

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
- The proportion (%) of children under one year old who have received at least one dose of measles-containing vaccine.

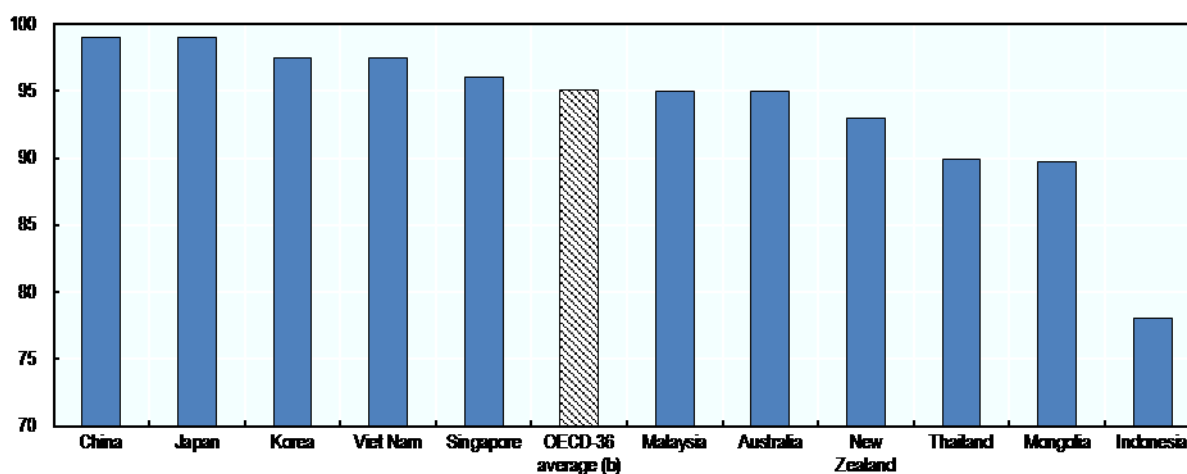
Key findings

Rates of vaccination for diphtheria, tetanus and pertussis are generally high in Asia/Pacific countries, though there is some cross-country variation (Chart CO1.4.A). Vaccination rates for diphtheria, tetanus and pertussis are about or higher than 90% in all of the covered Asia/Pacific countries with available data except Indonesia (78%). In most of the covered countries, rates are higher than the average for OECD countries (95%). The highest vaccination rates among the covered Asia/Pacific countries are in China and Japan, where rates reach 99%. The second highest is in Korea and Viet Nam at 97.5%.

Chart CO1.4.A. **Vaccination rates for diphtheria, tetanus and pertussis, 2020 or latest available^a**

Proportion (%) of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid and pertussis vaccine in the given year

Vaccination rate (%)



a) The OECD-36 average refers to 2018 (or nearest/latest available)

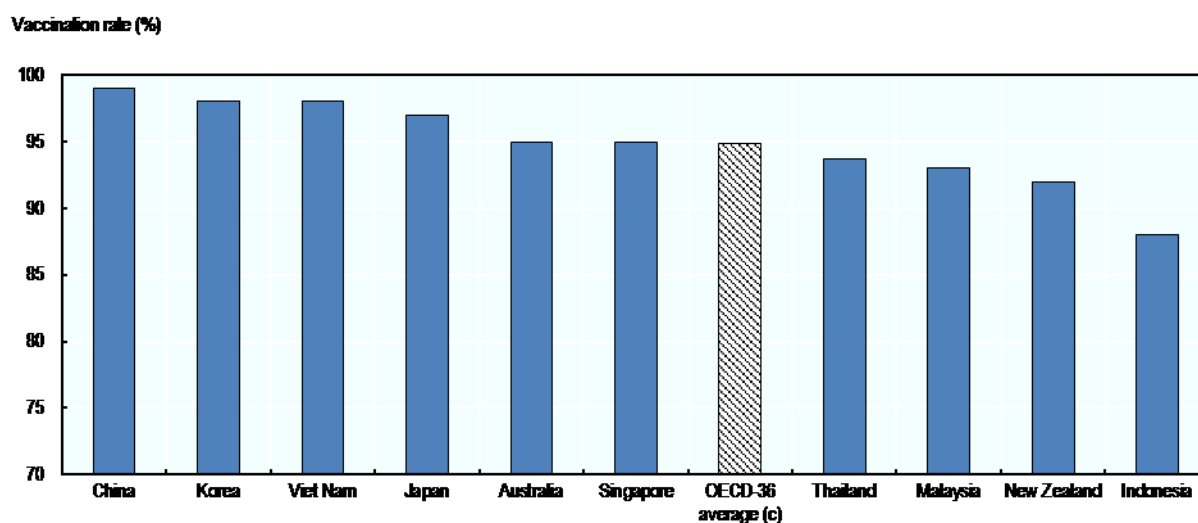
b) The OECD-36 average refers to the unweighted average across the 36 OECD member countries with available and comparable data. See OECD Family Database Indicator CO1.4 (<http://www.oecd.org/els/family/database.htm>) for more detail.

Sources: [Australia, China, Korea, Japan and New Zealand: OECD Health Statistics 2021](#); [OECD-36 average: OECD Family Database Indicator CO1.4](#); Indonesia, Malaysia and Singapore: World Health Organization Global Health Observatory Data Repository; Thailand: The Multiple Indicator Cluster Survey (MICS), 2019 Vaccination rate calculated from children 12-23 months; Vietnam: Health Statistics 2019; Mongolia: Social Indicator Sample Survey 2018.

Other relevant indicators: SF2.1 Fertility rates; CO1.1 Infant mortality; CO1.2 Life expectancy at birth; CO1.3 Low birth weight

The picture for vaccinations against measles is largely similar to that for vaccinations against diphtheria, tetanus and pertussis (Chart CO1.4.B). In all of the covered countries except Indonesia (88%) and Mongolia (87%), rates of vaccination against measles exceed 90%, and in the rates in East Asia and Viet Nam are higher than the average for OECD countries (95%). Once again, the highest vaccination rates can be found in China, where 99% of children receive the measles vaccine in the recommended timeframe.

Chart CO1.4.B. **Vaccination rates for measles, 2019 or latest available^a**
Proportion (%) of children under one year old who have received at least one dose of measles-containing vaccine in the given year^b



a) The OECD-36 average refers to 2018 (or nearest/latest available)

b) For countries recommending the first dose of measles vaccine in children over 12 months of age (e.g. New Zealand, which recommends the first dose of measles vaccine at 15 months of age), the indicator is calculated as the proportion of children aged 12-23 months of age receiving one dose of measles-containing vaccine. See OECD Health Statistics (<http://www.oecd.org/health/health-data.htm>) and the World Health Organization Global Health Observatory Data Repository (<http://apps.who.int/gho/data/node.home>) for more detail.

c) The OECD-36 average refers to the unweighted average across the 36 OECD member countries with available and comparable data. See OECD Family Database Indicator CO1.4 (<http://www.oecd.org/els/family/database.htm>) for more detail.

Sources: [Australia, China, Korea, Japan and New Zealand: OECD Health Statistics 2021](#); [OECD-36 average: OECD Family Database Indicator CO1.4](#); [Indonesia and Singapore: World Health Organization Global Health Observatory Data Repository](#); [Thailand: The Multiple Indicator Cluster Survey \(MICS\), 2019](#) Vaccination rate calculated from children 12-23 months; [Vietnam: Health Statistics 2019](#); [Mongolia: Social Indicator Sample Survey 2018](#).

Comparability and data issues

The data used in this indicator come from National statistic survey, the World Health Organization Global Health Observatory Data Repository, or OECD Health Statistics, who themselves take their data from the World Health Organization Global Health Observatory Data Repository. The original data come either from administrative data or from household surveys. Detailed information on the methods used by the World Health Organization to measure and/or estimate immunisation rates can be found [here](#), alongside a detailed discussion of limitations and exclusions.

One issue of particular importance here is that childhood vaccination policies and schedules differ across countries, which can obviously affect the likelihood of a child receiving the required vaccine at/by a given age. For the data on vaccinations against measles – which under the standard definition use children under one year of age as the denominator – when a given country recommends the first dose of measles vaccine in children over 12 months of age (such as in New Zealand, which recommends the first dose of measles vaccine at 15 months of age), the indicator is calculated alternatively as the proportion of children aged 12-23 months of age receiving one dose of measles-containing vaccine.

Sources and further reading: OECD Health Statistics, <http://www.oecd.org/els/health-systems/health-data.htm>, World Health Organization Global Health Observatory, <http://www.who.int/gho/en/>; OECD/WHO (2020), *Health at a Glance: Asia/Pacific 2020: Measuring Progress towards Universal Health Coverage*, OECD Publishing, Paris. <https://doi.org/10.1787/26b007cd-en>.