5.11. Childhood vaccination programmes

Childhood vaccination continues to be one of the most cost-effective health policy interventions. All OECD 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 can be considered as a quality of care indicator. 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 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 the respective vaccines are safe and highly effective. In Europe, the gradual uptake of the measles vaccine has meant that measles incidence is around one-tenth of the rate of the early 1990s.

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. In 2004, it was estimated that over 350 million people were chronically infected with the hepatitis B virus worldwide and at risk of serious illness and death (WHO, 2009b). In 2007, more than 170 countries had already begun to follow the WHO recommendation to incorporate hepatitis B vaccine as an integral part of their national infant immunisation programme. In countries with low levels of hepatitis B (*e.g.* Australia, New Zealand, northern and western Europe and North America), 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, 2004b).

Figures 5.11.1 and 5.11.2 demonstrate that the overall vaccination of children against measles and pertussis (including diphtheria and tetanus) is high in OECD countries. In most countries, more than 95% of 2-year-old children receive the recommended measles and pertussis vaccination, and rates for all countries are above 75%.

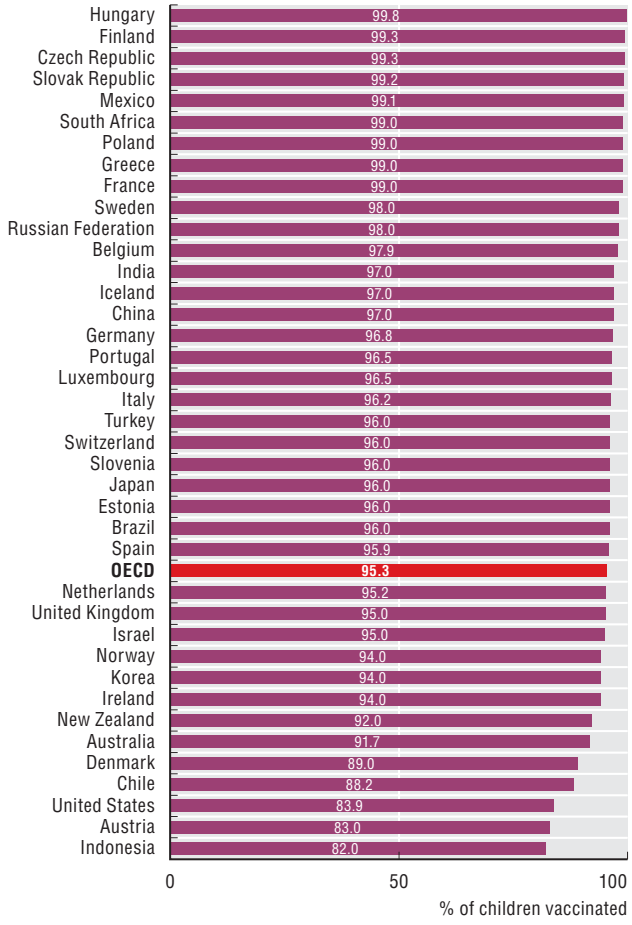
Figure 5.11.3 shows that the average percentage of children aged 2 years who are vaccinated for hepatitis B across countries with national programmes is also over 95%. However, a number of countries do not currently require children to be vaccinated by age two, or do not have routine programmes and consequently the rates for these countries are significantly lower than for the other countries. For example, in Denmark and Sweden, vaccination against hepatitis B is not part of the general vaccination programme, and is only recommended to specific risk groups. While Canada implemented universal hepatitis B vaccination for adolescents, not all provinces and territories offer programmes in early infancy (Public Health Agency of Canada, 2009; Mackie *et al.*, 2009). In France, hepatitis B vaccination remains controversial, given ongoing speculation over possible side effects, but vaccination coverage among children under 2 has increased in recent years.

Definition and comparability

Vaccination rates reflect the percentage of children at either age one or two who receive 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.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

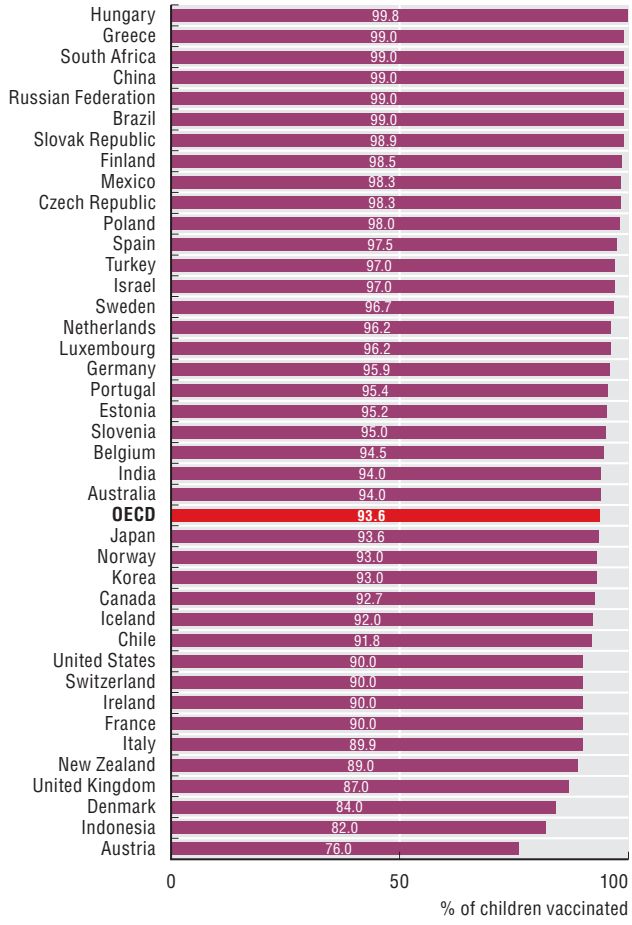
5.11.1 Vaccination rates for pertussis, children aged 2, 2009 (or nearest year)



Source: *OECD Health Data 2011*; WHO (2011f).

StatLink http://dx.doi.org/10.1787/888932525533

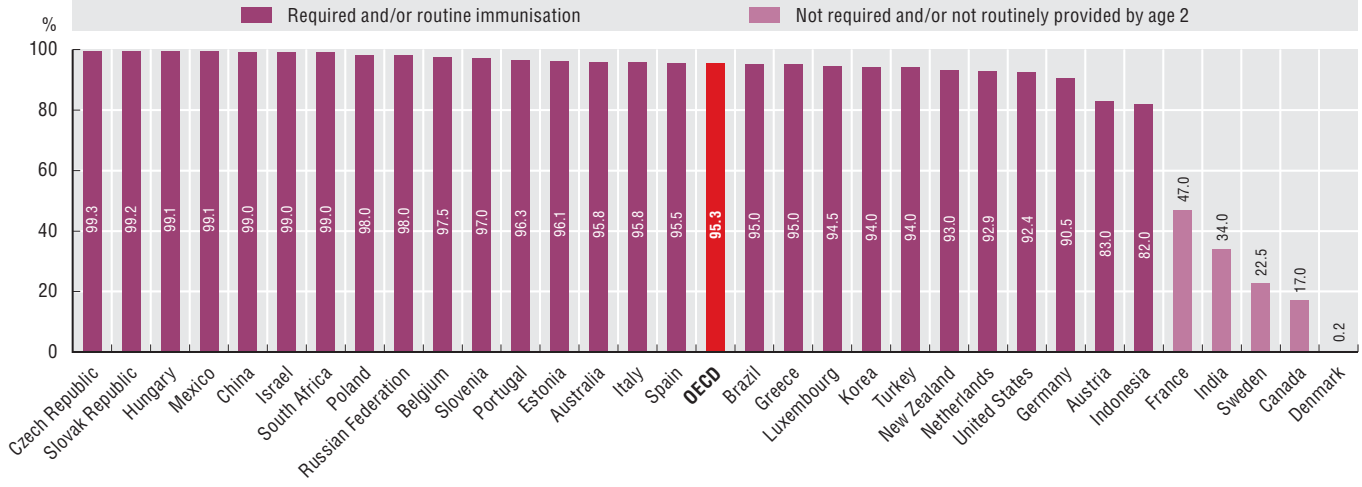
5.11.2 Vaccination rates for measles, children aged 2, 2009 (or nearest year)



Source: *OECD Health Data 2011*; WHO (2011f).

StatLink http://dx.doi.org/10.1787/888932525552

5.11.3 Vaccination rates for hepatitis B, children aged 2, 2009 (or nearest year)



Note: OECD average only includes countries with required or routine immunisation.

Source: *OECD Health Data 2011*; WHO (2011f).

StatLink http://dx.doi.org/10.1787/888932525571

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