

Table S1. Cesarean section rates of the first and last observation, the number of cesarean section rates available and the original source by country

Country	First year	CS (%)	Latest year	CS (%)	Data points N	Data source (last year)
Afghanistan	.	.	2011	3.6	1	Central Statistics Organisation (CSO) and UNICEF. Afghanistan Multiple Indicator Cluster Survey 2010-2011: Final Report. Kabul: Central Statistics Organisation (CSO) and UNICEF, 2012.
Albania	1992	9.3	2011	30	19	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfaddb , accessed 28 June 2014).
Algeria	1993	4.9	2000	6	2	Ministry de la Santé et de la Population, Office National des Statistiques, Ligue des Etats Arabes. Enquete Algerienne dur la Santé de la Mere et de l'Enfant. Raport Principal. Project Pan Arabe pour le Developpement de l'Enfance. 2001.
Argentina	.	.	2006	22.7	1	Sistema Informático Perinatal de la República Argentina. Anuario 2006 de Información Perinatal. Ministerio de Salud Argentina.
Armenia	1980	0.9	2011	21.7	32	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfaddb , accessed 28 June 2014).
Australia	1998	23	2009	31.5	2	Li Z, McNally L, Hilder L & Sullivan EA 2011. Australia's mothers and babies 2009. Perinatal statistics series no. 25. Cat. no. PER 52. Sydney: AIHW National Perinatal Epidemiology and Statistics Unit. Available at http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737420980
Austria	1981	6.5	2011	28.3	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfaddb , accessed 28 June 2014).
Azerbaijan	1990	1.42	2012	16.7	23	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfaddb , accessed 28 June 2014).
Bahrain	1995	16	2011	30	2	Ministry of Health. Health Statistics for 2011. Bahrain, 2012. (http://www.moh.gov.bh/PDF/Publications/statistics/HS2013/PDF/Secondary%20Health%20Care/maternity%20hospitals%20(government%20and%20private)_2013.pdf)
Bangladesh	1999	2.4	2011	17.9	4	National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2013. Bangladesh Demographic and Health Survey 2011. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.
Belarus	1993	9.2	2012	25.3	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfaddb , accessed 28 June 2014).

Belgium	1980	7.4	2010	19.7	21	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadbd , accessed 28 June 2014).
Belize	1991	8.4	2011	28.9	3	Statistical Institute of Belize (SIB) and UNICEF. The Belize Multiple Indicator Cluster Survey (MICS) 2011. SIB and UNICEF: Belize, 2012. http://www.childinfo.org/files/MICS4_Belize_FinalReport_2011_Eng.pdf
Benin	1996	2.2	2011-12	5.4	4	Institut National de la Statistique et de l'Analyse Économique (INSAE) et ICF International, 2013. Enquête Démographique et de Santé du Bénin 2011-2012. Calverton, Maryland, USA : INSAE et ICF International.
Bolivia	1989	7.9	2008	18.6	5	Demographic Health and Surveys (DHS). Bolivia Encuesta Nacional de Demografía y Salud 2008. Macro International Inc. Calverton, Maryland, USA, 2008.
Bosnia & Herzegovina	2009	17.5	2012	13.9	3	The Agency for Statistics of Bosnia and Herzegovina, the Federal Ministry of Health, the Ministry of Health and Social Welfare of the Republic of Srpska and the Institute for Public Health of the Federation of Bosnia and Herzegovina. Bosnia and Herzegovina Multiple Indicator Cluster Survey (MICS) 2011–2012, Final Report. Sarajevo: UNICEF, 2013.
Botswana	.	.	2001	7.7	1	Ministry of Health. Provisional, Health Statistics report 2001, Botswana. Personal communication from Botana T and Majelantle A, 2003. Information available from Ministry of health upon request.
Brazil	1994	37.8	2012	55.6	18	MS/SVS/DASIS - Sistema de Informações sobre Nascidos Vivos - SINASC available at: http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sinasc/cnv/nvuf.def
Bulgaria	1980	4.7	2011	33.1	32	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadbd , accessed 28 June 2014).
Burkina Faso	1993	1.3	2010	1.9	4	Institut National de la Statistique et de la Démographie (INSD) et ICF International, 2012. Enquête Démographique et de Santé et à Indicateurs Multiples du Burkina Faso 2010. Calverton, Maryland, USA : INSD et ICF International.
Burundi	.	.	2010	4	1	Institut de Statistiques et d'Études Économiques du Burundi (ISTEEBU), Ministère de la Santé Publique et de la Lutte
Bhutan	.	.	2010	12.4	1	National Statistics Bureau. Bhutan Multiple Indicator Survey 2010. National Statistics Bureau, Thrimphu, Bhutan, 2011.

Cambodia	2000	0.8	2010	3	3	National Institute of Statistics, Directorate General for Health, and ICF Macro, 2011. Cambodia Demographic and Health Survey 2010. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Statistics, Directorate General for Health, and ICF Macro.
Cameroon	1991	2.4	2011	3.8	4	Institut National de la Statistique (INS) et ICF. International. 2012. Enquête Démographique et de Santé et à Indicateurs Multiples du Cameroun 2011. Calverton, Maryland, USA : INS et ICF International.
Canada	1992	18.2	2011	26.9	18	Canadian Institute for Health Information. Giving birth in Canada. A regional profile. Canadian Institute for Health Information, Ottawa, Ontario, 2012.
Cape Verde	.	.	2005	10.7	1	Instituto Nacional de Estatística (INE) [Cabo Verde], Ministério da Saúde, e Macro International. 2008. Segundo Inquérito Demográfico e de Saúde Reprodutiva, Cabo Verde, IDSR-II, 2005. Calverton, Maryland, USA: INE
Central African Republic	1994	1.9	2010	4.5	2	ICASEES. Enquête par grappes à indicateurs multiples MICS, RCA 2010 Rapport final. Bangui, RCA ICASEES, 2010. http://www.childinfo.org/files/MICS4_CAR_FinalReport_2010_Fr.pdf
Chad	1996	0.5	2010	1.5	3	Ministère du Plan, de l'Économie et de la Coopération Internationale. Institut National de la Statistique, des Études Économiques et Démographiques (INSEED), United Nations Population Fund, United Nations Children's Fund. Enquête par grappes à indicateurs multiples-Rapport Final, Tchad, 2012.
Chile	1990	25.4	2011	38.4	22	Ministerio de Salud de Chile. Gloria Reyes C.
China	1988	3.7	2011	36.2	22	Qian JC. Analysis on cesarean section rates in China from 2003 to 2011. Population and Development, 2012, 18(5):39-42
Colombia	1990	16	2011	42.8	16	Departamento Administrativo Nacional de Estadística (DANE). Estadísticas Vitales - Nacimientos. Bogotá D.C., Colombia, 2011 (website accessed 29 August 2012. http://www.dane.gov.co/index.php?option=com_content&view=article&id=786&Itemid=119).
Comoros	1996	5.3	2012	9.6	2	Direction Générale de la Statistique et de la Prospective (DGSP) et ICF International. 2014. Enquête Démographique et de Santé et à Indicateurs Multiples aux Comores 2012. Rockville, MD 20850, USA: DGSP et ICF International.
Congo (Brazzaville)	.	.	2011-2012	5.8	1	Centre Nationale de la Statistique et des Études Économiques (CNSEE) [Congo] et ICF International. 2013 Enquête Démographique et de Santé du Congo (EDSC-II) 2011-2012. Calverton, Maryland, USA: CNSEE et ICF International.

Costa Rica	1980	15.8	2012	21.6	33	Caja Costarricense del Seguro Social. Área de Estadística en Salud. San José, Costa Rica (website accessed 14 October 2013). http://www.ccss.sa.cr/estadisticas_salud_docs
Cote d'Ivoire	1994	1.8	2011-12	2.7	3	Institut National de la Statistique (INS) et ICF International. 2012. Enquête Démographique et de Santé et à Indicateurs Multiples de Côte d'Ivoire 2011-2012. Calverton, Maryland, USA: INS et ICF International.
Croatia	1983	1.1	2012	20.2	29	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Cuba	.	.	2002	28.5	1	Dirección Nacional de Estadística. Ministerio de Salud Pública, República de Cuba.
Czech Republic	1980	4.4	2011	23.3	31	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Dem. Rep. of the Congo	2007	4	2010	7.2	2	Institut National de la Statistique, UNICEF. Enquête par grappes a Indicateurs Multiples en République Démocratique du Congo - (MICS-RDC 2010) Rapport Final. République Démocratique du Congo, 2011
Dem. People's rep. Korea	.	.	2009	12.5	1	Central Bureau of Statistics, UNICEF. Multiple Indicator Cluster Survey 2009. Final Report. Democratic People's Republic of Korea, 2010.
Denmark	1980	10.4	2010	20.8	31	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfad)
Dominican Republic	1996	25.9	2012	43.5	5	Ministerio de Salud Pública. Dirección General de Información y Estadísticas de Salud. Anuario Estadístico de Salud 2012. República Dominicana, 2013.
Ecuador	1994	17.1	2004	25.8	3	Center for Studies of Population and Social Development (CEPAR) (Ecuador) and Division of Reproductive Health, Centers for Disease Control and Prevention (CDC). (2005) Ecuador Reproductive Health Survey 2004. Quito, Ecuador: CEPAR.
Egypt	1992	4.6	2008	27.6	5	El-Zanaty, Fatma and Ann Way. 2009. Egypt Demographic and Health Survey 2008. Cairo, Egypt: Ministry of Health, El-Zanaty and Associates, and Macro International.
El Salvador	1991	13.4	2012	28.2	6	Ministerio de Salud. Informe de Labores 2012-2013. San Salvador, El Salvador, 2013
Equatorial Guinea	.	.	2011	6.6	1	Ministerio de Sanidad y Bienestar Social, Ministerio de Economía, Planificación e Inversiones Públicas, e ICF International. Encuesta Demográfica y de Salud

						(EDSGE-I) 2011. Calverton, Maryland, USA; 2012.
Eritrea	1995	1.6	2002	2.7	2	National Statistical and Evaluation Office (NSEO) [Eritrea], and ORC Macro.2003. Eritrea Demographic and Health Survey 2002. Calverton, Maryland, USA: National Statistical and Evaluation Office, and ORC Macro.
Estonia	1990	6.3	2011	20.2	22	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Ethiopia	2000	0.6	2011	1.5	3	Central Statistical Agency [Ethiopia] and ICF International. 2012. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International.
Fiji	.	.	2000	7.1	1	Personal communication by the Ministry of Health, Fiji, 2003. Information available from Ministry of Health upon request.
Finland	1982	12.7	2011	14.7	29	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
France	1997	16.3	2011	21	13	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Gabon	2000	5.6	2012	10	2	Direction Générale de la Statistique (DGS) et ICF International. 2013. Enquête Démographique et de Santé du Gabon 2012. Calverton, Maryland, et Libreville, Gabon : DGS et ICF International.
Gambia	.	.	2010	2.5	1	The Gambia Bureau of Statistics (GBOS). The Gambia Multiple Indicator Cluster Survey 2010, Final Report. Banjul, The Gambia: The Gambia Bureau of Statistics (GBOS), 2012.
Georgia	1990	3.8	2012	36.7	23	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Germany	1990	15.7	2009	30.3	20	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfadb)
Ghana	1993	4.4	2011	11.4	5	Ghana Statistical Service. Ghana Multiple Indicator Cluster Survey with an Enhanced Malaria Module and Biomarker, 2011, Final Report. Accra, Ghana, 2011

Guatemala	1995	8.2	2008	16.3	4	Ministry of Health and Social Assistance (Guatemala), University of Valle (Guatemala) and Division of Reproductive Health, Centers for Disease Control and Prevention (CDC). Guatemala Reproductive Health Survey 2008-2009. Atlanta, United States: Centers for Disease Control and Prevention (CDC).
Guinea	1992	3.3	2012	2.4	4	Direction Nationale de la Statistique (DNS) (Guinée) et ORC Macro. 2012. Enquête Démographique et de Santé, Guinée 2012. Calverton, Maryland, U.S.A. : DNS et ORC Macro.
Guinea-Bissau	.	.	2010	2.3	1	Ministério da Economia, do Plano e Integração Regional – Direcção Geral do Plano. Inquérito aos Indicadores Múltiplos, Inquérito Demográfico de Saúde Reprodutiva 2010. Relatório Final. Guiné-Bissau, 2011.
Guyana	.	.	2009	13.3	1	Ministry of Health (MOH), Bureau of Statistics (BOS), and ICF Macro. 2010. Guyana Demographic and Health Survey 2009. Georgetown, Guyana: MOH, BOS, and ICF Macro.
Haiti	1994	1.6	2012	5.5	4	Cayemittes, Michel, Michelle Fatuma Busangu, Jean de Dieu Bizimana, Bernard Barrère, Blaise Sévère, Viviane Cayemittes et Emmanuel Charles. 2013. Enquête Mortalité, Morbidité et Utilisation des Services, Haïti, 2012. Calverton, Maryland, USA : MSPP, IHE et ICF International. Photo de
Honduras	2001	7.9	2011-12	18.6	3	Secretaría de Salud [Honduras], Instituto Nacional de Estadística (INE) e ICF International. 2013. Encuesta Nacional de Salud y Demografía 2011-2012. Tegucigalpa, Honduras: SS, INE e ICF International.
Hungary	1994	12.6	2011	33.4	18	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Iceland	1980	7.4	2009	16.2	30	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfadb)
India	1992	2.5	2005-06	8.5	3	International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS.
Indonesia	1991	1.3	2012	12.3	6	Statistics Indonesia (Badan Pusat Statistik—BPS), National Population and Family Planning Board (BKKBN), and Kementerian Kesehatan (Kemenkes—MOH), and ICF International. 2013. Indonesia Demographic and Health Survey 2012. Jakarta, Indonesia: BPS, BKKBN, Kemenkes, and ICF International.
Iran	2000	35	2009	47.9	4	Bahadori F, Hakimi S, Heidarzade M. The trend of caesarean delivery in the Islamic Republic of Iran. EMHJ. 2013;19(S3):S67-S70.

Iraq	2006	20.6	2011	22.2	2	The Central Statistics Organization and the Kurdistan Regional Statistics Office. Iraq Multiple Indicator Cluster Survey 2011. Final Report. Baghdad, Iraq: The Central Statistics Organization and the Kurdistan Regional Statistics Office, 2012.
Ireland	1981	6.2	2010	26.6	27	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Israel	1987	8	2011	19.8	22	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Italy	1980	11.2	2011	38.1	32	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Jamaica	2002	9.6	2008	14.8	2	Serbanescu F, Ruiz A, Suchdev DB. 2010. Reproductive Health Survey Jamaica 2008: Final Report. Atlanta, GA (USA) and Kingston, Jamaica.
Japan	1987	8.5	2011	19.2	9	(Ministry of Health, Labour and Welfare. Summary of Health Care Facilities and Hospital Statistics 2011 (平成 23 年 (2011) 医療施設(静態・動態)調査・病院報告の概況).
Jordan	1990	5.7	2012	28	5	Department of Statistics [Jordan] and ICF International. 2013. Jordan Population and Family Health Survey 2012. Calverton, Maryland, USA: Department of Statistics and ICF International.
Kazakhstan	1983	1.5	2012	15.2	30	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Kenya	1993	5.2	2008-09	6.2	4	Kenya National Bureau of Statistics (KNBS) and ICF Macro. 2010. Kenya Demographic and Health Survey 2008-09. Calverton, Maryland: KNBS and ICF Macro.
Kyrgyzstan	1980	0.8	2012	5.8	32	National Statistical Committee of the Kyrgyz Republic (NSC), Ministry of Health [Kyrgyz Republic], and ICF International. 2013. Kyrgyz epublic Demographic and Health Survey 2012. Bishkek, Kyrgyz Republic, and Calverton, Maryland, USA: NSC, MOH, and ICF International.
Lao People Rep	.	.	2010	3.7	1	Ministry of Health (MoH), Lao Statistics Bureau (LSB). The Lao Social Indicator Survey LSIS (MICS/DHS) 2011-12 (Multiple Indicator Cluster Survey/Demographic and Health Survey). Ministry of Health and Lao Statistics Bureau, 2012.

Latvia	1980	4	2011	23	32	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Lebanon	1995	15.1	2004	23.2	3	Lebanon Health Survey 2004 Report. The Pan Arab Project for Family Health. http://www.pdslebanon.org/UserFiles/File/Lebanon%20Report%20English(1).pdf
Lesotho	2004	5.1	2009	6.7	2	Ministry of Health and Social Welfare (MOHSW) [Lesotho] and ICF Macro. 2010. Lesotho Demographic and Health Survey 2009. Maseru, Lesotho: MOHSW and ICF Macro
Liberia	.	.	2007	3.5	1	Liberia Institute of Statistics and Geo-Information Services (LISGIS) [Liberia], Ministry of Health and Social Welfare [Liberia], National AIDS Control Program [Liberia], and Macro International Inc. 2008. Liberia Demographic and Health Survey 2007. Monrovia, Liberia: Liberia Institute of Statistics and Geo-Information Services (LISGIS) and Macro International Inc.
Lithuania	1992	8.3	2011	23.2	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Luxembourg	1997	18.1	2011	27.4	11	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Madagascar	1992	1	2008-09	1.5	4	Institut National de la Statistique (INSTAT) et ICF Macro. 2010. Enquête Démographique et de Santé de Madagascar 2008-2009. Antananarivo, Madagascar : INSTAT et ICF Macro.
Malaysia	.	.	2006	15.7	1	Ravindran J. Rising caesarean section rates in public hospitals in Malaysia 2006. Med J Malaysia, 2008; 63(5):434-5.
Malawi	1992	3.4	2010	4.6	4	National Statistical Office (NSO) and ICF Macro. 2011. Malawi Demographic and Health Survey 2010. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.
Maldives	.	.	2011	41.1	1	Ministry of Health. The Maldives Health Statistics 2012. Male, Republic of Maldives; 2013.

Mali	1995	0.8	2006	1.6	3	Cellule de Planification et de Statistique du Ministère de la Santé (CPS/MS), Direction Nationale de la Statistique et de l'Informatique du Ministère de l'Économie, de l'Industrie et du Commerce (DNSI/MEIC) et Macro International Inc. 2007. Enquête Démographique et de Santé du Mali 2006. Calverton, Maryland, USA : CPS/DNSI et Macro International Inc.
Malta	1995	18.1	2011	33.5	17	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Mauritania	.	.	2000-01	3.3	1	Office national de la Statistique (ONS) [Mauritanie] et ORC Macro. 2001. <i>Enquête Démographique et de Santé Mauritanie 2000-2001</i> . Calverton, Maryland, USA: ONS et ORC Macro.
Mexico	1987	12.4	2012	45.2	6	Encuesta Nacional de Salud y Nutrición 2012, Mexico.
Moldova, Republic of	1980	2	2012	15.8	33	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Mongolia	.	.	2010	21	1	National Statistics Office, UNICEF. Multiple Indicator Cluster Survey 2010 Summary Report, Ulaanbaatar, Mongolia, 2011.
Montenegro	1997	9	2010	23.6	8	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Morocco	1992	2	2012	16	4	Ministère de la Santé, PAFAM. Enquête Nationale sur la Population et la Santé Familiale (ENPSF) 2011. Maroc, 2012.
Mozambique	1997	2.7	2011	3.9	3	Ministerio da Saude (MISAU), Instituto Nacional de Estatística (INE) e ICF International (ICFI). Moçambique Inquérito Demográfico e de Saúde 2011. Calverton, Maryland, USA: MISAU, INE e ICFI.
Namibia	1992	10	2006-07	12.7	2	Ministry of Health and Social Services (MoHSS) [Namibia] and Macro International Inc. 2008. Namibia Demographic and Health Survey 2006-07. Windhoek, Namibia and Calverton, Maryland, USA: MoHSS and Macro International Inc.
Nepal	1996	1	2011	4.6	4	Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc. 2012. Nepal Demographic and Health Survey 2011. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International, Calverton, Maryland.

Netherlands	1985	6.5	2010	15.6	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
New Zealand	1996	20.8	2012	33.4	16	National Women's Annual Clinical Report 2012 at http://www.adhb.govt.nz/nwhealthinfo p 86
Nicaragua	1998	15.4	2006	19.6	3	Instituto Nacional de Información de Desarrollo (INIDE) Ministerio de Salud (MINSAL). Encuesta Nicaragüense de Demografía y Salud 2006/07. Informe Preliminar. Ministerio de Salud, Nicaragua, 2007.
Niger	1992	0.9	2012	1.4	4	Institut National de la Statistique (INS) et ICF International, 2013. Enquête Démographique et de Santé et à Indicateurs Multiples du Niger 2012. Calverton, Maryland, USA : INS et ICF International.
Nigeria	1990	2.9	2008	1.8	4	National Population Commission (NPC) [Nigeria] and ICF Macro. 2009. Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro.
Norway	1980	8.4	2009	17.3	30	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfadb)
Oman	1995	6.6	2011	17	10	Ministry of Health. Department of Health Information and Statistics, Directorate General of Planning. Annual Health Report 2011. Oman, 2012.
Pakistan	1991	2.9	2012-13	14.1	3	National Institute of Population Studies (NIPS) [Pakistan] and ICF International. 2013. Pakistan Demographic and Health Survey 2012-13. Islamabad, Pakistan, and Calverton, Maryland, USA: NIPS and ICF International.
Panama	.	.	2009	20.2	1	Ruth Graciela De León Richardson et al.: Instituto Commemorativo Gorgas de Estudios de la Salud. Panamá Encuesta Nacional de Salud Sexual y Reproductiva 2009 (ENASSER 2009)- Informe Final. Panamá, 2011.
Papua New Guinea			2002	4.7	1	Papua New Guinea Department of Health. Information provided by Dr Nicholas Mann on 29 July 2003. Papua New Guinea Department of Health, PO Box 807, Waigani NCD, Papua New Guinea.
Paraguay	1990	13	2008	33.1	4	Paraguay Center for Population Studies (CEPEP). Paraguay Reproductive Health Survey 2008. Asunción, Paraguay: Paraguayan Center for Population Studies (CEPEP).
Peru	1991	10	2011	22.9	11	Instituto Nacional de Estadística e Informática and Measure/DHS+ Macro Internacional Inc. Encuesta Demográfica y de Salud Familiar 2011. Lima, Peru, 2012.

Philippines	1993	5.9	2011	11.1	5	The National Statistics Office (NSO). 2011 Family Health Survey (FHS). NSO: Manila, Philippines, 2012.
Poland	1994	13.8	2011	29.9	8	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Portugal	1980	7.1	2010	36.2	30	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfad)
Republic of Korea	.	.	2009	36.6	1	Korea Institute for Health and Social Affairs. The 2012 National Survey on Fertility, Family Health and Welfare in Korea. Republic of Korea, 2012.
Romania	1992	7.2	2011	36.3	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Russian Federation	1990	6.7	2010	22.1	18	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Rwanda	1992	1.8	2010	7.1	4	National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda], and ICF International. 2012. Rwanda Demographic and Health Survey 2010. Calverton, Maryland, USA: NISR, MOH, and ICF International
Samoa	.	.	2009	12.8	1	Ministry of Health [Samoa], Bureau of Statistics [Samoa], and ICF Macro. Samoa Demographic and Health Survey 2009. Apia, Samoa: Ministry of Health, Samoa; 2010.
Saudi Arabia	1996	8.1	2010	22.3	7	Ministry of Health, General Directorate of Statistics. Health Statistics Book for the year of 2010 (1431). Saudi Arabia, 2010.
Senegal	1992	2.3	2012-13	3.8	4	Agence Nationale de la Statistique et de la Démographie (ANSD) [Sénégal] et ICF International. 2012. Enquête Démographique et de Santé Continue au Sénégal (EDS-Continue) 2012-2013 : Tableaux. Rockville, Maryland, USA: ANSD et ICF International.
Serbia	2000	8	2012	26.8	13	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Sierra Leone	2008	1.5	2010	4.5	2	Statistics Sierra Leone and UNICEF-Sierra Leone. Sierra Leone Multiple Indicator Cluster Survey 2010, Final Report. Freetown, Sierra Leone: Statistics Sierra Leone and UNICEF-Sierra Leone, 2011.

Slovakia	1985	6.3	2009	24.6	23	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Slovenia	1981	5.2	2011	19.6	31	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Solomon Islands	.	.	2007	6.2	1	National Statistics Office, Secretariat of the Pacific Community, Macro International Inc. Solomon Islands Demographic and Health Survey 2006-2007. Secretariat of the Pacific Community, Noumea, New Caledonia; 2009.
South Africa	1998	15.5	2003	20.6	2	Department of Health, Medical Research Council, OrcMacro. 2007. South Africa Demographic and Health Survey 2003. Pretoria: Department of Health.
Spain	1983	8.6	2011	24.9	29	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Sri Lanka	2007	23.8	2008	25.7	2	Ministry of Health. Annual Health Bulletin 2008, Sri Lanka, 2009.
Sudan	1993	3.7	2010	6.6	3	Federal Ministry of Health and Central Bureau of Statistics. Sudan Household and Health Survey - 2, 2012, National report. Khartoum, Republic of Sudan: Federal Ministry of Health and Central Bureau of Statistics, 2012.
Suriname	.	.	2010	19	1	Ministry of Social Affairs and Housing and General Bureau of Statistics. Suriname Multiple Indicator Cluster Survey 2010, Final Report: Paramaribo, Suriname, 2012.
Swaziland	2006	7.9	2010	12.3	2	Central Statistical Office, UNICEF. Swaziland Multiple Indicator Cluster Survey 2010. Final Report. Mbabane, Swaziland: Central Statistical Office, UNICEF, 2011.
Sweden	1980	11.5	2011	16.2	31	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Switzerland	1983	18	2009	32.2	20	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfad)
Syria	.	.	2000	14.8	1	Jurdi R,Khawaja M. Caesarean section rates in the Arab Region: a cross-national study. Health Policy Plan. 2004 March ; 19(2): 101–110
Tajikistan	1990	1.9	2012	4	22	Statistical Agency under the President of the Republic of Tajikistan (SA), Ministry of Health [Tajikistan], and ICF International. 2013. Tajikistan Demographic and Health Survey 2012. Dushanbe, Tajikistan, and Calverton, Maryland, USA: SA,

MOH, and ICF International.

Thailand	2001	17.4	2009	24.3	2	Personal communication from Voramongkol N, MCH Division Bureau of health Promotion, Department of Health, Ministry of Public Health, Nontaburi, Thailand, 2003. Information available from Ministry of Public Health upon request.
The former Yugoslav Republic of Macedonia	1995	1.4	2010	22.17	13	WHO/European Regional Office Health for all Database (Internet communication of 4 October 2012 at http://data.euro.who.int/hfadb)
Timor-Leste	.	.	2009-10	1.7	1	National Statistics Directorate (NSD) [Timor-Leste], Ministry of Finance [Timor-Leste], and ICF Macro. 2010. Timor-Leste Demographic and Health Survey 2009-10. Dili, Timor-Leste: NSD [Timor-Leste] and ICF Macro
Togo	1998	2	2010	8.8	2	Direction Générale de la Statistique et de la Comptabilité Nationale (DGSCN). Enquête par grappes à indicateurs multiples MICS Togo, 2010, Rapport final. Togo, 2012.
Trinidad & Tobago	.	.	2007	18.4	1	Mungrue K, Nixon C, David Y, Dookwah D, Durga S, Greene K, Mohammed H. Trinidadian women's knowledge, perceptions, and preferences regarding cesarean section: How do they make choices? Int J Womens Health. 2010;2:387–391.
Tunisia	1995	8	2012	26.7	2	Ministère du Développement et de la Coopération Internationale, MDCI - Institut National de la Statistique et Fonds des Nations Unies pour l'Enfance. Suivi de la situation des enfants et des femmes en Tunisie- Enquête par grappes à indicateurs multiples 2011-2012, Rapport Final, 2013.
Turkey	1993	8	2011	47.5	7	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Turkmenistan	1991	3	2012	6.6	20	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28 June 2014).
Uganda	1995	2.6	2011	5.3	4	Uganda Bureau of Statistics (UBOS) and ICF International Inc. 2012. Uganda Demographic and Health Survey 2011. Kampala, Uganda: UBOS and Calverton, Maryland: ICF International Inc.
Ukraine	1980	1.47	2012	15.8	33	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfadb , accessed 28

						June 2014).
United Arab Emirates	1995	15.8	2007	20.7	2	Ministry of Health. Statistics 2007. Abu Dhabi, United Arab Emirates, 2008.
United Kingdom	1980	8.2	2011	24.1	22	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
United Republic of Tanzania	1996	2.1	2010	4.5	4	National Bureau of Statistics (NBS) [Tanzania] and ICF Macro. 2011. Tanzania Demographic and Health Survey 2010. Dar es Salaam, Tanzania: NBS and ICF Macro
United States of America	1989	22.8	2010	32.8	22	Martin JA, Hamilton BE, Ventura SJ, Osterman JK, Wilson EC, Mathews TJ. Births: Final Data for 2010. National Vital Statistics Reports, 2012;61(1).
Uruguay	2000	23.8	2012	39.9	2	Ministerio de Salud Pública, Dirección General de la Salud, División Epidemiología, Estadísticas Vitales, 2014 (http://www.msp.gub.uy/) accessed on June 30 2014
Uzbekistan	1995	1.9	2012	10.5	18	European Health for All database [online database updated on April 2014]. WHO Regional Office for Europe, 2014 (http://data.euro.who.int/hfad , accessed 28 June 2014).
Venezuela	2002	25.1	2009	32.2	2	Ministerio del Poder Popular para la Salud (MPPS). Anuario Estadístico 2009. Venezuela, 2010.
Viet Nam	1997	3.4	2011	20	3	General Statistical Office (GSO), Viet Nam Multiple Indicator Cluster Survey - Final Report, 2011, Ha Noi, Viet Nam, 2011.
Yemen	1997	1.4	2009	6.5	2	Ministry of Health and Population. Yemen Annual Statistical Health Report 2009. Sana'a, Yemen: Ministry of Health and Population, 2010.
Zambia	1992	2.6	2007	3	4	Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. 2009. Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc.
Zimbabwe	1994	6	2010-11	4.5	4	Zimbabwe National Statistics Agency (ZIMSTAT) and ICF International. 2012. Zimbabwe Demographic and Health Survey 2010-11. Calverton, Maryland: ZIMSTAT and ICF International Inc

Table S2. Fractional polynomial regression models fitted for the relationship between cesarean section rates (CSR) and mortality outcomes^{a,b}

	Maternal mortality ratio (MMR) ^c	Neonatal mortality rate (NMR) ^d
Unadjusted models		
Least developed	$MMR = \text{EXP}(5.20 + 1.54 * CSR^{-1} + 1.11 * CSR^{-1} * \text{LOG}(CSR))$	$NMR = 9.83 - 19.22 * CSR^{-1} + 53.15 * CSR^{-0.5}$
Less developed	$MMR = \text{EXP}(2.40 + 2.31 * CSR^{-0.5} + 2.12 * CSR^{-0.5} * \text{LOG}(CSR))$	$NMR = 27.90 - 3.63 * CSR^{-0.5} - 3.07 * CSR^{0.5}$
More developed	$MMR = \text{EXP}(1.89 - 268.81 * CSR^{-2} + 156.30 * CSR^{-2} * \text{LOG}(CSR))$	$NMR = -6.14 - 259.38 * CSR^{-2} + 50.20 * CSR^{-0.5}$
Adjusted models^e		
Least developed	$MMR = \text{EXP}(6.11 - 0.27 * CSR^{-2} + 0.69 * CSR^{-1} - 0.50 * \text{HDI})$	$NMR = 34.46 + 7.30 * CSR^{-1} + 5.17 * CSR^{-1} * \text{LOG}(CSR) - 9.71 * \text{HDI}$
Less developed	$MMR = \text{EXP}(4.83 + 0.38 * CSR^{-2} - 2.59 * CSR^{-2} * \text{LOG}(CSR) - 0.80 * \text{HDI})$	$NMR = 20.61 + 2.77 * CSR^{-0.5} - 0.12 * CSR - 6.50 * \text{HDI}$
More developed	$MMR = \text{EXP}(2.37 - 120.78 * CSR^{-2} + 55.67 * CSR^{-2} * \text{LOG}(CSR) - 0.40 * \text{HDI})$	$NMR = 2.06 - 273.35 * CSR^{-2} + 68.54 * CSR^{-1} - 1.84 * \text{HDI}$

^aFixed effects of mixed models

^bCesarean section rate (%)

^cMaternal mortality ratio (per 100,000 live births)

^dNeonatal mortality rate (per 1000 live births)

^eAdjusted for HDI (standardized).

Table S3. Predicted mortality rates based on the fixed effects of mixed models fitted to the relationship between cesarean section rates and mortality outcomes

Cesarean section rates (CSR) ^a	Maternal mortality ratio (MMR) ^b		Neonatal mortality rate (NMR) ^c	
	Unadjusted	Adjusted ^d	Unadjusted	Adjusted ^d
Least developed				
1	842.3 (699.3, 1014.5)	681.9 (592.4, 785.1)	43.8 (40.7, 46.8)	41.8 (39.5, 44.0)
5	351.4 (292.9, 421.5)	510.2 (444.2, 586.0)	29.8 (26.9, 32.7)	37.6 (35.2, 39.9)
10	272.0 (226.0, 327.3)	480.1 (415.4, 554.9)	24.7 (21.7, 27.7)	36.4 (33.9, 38.9)
15	244.5 (202.7, 294.8)	469.8 (405.4, 544.5)	22.3 (19.2, 25.4)	35.9 (33.3, 38.4)
20 ^e	.	.	.	.
25 ^e	.	.	.	.
30 ^e	.	.	.	.
Less developed				
1	110.5 (80.8, 151)	183.1 (70.8, 473.3)	28.5 (26.2, 30.8)	23.3 (21.3, 25.2)
5	141.6 (111.6, 179.7)	107.8 (92.3, 125.8)	22.7 (20.9, 24.4)	21.2 (20.0, 22.5)
10	106.5 (84.6, 134.2)	118.6 (101.9, 138.0)	19.3 (17.6, 21.1)	20.3 (19.1, 21.5)
15	87.6 (69.7, 110.3)	121.8 (104.2, 142.3)	16.9 (15.2, 18.7)	19.5 (18.3, 20.8)
20	76.0 (60.3, 95.8)	123.1 (105.2, 144.2)	15.0 (13.3, 16.7)	18.8 (17.6, 20.1)
25	68.1 (53.9, 86.1)	123.8 (105.6, 145.2)	13.3 (11.5, 15.0)	18.2 (16.9, 19.5)
30	62.4 (49.2, 79.0)	124.2 (105.9, 145.8)	11.7 (10.0, 13.5)	17.5 (16.2, 18.9)
More developed				
1 ^e	.	.	.	.
5 ^e	.	.	.	.
10	16.5 (13.0, 20.9)	11.5 (9.0, 14.8)	7.1 (6.4, 7.9)	6.2 (5.6, 6.7)
15	13.2 (10.8, 16.0)	12.2 (10.4, 14.4)	5.7 (4.9, 6.4)	5.4 (4.9, 5.9)
20	10.9 (9.1, 13.1)	12.0 (10.3, 14.0)	4.4 (3.7, 5.2)	4.8 (4.3, 5.3)
25	9.6 (7.9, 11.7)	11.8 (9.9, 13.9)	3.5 (2.8, 4.2)	4.4 (3.9, 4.9)
30	8.9 (7.2, 10.9)	11.6 (9.5, 14.0)	2.7 (2.0, 3.5)	4.0 (3.5, 4.6)

^aCesarean section rate (%)

^bMaternal mortality ratio (per 100,000 live births)

^cNeonatal mortality rate (per 1,000 live births)

^dAdjusted for HDI (HDI standardized, mean HDI was set at 0 and used to obtain predicted values)

^eOutside of data range