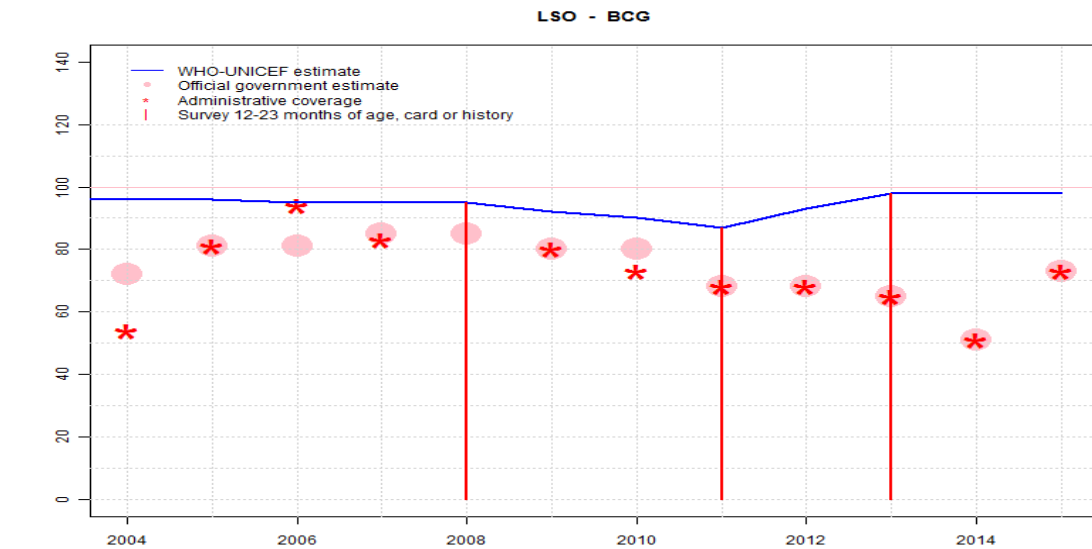


# Lesotho - BCG



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	96	96	95	95	95	92	90	87	93	98	98	98
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	72	81	81	85	85	80	80	68	68	65	51	73
Administrative	54	81	94	83	NA	80	73	68	68	65	51	73
Survey	NA	NA	NA	NA	95	NA	NA	87	NA	98	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

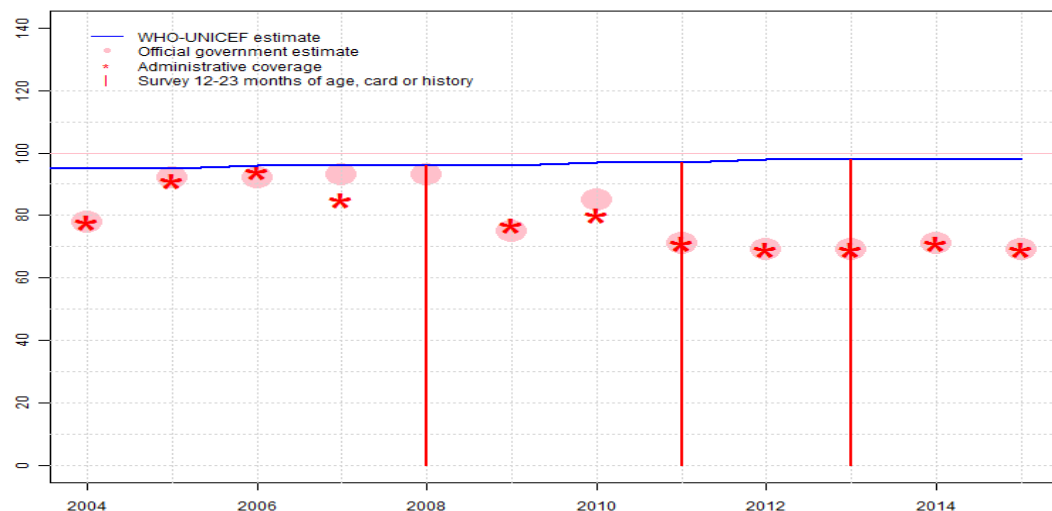
## Description:

- 2004: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2005: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2006: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2007: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2008: Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 87 percent based on 1 survey(s). Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 87 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 98 percent based on 1 survey(s). Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Preliminary results from the 2014 DHS survey (home-based record prevalence, 77 percent among children 12-23 m, suggest coverage of 98 percent. Estimate of 98 percent changed from previous revision value of 87 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Reported data excluded. Decline in reported coverage from 65 percent to 51 percent with increase to 73 percent. Programme reports three month stock-out at national level. Estimate of 98 percent changed from previous revision value of 87 percent. Estimate challenged by: D-
- 2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctu-

ations in reported data suggest poor quality administrative recording and reporting. Reported data excluded. Change in reported coverage from 51 level to 73 percent. Estimate challenged by: D-

# Lesotho - DTP1

LSO - DTP1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	95	95	96	96	96	96	97	97	98	98	98	98
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	78	92	92	93	93	75	85	71	69	69	71	69
Administrative	78	91	94	85	NA	77	80	71	69	69	71	69
Survey	NA	NA	NA	NA	96	NA	NA	97	NA	98	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

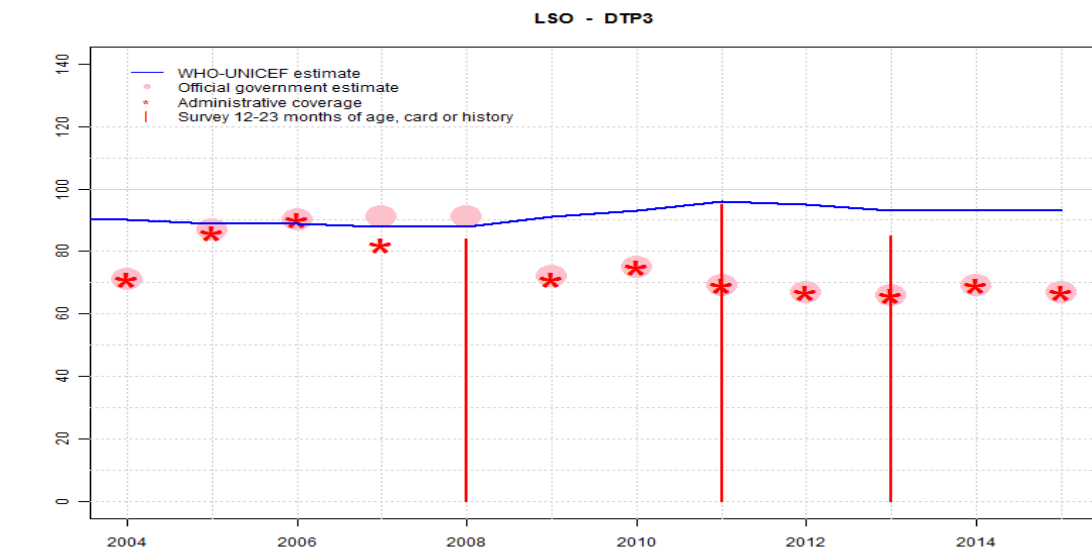
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2005: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2006: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2007: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2008: Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 98 percent changed from previous revision value of 97 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 98 percent based on 1 survey(s). Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Preliminary results from the 2014 DHS survey (home-based record prevalence, 77 percent among children 12-23 m, suggest coverage of 98 percent. Estimate of 98 percent changed from previous revision value of 97 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 98 percent changed from previous revision value of 97 percent. Estimate challenged by: D-
- 2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-

# Lesotho - DTP3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	90	89	89	88	88	91	93	96	95	93	93	93
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	71	87	90	91	91	72	75	69	67	66	69	67
Administrative	71	86	90	82	NA	71	75	69	67	66	69	67
Survey	NA	NA	NA	NA	84	NA	NA	95	NA	85	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

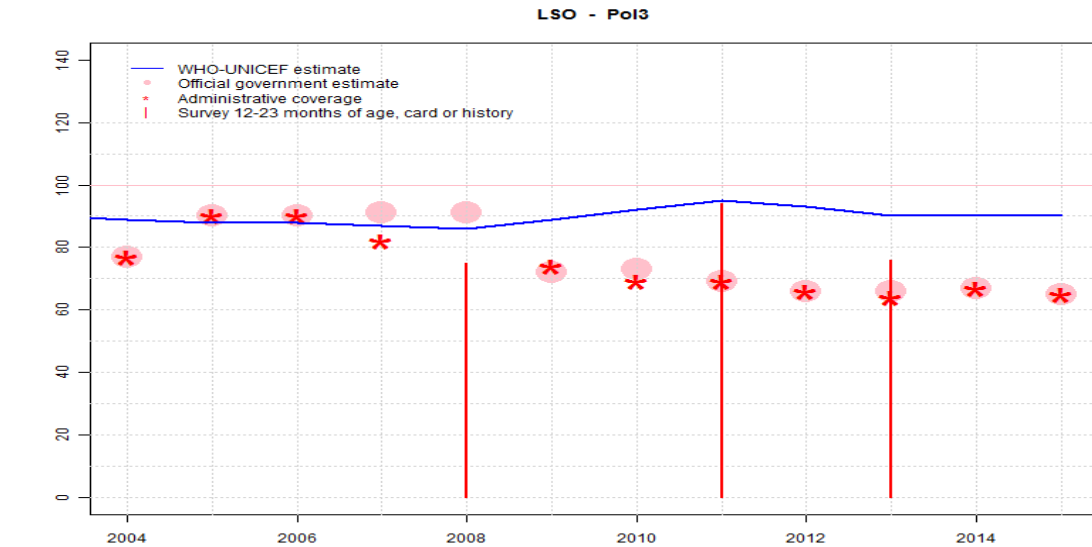
- 2004: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2005: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2006: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2007: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2008: Fluctuations in reported data suggest poor quality administrative recording and reporting. Lesotho Demographic and Health Survey 2009 card or history results of 84 percent modified for recall bias to 88 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 74 percent and 3d dose card only coverage of 68 percent. Estimate challenged by: D-R-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Fluctuations in reported data suggest poor quality administrative recording and reporting. Lesotho Post SIAs and Routine Immunization Coverage Survey 2013 card or history results of 95 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Lesotho Demographic and Health Survey 2014 card or history results of 85 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 77 percent and 3d dose card only coverage of 73 percent. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting.

ing. Preliminary results from the 2014 DHS survey (home-based record prevalence, 77 percent among children 12-23 m, suggests coverage levels higher than the reported administrative coverage. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-

2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-

# Lesotho - Pol3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	89	88	88	87	86	89	92	95	93	90	90	90
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	77	90	90	91	91	72	73	69	66	66	67	65
Administrative	77	90	90	82	NA	74	69	69	66	64	67	65
Survey	NA	NA	NA	NA	75	NA	NA	94	NA	76	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2005: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2006: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2007: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2008: Fluctuations in reported data suggest poor quality administrative recording and reporting. Lesotho Demographic and Health Survey 2009 card or history results of 75 percent modified for recall bias to 86 percent based on 1st dose card or history coverage of 94 percent, 1st dose card only coverage of 73 percent and 3d dose card only coverage of 67 percent. Estimate challenged by: D-R-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Fluctuations in reported data suggest poor quality administrative recording and reporting. Lesotho Post SIAs and Routine Immunization Coverage Survey 2013 card or history results of 94 percent modified for recall bias to 95 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 82 percent and 3d dose card only coverage of 80 percent. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 95 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 90 percent based on 1 survey(s). Lesotho Demographic and Health Survey 2014 card or history results of 76 percent modified for recall bias to 90 percent based on 1st dose card or history coverage of 96 percent, 1st dose card only coverage of 76 percent and 3d dose card only coverage of 71 percent. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting.

Estimate of 90 percent changed from previous revision value of 95 percent.

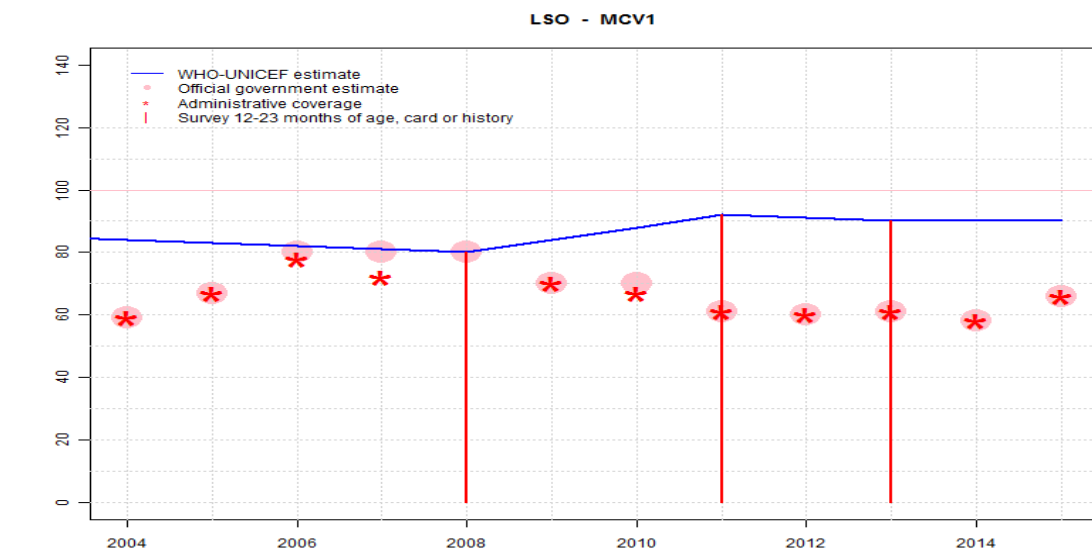
Estimate challenged by: D-R-

2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 90 percent changed from previous revision value of 95 percent. Estimate challenged by: D-

2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-



# Lesotho - MCV1



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	84	83	82	81	80	84	88	92	91	90	90	90
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	59	67	80	80	80	70	70	61	60	61	58	66
Administrative	59	67	78	72	NA	70	67	61	60	61	58	66
Survey	NA	NA	NA	NA	80	NA	NA	92	NA	90	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2005: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2006: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2007: Estimate based on interpolation between 2003 and 2008 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2008: Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 91 percent changed from previous revision value of 92 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 90 percent based on 1 survey(s). Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Preliminary results from the 2014 DHS survey (home-based record prevalence, 77 percent among children 12-23 m, suggest coverage of 90 percent. Estimate of 90 percent changed from previous revision value of 92 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Programme reports two month stock-out at national level. Estimate of 90 percent changed from previous revision value of 92 percent. Estimate challenged by: D-
- 2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-

# Lesotho - MCV2



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	56	68	80	80	80	81	81	82	82	82	82	82
Estimate GoC	•	•	•	•	•	•	•	•	•	•	•	•
Official	56	NA	80	80	80	70	NA	NA	NA	NA	54	66
Administrative	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	54	56
Survey	NA	NA	NA	NA	NA	NA	NA	82	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

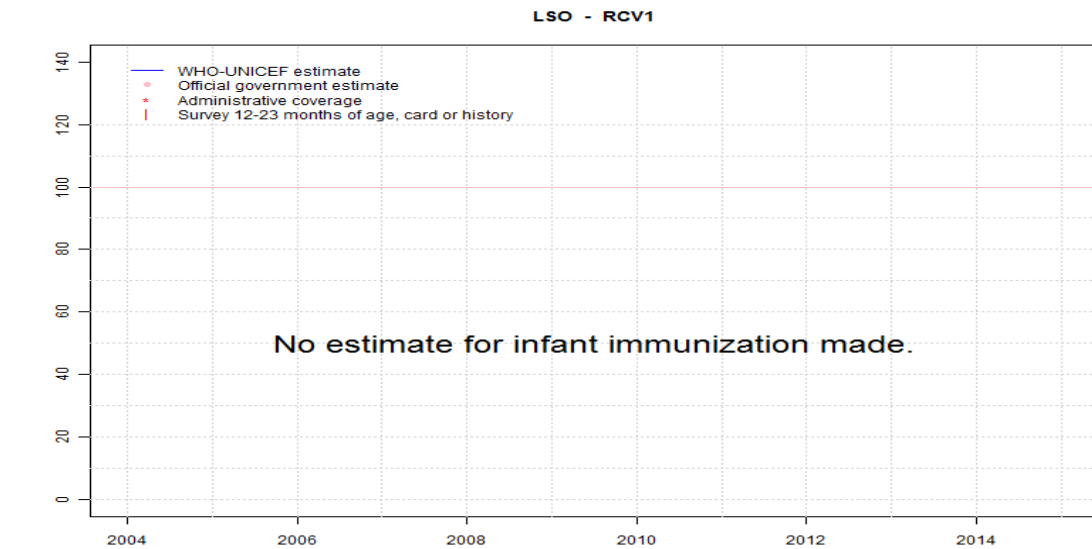
In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

Coverage estimates for the second dose of measles containing vaccine are for children by the nationally recommended age.

- 2004: Estimate based on reported data. Estimate challenged by: D-
- 2005: Estimate based on interpolation between data reported by national government. GoC=No accepted empirical data
- 2006: Estimate based on reported data. GoC=Assigned by working group. .
- 2007: Estimate based on reported data. GoC=Assigned by working group. .
- 2008: Estimate based on government official estimate GoC=Assigned by working group. .
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. GoC=Assigned by working group. .
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. GoC=Assigned by working group. .
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 82 percent based on 1 survey(s). GoC=Assigned by working group. .
- 2012: Fluctuations in reported data suggest poor quality administrative recording and reporting. GoC=Assigned by working group. .
- 2013: Reported data calibrated to 2012 levels. GoC=Assigned by working group. .
- 2014: Reported data calibrated to 2012 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. GoC=Assigned by working group. .
- 2015: Reported data calibrated to 2012 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Reported data excluded. Change in reported coverage from 54 level to 66 percent. Estimate challenged by: D-

# Lesotho - RCV1

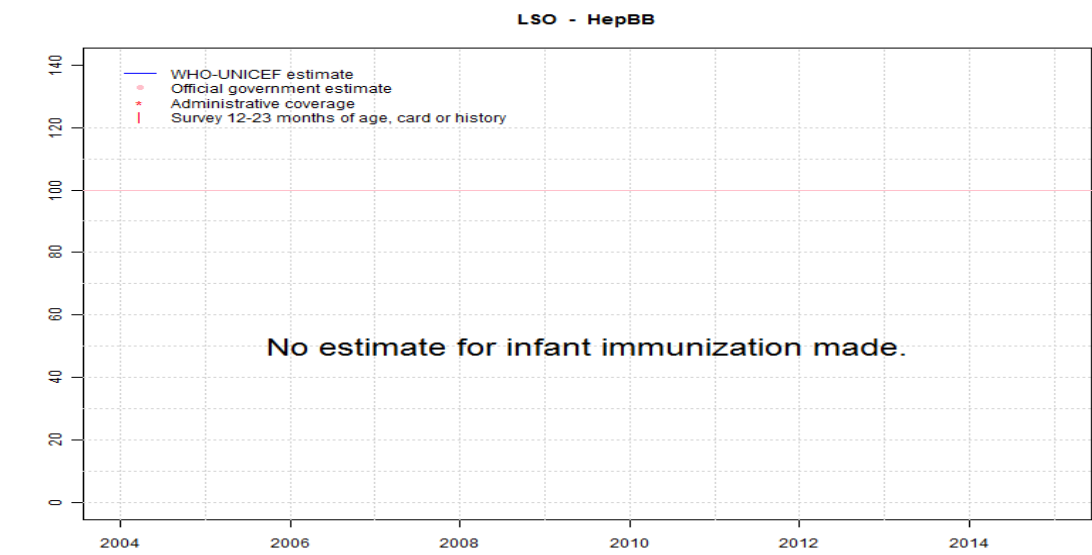


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.



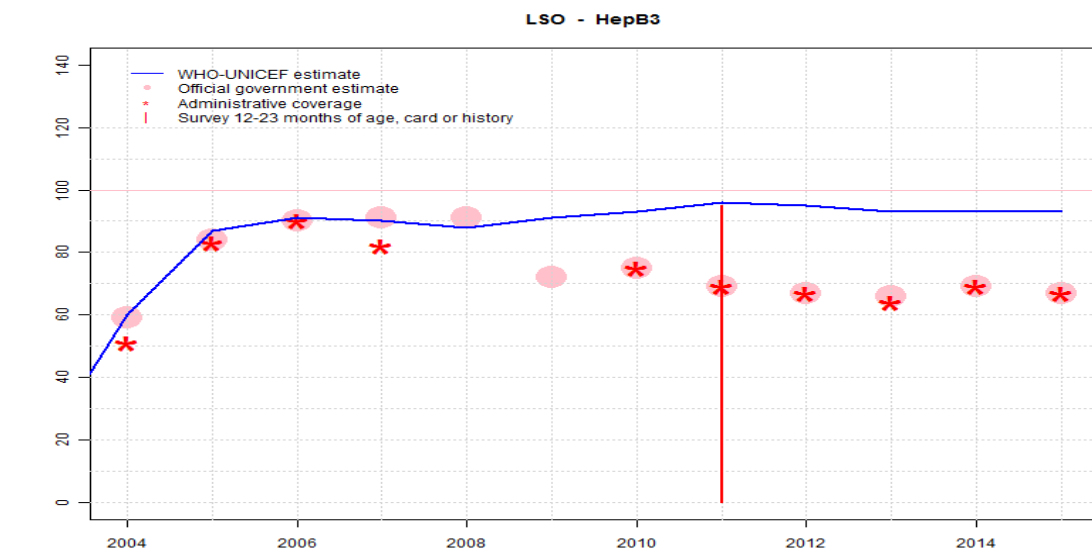
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

# Lesotho - HepB3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	60	87	91	90	88	91	93	96	95	93	93	93
Estimate GoC	••	•	••	••	•	•	•	•	•	•	•	•
Official	59	84	90	91	91	72	75	69	67	66	69	67
Administrative	51	83	90	82	NA	NA	75	69	67	64	69	67
Survey	NA	NA	NA	NA	NA	NA	NA	95	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

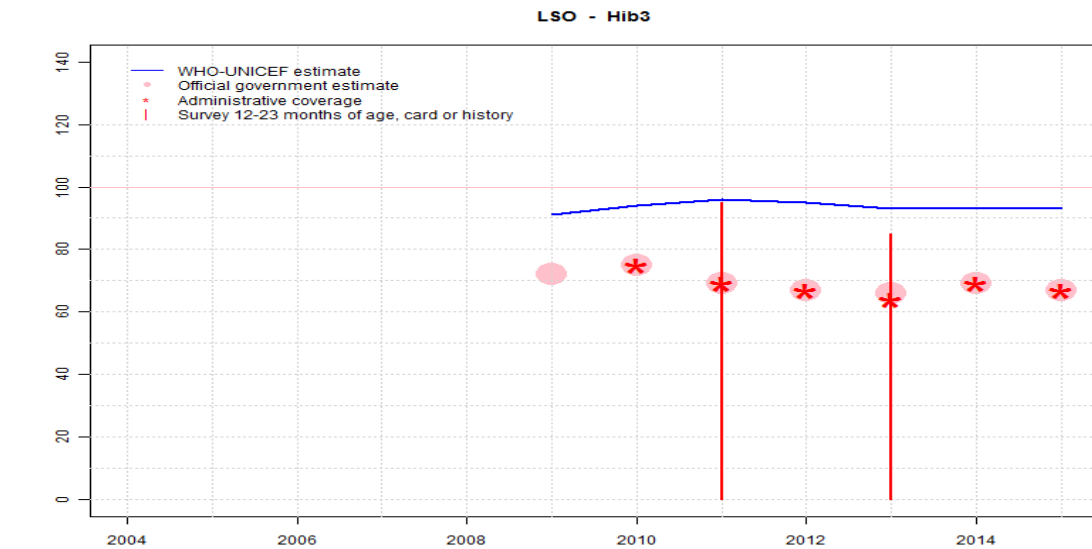
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source; [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2004: Reported data calibrated to 2003 and 2005 levels. GoC=D+
- 2005: Estimate based on DTP3 coverage estimates. Estimate challenged by: R-
- 2006: Reported data calibrated to 2005 and 2008 levels. GoC=D+
- 2007: Reported data calibrated to 2005 and 2008 levels. GoC=D+
- 2008: Estimate based on DTP3 coverage estimates. Estimate challenged by: D-R-
- 2009: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-
- 2010: Estimate based on interpolation between 2008 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Estimate based on DTP3 coverage estimates. Lesotho Post SIAs and Routine Immunization Coverage Survey 2013 card or history results of 95 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2013: Estimate based on survey result for DTP3 and HiB3. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-

# Lesotho - Hib3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	91	94	96	95	93	93	93
Estimate GoC	NA	NA	NA	NA	NA	•	•	•	•	•	•	•
Official	NA	NA	NA	NA	NA	72	75	69	67	66	69	67
Administrative	NA	NA	NA	NA	NA	NA	75	69	67	64	69	67
Survey	NA	NA	NA	NA	NA	NA	NA	95	NA	85	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

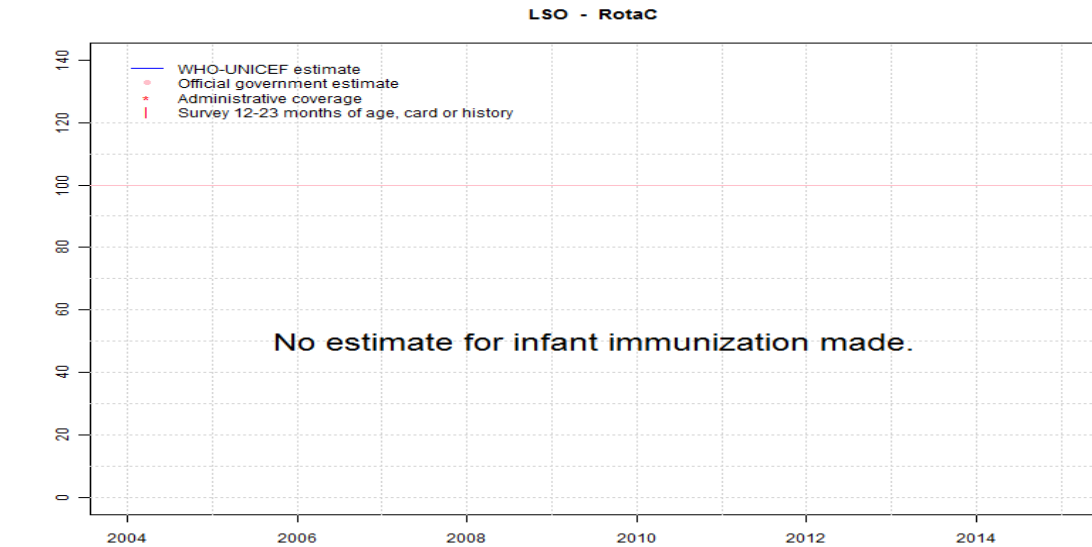
- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

- 2009: Hib vaccine introduced in 2008. Reporting began in 2009. Vaccine presentation is DTP-HepB-Hib. Estimate set to 2008 DTP3 level. Estimate challenged by: R-
- 2010: Estimate based on interpolation between 2009 and 2011 levels. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-R-
- 2011: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 96 percent based on 1 survey(s). Lesotho Post SIAs and Routine Immunization Coverage Survey 2013 card or history results of 95 percent modified for recall bias to 96 percent based on 1st dose card or history coverage of 97 percent, 1st dose card only coverage of 83 percent and 3d dose card only coverage of 82 percent. Estimate challenged by: D-R-
- 2012: Reported data calibrated to 2011 and 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 95 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2013: Survey evidence does not support reported data. Estimate based on survey results. Survey evidence of 93 percent based on 1 survey(s). Lesotho Demographic and Health Survey 2014 card or history results of 85 percent modified for recall bias to 93 percent based on 1st dose card or history coverage of 98 percent, 1st dose card only coverage of 77 percent and 3d dose card only coverage of 73 percent. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-R-
- 2014: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate of 93 percent changed from previous revision value of 96 percent. Estimate challenged by: D-
- 2015: Reported data calibrated to 2013 levels. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: D-

# Lesotho - RotaC



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

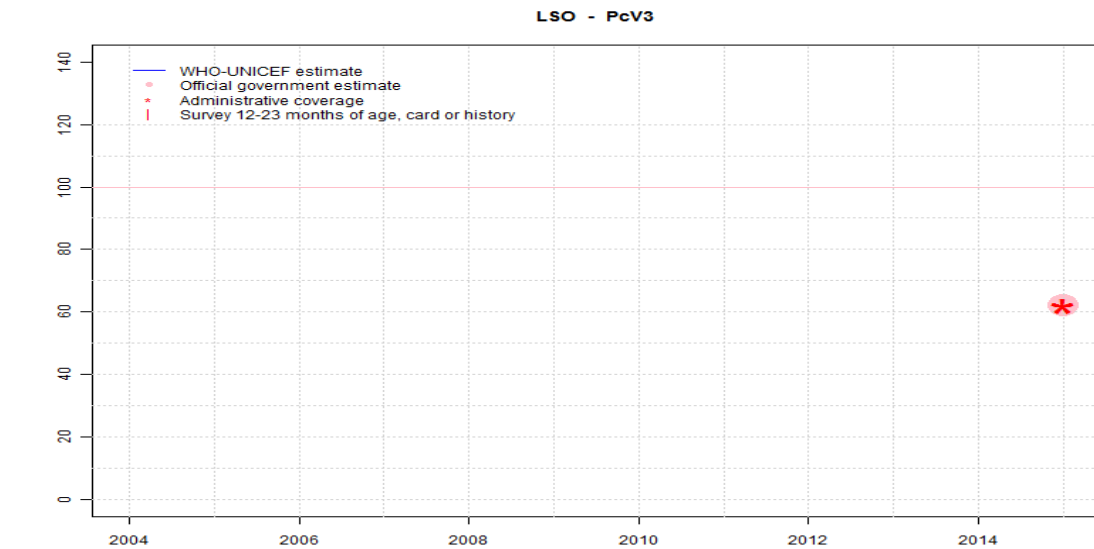
The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.



# Lesotho - PcV3



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29
Estimate GoC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	●
Official	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
Administrative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
Survey	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The WHO and UNICEF estimates of national immunization coverage (wuenic) are based on data and information that are of varying, and, in some instances, unknown quality. Beginning with the 2011 revision we describe the grade of confidence (GoC) we have in these estimates. As there is no underlying probability model upon which the estimates are based, we are unable to present classical measures of uncertainty, e.g., confidence intervals. Moreover, we have chosen not to make subjective estimates of plausibility/certainty ranges around the coverage. The GoC reflects the degree of empirical support upon which the estimates are based. It is not a judgment of the quality of data reported by national authorities.

- Estimate is supported by reported data [R+], coverage recalculated with an independent denominator from the World Population Prospects: 2015 revision from the UN Population Division (D+), and at least one supporting survey within 2 years [S+]. While well supported, the estimate still carries a risk of being wrong.
- Estimate is supported by at least one data source; [R+], [S+], or [D+]; and no data source, [R-], [D-], or [S-], challenges the estimate.
- There are no directly supporting data; or data from at least one source; [R-], [D-], [S-]; challenge the estimate.

In all cases these estimates should be used with caution and should be assessed in light of the objective for which they are being used.

## Description:

2015: Pneumococcal conjugate vaccine introduced during July 2015. Programme reports 62 percent coverage in 46 percent of the national target population. Estimate is based on coverage achieved in total annual national target population. Reported data excluded. Fluctuations in reported data suggest poor quality administrative recording and reporting. Estimate challenged by: R-



# Lesotho - survey details

## 2013 Lesotho Demographic and Health Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H < 12 months	98	12-23 m	655	77
BCG	Card	76	12-23 m	655	77
BCG	Card or History	98	12-23 m	655	77
BCG	History	22	12-23 m	655	77
DTP1	C or H < 12 months	98	12-23 m	655	77
DTP1	Card	77	12-23 m	655	77
DTP1	Card or History	98	12-23 m	655	77
DTP1	History	21	12-23 m	655	77
DTP3	C or H < 12 months	84	12-23 m	655	77
DTP3	Card	73	12-23 m	655	77
DTP3	Card or History	85	12-23 m	655	77
DTP3	History	12	12-23 m	655	77
Hib1	C or H < 12 months	98	12-23 m	655	77
Hib1	Card	77	12-23 m	655	77
Hib1	Card or History	98	12-23 m	655	77
Hib1	History	21	12-23 m	655	77
Hib3	C or H < 12 months	84	12-23 m	655	77
Hib3	Card	73	12-23 m	655	77
Hib3	Card or History	85	12-23 m	655	77
Hib3	History	12	12-23 m	655	77
MCV1	C or H < 12 months	80	12-23 m	655	77
MCV1	Card	71	12-23 m	655	77
MCV1	Card or History	90	12-23 m	655	77
MCV1	History	19	12-23 m	655	77
Pol1	C or H < 12 months	96	12-23 m	655	77
Pol1	Card	76	12-23 m	655	77
Pol1	Card or History	96	12-23 m	655	77
Pol1	History	20	12-23 m	655	77
Pol3	C or H < 12 months	75	12-23 m	655	77
Pol3	Card	71	12-23 m	655	77
Pol3	Card or History	76	12-23 m	655	77
Pol3	History	4	12-23 m	655	77

## 2012 Lesotho Demographic and Health Survey 2014

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H < 12 months	96	24-35 m	572	77
DTP1	C or H < 12 months	97	24-35 m	572	77
DTP3	C or H < 12 months	86	24-35 m	572	77
Hib1	C or H < 12 months	97	24-35 m	572	77
Hib3	C or H < 12 months	86	24-35 m	572	77
MCV1	C or H < 12 months	75	24-35 m	572	77
Pol1	C or H < 12 months	95	24-35 m	572	77
Pol3	C or H < 12 months	72	24-35 m	572	77

## 2011 Lesotho Post SIAs and Routine Immunization Coverage Survey 2013

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card	85	24-35 m	-	92
BCG	Card or History	87	24-35 m	3614	92
DTP1	Card	83	24-35 m	-	92
DTP1	Card or History	97	24-35 m	3614	92
DTP3	Card	82	24-35 m	-	92
DTP3	Card or History	95	24-35 m	3614	92
HepB1	Card	83	24-35 m	-	92
HepB1	Card or History	97	24-35 m	3614	92
HepB3	Card	82	24-35 m	-	92
HepB3	Card or History	95	24-35 m	3614	92
Hib1	Card	83	24-35 m	-	92
Hib1	Card or History	97	24-35 m	3614	92
Hib3	Card	82	24-35 m	-	92
Hib3	Card or History	95	24-35 m	3614	92
MCV1	Card	79	24-35 m	-	92
MCV1	Card or History	92	24-35 m	3614	92
MCV2	Card	69	24-35 m	-	92
MCV2	Card or History	82	24-35 m	3614	92
Pol1	Card	82	24-35 m	-	92
Pol1	Card or History	97	24-35 m	3614	92
Pol3	Card	80	24-35 m	-	92
Pol3	Card or History	94	24-35 m	3614	92

## 2008 Lesotho Demographic and Health Survey 2009

# Lesotho - survey details

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	94	12-23 m	744	74
BCG	Card	73	12-23 m	744	74
BCG	Card or History	95	12-23 m	744	74
BCG	History	22	12-23 m	744	74
DTP1	C or H <12 months	95	12-23 m	744	74
DTP1	Card	74	12-23 m	744	74
DTP1	Card or History	96	12-23 m	744	74
DTP1	History	22	12-23 m	744	74
DTP3	C or H <12 months	82	12-23 m	744	74
DTP3	Card	68	12-23 m	744	74
DTP3	Card or History	84	12-23 m	744	74
DTP3	History	15	12-23 m	744	74
MCV1	C or H <12 months	70	12-23 m	744	74
MCV1	Card	62	12-23 m	744	74
MCV1	Card or History	80	12-23 m	744	74
MCV1	History	18	12-23 m	744	74
Pol1	C or H <12 months	94	12-23 m	744	74
Pol1	Card	73	12-23 m	744	74
Pol1	Card or History	94	12-23 m	744	74
Pol1	History	22	12-23 m	744	74
Pol3	C or H <12 months	73	12-23 m	744	74
Pol3	Card	67	12-23 m	744	74
Pol3	Card or History	75	12-23 m	744	74
Pol3	History	8	12-23 m	744	74

## 2003 Lesotho Demographic and Health Survey 2004

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	C or H <12 months	95	12-23 m	660	78
BCG	Card	76	12-23 m	660	78
BCG	Card or History	96	12-23 m	660	78
BCG	History	20	12-23 m	660	78
DTP1	C or H <12 months	94	12-23 m	660	78
DTP1	Card	76	12-23 m	660	78
DTP1	Card or History	95	12-23 m	660	78
DTP1	History	18	12-23 m	660	78
DTP3	C or H <12 months	80	12-23 m	660	78

DTP3	Card	72	12-23 m	660	78
DTP3	Card or History	83	12-23 m	660	78
DTP3	History	11	12-23 m	660	78
HepB1	C or H <12 months	29	12-23 m	660	78
HepB1	Card	23	12-23 m	660	78
HepB1	Card or History	31	12-23 m	660	78
HepB1	History	8	12-23 m	660	78
HepB3	C or H <12 months	12	12-23 m	660	78
HepB3	Card	10	12-23 m	660	78
HepB3	Card or History	14	12-23 m	660	78
HepB3	History	4	12-23 m	660	78
MCV1	C or H <12 months	75	12-23 m	660	78
MCV1	Card	69	12-23 m	660	78
MCV1	Card or History	85	12-23 m	660	78
MCV1	History	16	12-23 m	660	78
Pol1	C or H <12 months	94	12-23 m	660	78
Pol1	Card	76	12-23 m	660	78
Pol1	Card or History	95	12-23 m	660	78
Pol1	History	19	12-23 m	660	78
Pol3	C or H <12 months	77	12-23 m	660	78
Pol3	Card	72	12-23 m	660	78
Pol3	Card or History	80	12-23 m	660	78
Pol3	History	7	12-23 m	660	78

## 2001 Lesotho, National Nutrition and EPI Cluster Survey 2002

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
BCG	Card or History	83	12-23 m	2289	91
DTP1	Card or History	83	12-23 m	2289	91
DTP3	Card or History	78	12-23 m	2289	91
MCV1	Card or History	70	12-23 m	2289	91
Pol1	Card or History	83	12-23 m	2289	91
Pol3	Card or History	78	12-23 m	2289	91

## 1999 Lesotho 2000 End Decade Multiple Indicator Cluster Survey (EMICS), Draft Preliminary Report, 2001

Vaccine	Confirmation method	Coverage	Age cohort	Sample	Cards seen
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## Lesotho - survey details

BCG	C or H <12 months	90	12-23 m	762	85	MCV1	Card	70	12-23 m	762	85
BCG	Card	83	12-23 m	762	85	MCV1	Card or History	77	12-23 m	762	85
BCG	Card or History	92	12-23 m	762	85	MCV1	History	8	12-23 m	762	85
BCG	History	8	12-23 m	762	85	Pol1	C or H <12 months	88	12-23 m	762	85
DTP1	C or H <12 months	88	12-23 m	762	85	Pol1	Card	82	12-23 m	762	85
DTP1	Card	82	12-23 m	762	85	Pol1	Card or History	89	12-23 m	762	85
DTP1	Card or History	90	12-23 m	762	85	Pol1	History	7	12-23 m	762	85
DTP1	History	8	12-23 m	762	85	Pol3	C or H <12 months	82	12-23 m	762	85
DTP3	C or H <12 months	84	12-23 m	762	85	Pol3	Card	79	12-23 m	762	85
DTP3	Card	80	12-23 m	762	85	Pol3	Card or History	84	12-23 m	762	85
DTP3	Card or History	85	12-23 m	762	85	Pol3	History	4	12-23 m	762	85
DTP3	History	6	12-23 m	762	85						
MCV1	C or H <12 months	71	12-23 m	762	85						

Further information and estimates for previous years are available at:

<http://www.data.unicef.org/child-health/immunization>

[http://www.who.int/immunization/monitoring\\_surveillance/routine/coverage/en/index4.html](http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html)

## Lesotho

### WHO/UNICEF Estimates of Protection at Birth (PAB) against tetanus

In countries where tetanus is recommended for girls and women coverage is usually reported as "TT2+", i.e. the proportion of (pregnant) women who have received their second or superior TT dose in a given year. TT2 + coverage, however, can under-represent the actual proportion of births that are protected against tetanus as it does not include women who have previously received protective doses, women who received one dose without documentation of previous doses, and women who received doses in TT (or Td) supplemental immunization activities (SIA). In addition, girls who have received DTP in their childhood and are entering childbearing age, may be protected with TT booster doses.

WHO and UNICEF have developed a model that takes into account the above scenarios, and calculates the proportion of births in a given year that can be considered as having been protected against tetanus - "Protection at Birth".

In this model, annual cohorts of women are followed from infancy through their life. A proportion receives DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during SIAs. The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. The proportion of births that are protected against tetanus as a result of maternal immunization reflects the tetanus immunization received by the mother throughout her life rather than simply the TT immunizations received during the current pregnancy.

The model was used in the mid to late 2000. Currently, the coverage series developed by the model is used as the baseline, and efforts are made to obtain data from all sources that include the JRF and reported trend over the years, routine PAB reporting and its trend over the years, data from surveys (DHS, MICS, EPI), whether countries have been validated for the attainment of maternal and neonatal tetanus elimination and what the TT coverage figures are from the survey etc and all the information is used to arrive at an estimate of the protection-at-birth from TT vaccination.

Year	PAB coverage estimate (%)
2004	78
2005	79
2006	80
2007	82
2008	83
2009	83
2010	83
2011	83
2012	83
2013	83
2014	83
2015	83

<sup>1</sup> This model is described in: Griffiths U., Wolfson L., Quddus A., Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651.