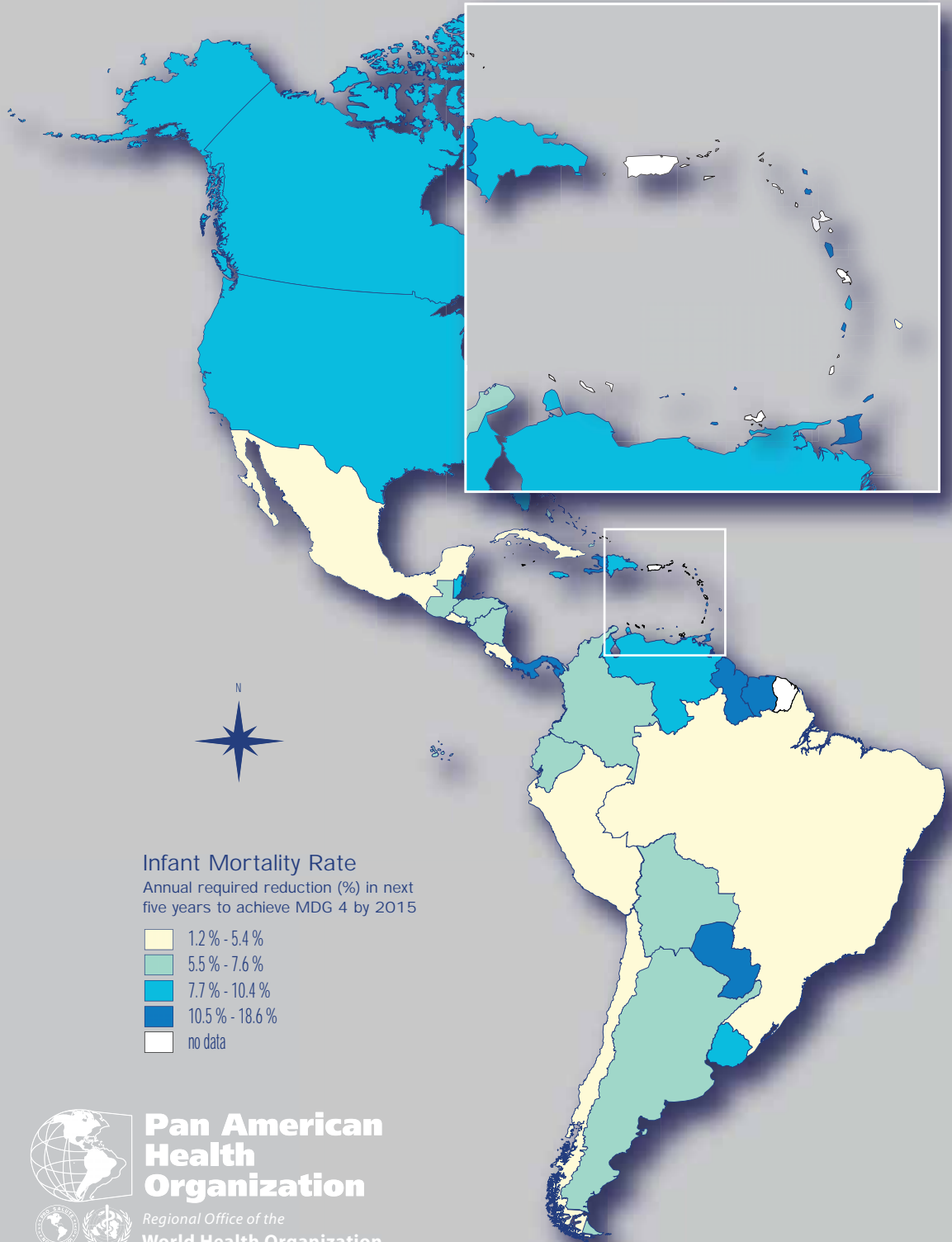


health situation in the americas Basic Indicators

2010



**Pan American
Health
Organization**



Regional Office of the
World Health Organization

Office of the Assistant Director
Health Surveillance and Disease Prevention and Control
Health Information and Analysis

preface

The Regional Core Health Data and Country Profiles Initiative (RDCHI) was launched by the Pan American Health Organization/World Health Organization (PAHO/WHO) in 1995 to fulfill the Organization's mission as leading source of health information and technical cooperation agency committed to strengthening health information systems. This is the 16th edition of "Health Situation in the Americas: Basic Indicators," and during the past 15 years, Basic Indicators has expanded its range of inquiry to include new indicators, and has served to most of the countries as a model to develop their own publications with national and subnational data.

Despite achievements of the RDCHI and the improvement of vital statistics (births and deaths) in the Region, efforts to strengthen information on health need to continue due to the lack of consistent time series data that would, otherwise, facilitate a more rigorous analysis of regional progress toward the achievement of the Millennium Development Goals (MDG). To overcome these limitations, further data analysis and evaluation, as well as recalculation and back projection will need to be carried out jointly by the Secretariat and Member States. Similarly, data from administrative records—for example, on numbers of pregnant women, deliveries attended by skilled personnel, the incidence of malaria, tuberculosis, and HIV/AIDS—are also inconsistent and difficult to compare across or within countries over time.

The analysis presented here seeks to evaluate progress toward the achievement of MDG 4 in the countries of the Region using the estimated infant mortality rates (IMR) developed by Rajaratnam JK et al. A comparison of these estimated rates with officially reported rates is also presented to observe how close the estimates are to the country-generated indicators.

The thematic map illustrates the IMR annual rate of reduction that would be needed over the next five years to achieve MDG 4 by 2015. To meet this target, some countries will need to further strive to achieve annual reductions in IMR of more than 10%, while others must maintain reductions of 5–10%. If the countries sustain their focused efforts in priority areas, they should be able to meet MDG 4. One such priority is reducing neonatal mortality, a more difficult and complex challenge than reducing post-neonatal infant mortality, requiring more targeted resources and interventions to achieve a significant impact on overall IMR.

Improving information in health remains a fundamental part of efforts to improve the health of the people of the Americas. Without consistent, reliable and timely data and indicators, it is difficult to monitor regional progress toward the MDGs and other regional health plans. One alternative is the appropriate use of estimates; however, we need to work with the countries to ensure that estimates accurately reflect the reality of each country. We need to foster critical validation of health information and improve technical capacities and existing data-generating infrastructure and administrative records—building blocks that are included in PAHO's "Regional Plan of Action for Strengthening Vital and Health Statistics."

The information presented in this brochure has been compiled, processed, and reviewed by PAHO staff at Headquarters and in the country offices in collaboration with staff from the ministries of health of the Region. Further information, including all basic indicators and their definitions, can be found at www.paho.org/DataStatistics.



Mirta Roses Periago
Director

demographic indicators

	1	2	3	4	5	6	7	8	9T	9M	9F
	total population (thousands)	crude birth rate (1,000 pop)	annual births average (thousands)	annual deaths average (thousands)	annual pop growth (%)	total fertility rate (child/woman)	urban population (%)	dependency ratio (100 pop)	life expectancy at birth (years) 2010		
	2010	2010	2010	2010	2010	2010	2010	2010	total	male	female
The Americas	940,271	16.4	15,421.1	6,264.1	1.0	2.1	80.6	51.6	76.2	73.4	79.0
North America	351,599	13.6	4,782.4	2,739.4	0.9	2.0	82.1	49.1	79.7	77.5	81.9
Bermuda	68	11.5	0.8	0.5	0.6	2.0	100.0	48.8	80.6	77.4	83.9
Canada	33,890	10.7	363.1	254.4	0.9	1.6	80.6	43.8	81.0	78.8	83.2
United States of America	317,641	13.9	4,418.6	2,484.4	0.9	2.1	82.3	49.6	79.6	77.3	81.7
Latin America & the Caribbean	588,672	18.0	10,638.6	3,524.8	1.0	2.2	79.4	53.0	73.7	70.7	77.0
Latin America	581,537	18.1	10,518.2	3,471.4	1.1	2.2	80.0	53.2	74.1	71.0	77.3
Mexico	110,645	18.0	1,993.4	531.5	0.9	2.1	77.8	52.7	76.7	74.3	79.2
Central American Isthmus	42,470	25.4	1,081.5	225.4	1.7	3.0	56.8	69.5	73.1	69.9	76.3
Belize	313	23.9	7.5	1.1	2.0	2.8	52.2	62.9	76.9	74.9	78.8
Costa Rica	4,640	16.4	76.2	19.5	1.3	1.9	64.4	46.6	79.1	76.8	81.7
El Salvador	6,194	20.1	124.9	42.6	0.5	2.3	64.3	63.5	72.0	67.0	76.5
Guatemala	14,377	31.9	459.7	79.3	2.5	3.9	49.5	85.0	70.8	67.3	74.4
Honduras	7,616	26.6	202.8	38.0	2.0	3.1	51.6	69.8	72.6	70.3	75.1
Nicaragua	5,822	24.1	140.5	27.1	1.4	2.6	57.3	64.2	73.8	70.8	77.0
Panama	3,508	19.9	69.9	17.8	1.5	2.5	74.8	55.4	76.0	73.4	78.7
Latin Caribbean	36,721	18.6	681.3	271.4	0.9	2.4	70.1	55.3	72.5	70.1	75.0
Cuba	11,204	10.2	114.8	79.1	0.0	1.5	75.2	42.1	79.0	77.0	81.2
Dominican Republic	10,225	21.8	222.8	60.9	1.3	2.6	69.2	59.3	72.8	70.1	75.8
French Guiana	231	24.0	5.6	0.8	2.5	3.1	76.4	60.7	76.3	73.0	80.2
Guadeloupe	467	13.9	6.5	3.8	0.4	2.1	98.4	54.2	79.4	76.4	82.5
Haiti	10,188	27.0	274.6	91.6	1.5	3.4	52.1	67.5	61.7	59.9	63.4
Martinique	406	12.1	4.9	3.2	0.3	1.9	89.0	51.9	79.9	76.9	82.6
Puerto Rico	3,998	13.0	52.1	32.0	0.4	1.8	98.8	51.5	79.1	75.1	83.0
Andean Area	128,646	20.6	2,655.0	710.5	1.4	2.5	78.1	55.6	73.3	70.3	76.5
Bolivia (Plurinational State of)	10,031	26.0	261.3	73.7	1.7	3.3	66.5	68.2	66.3	64.2	68.5
Colombia	46,300	19.8	915.2	255.1	1.4	2.4	75.1	52.4	73.4	69.9	77.2
Ecuador	13,775	20.1	277.3	72.3	1.1	2.5	66.9	59.5	75.4	72.5	78.5
Peru	29,496	20.4	600.9	159.6	1.1	2.5	76.9	56.0	73.7	71.1	76.4
Venezuela (Bolivarian Republic of)	29,044	20.7	600.3	149.8	1.6	2.5	93.4	54.1	74.2	71.3	77.3
Brazil	195,423	15.1	2,958.0	1,255.5	0.8	1.8	86.5	47.9	72.9	69.3	76.6
Southern Cone	67,632	17.0	1,149.0	477.1	1.0	2.2	88.6	53.7	76.2	72.9	79.7
Argentina	40,666	17.0	692.4	314.7	1.0	2.2	92.4	55.2	75.7	72.0	79.6
Chile	17,135	14.8	252.8	95.5	1.0	1.9	89.0	46.0	78.8	75.9	82.0
Paraguay	6,460	23.9	154.2	35.6	1.7	2.9	61.5	63.2	72.3	70.2	74.4
Uruguay	3,372	14.7	49.6	31.3	0.3	2.1	92.5	57.2	76.7	73.3	80.3
Non-Latin Caribbean	7,135	16.9	120.4	53.4	0.5	2.1	46.3	50.7	72.0	68.9	75.2
Anguilla	15	12.9	0.2	0.1	2.2	1.8	100.0	47.1	80.8	78.2	83.4
Antigua & Barbuda	87	16.4	1.4	0.5	1.3	2.1	30.3	49.4	75.3	73.3	77.4
Aruba	105	12.8	1.3	0.8	1.5	1.9	46.9	42.3	75.5	72.5	78.6
Bahamas	346	16.4	5.7	2.0	1.2	2.0	84.1	47.1	74.4	71.5	77.1
Barbados	286	12.4	3.6	2.4	0.4	1.7	44.5	40.3	74.1	71.9	76.4
Cayman Islands	50	12.3	0.6	0.3	2.3	1.9	100.0	40.6	80.6	77.9	83.3
Dominica	73	15.7	1.1	0.6	0.2	2.1	67.2	50.6	75.8	72.8	78.9
Grenada	108	17.2	1.9	0.9	0.6	2.2	39.3	53.0	72.8	70.3	75.6
Guyana	761	17.1	13.0	6.1	-0.1	2.3	28.6	54.5	67.9	65.2	71.0
Jamaica	2,730	19.0	51.9	20.1	0.4	2.3	52.0	57.9	72.3	69.1	75.6
Montserrat	5	12.1	0.1	0.0	0.5	1.2	14.3	50.7	72.9	74.8	70.9
Netherlands Antilles	229	14.1	3.2	1.5	0.7	2.0	93.2	47.6	76.9	74.5	79.3
Saint Kitts & Nevis	50	14.2	0.7	0.4	0.8	1.8	32.4	44.3	74.4	72.0	76.8
Saint Lucia	161	14.8	2.4	1.1	0.4	1.8	28.0	49.2	76.7	74.0	79.5
Saint Vincent & the Grenadines	104	14.9	1.6	0.7	-0.3	1.9	49.3	49.4	73.9	72.0	75.8
Suriname	524	18.5	9.7	4.0	0.9	2.3	69.4	53.9	69.4	65.9	73.1
Trinidad & Tobago	1,344	14.9	20.0	10.9	0.4	1.7	13.9	37.9	69.9	66.4	73.4
Turks & Caicos Islands	24	20.4	0.5	0.1	2.5	2.9	93.3	51.8	75.6	73.3	78.1
Virgin Islands (UK)	25	14.5	0.4	0.1	1.8	1.7	41.0	34.6	77.5	76.2	78.8
Virgin Islands (US)	110	11.5	1.3	0.8	-0.1	1.8	95.3	52.4	79.2	76.1	82.4

BI 1 - 9: countries with fewer than 300,000 inhabitants: US Census Bureau; otherwise: United Nations (UN) estimates. Both agencies are currently reviewing the population projections taking into account the last census.

BI 2 - 9: linear interpolation UN data.

mortality indicators

	10 maternal mortality ratio (100,000 lb) or number of deaths (N°)		11 maternal mortality ratio estimated (100,000 lb) 2005 WHO		12 infant mortality rate (1,000 lb) or number of deaths (N°)		13 < 5 mortality estimated (1,000 lb) 2008 WHO	14 15 registered deaths < 5 due to			16 ill-defined and unknown causes (%) (2008)	17 mortality under-registration (%) (2006-08)
	ratio	(N°) year			rate	(N°) year		ADD (%)	ARI (%)	year		
The Americas	65.7		97		15.6		18	2.5	5.5		3.7	8.4
North America	12.7		11		6.6		8	0.1	1.2		1.3	1.6
Bermuda	-	2008	...	n/a	4	2007	...	-	-	2007	3.7 ^a	- ^d
Canada	7.6	2006	7 (7-13)	5.1		2007	6	...	...		...	...
United States of America	12.7	2007	11 (11-21)	6.8		2007	8	0.1	1.2	2007	1.3 ^a	1.6 ^d
Latin America & the Caribbean	88.9		137		19.6		23	3.6	7.5		5.2	12.4
Latin America	89.1		137		19.7		23	3.6	7.5		5.2	12.4
Mexico	57.2	2008	60 (60-120)	15.2		2008	17	3.4	6.8	2008	1.9	1.5
Central American Isthmus	107.2		228		25.4		28	9.2	17.6		6.3	18.2
Belize	n/a	4 2009	52 (52-100)	17.9		2009	19	12.8	8.5	2008	1.8	19.2
Costa Rica	26.6	2009	30 (30-60)	8.8		2009	11	1.0	3.0	2008	2.3	10.9
El Salvador	64.5	2009	170 (55-460)	21.5		2007	18	5.2	12.4	2008	15.5	24.1
Guatemala	148.8	2005	290 (100-650)	30.0		2008	34	13.1	24.3	2008	5.3	10.7
Honduras	...		280 (190-380)	23.0		2006	31	...	...		...	...
Nicaragua	76.5	2007	170 (120-230)	33.0		2006	27	6.6	11.9	2006	3.6 ^b	38.7 ^e
Panama	59.6	* 2008	130 (39-410)	12.7	*	2008	23	5.0	12.3	2008	4.4	14.0
Latin Caribbean	340.0		364		34.0		45	1.1	4.3		1.3	2.6
Cuba	46.9	2009	45 (45-90)	4.8		2009	6	1.6	5.8	2008	0.8	-
Dominican Republic	133.5	2009	150 (90-210)	28.8		2009	33	...	...		...	...
French Guiana	n/a	2 2007	...	12.1		2007	...	4.2	5.3	2005	11.8 ^c	- ^f
Guadeloupe	n/a	2 2006	...	6.9		2008	...	...	1.6	2005	7.7 ^c	10.8 ^f
Haiti	630.0	2006	670 (390-960)	57.0		2006	72	...	...		...	...
Martinique	n/a	4 2007	...	8.8		2007	...	-	-	2005	8.3 ^c	10.7 ^f
Puerto Rico	n/a	3 2008	...	7.5		2008	...	-	1.6	2007	0.6 ^a	8.2 ^d
Andean Area	79.8		162		20.0		24	4.1	9.2		2.7	23.2
Bolivia (Plurinational State of)	...		290 (160-430)	50.0		2003-08	54	...	...		...	...
Colombia	75.6	2007	130 (38-370)	15.3		2007	20	3.9	7.9	2007	1.7 ^a	20.6 ^d
Ecuador	80.0	2008	210 (65-560)	16.4		2008	25	3.3	13.1	2008	10.4	15.9
Peru	103.0	2006	240 (170-310)	20.0		2007	24	3.0	12.2	2007	...	42.5 ^d
Venezuela (Bolivarian Republic of)	62.9	2008	57 (57-110)	15.8		2008	18	6.1	6.2	2007	0.6 ^a	11.1 ^d
Brazil	77.0	2007	110 (74-150)	20.0		2007	22	2.8	5.2	2008	7.7	13.8
Southern Cone	45.4		71		11.9		15	1.3	4.4		7.1	6.3
Argentina	39.7	2008	77 (51-100)	12.5		2008	15	1.1	4.4	2008	7.7	3.8
Chile	16.9	2008	16 (16-32)	7.9		2008	9	0.2	3.8	2007	2.7 ^a	1.8 ^d
Paraguay	117.4	2008	150 (99-200)	16.9		2008	28	4.1	5.8	2008	14.7	34.1
Uruguay	n/a	16 2009	20 (20-40)	9.6		2009	16	...	...		...	...
Non-Latin Caribbean	92.7		...		19.6		33	0.8	2.5		2.2	10.0
Anguilla	-	2009	...	...		2009	...	-	-	2006	3.1 ^b	7.7 ^e
Antigua & Barbuda	-	2009	...	15.7		2009	12	-	7.1	2008	3.0	7.0
Aruba	...		...	...		...	...	-	-	2007	8.1 ^a	30.3 ^d
Bahamas	n/a	3 2008	16 (16-33)	17.9		2008	13	-	2.5	2005	1.6 ^c	15.3 ^f
Barbados	n/a	3* 2008	16 (16-31)	13.3	*	2008	11	-	3.2	2006	2.8 ^b	- ^g
Cayman Islands	-	2009	...	n/a	3	2009	...	...	...		...	...
Dominica	n/a	1 2009	...	22.2		2009	10	-	10.0	2008	2.0	9.9
Grenada	-	2009	...	11.2		2009	15	-	2.9	2008	3.5	-
Guyana	106.0	2007	470 (140-1,600)	22.0		2005	61	11.4	6.3	2006	0.9 ^b	21.8 ^e
Jamaica	84.0	2004-07	170 (51-510)	24.1		2008	31	...	...		...	...
Montserrat	-	2009	...	-		2009	...	-	-	2008	1.5	0.6
Netherlands Antilles	...		...	...		...	...	...	...		...	...
Saint Kitts & Nevis	-	2009	...	n/a	15	2009	15	-	-	2008	0.4	0.7
Saint Lucia	n/a	1 2008	...	15.0		2005	15	1.4	4.2	2005	6.8 ^c	- ^f
Saint Vincent & the Grenadines	n/a	2 2009	...	14.2		2009	13	-	-	2008	0.7	-
Suriname	184.3	2007	72 (72-140)	19.8		2007	27	0.9	4.2	2005	8.7 ^c	15.4 ^f
Trinidad & Tobago	n/a	12 2006	45 (45-89)	13.1		2006	35	1.1	2.5	2006	1.6 ^b	4.5 ^e
Turks & Caicos Islands	n/a	1 2009	...	n/a	2	2009	...	-	-	2008	6.0	10.6
Virgin Islands (UK)	-	2009	...	n/a	4	2009	...	-	-	2008	3.7	0.7 ^h
Virgin Islands (US)	-	2006	...	n/a	12	2007	...	-	-	2007	2.2 ^a	1.2 ^d

BI 10 - 12: (*) preliminary data.

BI 16 - 17: (a) value 2007; (b) value 2006; (c) value 2005; (d) value 2005-2007; (e) value 2004-2006; (f) value 2003-2005; (g) value 2003, 2004, 2006; (h) value 2004, 2006, 2008.

mortality indicators

	general mortality rates (all causes) (1,000 pop) (2006-2008)						mortality rates from communicable diseases (100,000 pop) (2006-2008)																	
	18Tc		18Ta		18Mc		18Ma		18Fc		18Fa		19Tc		19Ta		19Mc		19Ma		19Fc		19Fa	
	total		male		female		total		male		female		total		male		female		total		male		female	
	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted
The Americas	6.4	5.7	6.9	6.6	6.0	4.8	51.9	49.0	56.0	56.6	48.0	42.0												
North America	7.6	4.8	7.5	5.4	7.6	4.3	41.0	26.7	40.8	29.8	41.1	23.7												
Bermuda a,*	6.4	4.0	7.2	5.0	5.7	3.0	27.1	21.1	31.1	26.8	23.3	16.1												
Canada	...	...	...	...	...	...	...	...	...	...	...	...
United States of America a,*	7.6	4.8	7.5	5.4	7.6	4.3	41.0	26.7	40.8	29.8	41.1	23.7												
Latin America & the Caribbean	5.7	6.1	6.5	7.3	5.0	5.1	58.2	61.9	64.7	72.1	51.9	52.6												
Latin America	5.7	6.2	6.5	7.3	5.0	5.1	58.3	62.1	64.8	72.3	52.0	52.7												
Mexico *	4.7	5.3	5.2	6.2	4.1	4.5	31.2	34.9	36.4	41.4	26.2	28.7												
Central American Isthmus	5.3	6.5	6.2	7.7	4.4	5.4	83.3	94.1	93.7	106.3	73.6	83.0												
Belize **	3.8	5.5	4.3	6.3	3.4	4.8	62.1	84.2	75.7	107.4	48.4	61.8												
Costa Rica *	3.5	3.9	4.0	4.6	3.0	3.2	16.2	18.0	18.4	20.8	14.0	15.1												
El Salvador	6.0	6.5	7.4	8.3	4.9	5.0	68.6	73.9	76.5	86.0	61.4	63.7												
Guatemala	5.8	7.4	6.9	8.8	4.8	6.2	132.1	149.2	149.0	167.3	116.8	133.2												
Honduras	...	...	...	...	...	...	...	...	...	...	...	...
Nicaragua b	4.8	6.7	5.5	7.7	4.1	5.7	44.3	55.0	49.6	61.8	39.2	48.5												
Panama	5.1	5.6	5.8	6.5	4.4	4.8	64.7	70.0	77.0	84.1	52.0	55.8												
Latin Caribbean	7.1	4.9	7.8	5.7	6.5	4.2	57.9	40.2	63.5	47.0	52.5	34.0												
Cuba *	7.3	5.1	7.9	5.8	6.8	4.5	56.9	39.3	60.1	43.7	53.8	35.0												
Dominican Republic	...	...	...	...	...	...	...	...	...	...	...	...
French Guiana c,*	3.3	4.6	4.0	5.6	2.5	3.6	39.5	49.6	44.0	54.6	35.1	44.1												
Guadeloupe c,*	5.6	3.9	6.4	4.7	4.9	3.2	35.3	25.2	39.7	30.6	31.1	20.3												
Haiti	...	...	...	...	...	...	...	...	...	...	...	...
Martinique c,*	6.2	3.9	7.0	4.9	5.4	3.2	42.7	27.0	49.4	34.7	36.8	20.8												
Puerto Rico a,*	7.0	4.6	7.9	5.7	6.2	3.7	65.9	45.4	78.7	59.3	54.2	33.6												
Andean Area	5.3	6.3	6.1	7.5	4.5	5.2	63.3	74.5	71.8	86.8	55.0	62.9												
Bolivia (Plurinational State of)	...	...	...	...	...	...	...	...	...	...	...	...
Colombia a	5.5	6.5	6.4	7.9	4.6	5.3	44.3	51.9	52.5	62.7	36.3	42.0												
Ecuador	5.2	5.8	5.9	6.7	4.5	4.8	62.9	69.0	71.0	79.7	54.8	58.6												
Peru a	5.3	6.3	5.9	7.3	4.7	5.4	115.0	137.0	126.3	156.3	103.9	118.8												
Venezuela (Bolivarian Republic of) a	5.2	6.3	6.1	7.5	4.3	5.1	41.3	49.5	46.9	57.2	35.8	42.1												
Brazil	6.4	6.8	7.3	8.2	5.4	5.6	63.9	69.1	71.3	80.5	57.0	58.8												
Southern Cone	6.4	5.4	6.9	6.6	5.9	4.4	64.9	52.8	66.0	61.7	63.9	45.4												
Argentina *	7.0	5.5	7.6	6.8	6.5	4.4	80.3	61.2	80.7	72.0	80.0	52.5												
Chile a,*	5.1	4.6	5.6	5.5	4.7	3.8	31.4	27.6	32.6	32.2	30.1	23.5												
Paraguay	5.6	6.9	6.1	7.7	5.1	6.2	57.0	67.0	63.2	76.0	51.0	58.5												
Uruguay	...	...	...	...	...	...	...	...	...	...	...	...
Non-Latin Caribbean	6.4	6.4	6.8	7.8	5.4	4.9	58.9	57.0	65.2	69.2	45.9	42.2												
Anguilla b,*	3.9	3.8	4.5	4.4	3.3	3.3	2.5	9.8	-	-	5.0	17.1												
Antigua & Barbuda **	5.4	5.7	6.0	6.7	5.0	5.0	67.1	69.5	83.1	91.0	52.6	52.0												
Aruba a,**	4.4	3.6	5.0	4.3	3.8	2.9	28.9	24.9	37.2	34.4	21.2	17.1												
Bahamas c,**	5.2	5.8	5.8	6.9	4.7	4.9	72.5	73.8	85.2	89.5	60.3	59.1												
Barbados d,*	9.1	7.0	6.0	5.5	6.4	4.5	112.9	84.9	85.6	77.8	66.9	43.6												
Cayman Islands	...	...	...	...	...	...	...	...	...	...	...	...
Dominica **	7.2	5.7	7.5	6.6	6.9	4.9	61.7	50.6	72.2	66.8	51.0	34.9												
Grenada *	7.1	7.3	7.5	8.9	6.7	6.1	74.3	76.4	86.1	101.6	62.6	56.0												
Guyana b,**	6.3	7.2	7.0	8.1	5.6	6.3	103.9	111.4	121.2	131.0	86.0	91.2												
Jamaica	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat *	9.1	9.3	9.8	8.7	8.5	11.6	21.1	43.4	13.9	18.1	28.4	142.9												
Netherlands Antilles	...	...	...	...	...	...	...	...	...	...	...	...
Saint Kitts & Nevis *	7.4	7.2	8.1	8.4	6.8	6.1	34.2	47.5	33.0	49.5	35.5	45.6												
Saint Lucia c,*	6.1	6.4	7.0	7.6	5.2	5.3	56.4	58.8	63.2	68.7	49.9	49.4												
Saint Vincent & the Grenadines *	6.5	6.7	6.7	7.4	6.2	6.1	74.9	75.5	87.8	92.4	61.8	59.1												
Suriname c,**	5.2	5.9	6.1	7.3	4.3	4.6	67.3	71.7	84.6	94.0	49.7	51.3												
Trinidad & Tobago b	7.3	7.7	8.6	10.3	6.1	5.8	56.3	56.7	68.0	73.8	45.2	42.9												
Turks & Caicos Islands **	2.5	3.7	2.6	3.9	2.5	3.6	24.5	50.9	29.6	58.5	19.1	41.8												
Virgin Islands (UK) e,*	4.0	4.7	4.8	5.5	3.2	3.9	15.9	28.6	16.9	31.3	14.8	25.6												
Virgin Islands (US) a,*	5.4	3.7	6.1	4.4	4.7	3.1	32.2	27.7	35.2	31.0	29.5	24.8												

BI 18 - 28: (a) value 2005, 2007; (b) value 2004-2006; (c) value 2003-2005; (d) valor 2003, 2004, 2006; (e) value 2004, 2006, 2008; (*) observed rates, high quality data; (**) rates observed without input for the correction.

mortality indicators

20Tc		20Ta	20Mc		20Ma	20Fc		20Fa	21Tc		21Ta	21Mc		21Ma	21Fc		21Fa	22	23	24		25
mortality rates from malignant neoplasms (100,000 pop) (2006-2008)						mortality rates from external causes (100,000 pop) (2006-2008)						corrected mortality rate (2006-2008)				rate ratio homicide mortality male:female (2006-08)						
total		male		female		total		male		female		(100,000 pop)		(100,000 male pop)			suicide	land transport accidents	male homicide			
corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted	corrected	adjusted									
127.2	106.2	133.0	120.0	121.7	95.7	67.9	64.3	106.0	101.8	30.5	27.9	7.6	17.1	30.3	7.4							
183.4	116.8	193.2	135.1	173.9	102.7	59.2	51.3	82.5	73.2	36.7	29.9	10.9	15.1	9.5	3.9							
157.1	95.4	180.6	120.8	135.0	75.9	46.7	46.1	81.0	79.2	14.6	12.7	2.5	13.5	2.1	-							
...						
183.4	116.8	193.2	135.1	173.9	102.7	59.2	51.3	82.5	73.2	36.7	29.9	10.9	15.1	9.5	3.9							
94.2	99.8	97.6	111.0	91.0	91.5	72.8	71.7	119.6	118.3	26.8	26.8	5.6	18.3	42.3	9.5							
94.3	100.0	97.7	111.1	91.2	91.7	73.1	72.0	119.9	118.7	26.9	26.8	5.6	18.3	42.4	9.5							
60.3	68.7	59.6	72.0	61.0	66.6	51.3	52.0	83.1	84.8	20.4	21.1	4.1	15.3	18.1	8.0							
63.8	84.7	61.4	84.5	66.8	85.8	85.8	93.4	143.0	159.7	29.6	31.6	6.6	13.4	57.5	8.3							
53.8	85.7	55.5	95.5	52.0	77.7	82.3	91.7	131.3	144.0	32.4	38.6	3.4	22.6	22.9	5.6							
72.0	80.1	76.7	91.2	67.2	70.6	46.5	46.2	72.7	72.4	19.4	19.6	6.5	14.8	13.5	7.6							
66.4	72.4	57.8	66.6	75.2	78.4	126.2	128.6	219.8	231.8	40.4	40.2	10.1	32.8	123.3	8.7							
56.2	86.3	53.1	83.6	60.1	89.8	95.8	110.9	160.6	191.8	32.7	36.5	3.0	3.2	64.0	7.7							
...						
59.4	89.6	53.9	85.1	65.2	94.6	66.9	72.2	111.0	121.3	23.4	25.2	12.5	15.4	30.2	9.4							
88.0	97.6	92.9	107.0	82.9	88.9	56.9	56.9	93.5	93.2	20.2	20.7	6.0	15.4	29.2	9.0							
164.8	114.4	189.6	136.6	140.6	95.1	56.0	45.4	79.5	67.8	33.0	23.6	10.6	10.4	14.2	6.1							
183.0	128.8	207.8	150.5	158.1	109.1	56.1	43.6	72.7	59.6	39.4	27.5	12.1	9.4	7.5	3.2							
...						
57.3	89.7	68.9	113.4	45.7	67.9	71.9	77.7	114.5	123.4	28.9	32.0	12.8	19.7	10.6	6.1							
136.5	93.0	169.4	117.2	106.0	72.1	51.4	44.4	80.6	72.3	24.4	18.9	8.6	15.7	4.3	4.3							
...						
160.0	101.4	193.3	130.5	130.5	79.5	46.7	38.1	73.4	63.5	23.0	16.5	7.7	11.8	5.0	4.5							
124.0	79.5	145.5	100.2	104.2	63.6	56.5	49.4	97.9	88.3	18.3	13.9	6.9	12.2	36.3	15.0							
88.7	108.8	86.0	113.6	91.0	105.0	91.3	91.7	152.7	153.1	31.4	33.0	5.0	18.7	61.7	11.6							
...						
88.6	109.2	86.3	116.7	90.4	103.6	105.9	104.1	188.1	184.8	28.4	29.4	6.7	19.6	106.6	13.0							
82.1	92.8	79.5	94.1	84.5	91.8	78.9	80.0	126.6	129.3	30.6	31.0	8.5	23.4	38.1	9.6							
100.4	123.3	95.7	125.0	102.2	119.2	67.3	72.3	96.7	104.9	39.5	42.4	1.7	8.9	5.0	5.5							
80.2	101.0	78.8	106.4	83.7	99.0	98.1	97.1	166.7	163.7	28.6	30.1	3.6	24.8	60.2	16.3							
103.8	110.1	110.5	126.9	98.0	97.3	82.3	79.1	136.2	130.6	28.4	28.2	5.6	23.5	54.9	10.5							
132.9	111.6	142.7	133.9	123.6	96.2	46.1	43.3	70.1	67.3	22.1	19.6	7.4	12.1	9.5	6.5							
144.2	113.0	158.1	140.2	130.8	94.2	48.6	44.8	73.4	69.5	24.8	21.3	7.7	11.1	7.9	5.5							
125.3	109.5	130.6	127.5	120.2	96.6	30.6	28.2	49.0	46.1	12.6	11.1	7.1	8.9	6.1	7.2							
81.9	108.0	80.4	112.1	85.9	108.0	71.4	74.0	104.9	108.8	30.3	31.8	6.4	26.6	28.4	10.3							
...						
104.8	103.8	111.0	128.0	87.1	80.5	56.4	54.1	93.8	90.2	20.6	20.3	6.8	13.6	37.6	7.5							
106.7	108.0	144.8	154.9	70.0	67.5	38.1	51.2	72.4	100.5	5.0	5.1	-	12.7	20.7	-							
96.3	104.6	108.2	126.0	85.4	88.6	43.9	44.7	68.8	69.7	21.4	22.3	0.4	2.4	2.5	3.3							
126.0	100.7	139.5	118.1	113.6	87.3	46.8	43.7	71.8	68.1	23.7	20.9	8.8	14.9	8.1	6.5							
90.7	103.8	93.4	119.9	88.1	92.6	54.4	53.3	85.6	83.5	24.4	24.5	0.7	15.6	27.9	8.1							
192.6	144.0	143.9	128.7	116.2	80.0	34.8	32.9	55.9	50.7	15.1	16.0	1.6	11.2	22.9	8.1							
...						
149.2	121.7	183.7	162.5	114.2	90.9	24.9	26.6	39.3	43.3	10.2	9.9	0.9	6.4	2.7	-							
150.5	160.2	178.6	216.9	122.6	118.9	43.3	44.3	65.4	67.5	21.3	22.6	1.3	8.7	1.3	1.0							
51.8	59.5	49.7	60.6	54.0	60.1	92.6	93.0	143.5	145.0	40.3	41.0	24.4	20.3	28.4	4.5							
126.7	184.4	181.3	229.0	71.0	137.2	35.2	118.1	69.7	214.7	-	-	-	-	27.9	-							
...						
137.0	133.0	149.8	157.8	124.2	113.0	83.6	80.0	145.7	138.6	21.8	21.6	0.7	14.4	24.7	-							
105.1	112.3	132.7	147.1	78.7	82.8	50.1	48.4	86.5	83.6	15.2	15.2	4.5	13.4	37.4	13.4							
101.5	106.4	107.2	120.1	95.8	96.5	56.6	71.3	95.7	125.2	16.7	14.9	6.1	7.3	27.3	3.2							
60.5	69.7	61.3	78.3	59.7	63.9	66.9	68.2	101.8	105.0	31.5	32.2	14.6	13.8	3.6	3.0							
102.2	107.3	113.4	142.9	91.5	85.7	73.7	67.4	124.5	114.4	25.4	24.1	11.3	16.3	50.3	8.4							
39.8	87.1	35.5	81.5	44.5	94.1	32.2	63.6	35.5	71.1	28.6	57.5	...	13.8	3.0	0.9							
92.2	116.0	109.7	127.4	73.8	103.0	47.6	51.8	78.8	82.4	14.8	20.1	-	-	11.3	3.8							
106.9	72.4	128.0	87.7	87.9	60.1	75.0	72.2	128.6	127.1	26.6	23.9	7.6	8.8	73.6	12.7							

morbidity indicators

	29 tuberculosis incidence rate 1 (100,000 pop) 2008		31 malaria risk areas pop (%) 2009	32 malaria API (1,000 pop) 2009	33 malaria reported cases 2009	34 dengue reported cases 2009	35 aids incidence rate (100,000 pop) 2008	36 male:female ratio of aids cases 2008	37 proportion of low birthweight (< 2,500 g) (%) 2006-09, lay
	total	SS+							
The Americas	23.8	13.1	2.6	4.2	567,711	1,165,399	9.9	...	7.9
North America	4.2	1.5	-	-	1,298	3	8.6	...	8.0
Bermuda	...	...	...	...	...	-	31.0 ^b	2.3 ^b	6.4
Canada	4.4	1.5	...	...	...	-	0.8	...	6.0
United States of America	4.1	1.5	-	-	1,298 ^{a,*}	3	9.4	...	8.2
Latin America & the Caribbean	35.5	19.9	4.3	7.0	566,413	1,165,396	10.5	2.7	7.8
Latin America	35.7	20.1	4.3	7.1	550,613	1,161,184	10.4	2.7	7.8
Mexico	17.3	11.0	0.8	0.0	2,703	249,763	7.1 ^c	3.7 ^c	7.1
Central American Isthmus	29.8	18.4	9.3	6.1	18,222	74,049	8.6	2.5	9.3
Belize	29.3	27.6	52.9	1.1	256	1,457	62.6 ^b	1.8 ^b	8.4
Costa Rica	11.1	6.4	1.0	4.6	262	7,214	4.5	4.7	6.5
El Salvador	28.0	16.1	...	...	20	15,040	5.2	2.8	9.4
Guatemala	23.7	15.1	14.1	1.5	7,080	10,438	7.6	2.2	8.3
Honduras	38.7	25.9	5.5	17.4	9,216	15,291	12.0 ^c	1.2 ^c	12.7
Nicaragua	41.2	24.6	...	...	610	17,140	1.3 ^b	2.4 ^b	9.0
Panama	45.1	24.4	4.9	3.3	778	7,469	24.5	3.3	9.1
Latin Caribbean	57.2	32.3	19.0	6.8	54,460	29,981	...	...	7.7
Cuba	7.3	4.4	-	-	7 [*]	96	5.3	6.4	5.1
Dominican Republic	43.0	24.7	1.6	4.3	1,643	8,292	...	...	7.7
French Guiana	...	...	...	...	3,264 ^a	11,330	...	...	12.1
Guadeloupe	...	...	-	-	-	2,234	...	...	9.6
Haiti	147.8	82.7	38.1 ^a	9.8 ^a	49,535	...	...	...	...
Martinique	...	...	-	-	11 [*]	1,378	...	...	12.9
Puerto Rico	2.4	1.3	-	-	...	6,651	15.8	...	12.5
Andean Area	51.0	30.3	10.1	10.8	166,557	215,132	4.1	2.9	7.7
Bolivia (Plurinational State of)	93.6	62.4	7.4	13.2	9,743	84,418	1.5 ^b	2.6 ^b	...
Colombia	25.2	16.0	13.6	12.6	79,252	51,543	2.8 ^b	3.0 ^b	8.6
Ecuador	35.9	25.1	5.2	3.0	4,120	4,489	8.2	2.9	6.1
Peru	111.6	62.4	8.0 ^a	...	36,886 ^a	8,813	5.2	2.8	7.1
Venezuela (Bolivarian Republic of)	22.8	11.9	...	...	36,556	65,869	...	...	...
Brazil	38.2	19.6	2.2	12.2 ^g	308,498	591,254	18.0	1.5	8.2
Southern Cone	21.9	11.5	0.5	0.4	173	30,986	4.3	3.6	6.9
Argentina	23.1	11.9	0.7 ^a	0.6 ^a	73	26,612	3.5	2.6	7.3
Chile	14.4	6.6	-	-	4 [*]	27	5.1 ^b	7.1 ^b	5.9
Paraguay	35.6	21.6	...	0.1	91	4,347	5.2	2.0	6.3
Uruguay	20.5	12.7	-	-	5 [*]	-	7.2 ^c	2.4 ^c	9.3
Non-Latin Caribbean	19.1	10.9	7.1	11.0	15,800	4,212	38.7	2.0	11.2
Anguilla	...	...	-	-	-	-	7.3 ^c	- ^c	17.9
Antigua & Barbuda	1.2	1.2	-	-	-	-	22.5	2.8	5.8
Aruba	...	...	...	...	...	2,791	2.0	-	...
Bahamas	14.2	9.2	-	-	14 ^{a,*}	-	94.8	1.5	11.6
Barbados	1.1	0.4	...	...	...	91	32.8	1.4	11.7
Cayman Islands	2.1	2.1	-	-	1 [*]	2	4.1 ^b	- ^{b, e}	6.3
Dominica	17.9	4.1	-	-	-	2	...	...	9.7
Grenada	4.7	4.7	-	-	1 [*]	23	21.5 ^b	1.5 ^b	7.5
Guyana	85.5	41.9	40.4	43.0	13,673	994	...	...	11.2
Jamaica	3.9	2.9	-	-	22 [*]	70	49.0	1.3	12.1
Montserrat	...	...	-	-	-	-	19.7	- ^d	8.0
Netherlands Antilles	...	...	...	...	...	...	...	...	...
Saint Kitts & Nevis	10.2	10.2	-	-	1 [*]	2	6.1 ^b	- ^{b, f}	9.8
Saint Lucia	13.2	11.3	-	-	1 [*]	18	23.1 ^b	1.1 ^b	10.1
Saint Vincent & the Grenadines	11.4	10.5	-	-	1 ^{a,*}	10	44.9 ^b	1.6 ^b	7.9
Suriname	21.0	13.2	9.8 ^a	43.5 ^a	2,086 ^a	120	...	...	10.9
Trinidad & Tobago	20.9	12.7	...	...	...	24	14.3 ^c	4.0 ^c	10.2
Turks & Caicos Islands	33.3	33.3	...	...	...	-	58.2	3.5	8.8
Virgin Islands (UK)	...	...	-	-	-^a	65	41.6	2.0	4.6
Virgin Islands (US)	...	...	...	...	...	-	31.0 ^c	...	12.3

Cholera, 2009

country	cases
CAN	2 (imported)
EUA	10 (includes 8 imported)
PRY	5
total	17

Measles, 2009

country	cases
ARG	3
CAN	14
CHL	1
USA	71
total	89

cases related to importation

Yellow Fever, 2009

country	cases	deaths
BRA	47	17
COL	5	2
PER	8	5
total	60	24

Source:

Health Surveillance and Disease Prevention and Control Area/ Communicable Diseases Project, HSD/CD, PAHO, 2010

Family and Community Health Area/ Comprehensive Family Immunization Project FCH/IM, PAHO, 2010

As of July 30 2010

BI 29: (1) new and relapse cases.

BI 29 - 36: (a) value 2008; (b) value 2009; (c) value 2007; (d) 1:0; (e) 0:2; (f) 3:0; (g) Amazonas Region.

BI 33: (*) imported cases.

resources, access & coverage indicators

	38	39	40	41	42A	42B	43	44	45	46	47	48	49								
	human resources per 10,000 pop				hospital beds per 1,000 pop	national health expenditure as a % of GDP								health care by trained personnel (%)			immunization coverage (%)			contraceptive use (women, all methods) (%)	
	physicians c2008	nurses c2008	dentists c2008			2006-09, lay								public 2009	private 2009	prenatal	at birth	year	DPT3 2009		Polio3 2009	BCG 2009	measles/MMR 2009
The Americas	19.3	38.9	5.7	2.3	...	...	94.6	93.0	90	90	96	94	66						
North America	25.4	85.0	4.8	3.1	...	...	99.0	99.5	95	93	n/a	92	...						
Bermuda	...	...	...	6.7	7.6 b, l	6.9 c, r	100.0	100.0	2007	96	96	n/a	95	...				
Canada	20.0	85.4	6.0	3.4	7.5	1.4 o	...	100.0	2009	80 f	80 f	n/a	93 f	...							
United States of America	26.0	85.0	4.6	3.1	7.7 c	4.6 o	99.0	99.5	2006	96 f, c	94 f, c	n/a	92 f, c	62							
Latin America & the Caribbean	15.4	9.1	6.3	1.9	...	...	93.2	89.8	88	88	96	94	68						
Latin America	15.5	9.1	6.3	1.9	...	...	93.3	90.0	88	88	96	94	68						
Mexico	14.0	19.0	0.7	1.6 a	4.9 k	2.7 p	94.2 e	93.8	2008	72	72	98	96	71							
Central American Isthmus	11.6	8.5	3.5	1.0	...	...	90.5	69.1	93	92	94	93	48						
Belize	7.0	10.1	0.4	1.1 a	3.0 b, l	1.3 c, o	94.6	93.5	2009	97	98	99	97	...							
Costa Rica	18.6	19.1	8.7	1.2	6.2	3.4 c, p	81.6	99.0	2009	86	80	81	81	81							
El Salvador	20.1	5.1	8.1	1.1	2.9 l	5.0 p	83.2	84.9	2009	91 #	91 #	87 #	90 #	14 a							
Guatemala	9.9	9.0	1.7	0.6 a	2.1 l	4.8 c, p	93.0	51.2	2008	92	92	93	92	54							
Honduras	3.0	2.0	0.3	0.8 a	4.1 l	2.9 p	91.7	66.9	2006	98	98	100	100	43							
Nicaragua	...	...	...	0.9 a	5.0 b, l	4.2 q	90.2 e	85.8	2008	98	99	100*	100*	72				
Panama	13.4	12.3	2.8	2.2 #	4.3 c	2.0 b, p	93.1 c	96.3	2009	84	84	100	85	12 a							
Latin Caribbean	...	...	...	2.9	...	...	93.3	69.2	78	79	83	78	76			
Cuba	66.3	95.9	10.0	5.9	10.0 c, m	...	100.0	99.9	2009	96	100	99	100*	78							
Dominican Republic	13.2	2.0	1.4	1.0 a	1.8 l	5.3 c, p	98.9	97.8	2007	82	85	96	90	73							
French Guiana	...	...	...	2.7	...	...	97.2	...	2007	...	...	...	...	...		
Guadeloupe	...	...	...	5.5	14.0 b, l	...	97.2 e	99.3	2008	...	...	...	...	...		
Haiti	...	...	...	1.3	...	2.9 e, p	84.5	26.1	2005	68	65	66	60 g	32				
Martinique	...	...	...	4.1	...	...	97.2	99.9	2008	...	...	...	...	...		
Puerto Rico	22.0	65.9	3.9	3.1	...	...	99.5	99.8	2008	...	...	...	...	...		
Andean Area	12.6	8.0	5.1	1.3	...	...	90.7	87.7	91	89	93	92	51						
Bolivia (Plurinational State of)	4.9	5.5	0.7	1.1	3.3 c	1.6 c, p	...	63.9	2007	85	84	88	86	21							
Colombia	15.0	8.0	9.0	1.0	3.5 d	1.5 c, p	90.4	98.0	2007	92	92	90	95	56							
Ecuador	16.2	6.5	2.2	1.5	2.7 l	3.7 c, p	84.1 b	71.4	2008	100*	100*	100*	100*	...							
Peru	9.2	9.5	1.2	1.5	2.0 l, n	1.9 q	94.3	82.5	2009	93	92	97	91	73							
Venezuela (Bolivarian Republic of)	13.0	8.0	5.7	1.3 a	2.8 b, l	2.3 c, p	...	95.0	2005	84	78	91	87	30							
Brazil	16.0	6.0	10.8	2.4	3.6 c	3.7 p	96.7	98.6	2007	97	98	100*	99	81							
Southern Cone	24.3	4.6	6.5	2.0	...	...	90.1	98.7	91	92	95	94	60						
Argentina	32.1	3.8	9.3	...	4.6 c, k	3.3 o	88.4 d	99.5	2008	94	95	100	100	54							
Chile	9.3	4.3	1.8	2.1	5.1 k	3.3 c, p	95.7	99.9	2008	92 #	92 #	95 #	93 #	64							
Paraguay	13.0	9.0	0.9	1.3	2.3 l	3.2 c, p	86.5	93.1	2008	72 #	74 #	73 #	71 #	79							
Uruguay	29.0	8.0	7.0	2.9 a	9.0 b	3.6 c, p	96.5	99.7	2009	95	95	99	95	78							
Non-Latin Caribbean	7.2	14.5	2.5	2.4	...	...	96.4	96.4	92	92	95	92	...						
Anguilla	...	...	...	2.2	3.0 b	2.7 o	100.0	100.0	2009	100*	100*	100*	100*	...				
Antigua & Barbuda	...	...	...	2.2	1.8 b	0.7 o	100.0	100.0	2009	99	98	n/a	99	...				
Aruba	...	...	...	...	10.0 b, l	1.9 c, p	...	...	...	98	98	n/a	95	68
Bahamas	...	...	...	3.1	3.2 b	2.7 c, o	98.0	99.0	2008	96	97	n/a	98	...				
Barbados	13.0	40.0	34.0	7.6	4.4 d	1.6 e, o	100.0	100.0	2008	93	93	n/a	94	...							
Cayman Islands	27.0	59.0	6.5	2.8	3.0 b	...	98.8	100.0	2009	89 c	89 c	80 c	86 c	...							
Dominica	17.0	51.0	2.9	3.8	3.8 m	2.8 o	100.0	100.0	2009	100	99	99	100*	...							
Grenada	7.6	43.9	2.1	2.4	2.9 m	4.0 o	100.0	100.0	2009	99	100	n/a	100*	...							
Guyana	2.2	4.0	0.4	1.9	5.3 b	1.7 r	96.3 e	93.3	2007	98	97	98	97	34							
Jamaica	4.0	8.0	0.2	1.7 a	2.6 l	3.0 c, p	...	95.7	2009	90	90	94	88	73							
Montserrat	...	...	...	6.0	9.0 b	0.8 o	100.0	100.0	2009	100	100	96	100	...				
Netherlands Antilles	...	...	...	...	14.0 c, l	0.7 c, o	...	...	...	100 h, *	100 h, *	n/a	100 h, *	...
Saint Kitts & Nevis	...	...	...	6.0	2.2 b	3.0 o	100.0 b	100.0	2009	100*	100*	100*	100*	54				
Saint Lucia	8.0	19.0	1.6	1.4	2.4 m	3.4 p	98.9	100.0	2008	95	95	97	100*	...							
Saint Vincent & the Grenadines	6.0	24.0	1.9	3.0	3.5 b	0.8 o	99.5 c	98.9	2009	100*	100*	80	100*	20 a							
Suriname	8.9	16.3	1.0	3.1	...	1.0 c, o	90.0	90.0	2007	87	85	n/a	88	46							
Trinidad & Tobago	13.3	20.4	2.2	2.5	...	2.3 c, p	97.1	99.7	2006	90	90	n/a	94	...							
Turks & Caicos Islands	...	...	...	1.4	8.8 b	...	96.8	100.0	2009	100*	100*	100	100	15 a				
Virgin Islands (UK)	...	...	...	2.5	2.8 b	...	99.0	100.0	2009	91	92	96	93	...				
Virgin Islands (US)	...	...	...	...	...	...	92.1	98.9	2006	...	...	...	...	...		

BI 41 - 49: (a) value public sector; (b) value 2007; (c) value 2008; (d) value 2005; (e) value 2006; (f) < 2 years; (g) < 1 year; (h) St. Marteen; (*) reported coverage > 100%; (#) preliminar; (k) incl. 'Obras Sociales' (ARG), ISAPRES y FONASA (CHL), IAMC (RUY), IMSS and 'Seguro Popular' (MEX); (l) institutional expenditure; (m) expenditure by activities or budgetary program; (n) incl. sanitation; (o) medical care and expenses; (p) health; (q) health care and conservation; (r) personal care and health.

socioeconomic indicators

	50T	50M	50F	51 calories availability (Kcal/pc/day)	52A	52B	53 annual GDP growth (%)	54 highest 20%/ lowest 20% income ratio	55T	55U	55R	56T	56U	56R
	literate population (15+ years old) (%) 2008				gross national income (US\$ per capita) 2008				population with access (%) to					
	total	male	female		2007	current value			ppp value	2007-08	2005-07, lay	improved facilities of drinking water sources			improved sanitation facilities
									total	urban	rural	total	urban	rural
The Americas	...	...	...	3,213	22,797	24,450	2.9	17.6	96	98	85	87	92	71
North America	...	...	...	3,727	47,516	46,011	0.4	...	99	100	95	100	100	99
Bermuda	...	...	...	2,598	...	...	4.6 ^a	...	...	...	...	...	...	...
Canada	...	...	...	3,532	43,640	38,710	0.4	...	100	100	99	100	100	99
United States of America	...	...	...	3,748	47,930	46,790	0.4	...	99	100	94	100	100	99
Latin America & the Caribbean	...	...	...	2,891	6,994	10,643	4.5	17.6	93	97	79	79	86	55
Latin America	91.5	92.4	90.6	2,905	7,018	10,686	4.5	17.6	93	97	80	79	86	54
Mexico	92.9	94.6	91.5	3,266	9,990	14,340	1.8	14.8	94	96	87	85	90	68
Central American Isthmus	82.3	85.2	79.7	2,444	3,114	5,885	4.0	17.2	91	97	83	77	83	68
Belize	...	...	...	2,718	3,740	5,940	3.8	...	99	99	100	90	93	86
Costa Rica	96.0	95.7	96.2	2,840	6,060	10,960	2.6	12.3	97	100	91	95	95	96
El Salvador	84.0	87.1	81.4	2,590	3,460	6,630	2.5	12.2	87	94	76	87	89	83
Guatemala	73.8	79.5	68.7	2,159	2,680	4,690	4.0	16.8	94	98	90	81	89	73
Honduras	83.6 ^a	83.7 ^a	83.5 ^a	2,623	1,740	3,830	4.0	23.9	86	95	77	71	80	62
Nicaragua	...	...	...	2,403	1,080	2,620	3.5	15.0	85	98	68	52	63	37
Panama	93.5	94.1	92.8	2,484	6,690	12,630	9.2	23.1	93	97	83	69	75	51
Latin Caribbean	...	...	...	2,505	...	...	...	...	81	87	72	65	75	47
Cuba	99.8	99.8	99.8	3,274	...	...	...	...	94	96	89	91	94	81
Dominican Republic	88.2 ^a	88.2 ^a	88.3 ^a	2,295	4,330	7,800	5.3	12.3	86	87	84	83	87	74
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...	...	...	...	98	...	...	95	...
Haiti	...	...	...	1,870	...	...	1.3	...	63	71	55	17	24	10
Martinique	...	...	...	...	...	...	...	...	...	100	...	...	95	...
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Andean Area	91.7	93.7	89.9	2,531	5,170	8,914	5.4	18.9	89	96	72	70	79	49
Bolivia (Plurinational State of)	90.7 ^a	96.0 ^a	86.0 ^a	2,064	1,460	4,140	6.1	22.4	86	96	67	25	34	9
Colombia	93.4	93.3	93.4	2,685	4,620	8,430	2.5	26.6	92	99	73	74	81	55
Ecuador	84.2 ^a	87.3 ^a	81.7 ^a	2,301	3,690	7,780	6.5	17.2	94	97	88	92	96	84
Peru	89.6 ^a	94.9 ^a	84.6 ^a	2,457	3,990	7,950	8.8	15.4	82	90	61	68	81	36
Venezuela (Bolivarian Republic of)	95.2 ^a	95.4 ^a	94.9 ^a	2,632	9,230	12,850	4.8	10.0	...	...	...	...	...	...
Brazil	90.0 ^a	89.8 ^a	90.2 ^a	3,113	7,300	10,080	5.1	19.4	97	99	84	80	87	37
Southern Cone	97.7	97.7	97.6	2,901	7,310	12,846	5.9	14.6	94	98	75	90	93	67
Argentina	97.7	97.6	97.7	2,941	7,190	14,000	6.8	14.7	97	98	80	90	91	77
Chile	98.6	98.6	98.7	2,920	9,370	13,250	3.2	13.8	96	99	75	96	98	83
Paraguay	94.6 ^a	95.7 ^a	93.5 ^a	2,634	2,110	4,660	5.8	16.9	86	99	66	70	90	40
Uruguay	98.2	97.8	98.5	2,829	8,260	12,550	8.9	12.0	100	100	100	100	100	99
Non-Latin Caribbean	...	...	...	2,780	8,025	10,912	1.3	...	95	98	92	87	88	87
Anguilla	...	...	...	...	...	...	...	...	...	...	...	...	99	...
Antigua & Barbuda	99.0	98.4	99.4	2,368	13,200	19,660	2.5	...	...	96	...	...	98	...
Aruba	98.1	98.2	98.0	...	...	...	...	...	100	99	100	...	...	...
Bahamas	...	...	...	2,713	21,390 ^a	...	2.8 ^a	...	...	98	...	100	100	100
Barbados	...	...	...	3,056	...	...	...	...	100	100	100	100	100	100
Cayman Islands	98.9 ^a	98.7 ^a	99.0 ^a	...	...	...	...	...	...	95	...	...	96	...
Dominica	...	...	...	3,157	4,750	8,300	4.3	...	...	...	...	...	...	...
Grenada	...	...	...	2,454	5,880	8,430	2.1	...	...	97	...	98	96	97
Guyana	...	...	...	2,759	1,450	3,030	3.0	...	94	98	93	81	85	80
Jamaica	85.9	80.6	90.8	2,852	4,800	7,370	-1.3	...	94	98	89	83	82	84
Montserrat	...	...	...	...	...	...	...	...	100	100	100	96	96	96
Netherlands Antilles	96.3	96.3	96.3	3,004	...	...	...	...	...	...	...	...	...	...
Saint Kitts & Nevis	...	...	...	2,513	10,870	15,490	8.2	...	100	100	100	96	96	96
Saint Lucia	...	...	...	2,738	5,410	9,020	0.5	...	98	97	98	...	...	...
Saint Vincent & the Grenadines	...	...	...	2,821	5,050	8,570	-1.1	...	...	...	...	...	...	96
Suriname	90.7	93.0	88.4	2,492	4,760	6,680	5.1	...	93	97	81	84	90	66
Trinidad & Tobago	98.7	99.1	98.2	2,725	16,590	24,240	3.5	...	94	98	93	92	92	92
Turks & Caicos Islands	...	...	...	...	...	...	...	...	98	98	98	...	98	...
Virgin Islands (UK)	...	...	...	...	...	...	...	...	100	100	100	100	100	100
Virgin Islands (US)	...	...	...	...	...	...	...	...	...	...	...	...	...	...

infant mortality: an analysis of the progress to reach the target of MDG 4

Figure 1: Decrease (%) of infant mortality rate (IMR) during period 2004-2009 and annual percentual variation required to achieve MDG 4 by 2015 in the Region of the Americas

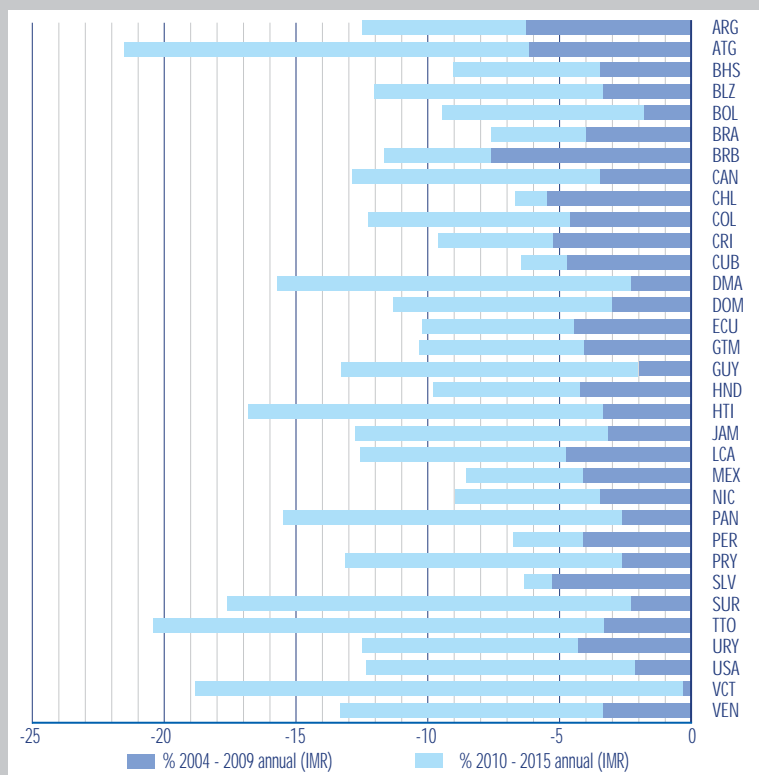


Table 1: Comparison of IMR reported and estimated

country	year	IMR reported	IMR estimated	differences (%)
ARG	2008	12.5	12.8	2.3
ATG	2009	15.7	13.0	-20.8
BHS	2008	17.9	16.3	-9.8
BLZ	2009	17.9	20.7	13.5
BOL	2008	50.0	38.2	-30.9
BRA	2007	20.0	20.7	3.4
BRB	2008	13.3	11.0	-20.9
COL	2007	5.1	5.0	-2.0
CRI	2008	7.9	6.7	-17.9
CUB	2007	15.3	15.7	2.5
DMA	2009	8.8	8.7	-1.1
DOM	2009	4.8	4.8	-
ECU	2009	22.2	14.9	-49.0
GTM	2009	28.8	23.8	-21.0
GUY	2008	16.4	18.7	12.3
HND	2008	30.0	28.6	-4.9
HTI	2005	22.0	36.4	39.6
JAM	2006	23.0	22.0	-4.5
LCA	2006	57.0	52.9	-7.8
MEX	2008	24.1	17.2	-40.1
NIC	2005	15.0	13.4	-11.9
PAN	2008	15.2	16.1	5.6
PER	2006	33.0	26.4	-25.0
PRY	2008	12.7	16.4	22.6
SLV	2007	20.0	22.1	9.5
SUR	2008	16.9	18.7	9.6
TTO	2007	21.5	19.8	-8.6
URY	2007	19.8	33.2	40.4
USA	2006	13.1	26.7	50.9
VCT	2009	9.6	11.1	13.5
VEN	2007	6.8	6.7	-1.5
VEN	2008	15.8	15.6	-1.3

Infant mortality is one of the most important indicators that reflect population health in general and evaluates access and quality of resources of infant and maternal health in particular. The target of Millennium Development Goal (MDG) 4 is the reduction of the under-five mortality rate by two-thirds between 1990 and 2015. Based on the knowledge that approximately 80% of the deaths of children under five years old in the Region of the Americas occur among children under one year old, infant mortality will be used for the analysis presented here.

Currently, to a greater or lesser extent, problems with infant birth and mortality registration data still exist. Also, various sources for both the infant mortality rate (IMR) numerator and denominator are being used; for example, registered or estimated live births or survey results, which impact on the consistency of the time series data available to PAHO.

To contribute to a critical discussion of MDG 4, we decided to carry out this comparison exercise with the aim to enrich the process of improving health information and reports in our countries. IMR time series estimates will be used based on statistical models as published by Rajaratnam JK et al in *The Lancet* in 2010. The authors evaluated the IMR decline during the 1990–2010 period. In the analysis presented here, the countries' progress over the 2004–2009 period will be evaluated, as well as the annual rate of reduction that will be required over the next five years in order to achieve the MDG 4 target by 2015. Comparisons of and differences between the IMR reported by the countries and the estimates presented by Rajaratnam JK et al, are shown in Table 1.

When comparing IMR reported to PAHO and the estimates by Rajaratnam JK et al, it can be observed that 30% of countries report IMRs close to the latter's estimates. On the other hand, Dominica's reported rate is 49% higher than its estimated rate, while Jamaica's is 40%, Bolivia's is 30%, and Nicaragua's is 25%. Four countries report IMR lower than the estimated rates: Saint Vincent and the Grenadines, Guyana, Suriname, and Trinidad and Tobago present differences that range between 34% and 50%. According to *The Lancet* article, countries which had the lowest IMR reduction during 1990–2010 were Saint Vincent and the Grenadines (6.7%), Trinidad and Tobago (15.4%), Antigua and Barbuda (23.2%), Suriname (23.3%), Dominica (31.0%), Panama (33.6%), and Guyana (37.4%). Countries that presented the highest percentage of decline were Chile (64.7%), El Salvador (64.6%), Cuba (63.5%), Peru (62.1%), Brazil (59.8%), and Barbados (59.1%). Cuba and Chile are among the countries with the lowest IMR in 1990 and also presented a strong reduction during the evaluation period.

Figure 1 depicts the percentage decline of IMR over the 2004–2009 period. A slow decline is observed in some countries (Brazil, Chile, Cuba, El Salvador, Guatemala, Nicaragua, and Peru), especially those which had presented an important decline since 1990. One of the possible explanations is that neonatal mortality has diminished at a slower pace when compared to postneonatal mortality. Seven countries (Brazil, Barbados, Chile, Costa Rica, Cuba, El Salvador, and Peru) had a substantial IMR decline and in order to reach the target, their progress over the next five years can be less than in the previous quinquennium. A large number of the countries of the Americas will have to duplicate the amount of their decline over the 2004–2009 period in order to achieve the MDG 4 target by 2015. On the other hand, in accordance with published estimates of infant mortality trends in the Region of the Americas (Rajaratnam JK et al, 2010; United Nations and Regional Agencies—report coordinated by ECLAC, 2008) there is a significant reduction of IMR in the Region, regardless of the differences among the values of the rates estimated for every country. The Americas is on track to achieve the reduction of the infant mortality rate by two-thirds by 2015.

References: Estimated IMR: Rajaratnam JK, Marcus JR, Flaxman AD, Wang H, Levin-Rector A, Dwyer L, et al. Neonatal, postneonatal, childhood, and under-5 mortality for 187 countries, 1970–2010: a systematic analysis of progress towards Millennium Development Goal 4. *The Lancet* 2010;375(9730):1988–2008. Reported IMR: Ministry of health data provided through corresponding PAHO/WHO country offices, latest year available. ECLAC: Millennium Development Goals. New York: United Nations; 2008.

The analysis includes 33 countries for which data are available.

technical notes & sources

Technical notes:

- Infant mortality rate (IMR) and maternal mortality ratio (MMR) (BI 10, 11) are reported by countries. For some countries due to the small number of events, rate/ratio does not meet standards for reliability and precision and number of events are presented. An increase of MMR or IMR may reflect an improvement in data coverage and quality.
- Certified deaths due to ill-defined and unknown conditions (BI 16) refers to death certificates issued in a given year for which the underlying cause of death was symptoms, signs, and ill-defined and unknown conditions (ICD-10: R00-R99).
- Mortality under-registration (BI 17) is determined by subtracting from 1 the total cumulative deaths registered in a country-period divided by the corresponding total cumulative estimated deaths, obtained after applying the UN estimated crude death rates to the corresponding population estimates by the UN. For countries with population fewer than 300,000 pop, US Census Bureau rate and population are applied.
- Corrected mortality rates (BI 18Tc/Mc/Fc – IB 28Tc/Mc/Fc) were computed based on registered mortality data, applying a correction algorithm for mortality under-registration and a redistribution algorithm for deaths from ill-defined causes. The methodology used is presented in Health Statistics from the Americas, 2006 edition (<http://www.paho.org/HSA2006>). Observed rates are presented for two groups of countries. One of these includes countries with high quality data (proportion of under-registration and ill-defined causes of death are lower than 10% in the last two available years) and the other group includes countries that lack of required inputs for correction.
- Age-adjusted mortality rates (BI 18 Ta/Ma/Fa – BI 28Ta/Ma/Fa) were computed by direct standardization to the World Standard Population (2,400 under 1 year; 9,600 from 1 to 4 years; 19,000 from 5 to 14 years; 43,000 from 15 to 44 years; 19,000 from 45 to 64 years; and 7,000 65 years and older) (WHO, World Health Statistics Annual; 1996 Edition; Geneva, 1998).
- Malaria risk areas population (BI 31) shows the proportion of the total population in a country living in high and moderate malaria transmission risk areas. Moderate risk: API between 1 to 10/1,000 pop; high risk: API > 10/1,000 pop.
- National Health Expenditure (BI 42AB) corresponds to expenditure in the function Health (Division 07) of the functional classification of government expenditure of the International Family of Classifications of the United Nations. It includes expenditures by general government, from social security funds and other public health insurance systems (mandatory). Project PAHO/ECCB update of government expenditure of Caribbean countries (CFG). Data are from the public finance statistics of the International Monetary Fund and from financial reports of public health insurance institutions. For further information: www.paho.org/PolicyandResearch.
- Denominator for rates of BI 29, 30, 31, 35 and 41: WPP 2008 or US Bureau of the Census.

Subregional aggregates express average values weighted by respective denominator. The sum of the total is presented for absolute numbers. Values from different years are included in this total.

Information presented in this publication supersedes that of previous editions and is under ongoing review. Users are advised not to compare data series between different editions. Data sources were defined to ensure comparability; therefore, statistics can differ from national statistics.

Data sources:

- Technical reports from PAHO/WHO Country Representatives; Region of the Americas; 2010, (BI 10, 12, 37, 41, 43-44, 49). As of June 18 2010.
- Technical reports from PAHO/WHO Regional Areas; 2010 (BI 29-36, 38-40, 42AB, 45-48). As of June 18 2010.
- United Nations Population Division. World Population Prospects (WPP): The 2008 Revision, New York; 2009 (BI 1-6, 9THM).
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- United Nations. Food and Agriculture Organization (FAO), FAOSTAT Statistical Database. Rome (BI 51). Accessed July 12 2010 at: <http://apps.fao.org>.
- The World Bank 2010 World Development Indicators. Washington, D.C.; 2010 (BI 52AB-54).
- WHO/UNICEF. Joint Monitoring Programme (JMP) for Water Supply and Sanitation. (BI 55-56). Accessed July 10 2010 at <http://www.wssinfo.org/datamining/tables.html>.

Abbreviations:

(-) magnitude zero; (0) magnitude less than half the measurement unit; (...) data not available; (c) circa; (pop) population; (lb) live births; (lay) latest available year; (ppp) purchasing power parity; (GDP) gross domestic product; (ADD) acute diarrheal diseases; CIE-10: A00-A09; (ARI) acute respiratory infections; CIE-10: J00-J22; (SS+) sputum smear positive; (API) annual parasite index; (aids) acquired immunodeficiency syndrome; (DPT3) diphtheria-pertussis-tetanus, third dose; (Polio 3) oral polio vaccine or inactivated polio vaccine, third dose; (BCG) anti-tuberculosis vaccine (bacille Calmette-Guerin); (MMR) measles, mumps and rubella; (n/a) not applicable; (IB) basic indicator.

Country codes according to ISO 3166-1:

Aruba (ABW), Anguilla (AIA), Netherlands Antilles (ANT), Argentina (ARG), Antigua and Barbuda (ATG), Bahamas (BHS), Belize (BLZ), Bermuda (BMU), Bolivia (BOL), Brazil (BRA), Barbados (BRB), Canada (CAN), Chile (CHL), Colombia (COL), Costa Rica (CRI), Cuba (CUB), Cayman Islands (CYM), Dominica (DMA), Dominican Republic (DOM), Ecuador (ECU), Guadeloupe (GLP), Grenada (GRD), Guatemala (GTM), French Guiana (GUF), Guyana (GUY), Honduras (HND), Haiti (HTI), Jamaica (JAM), Saint Kitts & Nevis (KNA), Saint Lucia (LCA), Mexico (MEX), Montserrat (MSR), Martinique (MTQ), Nicaragua (NIC), Panama (PAN), Peru (PER), Puerto Rico (PRI), Paraguay (PRY), El Salvador (SLV), Suriname (SUR), Turks and Caicos Islands (TCA), Trinidad & Tobago (TTO), Uruguay (URY), United States of America (USA), Saint Vincent & the Grenadines (VCT), Venezuela (VEN), Virgin Islands UK (VGB) and Virgin Islands US (VIR).

Suggested citation:

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PAHO/HSD/HA/10.01