

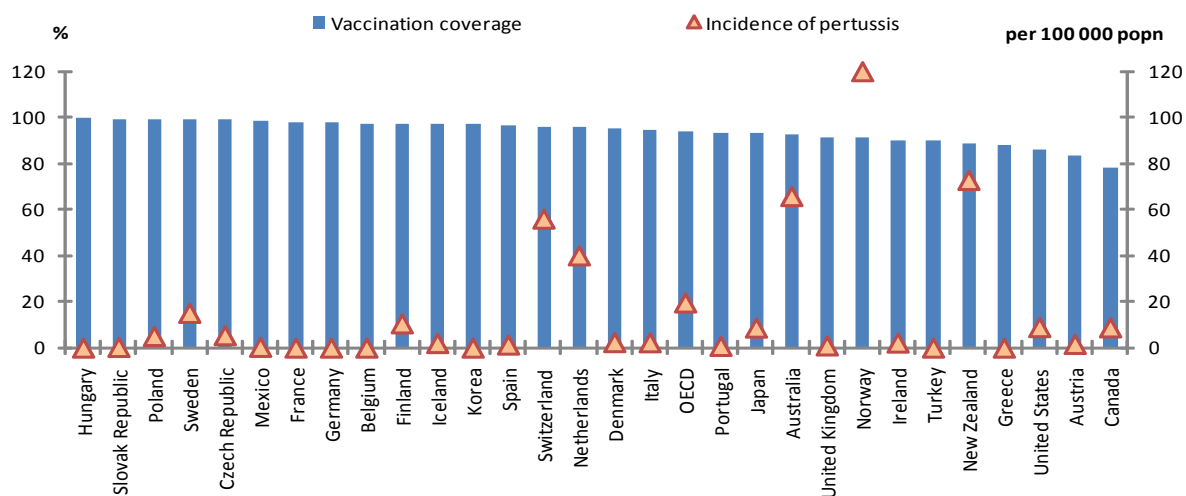
## CO2b: Childhood vaccination

### Definitions and methodology

Vaccination rates show what percentage of the child population receive the relevant vaccination in the recommended timeframe. This indicator presents vaccination rates for pertussis (“whooping cough”) and measles received by children aged two. The incidence of pertussis and measles measures the number of reported cases per 100 000 population. All OECD countries have instituted comprehensive child vaccination programmes over recent decades. Through mass vaccination, polio and diphtheria have been by and large eradicated as childhood diseases across the OECD.

Pertussis has become a rare disease in most OECD countries. However, the variation in reported rates is much larger than for measles. Also, the incidence of pertussis does not seem to be closely related to vaccination rates, as Norway, for example, reported 120 cases per 100 000 population in spite of a high vaccination rate of over 90%.

**Chart CO2b.1: Vaccination rates for pertussis, children aged two, and incidence of pertussis among the total population, 2005\***



\* Data for Australia refer to 2006; Austria, Canada, France, Greece, , Denmark, Japan, France, Finland, Mexico, Norway and Poland refer to 2004; and, Korea refers to 2003.

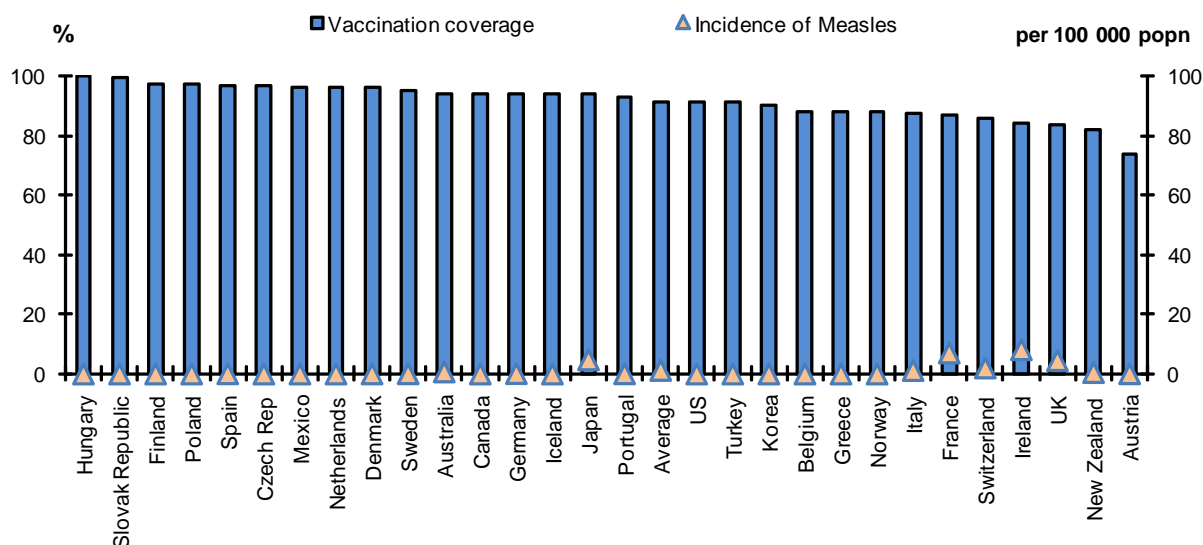
Source: OECD Health Data 2007

In general, vaccination rates against measles tend to be lower than for pertussis in many countries. This is likely related to concerns that the measles vaccine is linked to brain damage. In 2006, the resulting reduced rates of vaccination caused the most severe measles outbreak in the United Kingdom in the last 20 years, with the first death in 14 years.

Other relevant indicators: CO1: Infant mortality rates; CO2: Low birth weight; CO4: Disease-based indicators: Prevalence of diabetes and asthma among children; CO5: Obesity among children aged 10 and CO6: Regular smokers among 15 year olds by gender.

As shown in Chart CO2b.2, other countries, like France, Ireland, Italy, Japan and Switzerland have experienced similar outbreaks. This raises serious concerns as measles is the most dangerous of the childhood diseases and highly contagious. This evidence may point towards the need to re-emphasise the importance of measles vaccination in these countries.

**Chart CO2b.2: Vaccination rates for measles, children aged 2 and incidence of measles among total population, 2005\***



\* Data for Australia refer to 2006; Austria, Canada, France, Greece, , Denmark, Japan, France, Finland, Mexico, Norway and Poland refer to 2004; and, Korea refers to 2003.

Source: OECD Health Data 2007

*Comparability and data issues*

When measuring vaccination coverage it should be noted that childhood vaccination policies differ across countries. This indicator is thus based on the actual policy in a given country (or sub-national jurisdiction). Some countries ascertain the number of vaccinations made based on surveys and others based on actual numbers of encounters (administration data), which also may influence the results. Incidence rates in countries with low populations should be viewed with caution, given that cases are rare and may lead to unstable rates from year-to-year.

In addition, reporting practices differ across countries regarding whether reporting is mandatory or voluntary and whether suspected or only confirmed cases must be reported which again affects comparability. The relatively high incidence of pertussis recorded in Norway in 2005 (see Chart CO2b.1) is more likely due to better reporting as opposed to a real increase in the number of children infected by pertussis.

Sources and further reading: OECD Health database: [www.oecd.org/health/healthdata](http://www.oecd.org/health/healthdata) and OECD Health at a Glance 2007 forthcoming.