

Proportion of births attended by a skilled attendant – 2007 updates

Introduction

Reduction of maternal deaths (by three quarters during the period 1990 to 2015) was set as a target for monitoring the achievement of the Millennium Development Goal No. 5 (MDG 5), which seeks to improve maternal health. In the context of the MDG monitoring framework, two indicators were defined for tracking progress towards this target. The first, maternal mortality ratio, refers to the number of maternal deaths for every 100 000 live births. Limited availability of accurate and timely data, particularly from countries where maternal mortality is a major public health problem, has proved difficult to monitor short-term changes in this indicator. Hence, a second health-care indicator was also selected to monitor the “process” of reducing maternal mortality: proportion of births attended by skilled health personnel. The choice of this indicator was based on historical and observational evidence on the relationship between having a skilled health worker at delivery and the reduction of maternal mortality (Graham et al., 2001). Proportion of deliveries attended by skilled health personnel, therefore, is a key indicator for the MDG target of reducing maternal mortality.

It was agreed at the special session of the United Nations General Assembly in 1999, held for the five-year follow-up to the International Conference on Population and Development – ICPD – (ICPD+5), that, globally 80%, 85% and 90% of all deliveries should be assisted by skilled health personnel by 2005, 2010 and 2015, respectively (United Nations, 1999).

Here, we present nationally representative, latest data on births attended by skilled health-care workers together with global, regional and sub-regional estimates.

Definitions

“Proportion of births attended by skilled health personnel” represents the percentage of all births attended by a skilled health-care



worker. The term “skilled attendant” refers to “an accredited health professional - such as a midwife, doctor or nurse - who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns” (World Health Organization, 2004).

Traditional birth attendants (TBA) – trained or not – are excluded from the category of skilled health-care workers. In this context, the term TBA refers to traditional, independent (of the health system), non-formally trained and community-based providers of care during pregnancy, childbirth and the postnatal period (World Health Organization, 2004).

Methodology

Nationally representative data on the proportion of births attended by skilled health personnel were collected. Most of the data on the health status of mothers and children were obtained from household surveys, such as:

- Demographic and Health Surveys (DHS)
- Multiple Indicator Cluster Surveys (MICS)
- Reproductive Health Surveys (RHS)

Where a recent household survey (conducted during or later than 2000) did not exist for a country, WHO regional office databases and web pages of the Ministry of Health of that country were searched. Where necessary,



WHO country offices and national statistics offices were contacted to obtain data. The estimates presented in this fact sheet also include data available from the WHO/EIP country consultation that took place in 2003. Countries are grouped according to the United Nations classification (United Nations, 2005).

Global, regional and subregional estimates were calculated as population-weighted averages of collected country-specific proportions, the weights being the number of live births in each country. The number of live births used was for 2004 obtained from the World Population Prospects 2004 Revision (United Nations, 2005).

Findings and interpretation

Globally, nationally representative data on skilled attendance are available for 98.6% of all live births. In Africa, the Americas, Asia and Oceania, data are available for virtually all live births.

Worldwide, 63.1% of births were attended by a skilled health-care worker. Although virtually all births were attended by skilled health-care personnel in the more developed countries, the corresponding figure was 59.1% in developing countries and only 34.3% in the least developed countries.

In Africa and Asia, only 46.5% and 60.8%, respectively, of women gave birth with the help of a skilled attendant. In less developed regions, the lowest proportions of births attended by a skilled attendant were in Eastern Africa (34.2%), Western Africa (39.6%) and South-central Asia (44.4%) with the highest levels in South America (91.3%). **Africa (except for Southern Africa), Asia (except for Eastern Asia) and the Caribbean are furthest away from achieving the ICPD + 5 target of 85% of deliveries being attended by a skilled attendant by 2010. Special and intensive efforts are needed to accelerate progress in these regions.**

Three issues need consideration in the interpretation of the data presented here. First, the cadres of health-care workers that fall into the category of skilled birth attendant vary widely between countries. The training received by a particular category of health-care workers might allow them to fulfill the international definition of a skilled attendant in some countries, but not in others. As much as possible, the country context was considered

in extracting data from available sources and indicated as such in the categories included or excluded in the footnotes of the table. The exact skills of a certain type of health worker considered as a skilled attendant (such as auxiliary midwife) could, however, be identified only through in-depth country assessments.

Second, most of the data obtained through household surveys are based on women's perception of the type of attendant they had during delivery, which may not always reflect the actual situation (Hussein et al., 2005).

Finally, it should always be noted that a skilled health worker should have the necessary equipment and adequate referral option in case of need, to be effective in reducing maternal deaths. Data presented here do not indicate whether or not these requirements were met for deliveries where a skilled health worker was present.

Table 1

Global, regional and sub-regional estimates of the proportion of births with skilled attendant.

Region/subregion	% births with skilled attendant	Coverage of estimates*
World total	63.1	98.6
More developed regions	99.4	87.1
Less developed regions	59.1	99.8
Least developed countries	34.3	100.0
Africa	46.5	99.9
Eastern Africa	34.2	99.9
Middle Africa	54.7	100.0
Northern Africa	71.7	99.8
Southern Africa	89.6	100.0
Western Africa	39.6	100.0
Asia	60.8	99.8
Eastern Asia	84.6	100.0
South-Central Asia	44.4	100.0
South-Eastern Asia	70.8	100.0
Western Asia	75.0	97.5
Europe	99.4	76.7
Eastern Europe	99.5	100.0
Northern Europe	99.2	79.4
Southern Europe	98.9	54.9
Western Europe	99.9	56.4
Latin America & The Caribbean	87.7	99.9
Caribbean	73.8	98.5
Central America	82.6	100.0
South America	91.3	100.0
Northern America	98.9	100.0
Oceania	80.1	97.5
Australia/New Zealand	99.4	100.0
Melanesia	51.4	98.0
Micronesia	93.8	50.0
Polynesia	99.2	82.4

*Proportion of live births for which data on the presence of a skilled birth attendant were obtained.

The designations employed and the presentation of the material on these pages do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Table 2

Proportion of births with skilled attendant by country and the reference year

Country/region/territories	% skilled attendant	Year	Country/region/territories	% skilled attendant	Year
Afghanistan ¹	14.3	2003	Congo ²⁸	83.4[h]	2005-06
Albania ²	94.0[a]	2002	Cook Islands ²⁹	98.0	2001
Algeria ³	90.2[a]	2002	Costa Rica ⁶	97.5	2004
American Samoa ⁴	100.0	2002	Côte d'Ivoire ³⁰	62.7	2000
Andorra	...		Croatia ¹²	99.9	2005
Angola ⁵	44.7	2001	Cuba ⁶	99.9	2005
Anguilla ⁶	100.0	2005	Cyprus ³¹	99.0	2003
Antigua and Barbuda ⁶	99.9	2005	Czech Republic ¹²	99.9	2005
Argentina ⁷	98.7[b]	2004	Democratic People's Republic of Korea ³²	97.1	2004
Armenia ⁸	97.8	2005	Democratic Republic of the Congo ³³	60.7	2001
Aruba ⁶	96.0	2002	Denmark	...	
Australia ⁴	100.0	2003	Djibouti ¹⁰	60.6	2003
Austria	...		Dominica ⁶	100.0	2004
Azerbaijan ⁹	73.7[a]	2001	Dominican Republic ³⁴	97.8[i]	2002
Bahamas ⁶	99.0	2004	Ecuador ³⁵	74.2[a]	2004
Bahrain ¹⁰	99.0	2005	Egypt ³⁶	74.2	2005
Bangladesh ¹¹	13.4[c]	2004	El Salvador ³⁷	69.4[a]	2002-03
Barbados ⁶	100.0	2004	Equatorial Guinea ³⁸	64.6	2000
Belarus ¹²	99.9	2005	Eritrea ³⁹	28.3	2002
Belgium	99.3[a]	1999	Estonia ¹²	99.8	2005
Belize ⁶	89.3	2005	Ethiopia ⁴⁰	5.7	2005
Benin ¹³	65.5[d]	2001	Faeroe Islands	...	
Bhutan ¹⁴	50.9	2005	Falklands Islands (Malvinas)	...	
Bolivia ¹⁵	60.8[e]	2003-04	Fiji ⁴	99.0[a]	2002
Bosnia and Herzegovina ¹⁶	99.5	2000	Finland ⁴¹	99.9	2002
Botswana ¹⁷	98.5	2000	France	...	
Brazil ⁶	96.6	2003	French Guiana ⁶	49.0	2004
British Virgin Islands ⁶	100.0	2005	French Polynesia ²⁹	99.0	2000
Brunei Darussalam ⁴	99.6	2004	Gabon ⁴²	85.5[j]	2000
Bulgaria ¹²	99.4	2005	Gambia ⁴³	54.7	2000
Burkina Faso ¹⁸	37.8	2003	Georgia ⁴⁴	92.4[a]	2005
Burundi ¹⁹	25.2	2000	Germany ⁴⁵	100.0[k]	2006
Cambodia ²⁰	43.8	2005-06	Ghana ⁴⁶	47.1	2003
Cameroon ²¹	61.8	2004	Greece	...	
Canada ⁶	100.0	2003-04	Grenada ⁶	100.0	2005
Cape Verde ²²	88.5[f]	1998	Guadeloupe ⁶	100.0	2003
Cayman Islands ⁶	100.0	2005	Guam ²⁹	99.4	2001
Central African Republic ²³	44.0	2000	Guatemala ⁴⁷	41.4[l]	2002
Chad ²⁴	14.5[g]	2004-05	Guinea ⁴⁸	38.0	2005
Channel Islands	...		Guinea-Bissau ⁴⁹	34.7	2000
Chile ⁶	99.8	2004	Guyana ⁵⁰	85.6[m]	2000
China ²⁵	82.8[a,y]	2004	Haiti ⁵¹	24.7[a]	2005-06
China, Hong Kong SAR ⁴	100.0	2005	Holy See	...	
China, Macao SAR ⁴	100.0	2004	Honduras ⁵²	66.9[e]	2005-06
Colombia ²⁶	90.7[e]	2004-05	Hungary ¹²	99.6	2005
Comoros ²⁷	61.8	2000	Iceland	...	

Country/region/territories	% skilled attendant	Year
India ⁵³	48.3[n]	2005-06
Indonesia ⁵⁴	66.3	2002-03
Iran (Islamic Republic of) ⁵⁵	89.6	2000
Iraq ⁵⁶	72.1	2000
Ireland ⁵⁷	100.0	2002
Isle of Man	...	
Israel	...	
Italy ⁵⁸	99.0[a]	2003
Jamaica ⁵⁹	96.9	2002-03
Japan ⁴	99.8[a]	2004
Jordan ⁶⁰	99.5	2002
Kazakhstan ¹²	99.4	2005
Kenya ⁶¹	41.6	2003
Kiribati ⁴	88.9	2002
Kuwait ¹⁰	100.0	2002
Kyrgyzstan ¹²	97.9	2005
Lao People's Democratic Republic ⁶²	19.4	2001
Latvia ¹²	100.0	2005
Lebanon ¹⁰	98.0	2004
Lesotho ⁶³	55.4[o]	2004
Liberia ⁶⁴	50.9	1999-00
Libyan Arab Jamahiriya ¹⁰	99.0	1999
Liechtenstein	...	
Lithuania ¹²	100.0	2005
Luxembourg ⁶⁵	99.9	2002
Madagascar ⁶⁶	51.3	2003-04
Malawi ⁶⁷	56.1	2004-05
Malaysia ⁴	100.0	2005
Maldives ⁶⁸	70.3[p]	2001
Mali ⁶⁹	40.6	2001
Malta ⁷⁰	100.0[k]	2006
Marshall Island ²⁹	95.0	2002
Martinique ⁶	99.9	2004
Mauritania ⁷¹	56.9[q]	2000-01
Mauritius ⁷²	99.2[a]	2005
Mexico ⁶	93.4	2003
Micronesia (Federated States of) ²⁹	87.7	2001
Monaco	...	
Mongolia ⁴	99.7[a]	2004
Montenegro	...	
Montserrat ⁶	100.0	2005
Morocco ⁷³	62.6	2003-04
Mozambique ⁷⁴	47.7	2003-04
Myanmar ⁷⁵	67.5	2003
Namibia ⁷⁶	75.5	2000
Nauru	...	
Nepal ⁷⁷	18.7	2006
Netherlands ⁷⁸	100.0	2003

Country/region/territories	% skilled attendant	Year
Netherlands Antilles	...	
New Caledonia	...	
New Zealand ⁴	96.6[a]	2001[k]
Nicaragua ⁷⁹	66.9[i]	2001
Niger ⁸⁰	15.7[r]	2000
Nigeria ⁸¹	35.2[s]	2003
Niue ⁴	100.0	2005
Northern Mariana Island ²⁹	99.6	2000
Norway	...	
Oman ¹⁰	98.0	2005
Pakistan ⁸²	31.0	2004-05
Palau ²⁹	100.0	2002
Panama ⁶	91.3	2004
Papua New Guinea ⁴	42.0	2004
Paraguay ⁸³	77.2[e]	2004
Peru ⁸⁴	71.1[t]	2004
Philippines ⁸⁵	59.8	2003
Pitcairn	...	
Poland ¹²	99.9	2005
Portugal ⁸⁶	99.9	2001
Puerto Rico ⁶	99.8	2004
Qatar ¹⁰	100.0	2002
Republic of Korea ⁸⁷	100.0	2003
Republic of Moldova ⁸⁸	99.5[u]	2005
Reunion	...	
Romania ¹²	98.1	2005
Russian Federation ¹²	99.4	2005
Rwanda ⁸⁹	38.6[v]	2005
Saint Kitts and Nevis ⁶	100.0	2005
Saint Lucia ⁶	100.0	2004
Saint Vincent and the Grenadine ⁶	100.0	2005
Samoa ⁴	100.0	2004
San Marino	...	
Sao Tome and Principe ⁹⁰	78.6	2000
Saudi Arabia ¹⁰	96.0	2004
Senegal ⁹¹	51.9	2005
Serbia	...	
Seychelles	...	
Sierra Leone ⁹²	41.7	2000
Singapore ⁴	99.7[a]	2004
Slovakia ¹²	99.5	2004
Slovenia ¹²	99.9	2005
Solomon Islands ⁹³	85.0	1999
Somalia ⁹⁴	24.8	2002
South Africa ⁹⁵	92.0	2003-04
Spain	...	
Sri Lanka ⁹⁶	96.6	2000
St. Helena	...	

Country/region/territories	% skilled attendant	Year
Sudan ⁹⁷	56.9[w]	1999
Suriname ⁹⁸	70.9[x]	2000
Swaziland ⁹⁹	70.0	2000
Sweden	...	
Switzerland ¹⁰⁰	100.0[k]	2006
Syrian Arab Republic ¹⁰	89.7	2004
Tajikistan ¹⁰¹	71.1	2000
TFYR Macedonia ¹²	99.1	2005
Thailand ¹⁰²	99.3	2000
Timor-Leste ¹⁰³	18.4	2002
Togo ¹⁰⁴	48.6	2000
Tokelau	...	
Tonga ⁴	98[a]	2004
Trinidad and Tobago ⁶	96.6	2002
Tunisia ¹⁰⁵	89.8	2000
Turkey ¹⁰⁶	83.0	2003
Turkmenistan ¹⁰⁷	97.2	2000
Turks and Caicos Islands ⁶	100.0	2004
Tuvalu ²⁹	100.0	2002
Uganda ¹⁰⁸	39.0	2000-01
Ukraine ¹²	99.9	2005
United Arab Emirates ¹⁰	100.0	2003
United Kingdom ¹⁰⁹	99.0	1998
United Republic of Tanzania ¹¹⁰	46.3	2004-05
United States of America ⁶	99.3	2003
United States Virgin Islands ⁶	98.5	2003
Uruguay ⁶	99.3	2004
Uzbekistan ¹¹¹	95.6	2000
Vanuatu ⁴	87.0	2003
Venezuela ¹¹²	94.0	2000
Viet Nam ¹¹³	85.0	2002
Wallis and Futuna Islands	...	
West Bank and Gaza Strip ¹¹⁴	97.0[a]	2005
Western Sahara	...	
Yemen ¹¹⁵	19.6[a]	2003
Zambia ¹¹⁶	43.4	2001-02
Zimbabwe ¹¹⁷	79.7	2005-06

... data not available

- Institutional birth
- Excludes “comadre”, includes “partera”
- Includes “paramedic/health assistant/family welfare assistant”
- Excludes “matrone/aide soignante”
- Excludes “partera”
- Includes “parteira”
- Excludes “matrone/agent de santé” [i] Excludes “comadrona/partera”
- Excludes “matrone/aide-soignante/agent de santé communautaire”
- Excludes “comadrona/partera”
- Excludes “matrone/accoucheuse formée”

- Estimate
- Exclude “comadrona”
- Excludes “Medex”
- Includes “lady health visitor”
- Includes “nursing assistant” (not trained)
- Excludes “family health worker”
- Includes “matrone”
- Excludes “matrone”
- Excludes “community health extension worker”
- Excludes “partera/comadrona/sanitario/promotora”
- Excludes Transnistria region
- Excludes Transnistria region
- Includes “trained traditional birth attendant”
- Excludes “village health worker”
- Excludes Hong Kong and Macao SARs

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Publications



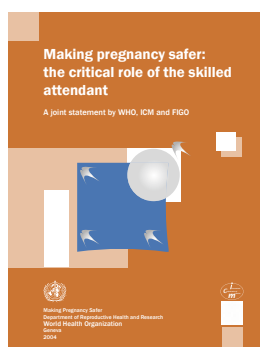
Reproductive health indicators. Guidelines for their generation, interpretation and analysis for global monitoring (2006)

This document is intended for national public health administrators and health programme managers. It briefly reviews theoretical and practical considerations of indicators, followed by a discussion of the definition, data sources, collection methods, periodicity of collection, disaggregation, use, limitations and common pitfalls for each of the shortlisted indicators. It is hoped that the document will contribute towards a consistent global monitoring and evaluation of reproductive health.



Accelerating progress towards the attainment of international reproductive health goals. A framework for implementing the WHO Global Reproductive Health Strategy (2006)

This document provides a framework for implementing the WHO reproductive health strategy, focusing on the following action areas : strengthening health systems capacity; improving information for priority-setting; mobilizing political will; creating supportive legislative and regulatory frameworks; and strengthening monitoring, evaluation and accountability. For each of these key areas, detailed actions are suggested for implementation at policy and programme levels. These are followed by the role WHO (with its partners) can play in supporting countries in that action area. A range of health-care and health-status indicators relating to the five core elements of sexual and reproductive health are also provided to facilitate monitoring and evaluation of progress.



Making pregnancy safer: the critical role of the skilled attendant (2004)

This joint statement by WHO, the International Confederation of Midwives (ICM) and the International Federation of Gynecology and Obstetrics (FIGO) is especially aimed at countries in which the coverage of skilled attendance at birth is below 85%. It defines clearly who is a skilled attendant, what skills she/he should have and how she/he should be trained and supported.

Pour une grossesse à moindre risque : le rôle capital de l'accoucheur qualifié (2004) - Une déclaration conjointe OMS, ICM, FIGO

Ce document est particulièrement destiné aux pays dont le taux de couverture en soins obstétricaux par des accoucheurs qualifiés est inférieur à 85%. Cette déclaration définit clairement ce qu'est un accoucheur qualifié, ce qu'elle/il doit avoir comme compétences et comment elle/il devra être formé(e) et soutenu(e).

These publications are accessible through the WHO web site www.who.int/reproductive-health