Kenya

Routine Immunization Overview

Routine Immunization Coverage Trends

Indicators

(WHO/UNICEF, 2011, See notes 1 and 2)

|  |  |
| --- | --- |
| Total population | 41,610,000 |
| Infant mortality rate | 55 |
| Surviving Infants | 1,466,000 |
| Infant DTP1 | 95% |
| Infant DTP3 | 88% |
| Infant measles | 87% |
| Unimmunized (by DTP3) | 175,920 |

Kenya’s national immunization program was one of the most successful in East Africa in the 1990s. In the last ten years, Kenya’s immunization coverage for DTP3 has averaged between 73% and 88%. The drop-out rate nationally was reported at 7% in 2009 (see graph below). Coverage has varied, however, between provinces–with some reporting DTP3 below 70% and with DPT1-DPT3 drop-out rates above 10%. In 2008, a post-election political crisis destabilized the country, particularly in Western, Nyanza and Rift Valley provinces. This resulted in interruption of health services, including vaccination, during that year. There were also vaccine stock-outs in 2008 and the first quarter of 2009. Additionally, the division of districts and creation of new districts (from 78 to 254) has resulted in problems with denominator calculations and difficulty in ensuring fully functioning District Health Management Teams and services in many of the new districts. The recent creation of two separate health ministries with split program functions has also resulted in managerial and financial complications for preventive services like immunization.

Infant DTP3 Coverage, 1984-2011 (Official Country, WHO/UNICEF and Survey Estimates)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **1984** | **1990** | **1995** | **2000** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** |
| Official Country (3) | -- | 42% | 84% | 63% | 76% | 80% | 81% | 85% | 75% | 83% | 88% |
| **WHO/UNICEF** (1) | **58%** | **84%** | **94%** | **82%** | **76%** | **80%** | **81%** | **85%** | **84%** | **83%** | **88%** |

(4) 2003 DHS: 71%

(5) 2000 MICS: 76%

(4) 1998 DHS: 76%

(4) 1993 DHS: 85%

(4) 2007 DHS: 86%

2011 DTP Left-out (accessibility) and Drop-out rates (availability/use) (5) (WHO/UNICEF estimates 2011)

**7% drop-out rate**

**Left-outs** = 5% of surviving infants (DTP1)

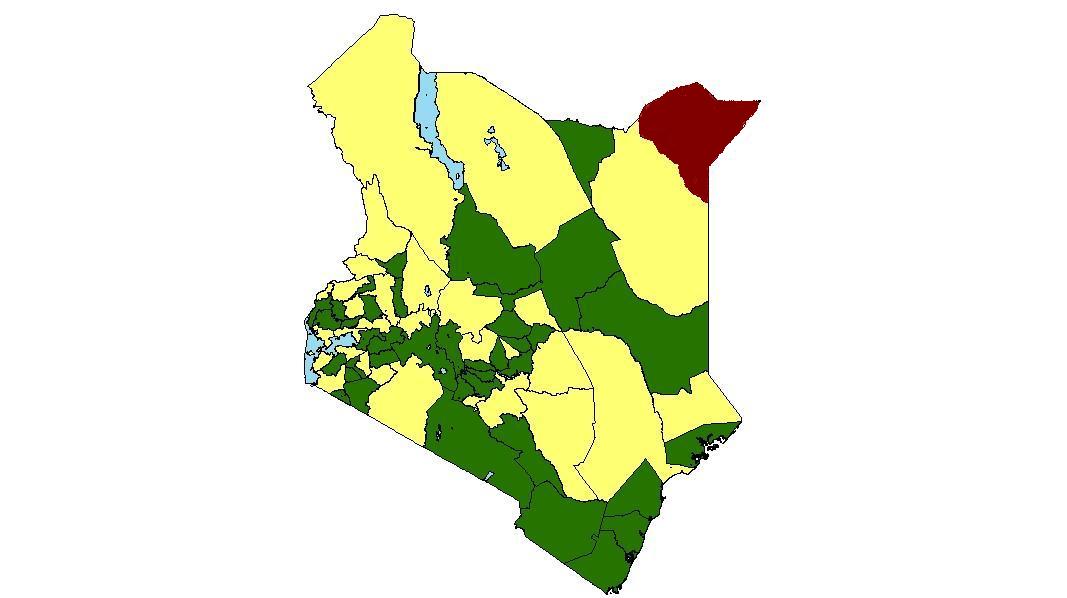
**Drop-out rate** = 7% of infants who received DTP1 did not complete DTP series

**5% left-outs**

DTP3 Coverage by District, 2007 (based on administrative reports/service statistics)

National coverage estimates often mask sub-national differences in performance. In the visual mapping of Kenya’s DTP3 coverage for 2007, clear variations in coverage are evident across the country's previous 78 districts. Similar maps can be used showing the numbers of unimmunized children, drop-out rates, vaccine stock outs and other program indicators to help identify specific performance problems. This type of mapping exercise should be done at least annually, using administrative reported data and reflecting the additional districts. Immunization managers should also use these reports to make day-to-day program decisions. Even if coverage is overestimated, these reports can be used effectively to track and compare immunization performance by administrative unit, particularly given the increased number of districts. Routinely calculating and comparing performance indicators makes it possible for program managers to take action before problems become acute.

DTP3 <50% DTP3 50-79% DTP3 ≥ 80%



Kenya and the GAVI Alliance (as of May 2011)

Current comprehensive Multi-year Plan (cMYP): 2010–2015; Current Health Sector Plan dates: 2005-2010

Through mid-2011, Kenya had been approved for just over $255 million in [GAVI Alliance](http://www.gavialliance.org) support (see table on following page). GAVI enabled Kenya to introduce the Haemophilus influenzae type b (Hib) and Hepatitis B vaccine in 2001 in pentavalent formulation. It also has financed the yellow fever vaccine. GAVI’s new vaccine support comes with a co-financing requirement, with Kenya co-financing the pentavalent vaccine since 2007. Kenya committed to contributing approximately $6,461,374 million between 2012 and 2015 to the cost of this vaccine. In 2008, Kenya was also approved to receive the new pneumococcal vaccine. Although the introduction has been delayed, Kenya planned to co-finance a total of $3,980,000 between 2009 and 2013. With GAVI’s revised eligibility criteria for new and underutilized vaccines (requiring ≥70% DTP3 coverage based on WHO/UNICEF estimates), Kenya is eligible to apply for support to introduce the rotavirus vaccine.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type | Dates | | Support $ | |
| **Injection Safety Support (INS)** | | | | |
|  | | 2003-2005 | 1,129,963 | (completed) |
| **Immunization Services Support (ISS)** (7) | | | | |
|  | | 2001-2003,2007-2012 | 5,870,180 | (in progress) |
| **Health System Strengthening Support (HSS)** (8) | | | | |
|  | | 2007-2009 | 9,903,000 | (completed) |
| **New Vaccine Support (NVS)** (9) | | | | |
| Yellow Fever | | 2001-2015 | 480,938 | (in progress) |
| Penta (10) | | 2001-2015 | 177,987,049 | (in progress) |
| Pneumo | | 2009-2010 | 157,956,489 | (in progress) |

In addition to support for new and underused vaccines, Kenya received Injection Safety (INS) commodities from 2003-2005 and Immunization Services Support (ISS) funding since 2000. Kenya applied for ISS funding twice (with a gap between 2003-2007) and continues to receive reward funding. Kenya reported using the majority of its ISS funding for supervision, cold chain equipment and transport. The country was approved for Health Systems Strengthening (HSS) funds in late 2007. Based on the proposal, HSS funds are being used primarily for training of community health extension workers and providing transport for these workers.

USAID’s global Maternal and Child Integrated Program (MCHIP) would like to encourage USAID/Kenya (and its partners), if not already doing so, to support efforts to strengthen country inter-agency coordination (ICC) for immunization—as a focus within the Child Health ICC. USAID’s global investment in immunization through the GAVI Alliance and others will only be protected with your continuous involvement and support.

Notes and Resources

(1) WHO/UNICEF coverage estimates consider population-based survey results as well as Official Country Estimates. They are generated and published annually and used to track coverage trends.

<http://www.who.int/immunization_monitoring/en/globalsummary/timeseries/tswucoveragebycountry.cfm?country=KEN>

Infant mortality rate: the probability of dying between birth and exactly one year of age. The infant mortality rate is expressed as the number of infant deaths per 1,000 live births.

Surviving infants: the number of children who have survived beyond their first year of life. Source: WHO/UNICEF.

Unimmunized infants (DTP3): Calculated as the number of surviving infants X (1.00 – DTP3 coverage). Calculations made using surviving infants and DTP3 coverage from WHO/UNICEF estimates. <http://www.who.int/immunization_monitoring/en/globalsummary/countryprofileselect.cfm>

(2) The third dose of DTP (DTP3) is commonly used as a surrogate indicator for routine immunization coverage. DTP vaccine is predominantly offered in fixed health facilities and routine (commonly) monthly outreach sessions. Polio and measles vaccines are frequently given during campaigns, as well as in fixed health facilities and during routine outreach sessions. Completion of the DTP series by one year of age requires vaccination services to be offered on multiple occasions and for those services to be accessible, available, acceptable to and sought by the target population.

(3) Official Country Estimates of immunization coverage come from the annual Joint Reporting Form (JRF) that each country submits to WHO and UNICEF. These estimates are most often based on administrative reports from health facilities. <http://www.who.int/immunization_monitoring/en/globalsummary/timeseries/tscoveragebycountry.cfm?C=KEN>

(4) Demographic and Health Surveys (DHS) for Kenya, <http://www.measuredhs.com/countries/country_main.cfm?ctry_id=20&c=Kenya>.

All collected data on children 12-23 months of age by card and history. The DHS estimates in this table are for DTP3 coverage by 12 months of age, as documented by card and applied to coverage by recall. All DHS and standard immunization coverage surveys describe the coverage situation at least one year before they were conducted, thus the positioning of the blue markers (marker placement is either in the middle of the year prior to year of survey, or on the border of the survey year when a gap in years exists in the table). The 2008/2009 Kenya DHS is currently in process.

(5) The Multiple Indicator Cluster Survey data used in the table are estimates for DTP3 coverage by 12 months of age, as documented by card, and applied to coverage by recall; thus, like the DHS, the data describe the coverage situation at least one year before the survey was conducted. [http://www.childinfo.org/](http://www.childinfo.org/%20%20%20%20)

(6) Drop-out rates reflect infants who begin the vaccination schedule but do not complete it (measured by DTP3). Left-outs are infants who were never reached for vaccination (measured by DTP1). <http://www.immunizationbasics.jsi.com/Docs/Imm_Essentials_2009.pdf> (pp.47-50)

(7) Immunization Services Support (ISS) payments are disbursed according to Annual Progress Reports and are contingent on countries increasing the number of children immunized each year. These payments are called reward payments because the country is being paid a reward of $20 for each child immunized. Countries are allowed to apply for ISS for the duration of the comprehensive Multi-Year Plan (cMYP).

(8) Health System Strengthening (HSS) payments are allocated based on the birth cohort and the GDP per capita of the country. Countries are allowed to apply for HSS for the duration of their Health Sector Plan (or equivalent).

(9) New vaccines are delivered to countries based on the target population and the co-financing paid by each country. All countries are being approved until 2015, but the actual number of vaccine doses disbursed is revised each year when the country submits its Annual Progress Report.

(10) Pentavalent vaccine protects against diphtheria, pertussis, tetanus, hepatitis B, and *Haemophilus influenzae* type b (Hib).

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