The changing epidemiological landscape of measles in Malawi and DRC

Andrea Minetti for Médecins Sans Frontières and Epicentre, France

The 2010 WHO resolution RC61 calls for measles elimination in the African Region by 2020. In 2010, 28 countries in Sub-Saharan Africa experienced measles outbreaks with a cumulative total of 223,000 reported cases and 1200 deaths. In other words, there were an estimated 17.4/100,000 cases reported in 2010 in sub-Saharan Africa, nine times greater than the 1.9/100,000 reported cases in 2009. As case reporting is incomplete, the real numbers of measles cases and deaths are larger than reported. The current outbreaks are primarily the result of increases in the numbers of susceptible children and adolescents who either missed immunization who did not develop adequate immunity after their first dose.

The large-scale epidemic in Malawi in 2010 and the ongoing epidemics in Democratic Republic of Congo (DRC) reveal the importance of considering past gaps and weaknesses in immunization activities (EPI, SIAs) in planning outbreak response strategies. The different age distributions of measles cases in these settings reveal two different dynamics. In Malawi, the majority of cases were above 5 years (58%) indicative of a longstanding immunization programme, while in DRC the overwhelming majority of cases occur among children aged less than 5 years.

To respond to outbreaks effectively, in contexts that are increasingly at country or regional levels, it is essential to consider local demographic and epidemiologic factors to tailor the response strategy. The age distribution of cases should be part of the risk assessment in the planning stage to guide resource allocation for vaccination. In contexts such as DRC, where measles is endemic, vaccination should aim to reach the most highly affected age groups as a priority. In contexts such as Malawi, with a wide age-range of cases, the vaccination response should consider both local epidemiology and national level needs. Reducing transmission requires a comprehensive country-wide approach. Death from measles complications can be reduced by ensuring appropriate and universal treatment and free treatment remains a cornerstone of MSF interventions.

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