

Looking beyond the Decade of Vaccines

When in 2010 the global health community declared the so-called Decade of Vaccines, it marked a path towards an ambitious vision for 2020: a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases. The Global Vaccine Action Plan (GVAP) 2011–2020, a multisectoral effort led by WHO, set highly challenging targets, progress towards which would be assessed by the Strategic Advisory Group of Experts on Immunisation (SAGE). With the publication of the penultimate assessment report of the GVAP, and as the turn of the decade looms, it is time to take stock and look beyond 2020.

Over the past 8 years, it is clear that gains have been made for some of the GVAP's key indicators, but these are fragile. The research and development pipeline for vaccines has been strong; although HIV/AIDS and universal flu vaccines remain distant prospects, malaria vaccines and a new vaccine against tuberculosis show potential. Vaccines against diseases for which vaccines are considered to be highly desirable by the GVAP (such as dengue, cytomegalovirus, and respiratory syncytial virus) are currently in phase 3 clinical trials.

Between 2011 and 2017, an additional 20 million children were vaccinated. By 2017, 123 countries reached at least 90% national coverage of the three-dose diphtheria-tetanus-pertussis vaccine (DTP3). Although coverage in Africa has plateaued at 72%, maintenance at this level since 2010 is seen as an achievement in light of the rapid population growth in the region. Nonetheless, globally, 19.9 million children remain unprotected by DTP3, with major local disparities: 60% of these children live in just ten countries, a third of whom live in Nigeria where DTP3 coverage is only 42%. In the past 8 years, coverage of first dose measles-containing vaccine has stagnated at around 85% globally, with major local discrepancies in coverage. However, coverage with the second dose of this vaccine has risen from 39% in 2010 to 67% in 2017.

Although vaccine coverage for these diseases has improved, outbreaks that have marred 2017–18 illustrate brutally how these gains can be so quickly lost. The incidence of measles had indeed decreased from 50 cases per million in 2010 to 19 in 2016. But in just one year, it has risen to 25 cases per million globally. Over the course of the year, four of the six WHO regions had substantial measles outbreaks, and measles was once again endemic in every

region of the world after the Americas lost their measles-free status. Humanitarian crises and violence catalysed many of these setbacks. With the complex political situation in Venezuela came the re-emergence of measles, and, after 24 years without the disease, 1600 suspected cases of diphtheria were recorded between 2016 and 2018. Two other major diphtheria outbreaks affecting Rohingya refugees in Cox's Bazaar in Bangladesh and conflict-ravaged Yemen occurred in 2017–18, illustrating how vulnerable populations in areas of conflict can be. Maternal and neonatal tetanus elimination remains particularly elusive in countries affected by conflict such as Afghanistan, Central African Republic, Nigeria, and Yemen.

Vaccine hesitancy has been another major barrier to progress towards the 2020 targets. In 2017, of the 159 countries that provided information about vaccine hesitancy, only seven countries reported its complete absence. Although the reasons for hesitancy are complex, evidence indicates that hesitancy due to lack of awareness or knowledge is decreasing and is now substantially surpassed by concerns about the risk versus benefit of vaccination. SAGE experts also note the particularly worrisome politicisation of immunisation, with some political leaders exploiting this wedge issue to garner support—one example being Italy's radical turn on mandatory vaccination for measles, tetanus, and polio in August this year, and another being the discovery that Russian bots and trolls were creating fake online debate about vaccines on Twitter.

The Decade of Vaccines has indeed been formidable, fostering partnerships and accelerating progress. But in the current social and political climate, perhaps it is time to re-evaluate. A systems-driven approach putting more power in the hands of the countries will allow for the design of vaccination programmes tailored to the cultural specificities of their populations. A stronger involvement of the social sciences in programmes could help strengthen the collective understanding of vaccine hesitancy. Vaccine development must be accelerated and greater impetus should be put behind better use of existing vaccines. Moving forward, the global health community will need to shift its focus: after the Decade of Vaccines, more muscular efforts must be made to integrate investments in immunisation services into programmes for universal health coverage. ■ *The Lancet*



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For the **Global Vaccine Action Plan secretariat annual report 2018** see http://www.who.int/immunization/global_vaccine_action_plan/web_gvap_secretariat_report_2018.pdf?ua=1

For the **2018 SAGE assessment report of the Global Vaccine Action Plan** see http://www.who.int/immunization/global_vaccine_action_plan/SAGE_GVAP_Assessment_Report_2018_EN.pdf?ua=1

For more on the **Decade of Vaccines** see *Lancet Series* New Decade of Vaccines <https://www.thelancet.com/series/new-decade-of-vaccines>