

CO1.4: Childhood vaccination

Definitions and methodology

Childhood vaccination is captured here through two measures that reflect whether children have received relevant vaccinations within the recommended timeframe:

- The proportion (%) of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid and pertussis vaccine, and;
- The proportion (%) of children under one year old who have received at least one dose of measles-containing vaccine.

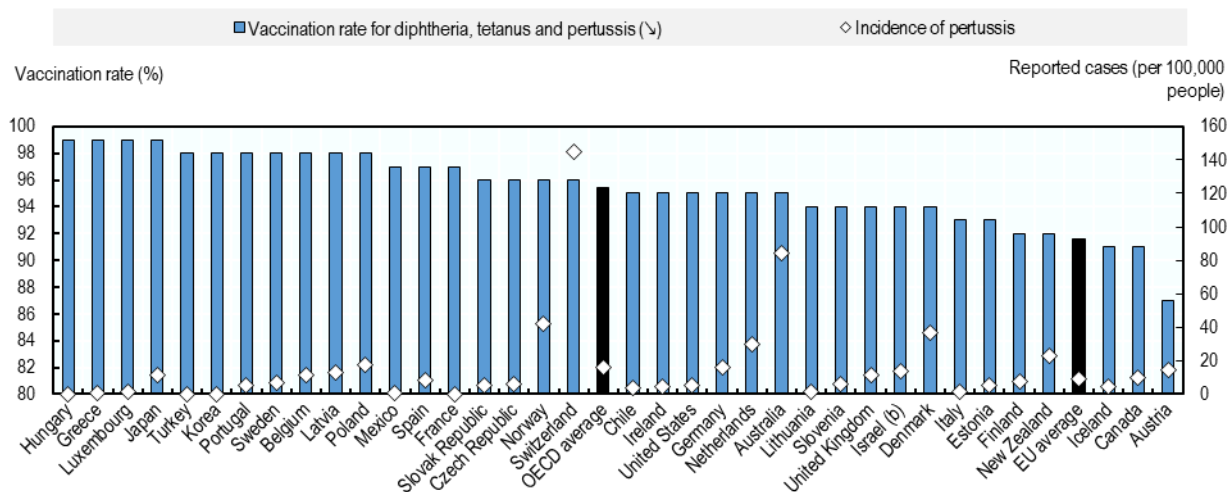
The incidence of pertussis and the incidence of measles are also shown, measured as the number of reported acute cases per 100 000 population.

Key findings

Rates of vaccination for diphtheria, tetanus and pertussis are generally very high in OECD countries (Chart CO1.4.A). On average across OECD countries, 95.4% of children age one have receive three doses of the combined diphtheria, tetanus toxoid and pertussis vaccine. In most OECD countries (25), vaccination rates are equal to or above 95%, and in almost all they are higher than 90%. At 87%, Austria is the only country to have a vaccination rate at or below 90%.

Chart CO1.4.A. Vaccination rates for diphtheria, tetanus and pertussis, and the incidence of pertussis, 2016 or closest available

Proportion (%) of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid and pertussis vaccine in the given year, and the number of reported cases of pertussis in the given year per 100,000 people



Notes: Data on the incidence of pertussis refer to 2014 for Switzerland, refer to 2015 for Canada and refer to 2017 for Australia, Chile, Israel Mexico, and New Zealand.

a. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: [OECD Health Statistics](http://www.oecd.org/health/)

Other relevant indicators: CO1.1: Infant mortality rates; CO1.3: Low birth weight; CO1.6: Disease-based indicators: Prevalence of diabetes and asthma among children; CO1.7: Obesity among children aged 10 and CO1.8: Regular smokers among 15 year olds by gender.

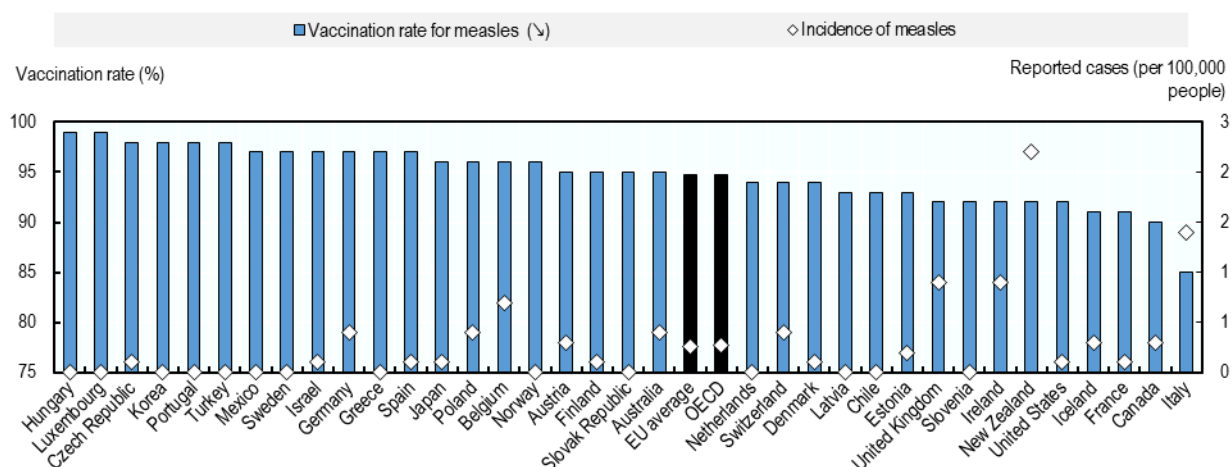
Pertussis has become a rare disease in most OECD countries (Chart CO1.4.A), although in some countries the number of reported cases remains much higher than for other diseases such as measles (see Chart CO1.4.B). In general, the number of reported cases of pertussis is fewer than 20 per 100,000 people. In 2016 or in the closest available, only two OECD countries (Australia and Switzerland) saw more than 50 reported cases of pertussis per 100,000 people. The rate is highest in Switzerland where, in 2014, there were 145 reported cases of pertussis per 100 000 people despite a vaccination rate of 96%.

In general, rates of vaccination against measles tend to be marginally lower than those for diphtheria, tetanus and pertussis, but are still high (Chart CO1.4.B). On average across OECD countries, 94.7% of children under age one receive at least one dose of measles-containing vaccine. In all but one OECD country (Italy), vaccination rates are at or above 90%, and in many (20) rates are at least 95%.

Similar to pertussis, the incidence of measles is very low in almost all OECD countries. In 2016, the highest incidence rate was in New Zealand – where, despite a vaccination rate of 92%, there were 2.2 reported cases of measles per 100,000 people – and the second highest was in Italy at 3.1 cases per 100,000 people. In most (35) OECD countries, measles incidence rates are lower than 1 reported case per 100,000 people.

Chart CO1.4.B. Vaccination rates for measles and the incidence of measles, 2016 or closest available

Proportion (%) of children under one year old who have received at least one dose of measles-containing vaccine in the given year, and the number of reported cases of measles in the given year per 100,000 people



Note: Data on the incidence of measles refer to 2015 for Switzerland. The age of complete immunisation differs across countries due to different immunisation schedules. For countries recommending the first dose of measles vaccine in children over 12 months of age, the indicator is calculated as the proportion of children less than 12-23 months of age receiving one dose of measles-containing vaccine. See OECD Health Statistics for more detail (<http://www.oecd.org/health/health-data.htm>)

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Source: [OECD Health Statistics](http://www.oecd.org/health/health-data.htm)

Comparability and data issues

Childhood vaccination policies and schedules and the reporting of vaccinations differ across countries. The data presented in this indicator reflect the actual policy in a given country (or sub-national jurisdiction). Some countries measure the number of vaccinations given based on surveys and others based on administrative data, which may influence results. Similarly, the measurement of the incidence of disease is also subject to cross-national differences in reporting practices. Reporting may be mandatory or

voluntary and may include suspected or only confirmed cases, both of which may affect comparability. See [OECD Health Statistics](#) and the World Health Organization [Global Health Observatory Data Repository](#) for more detail.

Sources and further reading: OECD Health database: www.oecd.org/health/healthdata and OECD Health at a Glance 2017.