

# Surveys of tuberculosis infection and disease, and death registrations, by country and year

Table A4.1 National and subnational surveys of prevalence of tuberculosis disease

**Table A4.1.1 National surveys<sup>1</sup>**

Bangladesh	1964, 1987
Cambodia	2002
China	1979, 1984, 1990, 2000
Eritrea	2005
Gambia	1960
Ghana	1957
Indonesia	2004
Iraq	1970
Japan	1953, 1958, 1963, 1968
Kenya	1948, 1958
Liberia	1959
Libyan Arab Jamahiriya	1976
Malaysia	2003
Mauritius	1958
Myanmar	2006
Netherlands	1970
Nigeria	1957
Pakistan	1959, 1987
Philippines	1981, 1997, 2007
Rep. of Korea	1965, 1970, 1975, 1980, 1985, 1990, 1995
Samoa	1975
Sierra Leone	1958
Somalia	1956
Sri Lanka	1970
Thailand	2007
Uganda	1958
Viet Nam	2007

**Table A4.1.2 Subnational surveys<sup>1</sup>**

Afghanistan	1982
Bangladesh	1995, 2001, 2002, 2006
Botswana	1981, 1995
Brunei Darussalam	1985
China	1957, 1959
Cambodia	1981, 1982, 1983, 1984, 1985, 1989, 1995, 1998
Colombia	1988
Cyprus	1963
Ethiopia	2001
Egypt	2007
India	1948–1993 (numerous surveys), 2007
Indonesia	1979, 1983–1993, 1994
Iraq	1961
Japan	1954, 1964
Kenya	1958, 2006
Liberia	1959
Malawi	1960
Malaysia	1970
Mozambique	1961
Myanmar	1972, 1989, 1990, 1991, 1994
Nepal	1965, 1976, 1994
Nigeria	1958, 1973
Pakistan	1962
South Africa	1972–1985
Spain	1991
Syrian Arab Republic	1960
Thailand	1962, 1970, 1977, 1983, 1987, 1991
Tunisia	1957, 1961
Turkey	1971
Uganda	2000
UR Tanzania	1958
Viet Nam	1961
Zambia	1980, 2006

**Table A4.1.3 Planned or recommended surveys (national or subnational)<sup>2</sup>**

Afghanistan	2010
Bangladesh <sup>3</sup>	2008
Cambodia <sup>3</sup>	2010
China <sup>3</sup>	2010
Djibouti <sup>4</sup>	2010
Gambia	
Ghana <sup>3</sup>	2009
Indonesia <sup>3</sup>	2011
Kenya <sup>3</sup>	2009
Laos	2009
Malawi <sup>3</sup>	2009
Mali <sup>3</sup>	2008
Myanmar <sup>3</sup>	2010
Mozambique <sup>3</sup>	
Nigeria <sup>3</sup>	2007
Pakistan <sup>3</sup>	2009
Philippines <sup>3</sup>	
Rwanda <sup>3,4</sup>	2009
Sierra Leone <sup>3</sup>	
South Africa <sup>3</sup>	2009
Syrian Arab Republic <sup>4</sup>	2012
Thailand <sup>3</sup>	
UR Tanzania <sup>3</sup>	2008
Uganda <sup>3,4</sup>	2009
Viet Nam <sup>3</sup>	
Zambia <sup>3</sup>	2009

<sup>1</sup> Exact timing of surveys not always clear from reports; year given here is year in which survey apparently started. In some cases more than one subnational survey was completed in a country in a given year. Detailed reference list available at [www.who.int/tb/publications/global\\_report](http://www.who.int/tb/publications/global_report). References to surveys done in 2006 and 2007 have generally not yet been published in peer reviewed journals, but will be added to the website when they are published.

<sup>2</sup> Not included here are countries which indicated on the data collection form that they are planning to undertake a prevalence of disease survey in the near future but for which this information has not been confirmed. These tables will be updated as the information is confirmed. See [www.who.int/tb/global\\_report](http://www.who.int/tb/global_report)

<sup>3</sup> The WHO Task Force on TB Impact Measurement has recommended that these 21 countries should carry out two prevalence of TB disease surveys between now and 2015 (or one more survey if at least one survey was done between 1990 and 2007). These surveys are needed as part of an effort to produce credible regional and global assessments of progress towards the 2015 impact targets, as well as for demonstrating the impact of control programmes on the burden of TB (see Chapter 1 for definition of the impact targets and Chapter 2 for a fuller explanation of how the 21 countries were selected). For those countries which already have concrete plans (protocols and funding) to carry out at least one survey in the near future the expected year when the survey will start is provided.

<sup>4</sup> Funding for surveys in these countries has been approved by the Global Fund.

**Table A4.2 National and subnational surveys of prevalence of tuberculosis infection**

**Table A4.2.1 National surveys<sup>1</sup>**

Afghanistan	1978, 1982
Algeria	1949, 1966, 1980, 1985
Argentina	1979
Bahrain	1969, 1981, 1985, yearly 1988–1994
Bangladesh	1964
Benin	1987, 1994
Botswana	1956, 1981
Cambodia	2002
China, Hong Kong SAR	1999
China	1970, 1979, 1984, 1990, 2000
Cyprus	1955
Djibouti	1994, 2001
Egypt	1951, 1996
Ethiopia	1954, 1989
Gambia	1960
Ghana	1957
Greece	yearly 1981–1991
India	2000, 2007
Indonesia	2004
Iraq	1995
Japan	1953, 1958, 1963, 1968
Jordan	1986, 1990
Kenya	1958, 1986, 1995
Lao PDR	1995
Lesotho	1956, 1981
Libyan Arab Jamahiriya	1976
Madagascar	1991
Malawi	1994
Mauritius	1956, 1958
Mexico	1961
Myanmar	1972
Nepal	2006
Netherlands	yearly 1956–1979, 1989
Pakistan	1987
Philippines	1981, 1997
Rep. of Korea	every 5 years 1965–1995, 2007
Samoa	1975
Somalia	1956, 2006
Sudan	1976, 1986
Thailand	1980
Tunisia	1959, 1986
Uganda	1958, 1970, 1989
UR Tanzania	1985, 1990, 1995, 2002
Yemen	1991, 2007

**Table A4.2.2 Subnational surveys<sup>1</sup>**

Afghanistan	1985, 1989, 2005
Algeria	1938, 1948, 1958, 1968, 1976, 1981
Angola	1991
Bhutan	1991
Botswana	1989
Brazil	1970, 1973, 1979, 1983, 1986, 1988, 1990
Burundi	1982
Cambodia	1955, 1968, 1981, 1995
Cameroon	1984
Central African Republic	1988
Colombia	1970–1998
Cyprus	1963, 1995
Czech Republic	1961, 2001
France	1990
Gabon	1987
Gambia	1958, 1976
Guinea	1989
India, Bangalore	1962, 1963, 1965, 1967, 1977
India, Chingleput	1969, 1979, 1984
India, other	1948–1993
Indonesia	1952–1965, 2005, 2006
Iran (Islamic Republic of)	1946, 1952, 1963, 1972, 1983, 1990
Iraq	1989
Italy	1997
Japan	1954, 1964, 1992
Jordan	1949, 1970, 1976, 1982
Kenya	1974, 2006
Kuwait	1962, 1972–1981, 1991, 1993–1997
Lebanon	1994
Lesotho	1962, 1992
Libyan Arab Jamahiriya	1954, 1959, 1971
Morocco	1994
Mozambique	1961, 1987, 1988
Myanmar	1991
Nepal	1947, 1962, 1963, 1965, 1966, 1973, 1974 1976, 1979, 1980, 1988, 1989, 1990, 1991, 1992, 1993, 1994
Oman	1995
Pakistan	1992, 1994
Peru	1981, 1982, 1987, 1993
Philippines	1992
Saudi Arabia	1988
Sierra Leone	1958
Somalia	1986
South Africa	1972–1985, 1988
Sudan	2006
Syrian Arab Republic	1960, 1978, 1983, 1992
Togo	1978, 1986, 1988
Tunisia	1980
Turkey	1994
Uganda	1971, 1987
UR Tanzania	1958, 1988–1992, 1993–1998, 2000
USA	1997
Viet Nam	1955, 1961, 1986, 1990, 1991, 1996
Zambia	1980

**Table A3.2.3 Planned surveys (national or subnational)<sup>2</sup>**

Afghanistan	2010
Armenia	
Cambodia	2010
China	2010
Ghana	
India	2007
Nigeria	2007
Philippines	2007
South Africa	
UR Tanzania	2007
Viet Nam	

<sup>1</sup>Exact timing of surveys not always clear from reports; year given here is year in which survey apparently started. In some cases more than one subnational survey was completed in a country in a given year. Detailed reference list available at [www.who.int/tb/publications/global\\_report](http://www.who.int/tb/publications/global_report). References to surveys done in 2006 and 2007 have generally not yet been published in peer reviewed journals, but will be added to the website when they are published.

<sup>2</sup>Not included here are countries which indicated on the data collection form that they are planning to undertake a prevalence of disease survey in the near future but for which this information has not been confirmed. These tables will be updated as the information is confirmed. See [www.who.int/tb/global\\_report](http://www.who.int/tb/global_report)

**Table A3.3 Availability of death registrations by cause-of-death, WHO Mortality Database, 2006**

	Cov/qual <sup>1</sup>			Cov/qual <sup>1</sup>	
Albania	73 L	1987–1989, 1992–2003		China, Macao SAR	1994
Anguilla		1985–1995, 2000–2001, 2004		Malaysia	M 1997
Antigua & Barbuda	74	1985–1995, 2000–2002		Malta	94 H 1985–2004
Argentina	100 L	1985–2003		Mauritius	93 M 1985–2004
Armenia	63 L	1985–2003		Mexico	96 H 1985–2003
Australia	100 H	1985–2003		Monaco	1986, 1987
Austria	99 M	1985–2005		Mongolia	1994
Azerbaijan	68 M	1985–2002		Montserrat	1990–1994
Bahamas	83 H	1985, 1987, 1993–2000		Myanmar	1998–2000
Bahrain	87 L	1985, 1987–1988, 1993–2000		Netherlands	100 M 1985–2004
Barbados	76 M	1985–1995, 2000–2001		New Zealand	100 H 1985–2003
Belarus	98 M	1985–2003		Nicaragua	58 L 1988–1994, 1996–2003
Belgium	M	1985–1997		Norway	98 M 1985–2004
Belize	81 M	1986–1987, 1989–1991, 1993–2001		Pakistan	1993, 1994
Bermuda		1985–1994, 1996–2000, 2002		Panama	91 M 1985–2003
Bosnia & Herzegovina		1985–1991		Paraguay	74 L 1985–2001, 2003
Brazil	79 L	1985–2000, 2002		Peru	54 L 1986–2000
British Virgin Islands		1985–1998		Philippines	M 1992–1998
Brunei Darussalam	100 M	1996–2000		Poland	100 L 1985–1996, 1999–2004
Bulgaria	100 M	1985–2004		Portugal	100 L 1985–2003
Canada	100 H	1985–2003		Puerto Rico	1985–2002
Cayman Islands		1985–2000		Qatar	L 1995
Chile	94 M	1985–2003		Rep. of Korea	87 1985–2004
Colombia	M	1985–1999		Republic of Moldova	80 H 1985–2004
Costa Rica	88 M	1985–2004		Romania	100 H 1985–2004
Croatia	95 M	1985–2004		Russian Federation	100 M 1985–2004
Cuba	100 H	1985–2004		Saint Kitts & Nevis	1985–1997
Czech Republic	100 M	1986–2004		Saint Lucia	99 M 1986–2002
Denmark	100 M	1985–2001		St Vincent & Grenadines	93 1985–1987, 1995–2003
Dominica	100 M	1985–2003		San Marino	73 L 1995–2000
Dominican Republic	45	1985–1992, 1994–2001		Sao Tome & Principe	1985, 1987
Ecuador	74 L	1985–2004		Serbia & Montenegro	89 M 1997–2002
Egypt	81 L	1987, 1991, 1992, 2000		Seychelles	1985–1987
El Salvador	76 M	1990–1993, 1995–2003		Singapore	82 H 1985–2003
Estonia	100 H	1985–2005		Slovakia	98 H 1992–2002
Fiji	L	1999		Slovenia	99 H 1985–2004
Finland	100 H	1985–2004		South Africa	78 L 1993–1996, 2004
France	100 M	1985–2003		Spain	100 M 1985–2004
Georgia	97 M	1985–2001		Sri Lanka	1985–1989, 1991, 1992, 1995
Germany	99 M	1990–2004		Suriname	73 1985–2000
Greece	99 L	1985–2004		Sweden	100 M 1985–2002
Grenada	M	1985, 1988–1996		Switzerland	99 M 1985–2004
Guatemala	89 M	1986–2003		Syrian Arab Republic	1985
Guyana	72 M	1988–1990, 1993–1996, 2001–2003		Tajikistan	54 L 1985–2001
Haiti	8	2001–2003		TFYR Macedonia	93 M 1991–2003
China, Hong Kong SAR		1985–2004		Thailand	87 L 1985–1987, 1994–2000, 2002
Hungary	100 H	1985–2003		Trinidad & Tobago	83 1985–2000
Iceland	95 H	1985–2004		Turkey	1987
Iran (Islamic Republic of)		1985, 1987		Turkmenistan	M 1985–1998
Ireland	95 H	1985–2005		Turks & Caicos Islands	1985–2001
Israel	100 M	1985–2001, 2003		Ukraine	100 M 1985–2004
Italy	100 M	1985–2002		United Kingdom	99 H 1985–1999, 2001–2004
Jamaica		1985–1991		USA	100 1985–2002
Japan	100 H	1985–2004		Uruguay	100 M 1985–1990, 1993–2001
Kazakhstan	77 M	1985–2004		Uzbekistan	73 M 1985–2000, 2002, 2003
Kuwait	100 M	1985–1987, 1993–2002		Venezuela	99 H 1985–1990, 1992–1994, 1996–2002
Kyrgyzstan	70 M	1985–2004		US Virgin Islands	1997–2002
Latvia	95 H	1985–2004		Zimbabwe	1990
Lithuania	98 H	1985–2004			
Luxembourg	96 M	1985–2004			

Shown are years for which cause-of-death (1985–2005) were available in the WHO Mortality Database at the end of 2006 (see also <http://www.who.int/healthinfo/mortables/en/index.html>). In some cases more recent data are available in the country in question, but have not yet been sent to WHO.

<sup>1</sup>Cov/qual: Coverage and quality. Coverage is calculated by dividing the total deaths reported for a country in a given year from the vital registration system by the total deaths estimated by WHO for that year for the national population (shown is coverage for most recent year, but not for data before 2000). Coverage can be low because vital registration is implemented in only part of the country, or because only a proportion of deaths is recorded, or both. Source: EIP/WHO. Assessment of data quality based on coding system used, and on proportion of deaths assigned to ill-defined codes; L, indicates low; M, medium; H, high. Source: Mathers, C et al. Counting the dead and what they died from: an assessment of the global status of cause of death data. *Bulletin of the World Health Organization*, 2005, 83: 171–177.