

Childhood vaccination continues to be one of the most cost-effective health policy interventions. Nearly all countries or, in some cases, sub-national jurisdictions have established vaccination programmes based on their interpretation of the risks and benefits of each vaccine. Coverage of these programmes and reduction of burden of vaccine preventable diseases can be considered as a quality of care indicator. Polio, pertussis, measles and hepatitis B are taken here as examples as they represent, in timing and frequency of vaccination, the full spectrum of organisational challenges related to childhood vaccination.

Vaccination against polio, pertussis (often administered in combination with vaccination against diphtheria and tetanus) and measles is part of almost all programmes, and reviews of the evidence supporting the efficacy of vaccines against these diseases have concluded that they are safe and highly effective.

A vaccination for hepatitis B has been available since 1982 and is considered to be 95% effective in preventing infection and its chronic consequences, such as cirrhosis and liver cancer. More than 780 000 people die every year due to the acute or chronic consequences of hepatitis B (WHO, 2014g). In 2007, more than 170 countries had adopted the WHO recommendation to incorporate hepatitis B vaccine including birth dose as an integral part of their national infant immunisation programme. In countries with low levels of hepatitis B (such as Australia and New Zealand), WHO indicates that routine hepatitis B vaccination should still be given high priority, since a high proportion of chronic infections are acquired during early childhood (WHO, 2004). Recent data revealed that hepatitis B vaccination across the Western Pacific has averted 7 million deaths and 37 million chronic infections that would have occurred among children born between 1990 and 2014 (Wiesen et al., 2016)

Figures 5.1 and 5.2 show that the overall vaccination of children against measles and pertussis (including diphtheria and tetanus) is high in most Asia-Pacific countries. On average, more than 90% of children aged around one year receive the recommended measles and pertussis vaccination, and rates for most countries are above 75%. The exceptions are Pakistan and Papua New

Guinea. Figure 5.3 shows that the average percentage of children aged one who are vaccinated for hepatitis B across Asia-Pacific countries is slightly lower than for measles and pertussis, at 91%. Again, rates for most countries are above 75%, with the exception of the Pakistan, India and Papua New Guinea.

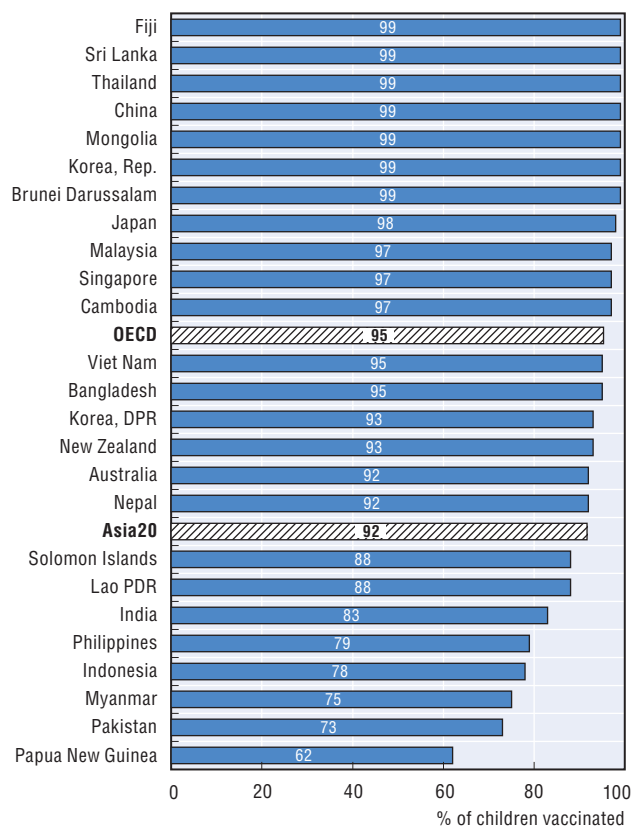
Although vaccination rates have plateaued at a high level in many countries in the Asia-Pacific region, some countries with historically low rates continue to make substantial progress. In 2007, hepatitis B immunisation in India was only 6%, and measles immunisation in the Lao PDR only 40% of the target groups, but as of 2015 their respective vaccine coverage was 70% and 87%, for example (WHO, 2012c). Nevertheless some countries still show slow progress in vaccination rates.

Ensuring safety through surveillance is another indicator of quality of childhood vaccination. Vaccine safety surveillance is progressing in WHO member states and by 2015 85 of 105 countries globally reporting adverse events following immunisation (AEFI) registered 10 or more annual reports per 100 000 surviving infants. Both regions are gradually improving the vaccine safety surveillance, Western Pacific region alone has contributed 74% of AEFI reports globally (WHO, 2015b).

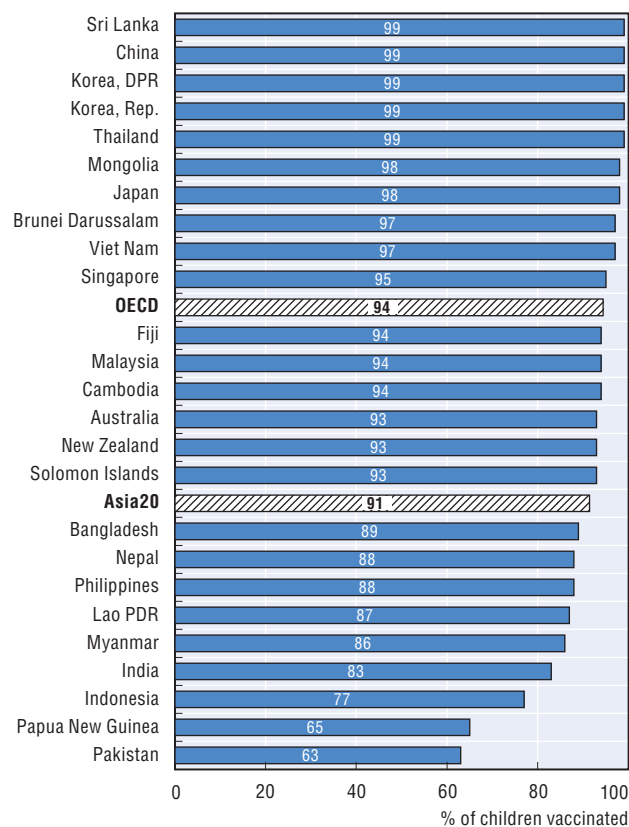
Definition and comparability

Vaccination rates reflect the percentage of children at either age one or two that receives the respective vaccination in the recommended timeframe. Childhood vaccination policies differ slightly across countries. Thus, these indicators are based on the actual policy in a given country. Some countries administer combination vaccines (e.g. DTP for diphtheria, tetanus and pertussis) while others administer the vaccinations separately. Some countries ascertain vaccinations based on surveys and others based on encounter data, which may influence the results.

5.1. Vaccination rates for diptheria tetanus toxoid and pertussis (DTP3), children aged around 1, 2014

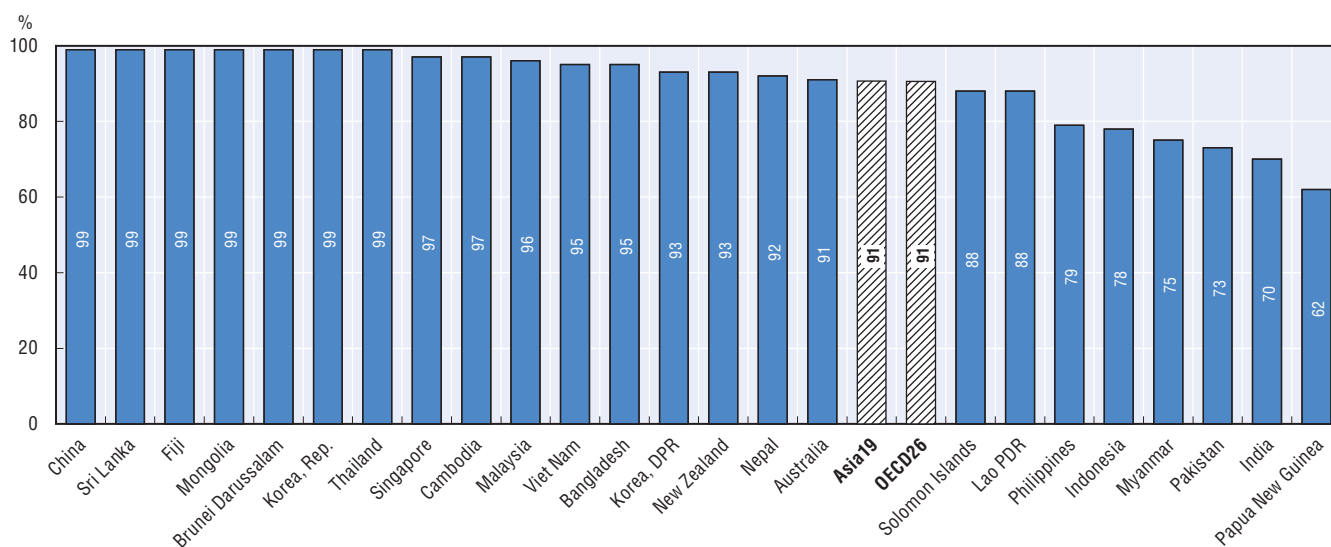


5.2. Vaccination rates for measles (MCV), children aged around 1, 2014




Source: WHO (2016e).

5.3. Vaccination rates for hepatitis B (Hep3), children aged around 1, 2014



Source: WHO (2016e).

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