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# RSIS COMMENTARIES

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## **MERS Alert and Polio Redux: Greater Vigilance Critical**

By Mely Caballero-Anthony and Gianna Gayle Amul

### **Synopsis**

*The spread of the MERS and the re-emergence of the wild polio virus are troubling developments. These health risks should renew calls for closer regional and global cooperation on health security.*

### **Commentary**

THE RECENT news about the spread of the Middle East respiratory syndrome coronavirus (MERS-COV) beyond the Middle East has raised concern about the possible repeat of a global health crisis like the Severe acute respiratory syndrome (SARS) coronavirus in 2003. Despite the World Health Organisation's (WHO) advisory that the MERS transmission pattern is slow and limited, and is no cause for alarm, reports of new cases have not allayed worries about its implications on global health security.

Adding to these concerns are the unexpected news about the re-emergence of polio—once thought to have been eradicated -- and the increasing vulnerability of communities to antimicrobial resistance. These developments have, once again, brought to the fore the critical importance of continued disease surveillance, information sharing, and risk communication to manage health threats in an increasingly interconnected world.

### **Polio redux?**

The eradication of polio in the late 1990s was one of the major successes of the polio vaccination campaigns undertaken globally. In 1998, the incidence of polio has declined by 99 per cent. Over the last two years, however, there had been a steady spike of polio cases in countries still affected by a wild poliovirus, which threatens to wipe out the significant progress made in eradicating the disease.

With wild poliovirus still affecting some countries in Africa, South Asia and the Middle East, the World Health Organisation (WHO) declared on 5 May 2014 that the international spread of polio is now a public health emergency of international concern (PHEIC). Within the framework of the 2005 International Health Regulations (IHR), the WHO has also called for a coordinated international response to mitigate the impact to the re-emergence of polio.

Measures include requiring travellers from polio-exporting countries such as Cameroon, Pakistan and Syria to provide an international certificate of vaccination before they are allowed to travel. Polio-infected states are advised to immediately implement supplementary immunisation campaigns with oral poliovirus vaccine (OPV),

heighten surveillance for poliovirus, and carry out routine immunisation.

Notwithstanding these recommended protocols there are serious challenges faced by the affected countries. Some of them are conflict-torn thus making it difficult for routine immunisation programmes to be carried out in certain places. Access has been hampered due to threats to health workers' security. Immunisation services are also further compromised by the refusal of some communities to get vaccinated due to religious and cultural orientation. These factors have crippled the health systems, which in turn increase the risk for the endemic wild poliovirus to spread globally.

### **MERS coronavirus: containing its spread**

Although the WHO has not classified MERS as a global public health emergency concern, continued vigilance remains important. This would require utilising existing surveillance systems and putting up monitoring procedures in populations at-risk and ensuring that preparedness mechanisms at national and regional levels are in place. These precautionary measures are critical to contain the spread of the MERS coronavirus.

Since its emergence in 2012 in Saudi Arabia, MERS has already claimed 126 lives, while cases have been reported in the UAE, Kuwait, Oman, Jordan, Qatar and Spain. Travel-related cases of MERS have also been reported in the UK, France, Germany, Greece, Tunisia, Italy, Malaysia, the Philippines and most recently Egypt, the US and Indonesia. Majority of the recent cases are healthcare workers infected by patients.

Studies have shown that despite the low potential of MERS to be an epidemic, the probability of the virus spreading globally is high. Thus, people on the move including tourists, travellers and migrant workers need to be aware of the risks involved and take necessary precautions. Hospitals and other health care facilities would also need to step up measures to prevent and control the spread of the virus from patients to healthcare workers that comprise the majority of recent cases.

As most of the MERS cases are found in the Middle East, extra precautionary measures need to be put in place to avert the potential of the virus spreading during huge mass events like the haj pilgrimage to Mecca in October. Despite the known disincentives for data sharing such as tourism and travel losses and data security, transparency and risk communication is imperative.

### **Polio, MERS and the dangers of antimicrobial resistance**

The threats of emerging and re-emerging infectious diseases such as MERS and polio respectively are compounded by the increasing trend of antimicrobial resistance. The WHO in its recent global surveillance report in April 2014 noted the rising incidence of antibiotic resistance globally and the lack of new major antibiotics. This has made the treatment of emerging and re-emerging infectious diseases more difficult. Tuberculosis, malaria, HIV, influenza and common infections such as urinary tract infections, pneumonia and bloodstream infections have drug-resistant strains.

Particularly, in the case of influenza, the WHO reports that all influenza A viruses infecting the human populations have shown increasing resistance to common antivirals (amantadine and rimantadine) since 2012. With the inappropriate use and abuse of antimicrobial drugs which contribute to low immunity and high susceptibility to emerging infectious diseases such as MERS and influenza A (H7N9), the problem of antiviral resistance therefore potentially increases the risk of pandemics.

Given these worrying trends impacting global health security, the agenda of disease surveillance and control becomes all the more critical for all countries. The spread of infectious diseases can be prevented with basic steps taken at local and national levels. These include infection control in hospitals and healthcare facilities; providing timely and proper vaccination especially to communities at risk; and ensuring access to basic services such as clean water, adequate sanitation and establishing better hygiene practices.

Thus, for a region that is highly susceptible to emerging and re-emerging infectious diseases, regional institutions like ASEAN and the wider ASEAN Plus Three (APT) need to build on existing frameworks to further enhance cooperation in addressing the challenge of global health security. In this regard, the role of the APT regional diseases surveillance mechanism is critical, particularly its Protocol for Communication and Information Sharing on Emerging Infectious Diseases, in encouraging all member states to report all imported cases of influenza and wild polio-viruses.

Governments need not wait for emerging diseases, like MERS, to be of national concern to be more vigilant. The transboundary impact of infectious diseases on regional and global security compels states and relevant actors to be diligent about diseases surveillance and reporting, share information and manage risks.

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