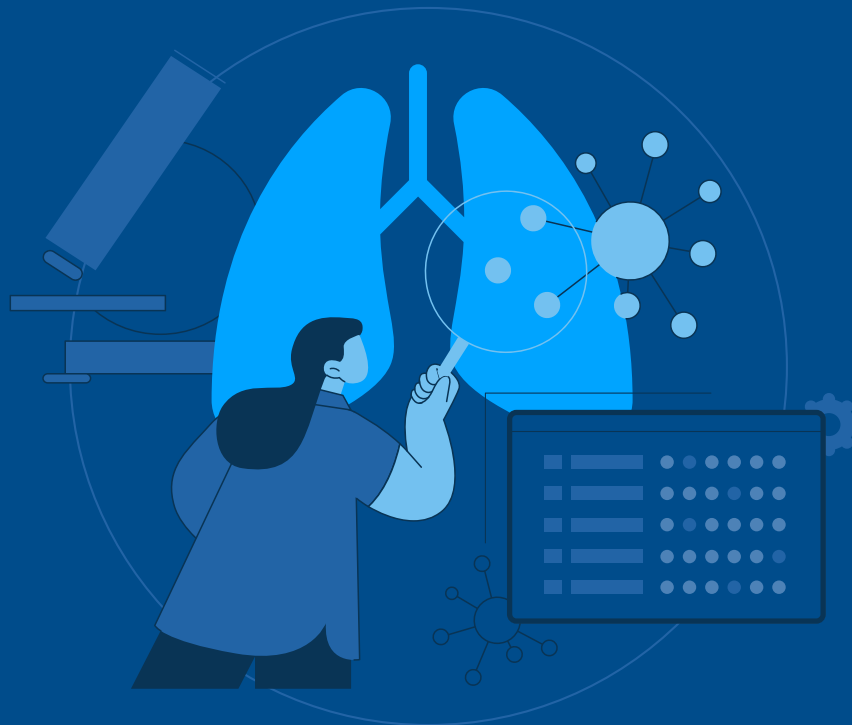


GCOA EXPERT ROUNDTABLE

RSV Prevention, Healthy Aging, and Health System Resilience

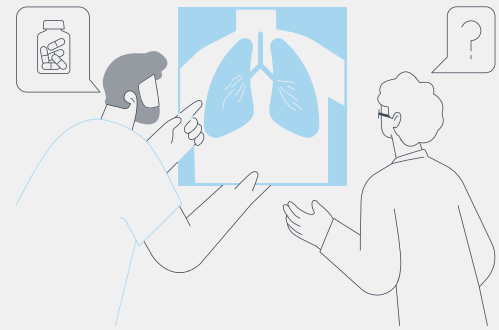
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Introduction

Respiratory infections like influenza, RSV (respiratory syncytial virus), and now COVID-19, among others, place a substantial and growing burden on health systems. These infections pose a greater risk, particularly to infants and older adults, and can exacerbate other underlying conditions to become life-threatening and lead to a cascading health decline, loss of independence, and, in some cases, death.¹ The burden on health systems is considerable, both on sustainability and capacity as well on healthcare expenditures.² The aging of society heightens all these challenges, highlighting the need for effective prevention strategies, like adult vaccination.

Among these three infections—responsible for the so called “triple-demic”—RSV is the least recognized. There is low awareness of RSV among healthcare professionals and the general public and little understanding of the disease burden and impact in older adults globally, but particularly in the Asia-Pacific region—which is rapidly aging.^{3,4} A recent literature review by Kurai et al found that while RSV is well-recognized in pediatrics, it is a major source of disease burden in older adults in the Asia-Pacific region, with high mortality and complicating treatment for those with comorbid conditions.⁵ While underscoring the critical need for prevention strategies, the study also noted significant gaps in awareness, data, and surveillance infrastructure that likely lead to underestimation and de-prioritization of the disease.



The direct costs of RSV to healthcare systems and economies in general across the Asia-Pacific region are substantial, not unlike in Europe and North America,⁶ but to date have not been well articulated in many countries. In Japan, the mean hospital stay for older persons with RSV was 30 days, and in China and Australia, the median stay was roughly a week.⁷ In general, cost data has not been well-described, but one study out of South Korea estimated the median direct medical cost per older patient admitted to a hospital with RSV at roughly \$3,000 USD, which excludes social costs such as missed work or decreased quality of life metrics.⁸ In all countries in the region, RSV is very care-intensive, heavily utilizing hospital resources like oxygen therapy, ventilation, and intensive care unit stays, particularly for older adults.⁹

As countries in the Asia-Pacific region continue to experience what can only be called unprecedented population aging, governments will be called upon to develop ways to mitigate the pressure on health systems caused through both seasonal and endemic respiratory outbreaks. Creating an environment that enables older people to remain healthy has added benefit to workforce productivity, sustainable labor, and economic growth.

Because no antiviral yet exists to treat RSV, prevention is even more critical—and is now possible. For the first time, as the culmination of over 50 years of research and development, effective RSV vaccines are available. Protecting both infants and older adults against RSV has the potential to significantly alter the landscape of acute respiratory infections and safeguard limited healthcare resources. Already, use



of preventative monoclonal antibodies for infants in Europe has been shown to be protective against hospitalizations,¹⁰ and there is strong potential for similar protection for older adults through vaccination. There is also the potential for profound positive impact on economies overall.¹¹

Yet, healthcare providers, policymakers, and other decision makers in the Asia-Pacific region do not have a clear roadmap for action to address RSV or even awareness that they can and should take action to reduce the human, healthcare system, and economic impacts of the disease. RSV has low awareness among older adults themselves, underpinned by sparse understanding of the burden of disease. Further, the cascading costs and impacts that result from a case of RSV or of the dynamics of disease transmission—such as between generations and in healthcare settings—is not yet well-elucidated in the region.

In January 2024, the Global Coalition on Aging convened a group of preeminent experts from various fields including infectious diseases, population aging, economics, advocacy, caregiving, and policy for a roundtable discussion on RSV. The aim of the roundtable was to share local and international insights on the impact, gaps, and opportunities to better address RSV in the Asia-Pacific region, including the role of surveillance and data monitoring, public health education, and the importance of prevention. This report shares four key takeaways and calls to action from this roundtable.

Participants

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KEY INSIGHT:

The true burden of RSV is poorly understood and severely underestimated.

Most countries in the Asia-Pacific region lack surveillance systems to track the burden of RSV in the population, with the notable exception of Australia, which first designated RSV as a notifiable disease in July 2021.¹² However, the challenge with RSV surveillance is not just a lack of reporting system, it is the absence of data and, moreover, age-disaggregated data to report. Until recently, in large part due to advances in rapid antigen tests, RSV tests are more accessible than ever but remain somewhat limited to pediatric populations, even in hospital settings. Experts in Taiwan and other countries pointed to the high incidence of hospital-acquired RSV infections due to poor infection prevention and control and the lack of appropriate testing to ensure isolation of certain patients.

According to the expert discussion, poor awareness among healthcare providers and the general public, lingering technical challenges with rapid tests, and limited funding and reimbursement policies that exclude testing older adults represent a complex set of barriers to diagnosing RSV in older adults. In certain countries there is also a tension from policies that reimburse diagnostic tests in pediatric patients. A lack of available antiviral treatment to treat RSV may present a further disincentive to testing, as diagnosis is unlikely to provide a specific clinical benefit. Accurate diagnoses would provide much-needed data on disease burden and contextualize the economic costs associated with a case of RSV to create awareness and ultimately, provide the impetus for prevention.

“Older people in Hong Kong are routinely underdiagnosed, and local studies have found that RSV infections in this population actually have a worse comorbidity effect than influenza, with poorer mortality. Those who are immunocompromised or have underlying conditions like diabetes are at an even higher risk.”

Ivan Hung, Professor, The University of Hong Kong, Hong Kong

“Testing needs to be improved. In South Korea, only about 50% of adult RSV infections have been diagnosed using PCR testing. Most hospitals prioritize pediatric care, with only limited attention and care to the treatment of RSV in older adults.”

Joon Young Song, Professor, Korea University College of Medicine and School of Medicine, South Korea

“RSV surveillance is difficult in Japan because testing is not covered by health insurance for older adults, only infants.”

Hitoshi Oshitani, Professor, Department of Virology of Tohoku University Graduate School of Medicine, Japan



There is a current challenge of “chicken and egg” among the interrelated needs for data, awareness, and policy change for implementation that must be overcome. Starting with support for point-of-care testing, data is critically needed to accurately measure the burden of RSV disease and support decision-making and resource-allocation. A more robust surveillance system to collect, share, and interpret this data would increase awareness among healthcare providers and older adults themselves about how to protect against RSV and prevent transmission to those most at risk of serious infection. Experts pointed to the potential to leverage systems that were built out during the COVID-19 pandemic, such as the value of wastewater surveillance systems, as have been introduced in some places to track rising COVID-19 rates. That said, strong infrastructure for systematic surveillance will take time to implement across the region. While it is a crucial component of a prevention strategy for RSV, actions that will precede its implementation will and must occur even as plans for surveillance are made.

“Further uptake of antigen testing will help awareness among the public, but from a professional standpoint, we really need it to understand the burden of RSV.”

Ian Barr, Deputy Director, WHO Collaborating Centre for Reference and Research on Influenza, Australia

“The impact of the concomitant occurrence of more than one virus in the community, such as the triple pandemic, is also severely underestimated.”

Yee-Chun Chen, Division Director of Infectious Disease, ACIP Member, NTU Hospital, Taiwan

CALL TO ACTION

Strengthening surveillance and testing infrastructure, even through incremental and localized actions, is a critical first step for governments and health systems to address RSV.

KEY INSIGHT:

Awareness of RSV is low in every country, among healthcare providers and the public alike.

Low awareness among physicians, policymakers, and the general public can lead to inaction, unnecessary risk, and increased costs. Beyond pediatric specialists, awareness of RSV is low across geographies in the Asia-Pacific. However, many opportunities exist to leverage existing momentum and build on good practice innovations to raise visibility and drive action on RSV. These include emphasizing the relevance of RSV to people and their individual concerns, like the outsized risk RSV can have for those with underlying conditions like diabetes and cardiovascular and respiratory diseases or to multi-generational families on the risks of transmitting infections between family members such as from grandparent to grandchild.

For example, in Japan, pediatricians can be engaged to advocate for greater surveillance in older adults given perceived transmission between older adults and young infants. More research is needed to better understand the transmission pathway. Researchers and specialists have made efforts to share knowledge and raise awareness through symposia and workshops, but these efforts remain few and fragmented. Some countries, such as China, have found success using social media platforms like WeChat to increase awareness about the disease among the public, and Taiwan used similar messaging across platforms such as Facebook.

“If you can relate to people about what their concerns are and put RSV into that picture, it’s a much more powerful and compelling reason for people to spread the word about the importance of addressing RSV.”

Heidi Larson, Director, The Vaccines Confidence Project, Global

“The older population actually has lower hesitancy toward vaccines than other populations in Japan. The issue is about public awareness and compensation.”

Ryoji Noritake, CEO, Board member, Health and Global Policy Institute, Japan

“RSV is well-known among Japanese pediatricians, especially in neonatal care. Pediatricians are interested in increasing surveillance and awareness because it is likely that the waves of RSV they see in neonates come from interactions with adults, including older adults.”

Norio Ohmagari, Director, AMR Clinical Reference Center, Director, WHO Collaborating Centre for Prevention, Preparedness and Response to Emerging Infectious Diseases, Japan

“In Taiwan, social media efforts that have promoted vaccination generally to protect family members in addition to yourself have resulted in healthy individuals coming into the clinic to ask about vaccinating themselves and their families.”

Yee-Chun Chen, Division Director of Infectious Disease, ACIP Member, NTU Hospital, Taiwan



Others noted the success of advertisements in locations frequented by older adults and their families, such as pharmacies (in Australia), in raising awareness around adult vaccines more broadly, which could be leveraged to spread RSV awareness. Further, growing momentum stemming from widespread “triple-demic” messaging over the past two seasons presents an important communication channel to build awareness on RSV by linking it to other more well-known diseases like influenza or COVID-19.

CALL TO ACTION

Education initiatives should be designed around targeted communications across platforms—from in-person to social media—and at every level and should recognize the diversity of a population, with tailoring to resonate locally.

“In China, we are trying to adapt the epidemic prediction approaches used in COVID-19 to RSV. There are currently no authorized vaccines for RSV in mainland China, and awareness is low. We are organizing symposiums and conferences to engage students, using WeChat to spread public awareness, and running workshops to equip clinicians to better understand RSV.”

Yang Wang, Associate Professor, Guangzhou National Laboratory, China, in collaboration with Zifeng Yang, Deputy Director of Guangzhou Institute of Respiratory Health, the First Affiliated Hospital of Guangzhou Medical University, and Executive Director of Disease Control and Prevention, National Center for Respiratory Medicine, China

“Talk of a “triple-demic” is a real opportunity to bring the discussion on RSV to greater awareness by tagging on to other well-known diseases—we can push this door open to build awareness.”

Mary Bussell, Founder, TriMar Strategies

KEY INSIGHT:

Regional and global expertise offer critical insights, starting with the value of hyperlocal engagement.

Lessons learned from other areas of public health, including from the introduction of new vaccines for other disease areas, offer a roadmap for RSV. Chief among these insights is the importance of engaging with the local community and creating local partnerships, including with other health workers, such as pharmacists and caregivers. Likewise, to be effective, National Immunization Technical Advisory Groups (NITAGs), the expert groups that make recommendations about national vaccine policy, must understand decision dynamics and priorities at the local level when they consider strategies for awareness and uptake. This in turn requires high-quality local data.

Technical guidelines from global bodies like the World Health Organization (WHO) are critical to help inform and support policy decisions and implementation, but effective policy advocacy also needs to be local, responsive, and take into account the heterogeneity of a population.

CALL TO ACTION

Advocates and policymakers alike should leverage global insights and leadership to mobilize local champions and guide locally specific solutions. Combining global expertise and best practices with local engagement and meaningful partnerships will lead to greater success in effective policymaking and programming.

“It takes at least as long to develop a strong vaccine program as it does to develop a good vaccine.”

Joseph Bresee, Director, Respiratory Virus Prevention Programs, Task Force for Global Health, Global

“In New Zealand in particular, we had strong engagement with our Indigenous people with COVID. Adjusting the vaccine rollout in line with this feedback led to optimized uptake. We need to rely on local strengths.”

Lutz Beckert, Professor, University of Otago, New Zealand

“WHO technical guidelines are essential to then work at a country level to inform and help shape policy using a cross sector, cross disciplinary approach.”

Jane Barratt, Independent Consultant, Global Advisor, International Federation on Ageing

KEY INSIGHT:

A framework to gather, harmonize, and share RSV data throughout the region remains a critical resource gap for the Asia-Pacific.

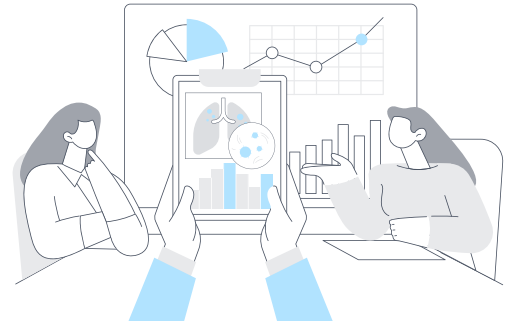
As with many countries around the world, those in the Asia-Pacific region have incomplete and fragmented surveillance data and gaps in policy with regard to a comprehensive vaccination program and in this case RSV vaccines for older adults. A coordinated framework to facilitate the collection, sharing, and interpretation of data with decision-makers remains a significant gap in and of itself. Despite differences between countries in the region, many face similar problems. The ability to convene and discuss strategies and good practices is sorely needed.

Various such consortia and data surveillance networks have evolved in Europe and the United States that focus on monitoring and describing epidemiological trends, the spread of disease, and clinical outcomes, with an eye toward prevention. These consortia include the RSV Surveillance in Native American Persons (RSV SuNA) in the United States¹³, and PROMISE (Preparing for RSV Immunisation and Surveillance in Europe)¹⁴ and RESCEU (Respiratory Syncytial virus Consortium in Europe)¹⁵, both in Europe.

At present, the surveillance ecosystem in the Asia-Pacific region is less mature than that in the United States and Europe. Guidance from the United Nations Decade of Healthy Ageing and the WHO Immunization Agenda 2030 can lend momentum through their shared agendas and function as a mandate to create such a framework or consortium for the region.

“To the extent that there’s an opportunity to form a common framework or foundation for using data in a relatively consistent way, the more consistency we have and the way we look at metrics, numbers, targets, and the better able we are to talk to each other, share our experiences, and support data-informed decision-making.”

Murray Aitken, Executive Director, IQVIA Institute for Human Data Science, Global



An external expert group supported with the necessary human resources to collect, consolidate, analyze, and share evidence would help inform the global health community and support decision-making at the local, national, and regional levels.

In the absence of a coordinated regional initiative, a consortium of this kind could help to increase awareness among policymakers, healthcare providers, and the community, while also allowing for each individual country to tailor their approach to local needs. Representatives from across countries or regions could similarly share best practices and other key insights from their own experiences.

“Having a group that can pull together the brainpower and then pull together the evidence within the structure of the WHO, would, I think, be very well received.”

Mary Bussell, Founder, TriMar Strategies

CALL TO ACTION

Establishing an RSV consortium for the Asia-Pacific region will advance critical steps towards a coordinated and robust data surveillance network and empower scientists, advocates, and other experts to support planning and decision-making throughout the region.

Conclusion

Greater awareness of RSV is needed across the Asia-Pacific region, facilitated by improved disease surveillance for older adults, which includes access to testing, and a comprehensive immunization approach. A regional RSV consortium will help to frame a coordinated approach to raise awareness and educate healthcare providers and policymakers on the ways to mitigate the social and economic burden of RSV as part of the tripledemic, reduce stress on healthcare systems, and improve economic productivity, thus enabling healthier longevity for all across the Asia-Pacific region.



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Global Coalition on Aging

GCOA represents a cross-section of global business including technology, pharmaceuticals, healthcare, home care, financial, transportation, and consumer sectors. We engage global institutions, policymakers, and the public to drive debate on, create, and promote innovative policies and actions to transform challenges associated with the aging of the global population into opportunities for social engagement, productivity and fiscal sustainability.

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