Effective management of infectious diseases requires ongoing engagement across the health system

This issue of the *MJA* has a focus on infectious diseases, a topic that has been top of mind globally in relation to public health, recently driven by the coronavirus disease 2019 (COVID-19) pandemic. But of course, infectious diseases and diverse pathogens cause a very wide spectrum of illness beyond COVID-19 and although new pathogens emerge, old ones continue to have clinical importance and require continued attention across the health system.

A research article and an editorial on congenital syphilis underline the importance of not forgetting about older diseases. In their research article, Hengel and colleagues (https://doi.org/10.5694/mja2.52388) describe the notification rates for infectious syphilis in women of reproductive age (15–44 years) and congenital syphilis in Australia. To many readers, the numbers will seem alarmingly high: during 2011–2021, there were 5011 notified cases of infectious syphilis in women aged 15–44 years, and the notifications rose year on year. In the same years, 74 cases of congenital syphilis were notified, increasing from six in 2011 to a peak of 17 in 2020. Crucially, mothers of 32 of the infants with congenital syphilis had not received antenatal care. In their editorial on this article (https://doi.org/10.5694/mja2.52393), Bond and Chen note that the research shows a changing picture of syphilis over the past decade, from previously, where the disease was more prevalent in men who have sex with men and in remote Aboriginal and Torres Strait Islander communities, to now where there are increasing notifications among women living in urban areas. This rise is not unique to Australia — other high income countries such as the United States are seeing cases rise. Bond and Chen note how important these numbers are, especially of cases of congenital syphilis: "The resurgence of congenital syphilis indicates a breakdown in syphilis control, and should be seen as an urgent call to action". They conclude that multiple approaches are needed, including efforts to reduce stigma for sexual health testing and treatment and "coordinated policies in both antenatal and sexual health care, clear guidelines, and broad education programs". Other countries have eliminated congenital syphilis: Australia must commit to doing the same.

Another area of critical health policy in infectious diseases lies in how seasonal influenza vaccines are managed in Australia. Each year, the rollout of these vaccines is a vital component of the response to influenza. Key to its success is public confidence in the vaccines, and that includes early detection of adverse events following immunisation. In a perspective, O'Moore and colleagues (https://doi.org/10.5694/mja2.52381) describe the process for vaccine pharmacovigilance and the bodies involved, including the Therapeutic Goods Administration, the nationally funded surveillance initiative AusVaxSafety, and state and territory health departments. These processes are not static; as O'Moore and colleagues note, influenza vaccine safety surveillance was updated in 2022, and now, importantly, aligns with the methodology for COVID-19 vaccine safety surveillance that commenced in March 2021. These and other updates, they conclude, "support the health and safety of Australians through close monitoring of seasonal influenza vaccines and rapid communication of any emerging safety signals".

Outside of COVID-19 and influenza, vaccination for adults is often not discussed extensively; yet the familiar childhood vaccine combination of tetanus, pertussis and diphtheria has an important role in the prevention of disease in later life. In a lessons from practice article, Torres and colleagues (https://doi.org/10.5694/mja2.52380) describe two women aged in their 80s with tetanus from New South Wales, one of whom, who had no record of tetanus vaccination, died. This is not an aberrant finding — as they say, "Notably, no patients with a confirmed tetanus diagnosis in NSW over the past decade had complete age-appropriate tetanus vaccinations". In a research letter, Hendry and colleagues (https://doi.org/10.5694/mja2.52389) confirmed that vaccination status for older adults in Australia is not optimal, by assessing tetanus, pertussis and diphtheria vaccination coverage among Medicare-registered older adults in Australia. The *Australian immunisation handbook* recommends that adults receive diphtheria–tetanus–pertussis (dTpa) combination vaccine at 50 years of age if not given during the preceding ten years and a second dTpa booster dose at 65 years of age or older if not given during the preceding ten years. They found that tetanus, pertussis, and diphtheria-containing vaccine coverage among older Australians was suboptimal, and especially so for vaccines containing pertussis. This lack of coverage is problematic because of the potential for severe disease from pertussis in older adults — and also, as the article by Torres and colleagues shows, the chance of severe disease from tetanus. What might be the reason for low uptake? Hendry and colleagues note that tetanus, pertussis and diphtheria-containing vaccines are not funded by the National Immunisation Program for older adults and the vaccination recommendations in adults can be complex and misinterpreted.

Finally, in their perspective, Fowkes and colleagues (https://doi.org/10.5694/mja2.52398) look beyond just Australia to discuss the challenges of malaria elimination in the Asia–Pacific. This is an important time to raise awareness of continuing work on malaria elimination, given that as they note, "progress in reducing the malaria burden in the Asia–Pacific region has been highly variable within and across countries and *Plasmodium* spp, and recently it has stalled, and even reversed, in many countries". As the authors discuss, the reasons for the stalling of progress are multifactorial, including a lack of sensitive tools to detect malaria, malaria prevention tools that are not fit-for-purpose, and that treatment of malaria is affected by drug resistance and toxicity. The solutions unsurprisingly are not simple and as the authors conclude, it is required to have "political commitment … national and regional collaboration, evidence generation from researchers, and effective community engagement".

Fowkes and colleagues' conclusions could be applicable to much of the current status of infectious diseases and have lessons for the Australian health system. Where there are less than optimal outcomes, there undoubtedly will have been a failure of one or more of political commitment, collaboration, robust evidence generation or effective community engagement. It's up to everyone engaged in the health system to understand where the failures lie and work to address them. ■

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