

Measles: the long walk to elimination drawn out by COVID-19



See [Articles](#) page e280

In his book *Long Walk to Freedom*, Nelson Mandela highlighted that “a nation should not be judged by how it treats its highest citizens, but its lowest ones”.¹ Measles virus serves as the most sensitive test to assess the capacity of health systems to reach all susceptible children and communities. Most unimmunised children who are susceptible to measles are living in poor, remote communities where health systems are less resilient. Therefore, the presence of measles cases will expose and proclaim the weakness of health care systems, especially as the world is moving towards universal health coverage.²

At the end of 2020, WHO warned that the target set by the World Health Assembly to eliminate measles in five of six WHO regions would not be met.³ Despite an improvement in vaccination coverage and a decrease in the incidence from 145 to 120 cases per million population between 2000 and 2019, we are far from the elimination target of maintaining less than 1 case per million nationally. The low vaccination coverage and still high incidence of measles translates to an estimated 207500 measles deaths in 2019. More worrying, the situation had worsened compared with 2016, when only 18 cases per million had been reported.

Oghenebrume Wariri and colleagues⁴ provide a detailed overview of the situation in 15 west African countries through a retrospective multi-country series analysis of national immunisation coverage and case surveillance data. They show an improvement in the first dose of measles-containing vaccine (MCV1) coverage from 45% in 2001 to 66% in 2019, far from the 95% recommended by WHO to achieve herd immunity.⁵ Only 7 of 15 countries have introduced the second dose of measles-containing vaccine (MCV2), and no reintroduction has taken place since 2015. They also propose a score that ranks the performance of countries regarding measles control and elimination milestones. It is concerning that only three (Cape Verde, The Gambia, and Ghana) of 15 countries can be considered to have made substantial progress towards measles elimination. The situation is not better in central Africa. In Cameroon, for example, the vaccine coverage was 71.1% for MCV1 and 13.2% for MCV2 in June, 2020.⁶ Of the 190 health districts in Cameroon, 79 were affected by measles epidemics in 2020, with more than 1462 confirmed cases.⁶ Moreover, 74% of the confirmed cases were not

vaccinated and supplementary immunisation activities (SIAs) were only effective in 44 (56%) of 79 health districts, very far from the elimination milestones.

The article by Wariri and colleagues highlights the importance of leadership in fighting against measles. Despite heterogeneity among countries and within countries, some countries or districts have achieved the expected target, showing that it is possible to eliminate measles. The positive impact of leadership is shown by the inverse relationship observed between the number of children reached by SIAs and the weighted mean measles incidence rate in west Africa, as well as the inverse relationship between the weighted mean MCV1 coverage and weighted mean measles incidence rate. These strong inequities also reflect the limited access to care for those who are susceptible or poor. As a result, children most at risk of measles infection are also the least likely to receive adequate treatment for disease. Access to health care is crucial to combating measles-related mortality. In contexts where child mortality is above 100 per 1000 children, the measles case fatality ratio can exceed 5%.⁷ This mortality is due, according to Wariri and colleagues, to the lack of resources to fully implement the recommended strategies, lack of political will or action, and competing national priorities that ultimately determine progress. The authors also considered the humanitarian and security crisis that affected a number of countries within west Africa, although not the entire region of those countries.

“As a leader, one must sometimes take actions that are unpopular, or whose results will not be known for years to come.”⁸ Indeed, the first steps of the process of elimination should be the political engagement and elaboration of a measles elimination plan that should include SIAs that remain a means of addressing inequalities, and preventing and controlling measles outbreaks. Beyond technical solutions, leadership skills are the cornerstone to finding homegrown and innovative solutions to address the challenges described by Wariri and colleagues. However, few management and leadership development initiatives are designed to strengthen the capacity of immunisation programmes, especially in francophone countries. The Expanded Programme on Immunization Leadership and Management Programme (EPI LAMP) provides

the leadership and management capacity required for anglophone and francophone African countries to achieve immunisation targets.⁸ This initiative should be extended to all African countries, including those who have reached the measles elimination target to share the lessons learnt to countries that are lagging. To complement leadership training and operational activities, research needs to be done, which includes seroprevalence surveys that can describe the characteristics of children who are not reached by vaccination campaigns and therefore immunisation strategies can be adapted.⁹ Similarly, missed opportunities should be reduced by testing and documenting innovative strategies.

The COVID-19 pandemic has also worsened the implementation of immunisation campaigns. We are likely to see increasing numbers of unimmunised children susceptible to measles and increasing numbers of measles case fatality ratios that create an environment for measles to return in 2021. These potential measles outbreaks will take us back to decades ago with increased mortality and serious consequences of measles.² To prepare for the post-COVID-19 era and to move towards measles elimination, there are five actions that need to be taken by countries and the international community. First, provide leadership and management training to the EPI teams to adequately use strategic problem solving, political advocacy, and other tools to find innovative and homegrown solutions to prevent measles in the post-COVID-19 era. Second, African countries should track progress using a scorecard developed by Wariri and colleagues and report yearly progress to WHO and Africa Centres for Disease Control and Prevention for a concerted effort. Third, reach unimmunised children through catch-up vaccination schedules and campaigns, including supplementary immunisation activities. Fourth, prepare for the expected outbreaks in 2021 using lessons learnt from

ongoing pandemics. Fifth, do not lose sight of measles and rubella elimination targets and implement the new Measles and Rubella Strategic Framework 2021–2030.

Wariri and colleagues offer valuable insight of the situation of measles control in west Africa over the past two decades. Without political will and strong leadership, epidemics will continue. A global mobilisation is necessary to fight against the scourge of measles in the post COVID-19 era. Alongside proven strategies, innovative actions and research must be carried out to ensure that vaccination reaches all children and ensure that no one is left behind.

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