# Summary of Definitions of Mission and Strategic Goal Level Indicators in GAVI Alliance Strategy 2011-2015

**Updated October 2013**

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| Under five mortality rate | |
|---|---|
| **Indicator ID** | 1 |
| **Definition** | The under five mortality rate measures the probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates for that period. Strictly speaking this is not a rate (i.e., the number of deaths divided by the number of individuals at risk during a certain time period), but a probability of death derived from a life table. This indicator is expressed as the number of deaths among children under five in a given year, per 1000 live births. |
| **Level of disaggregation** | N/A |
| **Rationale for use** | The under five mortality rate is a leading indicator of child health and overall human development. It is indicative of government commitment to health. The fourth Millennium Development Goal (MDG) indicator is: 'Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate'. The use of this indicator as part of GAVI's strategy reflects GAVI's commitment to contributing to global and country health goals. |
| **How it is measured** | This indicator is measured using population weighted estimates from the UN Child Mortality Estimates (CME) for the 73 GAVI countries. Generating accurate estimates of under-five mortality poses a considerable challenge because of limitations in data availability and quality. The UN Inter-agency Group for Child Mortality Estimation (IGME) was established in 2004 to enhance country capacity to produce timely and properly assessed estimates of child mortality. This is led by UNICEF and WHO, and includes the World Bank and United Nations Population Division. The CME take vital registration systems as the preferred source of data on child mortality because they collect information as events occur and cover the entire population. However, many developing countries lack vital registration systems that accurately record all births and deaths. Therefore, household surveys, such as the Multiple Indicator Cluster Surveys (MICs) and Demographic and Health Surveys (DHS), are the primary source of data on child mortality in developing countries. The IGME seeks to compile all available national-level data on child mortality, including data from vital registration systems, population censuses, household surveys and sample registration systems. |
| **Data source** | Child mortality estimates from the UN Inter-agency Group for Child Mortality Estimation, and estimates of live births from the United Nations Population Division estimates. |
| **Strengths and weaknesses** | A strength of including the under-five mortality rate as part of the GAVI strategy is that this is a key impact indicator used globally for multiple purposes, including the MDGs. This indicator measures the ultimate impact at the population level.<br><br>A weakness of this indicator is that many other factors beyond the influence of GAVI affect a country's under five mortality rate—including poverty, conflict, nutrition and many other factors. In addition, there are many challenges related to measurement. This indicator may also be slow in responding to policy changes given that it is at the end of a long results chain and frequently measured through surveys which reflect child mortality from earlier time periods. |
| **Useful references** | For further information on methodology:<br>http://www.childinfo.org/mortality_methodology.html<br><br>For current country estimates: http://www.childmortality.org/<br><br>For population estimates: http://esa.un.org/wpp/ |

| Number of future deaths averted | |
|---|---|
| **Indicator ID** | 2 |
| **Definition** | Number of future deaths averted as a result of pentavalent, pneumococcal, rotavirus, yellow fever (campaign and routine), meningitis A (campaign and routine), Japanese Encephalitis (campaign and routine), human papillomavirus, measles second dose, measles-rubella campaigns, and rubella vaccination in 73 GAVI countries. The impact of GAVI supported standalone measles campaigns approved in 2012 are not counted within this indicator, but are reported separately. |
| **Level of disaggregation** | N/A |
| **Rationale for use** | This indicator measures the impact of GAVI supported vaccines in terms of averting future deaths from vaccine preventable diseases. Mortality reduction is the ultimate impact of GAVI support, and is therefore important to track on an ongoing basis. It is recognised that GAVI's contributions toward averting these future deaths are intertwined with many other investments and actions—most importantly those made by countries themselves. |
| **How it is measured** | Future deaths averted are estimated through an expert process convened jointly by the GAVI Alliance and the Bill and Melinda Gates Foundation, using publicly available, peer-reviewed models. Methods are described further in Lee et al, *Vaccine*, 2013, and in a technical report updated annually and available on the GAVI Alliance website. Disease models used, assumptions (e.g., underlying disease burden, vaccine effectiveness and mortality risk) and inputs will continue to be reviewed and refined through expert processes annually as new data and improved models become available. Results from targeted studies and the full country evaluations will be used to pressure test and refine assumptions used in the models. As described in its M&E framework and strategy, GAVI adopts a contribution perspective to impact estimation, recognising that impact numbers reported do not reflect exclusive attribution to GAVI, but a broader impact at country level to which GAVI is one of many contributors, in support of countries and alongside other development partners. The numbers reported against this indicator reflect where GAVI has provided direct support, as well as catalytic support. See Annex 1 for definitions of direct and catalytic support. |
| **Data source** | Publicly-available, peer-reviewed disease models are used to estimate future deaths averted, as described further in: Lee, LA et al. (2013). The estimated mortality impact of vaccinations forecast to be administered during 2011-2020 in 73 countries supported by the GAVI Alliance. *Vaccine*, 31S: B61-B72. The disease models use WHO/UNICEF estimates of immunisation coverage and estimates of target population size from the United Nations Population Division. |
| **Strengths and weaknesses** | The strength of this indicator is that it estimates the ultimate impact of GAVI supported vaccines on mortality.<br><br>The primary limitation of this indicator is that there is substantial measurement error, which is difficult to quantify. Model based estimates of impact rely on a number of assumptions that are difficult to test. In addition, this indicator is based on counts rather than rates, and therefore does not provide information on whether overall and cause specific mortality rates are decreasing over time. |
| **Useful references** | Lee, LA et al. (2013). The estimated mortality impact of vaccinations forecast to be administered during 2011-2020 in 73 countries supported by the GAVI Alliance. *Vaccine*, 31S: B61-B72. Available at:<br>http://www.sciencedirect.com/science/article/pii/S0264410X12016283 |

| Number of children immunised | |
|---|---|
| **Indicator ID** | 3 |
| **Definition** | Number of children immunised with the last recommended dose of a GAVI supported vaccine delivered through routine systems |
| **Level of disaggregation** | N/A |
| **Rationale for use** | This indicator is important for tracking the extent to which GAVI's mission to increase access to immunisation in poor countries is being realised. |
| **How it is measured** | This indicator refers to the total number of children reached with the last recommended dose of any GAVI-supported vaccine delivered through routine systems, corrected on a country-by-country basis so that children receiving multiple vaccines are not double-counted. Children immunised with GAVI support for routine vaccines are counted – campaigns and supplementary immunisation activities are not considered. Vaccines included in this indicator include pentavalent, hepatitis B, Hib, pneumococcal, rotavirus, measles second dose, routine yellow fever, HPV, rubella, routine meningitis A, and routine Japanese Encephalitis. Performance against these targets is measured using annually updated WHO/UNICEF coverage estimates (or national administrative data for measles second dose) and United Nations Population Division estimates of the size of the target population in each country.<br><br>The numbers reported against this indicator reflect where GAVI has provided direct support, as well as catalytic support. See Annex 1 for definitions of direct and catalytic support. |
| **Data source** | WHO/UNICEF coverage estimates (or for measles second dose, reported administrative coverage estimates) and United Nations Population Division estimates of population size (surviving infants) |
| **Strengths and weaknesses** | The strength of this indicator is that it directly measures the number of children reached with GAVI supported vaccines, and thus provides information on the extent to which GAVI is contributing toward increasing access to immunisation in poor countries.<br><br>The primary limitation of this indicator lies in the underlying uncertainty of immunisation coverage rates and population estimates. Additionally, this indicator is based on a count rather than a rate, and thus does not measure whether immunisation coverage is increasing over time. Coverage is, however, measured through indicators 5 (new and underused vaccines) and 7 (DTP3). Another limitation is that this indicator does not discern whether children are fully immunised with all recommended vaccines. |
| **Useful references** | For further information on methods used in producing WHO/UNICEF estimates: http://www.who.int/bulletin/volumes/87/7/08-053819/en/index.html<br>For current country coverage estimates:<br>http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragedtp3.html |

| Country introductions of underused and new vaccines | |
|---|---|
| **Indicator ID** | 4 |
| **Definition** | Number of countries that have introduced underused and new vaccines to date |
| **Level of disaggregation** | By vaccine (pentavalent, pneumococcal and rotavirus vaccines) |
| **Rationale for use** | This indicator directly measures the extent to which GAVI's first strategic goal is being met: i.e., the acceleration of uptake and use of underused and new vaccines. |
| **How it is measured** | WHO records data on vaccine introduction dates. An introduction is defined as the time when the first child is vaccinated with the new vaccine through the routine system. This indicator is tracked both in cumulative terms (i.e., the number of countries that have introduced new and underused vaccines by a certain time period) and as new introductions occur each year (i.e., the number of new introductions that occur within a specific calendar year). All 73 GAVI countries are tracked for this indicator, and countries are counted irrespective of whether they introduce the vaccine with or without GAVI support. However, for cases in which the vaccine is introduced without GAVI support, this is noted in the documentation. Results are reported as counts (number of countries introducing, per vaccine) as well as proportions (proportion of GAVI eligible countries for which the vaccine is recommended that has introduced the vaccine). Progress against targets is measured through the WHO Vaccine Introduction Database, supplemented with administrative records. |
| **Data source** | WHO Vaccine Introduction Database and country and GAVI administrative records |
| **Strengths and weaknesses** | The strength of this indicator is that it is a direct measure of progress in achieving GAVI's new vaccine introduction goal. This is also a timely indicator, with updates occurring rapidly following the introduction of a vaccine into a country's routine system.<br><br>The primary weakness of this indicator is that it counts countries rather than population, and thus treats large population and small population countries the same. When considered together with indicator 5, however, one captures a more balanced picture. Indicator 5 tracks the percentage of the target population in GAVI eligible countries reached with these same vaccines. |
| **Useful references** | WHO New Vaccine Introduction Database:<br>http://www.who.int/immunization_monitoring/data/year_vaccine_introduction.xls |

| Coverage of underused and new vaccines | |
|---|---|
| **Indicator ID** | 5 |
| **Definition** | Coverage of underused and new vaccines in 73 GAVI countries |
| **Level of disaggregation** | By vaccine (pentavalent, pneumococcal, and rotavirus vaccines) |
| **Rationale for use** | This indicator, along with indicator 4, directly measures the extent to which GAVI's first strategic goal is being met: i.e., the acceleration of uptake and use of underused and new vaccines. |
| **How it is measured** | This indicator is measured using annually updated WHO/UNICEF estimates of coverage for the last recommended dose of pentavalent, rotavirus and pneumococcal vaccines. Hib3 is used as a proxy for Pentavalent3 coverage for countries which have introduced pentavalent vaccine. The overall coverage estimate for the 73 GAVI countries is based on the population-weighted average, using the number of surviving infants as the weight. The denominator includes the surviving infants population from all 73 GAVI countries, irrespective of whether they have introduced the vaccine and whether or not the vaccine is supported by GAVI. Countries that have not introduced the vaccine in question are assumed to have zero percent coverage for that vaccine.<br><br>Progress against targets is measured annually through WHO/UNICEF estimates of coverage. WHO/UNICEF estimates of coverage are based on data officially reported to WHO and UNICEF by countries, as well as data reported in household surveys and the published and grey literature. |
| **Data source** | WHO/UNICEF coverage estimates for Hib3 (for countries that have introduced pentavalent vaccine), PCV3 and Rota last dose; estimates of target population size (surviving infants) from the United Nations Population Division. |
| **Strengths and weaknesses** | The strength of this indicator is the directness with which it measures progress against the new vaccine introduction strategic goal. This indicator provides direct information on the proportion of the overall target population in GAVI eligible countries that is reached with the three vaccines that represent the largest share of GAVI's expenditure in the 2011-2015 period.<br><br>The primary weakness of this indicator is underlying uncertainty in available coverage estimates. A second weakness is that when taken by itself it provides no information on the number of countries that have introduced the vaccines in question. However, when taken with indicator 4, information is provided both on the number of countries introducing and the percentage of the target population reached. |
| **Useful references** | For further information on methods used in producing WHO/UNICEF estimates: http://www.who.int/bulletin/volumes/87/7/08-053819/en/index.html<br><br>For current country coverage estimates:<br>http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragedtp3.html<br>For population estimates: http://esa.un.org/wpp/ |

| DTP1-DTP3 drop out rate | |
|---|---|
| **Indicator ID** | 6 |
| **Definition** | The difference between DTP1 and DTP3 coverage in 73 GAVI countries |
| **Level of disaggregation** | N/A |
| **Rationale for use** | Drop out rates are a measure of the strength of a health and immunisation system—they show the ability of the system to reach children with the third dose in a series. In strong systems, children have a sufficient number of contacts with the system at appropriate times to ensure high coverage with three doses of DTP-containing vaccine. Weaker systems may have the ability to reach a child with the first dose in the series, but not the third dose. |
| **How it is measured** | This indicator is measured as the absolute difference in percentage points between DTP1 and DTP3 coverage in the 73 GAVI countries, based on the population weighted average WHO/UNICEF estimates of DTP1 and DTP3 coverage in the 73 countries.<br><br>Progress against the target for this indicator is tracked based on annually updated WHO/UNICEF estimates of DTP1 and DTP3 coverage. WHO/UNICEF estimates of coverage are based on data officially reported to WHO and UNICEF by countries, as well as data reported in household surveys and the published and grey literature. |
| **Data source** | WHO/UNICEF coverage estimates and estimates of target population size (surviving infants) from the United Nations Population Division. |
| **Strengths and weaknesses** | The strength of this indicator is that it provides information on the strength of systems in ensuring that all children reached with a single dose of DTP-containing vaccine are reached with the second and third doses also.<br>The primary weakness of this indicator lies in the underlying uncertainty in available coverage estimates. Furthermore, the indicator does not reflect the absolute level of coverage with the last recommended dose of DTP-containing vaccine (this is, however, measured in indicator 7). . |
| **Useful references** | For further information on methods used in producing WHO/UNICEF estimates: http://www.who.int/bulletin/volumes/87/7/08-053819/en/index.html<br><br>For current country coverage estimates:<br>http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragedtp3.html<br><br>For population estimates: http://esa.un.org/wpp/ |

| DTP3 coverage | |
|---|---|
| **Indicator ID** | 7 |
| **Definition** | The weighted average DTP3 coverage in 73 GAVI countries |
| **Level of disaggregation** | N/A |
| **Rationale for use** | This is a direct measure of GAVI's ability to contribute to strengthening the capacity of integrated health systems to deliver immunisation. DTP3 coverage is a frequently used indicator of the strength of immunisation and health systems, because DTP3 requires three contacts with the health system at appropriate times and because DTP vaccine tends to be given through the routine system only rather than through campaigns. |
| **How it is measured** | DTP3 coverage is measured using annually updated WHO/UNICEF estimates of DTP3 coverage.<br><br>The overall estimate for the 73 GAVI countries is calculated as the population-weighted average of DTP3 coverage, where the weights are the number of surviving infants in each country.<br><br>WHO/UNICEF estimates of coverage are based on data officially reported to WHO and UNICEF by countries, as well as data reported in household surveys and the published and grey literature. |
| **Data source** | WHO/UNICEF coverage estimates and estimates of target population size (surviving infants) from the United Nations Population Division. |
| **Strengths and weaknesses** | The strength of this indicator is that it is a direct measure of immunisation and health system strength.<br><br>The primary weakness of this indicator is underlying uncertainty in available coverage estimates. The quality of the WHO/UNICEF estimates is determined by the quality and availability of empirical data, which are lacking for many countries. An additional weakness is that tracking DTP3 coverage as a single tracer vaccine does not provide information on whether children are fully immunised with all recommended vaccines. It is also recognised that many other factors in a country influence the proportion of children reached with DTP3. |
| **Useful references** | For further information on methods used in producing WHO/UNICEF estimates: http://www.who.int/bulletin/volumes/87/7/08-053819/en/index.html<br><br>For current country coverage estimates: http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragedtp3.html<br><br>For population estimates: http://esa.un.org/wpp/ |

| Measles coverage | |
|---|---|
| **Indicator ID** | 8 |
| **Definition** | The weighted average coverage of measles routine first dose immunisation in 73 GAVI countries |
| **Level of disaggregation** | N/A |
| **Rationale for use** | This is a direct measure of GAVI's ability to contribute to strengthening the capacity of health systems to deliver measles immunisation. Tracking measles coverage complements and adds value to the tracking of DTP3 coverage, since it measures the ability of preventive health services to reach infants later in the first year of life. In addition, the fourth Millennium Development Goal focuses on reducing child mortality. One of the three targets established for MDG4 is 'Proportion of 1 year-old children immunized against measles'. The use of this indicator as part of GAVI's strategy reflects GAVI's commitment to contributing to global and country goals related to the improvement of child health. |
| **How it is measured** | Measles routine first dose coverage is tracked using annually updated WHO/UNICEF estimates of immunisation coverage. The overall estimate for the 73 GAVI countries is calculated as the population-weighted average of measles immunization coverage estimates for each of the individual countries, where the weights are the number of surviving infants in each country.<br><br>WHO/UNICEF estimates of coverage are based on data officially reported to WHO and UNICEF by countries, as well as data reported in household surveys and the published and grey literature. |
| **Data source** | WHO/UNICEF coverage estimates and estimates of target population size (surviving infants) from the United Nations Population Division. |
| **Strengths and weaknesses** | The strength of this indicator is that it is a direct measure of immunisation and health system strength. Moreover, this indicator is the target for one of the Millennium Development Goals.<br><br>The primary weakness of this indicator is the underlying uncertainty in available coverage estimates. The quality of the WHO/UNICEF estimates is determined by the quality and availability of empirical data, which are lacking for many countries. It is also acknowledged that many other factors in a country influence the proportion of children reached with measles first dose. An additional limitation relates to the difficulty of distinguishing in some settings between doses of measles vaccine administered through routine delivery and those administered through Supplemental Immunisation Activities. |
| **Useful references** | For further information on methods used in producing WHO/UNICEF estimates: http://www.who.int/bulletin/volumes/87/7/08-053819/en/index.html<br><br>For current country coverage estimates: http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragemcv.html<br><br>For population estimates: http://esa.un.org/wpp/ |

| Equity in immunisation coverage | |
|---|---|
| **Indicator ID** | 9 |
| **Definition** | Proportion of GAVI supported countries where DTP3 coverage in the lowest wealth quintile is not more than 20 percentage points below coverage in highest wealth quintile |
| **Level of disaggregation** | N/A |
| **Rationale for use** | Equity is an important measure of the capacity of integrated health systems to deliver immunisation. Although global access to vaccines has become more equitable, within-country disparities continue to exist in a large majority of countries. The most consistent disparity in immunisation coverage across a wide range of settings is between the poor and the non-poor. The poor are also the most vulnerable, and the most likely to die from vaccine preventable diseases. |
| **How it is measured** | This indicator is measured using the latest available household survey data from each GAVI supported country. As of September 2013, 63 out of 73 GAVI countries had survey data disaggregated by wealth quintile available to calculate this indicator. Countries without available survey data disaggregated by wealth quintile are excluded from the numerator and the denominator. To calculate this indicator, the difference is measured between DTP3 coverage in the poorest wealth quintile and DTP3 coverage in the least poor quintile. The proportion of GAVI eligible countries with available survey data that have a difference of less than or equal to 20 percentage points between these two wealth quintiles is tracked. The cut off of 20 percentage points was selected based on the distribution of data observed from an analysis of available survey data conducted in July 2010. Slightly fewer than half of GAVI eligible countries with available survey data met this benchmark in 2010. |
| **Data source** | Latest publicly available Demographic and Health Survey (DHS) and/or Multiple Indicator Cluster Survey (MICS); other surveys that use comparable methods may be used where no DHS or MICS is conducted. |
| **Strengths and weaknesses** | The strength of this indicator is that it directly measures the level of equity in immunisation coverage between the poor and the non-poor, and thus highlights coverage disparities among the poorest households within a given country, which generally have the greatest risk of dying due to a vaccine preventable disease. This measure of equity is also simpler than many other measures of equity, including for example concentration indices, which are not transparent to non-specialists.<br><br>A limitation of this indicator is that it treats all countries the same and does not take population into account—i.e., it treats small population and large population countries the same for measurement purposes. Also, not all countries have suitable household survey data available, so some countries are not captured in the calculation. Even for those countries that are included in the calculation, most will only have a new data point available every 2-5 five years. Therefore, some of the information captured in this indicator reflects the situation as of several years earlier. Furthermore, in basing the calculation on only the poorest and the least poor quintiles, this indicator does not capture what is happening in the middle three quintiles. |
| **Useful references** | Gwatkin 2007 on ten best resources on health equity: http://heapol.oxfordjournals.org/content/22/5/348.long<br>Demographic and Health Surveys: www.measuredhs.com<br>Multiple Indicator Cluster Surveys: http://www.childinfo.org/mics.html |

| Resource Mobilisation | |
|---|---|
| **Indicator ID** | 10 |
| **Definition** | Resources mobilised as a percentage of resources required to finance forecasted country demand for vaccine support, 2011-2015 |
| **Level of disaggregation** | By source of resources mobilized |
| **Rationale for use** | This indicator is a direct measure of GAVI's ability to mobilise resources to finance forecasted country demand for vaccine support, and thus increase the predictability of global financing for immunisation. |
| **How it is measured** | The amount of resources mobilised (as measured through GAVI Secretariat records) is compared to the amount of resources required to finance country demand for vaccine support from 2011-2015 (as measured through the latest version of GAVI's Strategic Demand Forecast). |
| **Data source** | The latest version of GAVI Strategic Demand Forecast (version 7.0 used in September 2013) and GAVI Secretariat records of amount of resources mobilised |
| **Strengths and weaknesses** | The strength of this indicator is the directness with which it measures the mobilisation of resources in relation to the amount of resources required to finance country demand.<br><br>The weakness of this indicator is that forecasts of country demand can change for a variety of reasons such as shifting country priorities, changes in the range of programmes offered by GAVI, a slower/faster than expected country application process, and other reasons. |
| **Useful references** | |

| Country investments in vaccines per child | |
|---|---|
| **Indicator ID** | 11 |
| **Definition** | The average amount spent from national health budgets in GAVI supported countries on vaccines per surviving infant |
| **Level of disaggregation** | N/A |
| **Rationale for use** | This indicator measures the level of national financing for immunisation and thus the priority that the government places on vaccines as a core public function. |
| **How it is measured** | Numerator: sum of the fully loaded costs of vaccines (traditional and new and underused vaccines) for the 73 GAVI countries<br>• Vaccines for campaigns are excluded;<br>• Primary source for the information is the WHO/UNICEF Joint Reporting Form, however missing information is complemented by data from the GAVI Annual Progress Report;<br>• Countries where no information on government expenditure on vaccines is available are excluded from the analysis.<br><br>Denominator: sum of the surviving infants of all the GAVI 73 countries, excluding those with missing data on government expenditures on vaccines.<br><br>The indicator is subsequently converted into constant 2010 US$ using the World GDP deflator information published by the World Bank. |
| **Data source** | WHO/UNICEF Joint Reporting Form; GAVI Annual Progress Reports; United Nations, Department of Economic and Social Affairs, Population Division; World Bank, World Development Indicators. |
| **Strengths and weaknesses** | The strength of this indicator is that it directly measures the level of national financing for immunisation.<br><br>The primary weakness of this indicator relates to data quality. This indicator will require additional work with countries to improve measurement and reporting through the Joint Reporting Form and the GAVI Annual Progress Report. At present there are discrepancies between JRF information and data reported in the Annual Progress Reports to GAVI.<br><br>GAVI is working with WHO to strengthen the quality and reporting of those data through including immunisation specific expenditure estimates in the National Health Accounts, which will be rolled-out in countries in a phased-manner. |
| **Useful references** | http://www.who.int/nha/en/ |

| Fulfillment of co-financing commitments | |
|---|---|
| **Indicator ID** | 12 |
| **Definition** | Proportion of countries that meet their co-financing commitments in a timely manner. |
| **Level of disaggregation** | By country |
| **Rationale for use** | The fulfillment of co-financing commitments is a measure of country commitment to financing vaccines, and thus a reflection of the sustainability[1] of national financing for immunisation. |
| **How it is measured** | Data on fulfillment of co-financing commitments is collected by UNICEF Supply Division, the PAHO Revolving Fund, and GAVI Secretariat (for self-procuring countries). All three agencies record the receipt of country payments for vaccine, in relation to the deadline for submission of such payments. |
| **Data source** | UNICEF Supply Division, PAHO Revolving Fund and GAVI Secretariat records |
| **Strengths and weaknesses** | The strength of this indicator is that directly measures the government's capacity and willingness to finance vaccine costs. There are well defined determinants to classify whether a country is in default and there are also agreed minimum co-financing levels for each country required to co-finance vaccines, so the determination of default is clear.<br>The primary weakness of this indicator is that countries could meet their co-financing commitments in a timely manner, yet still not have sustainable national financing in the long term to finance the full cost of vaccines after graduating from GAVI support. |
| **Useful references** | Detailed co-financing explanation on GAVI Alliance Website http://www.gavialliance.org/vision/policies/new_vaccines/cofinancing/index.php |

[1]GAVI definition of financial sustainability: "Although self-sufficiency is the ultimate goal, in the nearer term sustainable financing is the ability of a country to mobilize and efficiently use domestic and supplementary external resources on a reliable basis to achieve current and future target levels of immunisation performance".

| Change in vaccine price | |
|---|---|
| **Indicator ID** | 13 |
| **Definition** | Change in the weighted average vaccine price per child to fully immunize with pentavalent, rotavirus and pneumococcal vaccines |
| **Level of disaggregation** | By vaccine |
| **Rationale for use** | Tracking vaccine price over time is central to understanding the extent to which GAVI is achieving its goal to shape healthy vaccine markets for low income countries. Pentavalent, pneumococcal and rotavirus vaccines will be the major cost drivers in GAVI's portfolio over the coming years. |
| **How it is measured** | UNICEF Supply Division provides data on weighted average price per dose, number of doses procured and the total value of the doses procured for each vaccine on an annual basis. These data are provided at the level of a specific supplier of the vaccine, and are further delineated by presentation and/or formulation. All prices are for the vaccine only and do not include costs of freight, the syringe and safety box.<br><br>To calculate the weighted average price per dose for a vaccine, the total value of the procured doses for the vaccine (summed across suppliers, presentations and formulations) is divided by the total number of procured doses. This weighted average price per dose is converted to a price per series by multiplying by the number of doses required to fully immunise a child for that vaccine. For pentavalent and pneumococcal there are 3 doses per series for all vaccines and suppliers.<br><br>For rotavirus vaccine, the number of doses per series required to fully immunise a child varies by product (supplier) and is either 2 or 3 doses. In this case, the number of doses procured from each supplier is first converted to the number of complete series procured by dividing the number of doses by 2 or 3. The total number of series procured is calculated by summing across all suppliers. The weighted average price per series for rotavirus is then calculated by dividing the total value of procured doses across all suppliers by the total number of series procured across all suppliers. |
| **Data source** | UNICEF Supply Division, report under MOU 5 |
| **Strengths and weaknesses** | The strength of this indicator is that it is a direct measure of GAVI's ability to shape vaccine markets, per its fourth strategic goal.<br><br>The weakness of this indicator is that it does not capture other costs, including the cost of vaccine delivery to countries. This indicator also does not capture process steps in the pathway to reducing price or price reduction achievements for other vaccines in GAVI's portfolio. Also, it does not reflect security of supply achievements while reducing price, which argues for the need to assess this indicator alongside indicator 14. |
| **Useful references** | Product menu for vaccines supplied by UNICEF for GAVI:<br>http://www.unicef.org/supply/index_gavi.html<br>Historical prices of vaccines procured by UNICEF:<br>http://www.unicef.org/supply/index_57476.html |

| Number of products offered | |
|---|---|
| **Indicator ID** | 14 |
| **Definition** | Number of products offered in response to tenders for a given year expressed as a percentage of target number of products to be offered for 2015 (including WHO prequalified and non-WHO prequalified products). |
| **Level of disaggregation** | By vaccine |
| **Rationale for use** | Sufficient, consistent and uninterrupted supply of quality vaccines is central to achieving GAVI's mission and its strategic goal four, to shape vaccine markets. This indicator is set up as a proxy measure of future vaccine supply sufficiency and security. It assesses the interest that GAVI generates among existing and new vaccine manufacturers to offer products for the GAVI market in response to tenders. The more products offered by different manufacturers, the higher the likelihood of achieving a broad supplier base and healthy competition among manufacturers. Some vaccines imply trade-offs when it comes to security of supply versus price reduction. A reduction in price can discourage competitors from entering or remaining in the market. GAVI's targets for this indicator are crafted on a vaccine-by-vaccine basis, and reflect a balanced perspective. |
| **How it is measured** | Numerator: The procurement partner provides information to the GAVI Secretariat on the number of products offered for supply in a particular year in response to tenders for any of the vaccines in GAVI's portfolio. For example if vaccine x in a 3 year tender had proposals from three manufacturers, two for year 1 and three for years 2 & 3 (one new entrant), the numerator for year 1 would be 2 and for years 2 & 3 it would be 3. Different presentations and/or formulations of the same vaccine (e.g., pentavalent liquid 10 dose vial and a pentavalent lyophilised 1 dose vial) offered by the same manufacturer count as one product, not two products. There will be no double counting if several offers are made in one year for the same vaccine by the same manufacturer.<br><br>Denominator: To establish the five year target, estimates were made regarding the expected number of manufacturers with a suitable product and their interest and readiness to participate in tenders for supply offers for 2015. Seven vaccines were included in the assessment: pentavalent, pneumococcal conjugate, rotavirus, human papillomavirus, measles-rubella, yellow fever, and meningococcal A vaccines.<br><br>The indicator is expressed as a percentage and reported once a year by end of first quarter for the previous year. |
| **Data source** | Procurement partner manufacturer offers |
| **Strengths and weaknesses** | The strength of this indicator is that it helps assess supply security and several other elements of a healthy market, such as the willingness of manufacturers to supply to GAVI countries (i.e., competition). As the indicator is not restricted to WHO prequalified products it also gives a view of future broadening of the supply base.<br><br>The primary weakness is that by measuring 'offered products', rather than awarded supply or actual shipments, GAVI could meet its annual target for this indicator, yet still not achieve supply security. Interpretation of progress towards indicator targets and its relevance for actual (short term) supply security needs to take into account tender outcomes as well as the number of doses offered relative to country demand and events occurring after awards have been finalised. |
| **Useful references** | Description of market shaping strategic goal on GAVI Alliance Website:<br>http://www.gavialliance.org/results/goal-level-indicators/market-shaping-goal-indicators/ |

## Annex 1 Framework for reporting on impact: direct financing vs. catalytic support

- Relevant definitions:
  - "**GAVI's contribution to country impact**": As described in its M&E framework and strategy, GAVI adopts a contribution perspective to impact estimation, recognising that impact numbers reported do not reflect exclusive attribution to GAVI, but a broader impact at country level to which GAVI is one of many contributors, in support of countries and alongside other development partners.
  - "**Graduating country**": A country whose Gross National Income (GNI) per capita has crossed the applicable eligibility threshold and that can no longer apply for new vaccine or cash-based programme support, but continues to receive support for existing vaccines and/or cash-based programmes from GAVI. There are 4 years of continued GAVI support after the year in which a country crosses the threshold for GAVI eligibility.
  - "**Graduated country**": A country whose GNI per capita has crossed the eligibility threshold and that can no longer apply for new vaccine or cash-based programme support from GAVI, and whose GAVI multi-year commitments for vaccines and/or cash-based programmes have ended.
  - **"73 GAVI countries":** The 73 countries that were eligible for support at the start of the GAVI Alliance strategy for the 2011-2015 period.
- GAVI's impact numbers include the following:
  - **Direct financing**. GAVI's contribution to country impact where GAVI provides direct financial support for a vaccine[2]
  - **Catalytic support**. GAVI's contribution to country impact where GAVI does not provide direct support because the country has graduated, but where it still has a catalytic effect, such as in the following cases:
    - Countries that introduced vaccines with GAVI support and continue to finance routine delivery after GAVI support concludes (NB: includes countries that introduced hepatitis B-containing monovalent or tetravalent vaccine with GAVI support and have a gap between when direct GAVI support for mono/tetra ended and when pentavalent implementation begins)
    - Countries that finance routine delivery of a vaccine on its own after GAVI finances the launch of the vaccine in the country through a catch up campaign (eg, rubella, meningitis A, Japanese Encephalitis)
    - Graduated countries that use Advance Market Commitment (AMC) funds and have access to the AMC price for pneumococcal vaccine implementation
    - Graduated countries that have access to prices obtained with GAVI support, e.g. for HPV implementation[3]
- The impact of both direct financing and catalytic support will be quantified in terms of children immunised (Indicator 2 above), deaths averted (Indicator 3 above), cases averted, Disability Adjusted Life Years (DALYs) averted and measures of financial protection (e.g., cost of illness averted). The impact of catalytic support will be quantified for five years only. After the five year period, the catalytic support will be reported separately, in narrative rather than quantitative terms.

[2] Country co-financed doses will be included in these numbers, on the rationale that the country wouldn't likely have the vaccine in the program without GAVI

[3] Not to be included in future projections, due to difficulty of forecasting accurately where and when this will occur, but to be added once known.