

All EU member states have established childhood vaccination programmes. All programmes include vaccinations against diseases such as pertussis, diphtheria, tetanus and measles. Reviews of the evidence supporting the efficacy of vaccines against these diseases have concluded that the respective vaccines are safe and highly effective. For example, Peltola *et al.* (1994) reported that 12 years after the introduction of a comprehensive national vaccination programme in Finland measles had virtually been eradicated. Numerous studies have also shown that childhood vaccines can be highly cost-effective (*e.g.* Beutels and Gay, 2003; Banz *et al.*, 2003; Lieu *et al.*, 1994).

Figures 4.10.1 and 4.10.2 show that the overall vaccination of children against diphtheria, tetanus and pertussis (whooping cough) as well as measles is generally high in European countries. In the European Union, more than 93% of children aged around 1 year receive the recommended vaccinations for these diseases. Whilst most countries have been able to increase or maintain their rate of childhood vaccinations over the last twenty years, some countries such as Austria and Denmark have witnessed a decline in coverage for diphtheria, tetanus and pertussis (see Indicator 1.11 for more information on pertussis notifications).

The European Centre for Disease Control (ECDC) reports that Europe has not met its target of eliminating measles by 2010. Measles is a highly infectious disease that can lead to serious complications and, in rare cases, death. Compared to the five years prior, the numbers of measles cases were high in 2010 and 2011 with 30 265 and 30 567 cases, respectively. In 2010, the outbreak in the Roma community in Bulgaria accounted for most of the cases and in 2011, France accounted for 50% of cases. The ECDC argues that efforts to increase and maintain vaccination coverage at a high level will need to be strengthened in order to achieve the renewed target for eliminating measles by 2015 in the WHO European Region (ECDC, 2011).

In 2009, there were 5 837 confirmed cases of hepatitis B virus infection reported in the European Union and EEA/EFTA member states. With 1.3 notifications per 100 000 population in EU member states, infection with the hepatitis B virus is relatively uncommon, but can cause acute or long-term illness, which is sometimes fatal (see Indicator 1.11 for more information on hepatitis B notifications). A vaccination for

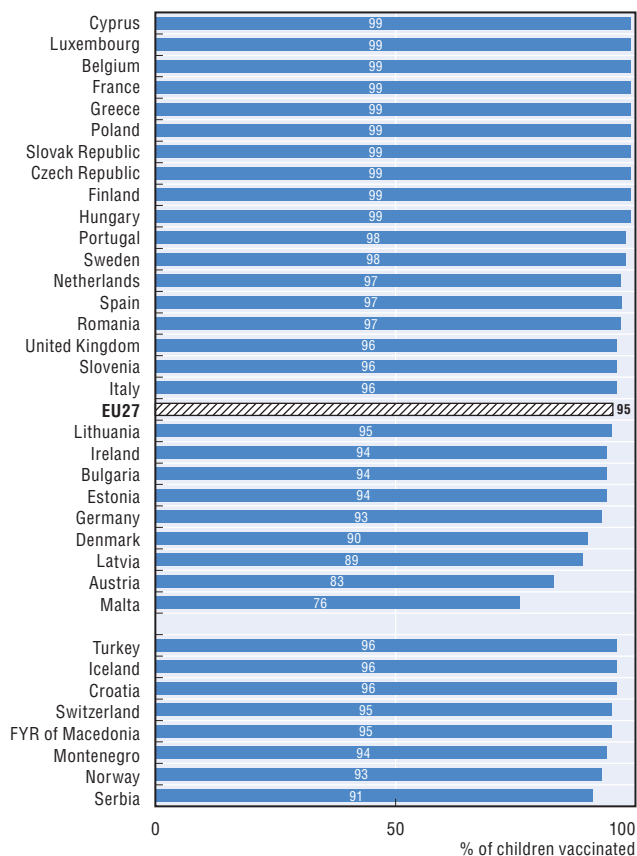
hepatitis B has been available since 1982 and is considered to be 95% effective in preventing infection and its chronic consequences, such as cirrhosis and liver cancer. The WHO recommends that hepatitis B be part of national infant immunisation programme, or in countries with low levels of hepatitis B that routine hepatitis B vaccination should still be given high priority (WHO, 2004c). Figure 4.10.3 shows that the average percentage of children aged around 1 year who are vaccinated for hepatitis B across countries with national programmes is 95%. Countries such as Belgium, Germany and Turkey have been able to expand coverage in a relatively short period of time. Between 2000 and 2010, these countries increased coverage from less than 70% to 90% and more.

A number of countries do not currently require children to be vaccinated against hepatitis B, or do not have routine programmes and consequently the rates for these countries are significantly lower compared to other European countries. For example, in Sweden, vaccination against hepatitis B is not part of the general vaccination programme, and is only recommended to specific risk groups. In France, hepatitis B vaccination has been controversial but vaccination coverage among children has increased in recent years. Alongside the systematic introduction of hepatitis B vaccinations in many countries, there has been decreasing trend of hepatitis B cases, with EU-wide surveillance showing a fall of 17% in the number of cases between 2006 and 2009 (ECDC, 2011).

Definitions and comparability

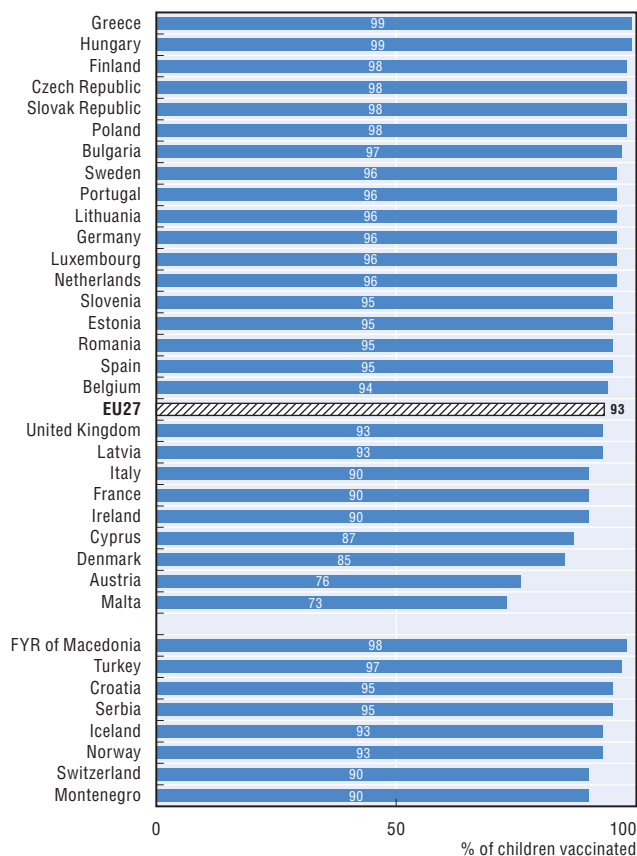
Vaccination rates reflect the percentage of children at either age 1 or 2 who receive the respective vaccination in the recommended timeframe. Childhood vaccination policies differ slightly across countries. Thus, these indicators are based on the actual policy in a given country. Some countries administer 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.

4.10.1. Vaccination rates for diptheria, tetanus and pertussis, children aged around 1, 2010



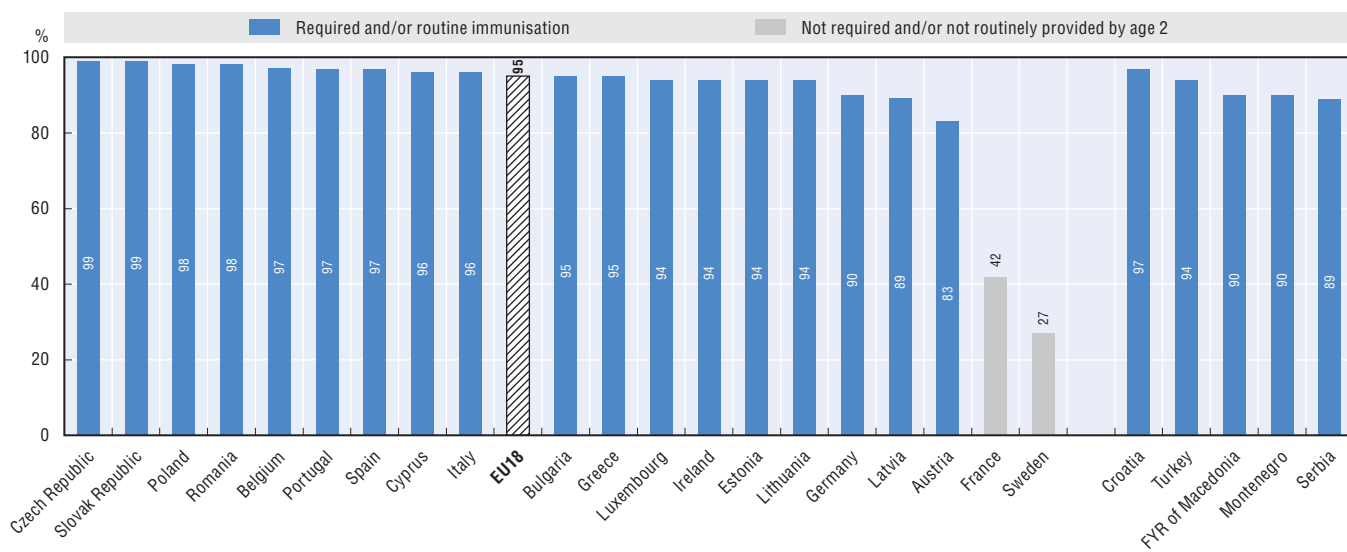
Source: OECD Health Data 2012 (based on WHO/UNICEF data).
StatLink <http://dx.doi.org/10.1787/888932705273>

4.10.2. Vaccination rates for measles, children aged around 1, 2010



Source: OECD Health Data 2012 (based on WHO/UNICEF data).
StatLink <http://dx.doi.org/10.1787/888932705292>

4.10.3. Vaccination rates for hepatitis B, children aged around 1, 2010



Note: OECD average only includes countries with required or routine immunisation.
Source: OECD Health Data 2012 (based on WHO/UNICEF data).

StatLink <http://dx.doi.org/10.1787/888932705311>