

# health situation in the americas Basic Indicators

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**Pan American  
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Office of the Assistant Director  
Health Surveillance, Disease Prevention and Control  
Health Information and Analysis



World Health Organization Our health Our future

# **preface**

This fourteenth publication on the health situation of the Region of the Americas includes a set of basic indicators and provides the latest information available on 56 basic indicators for 48 countries and territories, as well as for groupings of countries or sub-regions. Resolution CD40.R10, *Collection and Use of Core Health Data*, requires the Member States of the Pan American Health Organization (PAHO) to gather data in order to develop these basic indicators.

This year the publication includes an analysis of the quality of mortality data based on the proportion of mortality under-registration and on the proportion of deaths assigned to ill-defined and unknown causes. This information was used to develop an index for classifying the quality of mortality data. The results show that of the 32 countries studied, 19 (59%) have good quality mortality data, and 7 countries (22%) have poor or very poor quality mortality data. In addition to problems with data quality, 2 countries from Central America and 14 Caribbean countries were excluded from the analysis due to their critical situation in the availability of mortality data.

There is also a comparison between estimated infant and maternal mortality using the World Health Organization methodology and those calculated from data reported by the countries. This comparison allows for better visualization of differences between different ways of measuring the same indicator and provides a parameter for discussing the validity of these important health indicators.

Information required for decision-making must be available, but also accurate and timely. In this publication we want to emphasize those aspects that reveal differences in the quality of data observed among the different countries in the Region. By doing so, it is expected that those responsible for health statistics in the countries of the Americas will be encouraged to implement improvements in the collection, validation, analysis and dissemination of data.

Strengthening and improving health information is everyone's responsibility, therefore, PAHO developed the *Regional Plan of Action for Strengthening Vital and Health Statistics*, approved by the Executive Committee (Resolution CE142.R4, June 2008)<sup>1</sup>. The Plan requests PAHO to provide technical cooperation to countries in order to improve the quality and coverage of vital and health statistics, to promote horizontal cooperation, to establish a collaboration mechanism among the different areas of PAHO, and to coordinate actions with other international agencies and relevant actors in order to strengthen the health information systems of the countries in the Region.

The material presented in this brochure has been compiled, drafted, and reviewed by PAHO staff at Headquarters and country levels and staff from ministries of health. For more information, including all basic indicators and their definitions, please refer to [www.paho.org/english/dd/ais/coredata.htm](http://www.paho.org/english/dd/ais/coredata.htm).



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(1) More information can be found at <http://www.paho.org/english/gov/ce/ce142.r4-e.pdf>

# demographic indicators

	1 total population (thousands)	2 crude birth rate (1,000 pop)	3 annual births average (thousands)	4 annual deaths average (thousands)	5 annual pop growth (%)	6 total fertility rate (child/woman)	7 urban population (%)	8 dependency ratio (100 pop)	9T life expectancy at birth (years) 2008	9M	9F
	2008	2008	2008	2008	2008	2008	2008	2008	total	male	female
The Americas	921,420	17.3	16,052.6	6,297.8	1.1	2.2	79.7	52.7	75.5	72.6	78.4
North America	342,035	13.6	4,663.4	2,801.8	0.9	2.0	81.6	48.6	78.6	76.0	81.1
Bermuda	67	11.2	0.7	0.5	0.5	1.9	100.0	44.7	78.3	76.2	80.5
Canada	33,170	10.3	343.3	248.8	0.9	1.5	80.4	44.0	80.8	78.5	83.1
United States of America	308,798	13.9	4,319.4	2,552.5	1.0	2.0	81.7	49.1	78.4	75.7	80.9
Latin America & the Caribbean	579,385	19.5	11,389.2	3,496.0	1.2	2.3	78.4	54.8	73.4	70.2	76.5
Latin America	572,388	19.6	11,268.0	3,444.4	1.2	2.3	79.0	55.1	73.7	70.6	76.9
Mexico	107,801	19.0	2,054.2	519.1	1.1	2.2	77.2	54.8	76.4	74.0	78.8
Central American Isthmus	41,788	26.3	1,108.6	223.7	1.9	3.2	55.2	71.3	72.5	69.4	75.7
Belize	294	24.7	7.3	1.1	2.0	2.9	51.7	67.2	76.1	73.3	79.3
Costa Rica	4,534	17.5	79.6	18.8	1.5	2.1	63.3	49.2	78.9	76.6	81.4
El Salvador	6,953	22.5	157.0	41.1	1.3	2.6	60.7	62.8	72.1	69.0	75.1
Guatemala	13,686	32.7	453.6	77.8	2.5	4.1	48.5	87.1	70.5	67.0	74.0
Honduras	7,246	27.4	200.7	40.9	1.9	3.2	47.9	73.8	70.4	67.2	73.9
Nicaragua	5,676	24.5	140.4	26.7	1.3	2.7	56.8	67.1	73.2	70.2	76.3
Panama	3,399	20.5	70.0	17.3	1.6	2.5	73.2	56.1	75.7	73.2	78.4
Latin Caribbean	35,987	19.0	686.7	272.3	0.9	2.4	69.1	56.9	72.2	69.7	74.8
Cuba	11,265	10.3	115.6	85.6	0.0	1.5	75.7	42.9	78.4	76.4	80.6
Dominican Republic	9,904	23.2	230.7	59.3	1.4	2.8	69.0	62.6	72.4	69.5	75.7
French Guiana	207	23.5	4.9	0.8	2.4	3.2	76.0	61.4	76.0	72.7	80.0
Guadeloupe	448	14.5	6.5	2.9	0.6	2.1	98.3	51.6	79.3	76.1	82.3
Haiti	9,751	27.5	270.5	89.5	1.6	3.5	46.8	69.7	61.3	59.4	63.2
Martinique	400	12.2	4.9	3.1	0.3	1.9	98.0	50.9	79.7	76.7	82.4
Puerto Rico	4,012	13.3	53.6	31.1	0.5	1.8	98.3	52.0	78.9	74.9	82.8
Andean Area	126,259	20.4	2,593.7	723.5	1.3	2.5	76.4	56.1	72.6	69.6	75.8
Bolivia	9,694	26.8	262.0	73.3	1.7	3.4	65.6	70.7	65.9	63.8	68.0
Colombia	46,741	18.5	866.8	260.9	1.2	2.2	74.5	52.1	73.1	69.5	76.8
Ecuador	13,481	20.7	280.1	70.2	1.1	2.5	65.6	60.7	75.2	72.3	78.2
Peru	28,221	20.6	586.6	174.0	1.2	2.5	71.4	56.3	71.7	69.2	74.3
Venezuela	28,122	21.1	598.2	145.1	1.6	2.5	93.4	55.2	73.9	71.0	77.0
Brazil	194,228	18.8	3,672.1	1,241.1	1.2	2.2	85.6	50.9	72.6	69.0	76.3
Southern Cone	66,325	17.3	1,152.7	464.7	1.0	2.2	88.1	54.9	76.0	72.6	79.4
Argentina	39,934	17.4	697.0	306.9	1.0	2.2	92.0	56.2	75.5	71.7	79.2
Chile	16,803	14.9	251.9	91.9	1.0	1.9	88.5	47.3	78.7	75.6	81.7
Paraguay	6,238	24.4	153.6	34.8	1.8	3.0	60.3	65.2	72.0	69.9	74.1
Uruguay	3,350	14.9	50.2	31.1	0.3	2.1	92.3	58.2	76.6	73.0	80.0
Non-Latin Caribbean	6,997	17.3	121.2	51.6	0.5	2.1	46.2	52.9	72.0	69.4	74.7
Anguilla	14	13.1	0.2	0.1	2.3	1.8	100.0	47.9	80.5	78.0	83.1
Antigua & Barbuda	70	16.4	1.1	0.4	0.5	2.2	30.5	43.9	72.7	70.3	75.2
Aruba	104	13.6	1.4	0.7	0.1	2.0	46.8	45.7	74.4	71.4	77.2
Bahamas	335	16.7	5.6	2.0	1.2	2.0	83.7	49.1	73.9	71.0	76.7
Barbados	295	10.9	3.2	2.1	0.3	1.5	39.8	37.7	77.5	74.6	80.0
Cayman Islands	48	12.4	0.6	0.2	2.4	1.9	100.0	40.7	80.3	77.7	83.0
Dominica	73	15.7	1.1	0.6	0.2	2.1	73.9	53.7	75.3	72.4	78.4
Grenada	106	18.1	1.9	0.9	0.0	2.3	30.9	56.4	68.9	67.1	70.5
Guyana	736	16.7	12.2	6.2	-0.3	2.3	28.4	58.3	67.1	64.6	70.3
Jamaica	2,728	19.7	53.8	19.5	0.5	2.4	53.3	61.2	72.7	70.1	75.3
Montserrat	10	17.3	0.2	0.1	1.0	1.8	14.0	51.8	79.2	76.9	81.5
Netherlands Antilles	194	12.3	2.4	1.5	1.2	1.9	92.7	45.1	75.3	71.5	78.9
Saint Kitts & Nevis	40	17.8	0.7	0.3	0.7	2.3	32.3	53.0	72.9	70.1	76.0
Saint Lucia	167	18.8	3.2	1.1	1.1	2.2	27.8	51.2	73.9	72.0	75.8
Saint Vincent & the Grenadines	121	19.8	2.4	0.8	0.5	2.2	47.0	53.5	71.8	69.7	74.0
Suriname	461	19.2	8.9	3.2	0.5	2.4	74.9	55.0	70.4	67.2	73.7
Trinidad & Tobago	1,338	14.8	19.9	10.9	0.4	1.6	13.2	39.3	70.1	68.2	72.1
Turks & Caicos Islands	22	21.1	0.5	0.1	2.6	3.0	91.8	53.4	75.2	72.9	77.6
Virgin Islands (UK)	24	14.8	0.4	0.1	1.9	1.7	40.6	34.2	77.1	75.9	78.3
Virgin Islands (US)	111	13.4	1.5	0.8	-0.1	2.1	94.8	54.0	79.5	75.6	83.4

BI 1 - 9: countries with less than 100,000 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 of indicators from UN.

# mortality indicators

	10 maternal mortality ratio (100,000 lb) or number of deaths (Nº)		11 infant mortality rate (1,000 lb) or number of deaths (Nº)		12 estimated under 5 mortality (1,000 lb) 2006		14 15 registered deaths under 5 due to		16 ill-defined and unknown causes (%) (2005)		17 mortality under- registration (%) (2003-05)	
	ratio (Nº)	year	rate (Nº)	year	by UN	by WHO	ADD (%)	ARI (%)	year			
The Americas	67.5		16.1		22	21	3.5	6.2		4.9		8.6
North America	15.1		6.8		8	8	0.1	1.6		1.3		1.0
Bermuda	-	2005	n/a	1 2005	...	...	...	...		...		...
Canada	5.9	2004	5.4	2005	6	6	0.1	1.1	2004	1.2 <sup>a</sup>		1.8 <sup>d</sup>
United States of America	15.1	2005	6.9	2005	8	8	0.1	1.7	2005	1.3		0.9
Latin America & the Caribbean	89.2		20.2		28	26	4.9	8.1		7.1		15.0
Latin America	89.4		20.2		28	26	4.9	8.1		7.1		15.0
Mexico	58.6	2006	15.7	2007	21	35	4.1	8.3	2006	1.9 <sup>b</sup>		1.6 <sup>e</sup>
Central American Isthmus	118.4		22.3		35	32	10.7	20.1		8.6		16.2
Belize	n/a	6 2007	17.2	2007	21	16	...	...		...		...
Costa Rica	n/a	14 2007	10.1	2007	12	12	1.1	4.7	2007	1.4 <sup>c</sup>		5.3 <sup>e</sup>
El Salvador	71.2	2005	21.5	2007	30	25	8.8	13.5	2006	14.2 <sup>b</sup>		21.6 <sup>e</sup>
Guatemala	148.8	2005	...		41	41	14.7	30.7	2004	10.4 <sup>a</sup>		7.6 <sup>d</sup>
Honduras	...		23.0	2006	43	27	...	...		...		...
Nicaragua	90.4	2006	33.0	2006	27	36	8.0	10.0	2005	3.5		38.8
Panama	83.6	2006	14.8	2006	24	23	6.5	7.3	2004	7.9 <sup>a</sup>		16.2 <sup>d</sup>
Latin Caribbean	306.8		34.5		43	47	5.7	5.3		12.1		42.8
Cuba	30.2	2007	5.3	2007	7	7	1.4	5.9	2006	0.8 <sup>b</sup>		-
Dominican Republic	72.8	2007	30.7	2007	34	29	4.7	4.7	2004	7.2 <sup>a</sup>		48.7 <sup>d</sup>
French Guiana	...		10.4	2003	15	...	4.8	6.0	2005	11.8		-
Guadeloupe	n/a	3 2004	7.1	2005	9	...	-	1.9	2005	8.3		-
Haiti	630.0	2006	57.0	2006	74	80	10.3	6.4	2004	35.2 <sup>a</sup>		93.5 <sup>d</sup>
Martinique	-	2004	6.1	2003	8	...	-	-	2005	8.5		7.4
Puerto Rico	n/a	2 2006	8.7	2006	9	...	-	1.8	2005	0.6		1.8
Andean Area	89.5		21.5		30	26	5.5	9.2		4.5		25.7
Bolivia	229.0	2003	54.0	2003	63	61	7.1	4.4	2003	...		...
Colombia	73.1	2005	15.9	2005	27	21	4.3	8.0	2005	1.7		22.7
Ecuador	73.0	2006	20.1	2006	27	24	6.0	15.5	2005	11.9		15.4
Peru	...		21.0	2003	31	25	3.3	13.9	2004	9.5 <sup>a</sup>		47.0 <sup>d</sup>
Venezuela	59.9	2005	16.5	2006	22	21	8.5	5.5	2005	0.6		10.1
Brazil	74.7	2005	21.2	2005	30	20	4.4	6.0	2005	10.4		13.4
Southern Cone	51.3		12.4		18	16	1.5	4.4		6.9		2.5
Argentina	47.8	2006	12.9	2006	16	17	1.2	3.7	2005	7.4		1.4 <sup>e</sup>
Chile	18.1	2006	7.6	2006	9	9	0.5	4.7	2005	2.8		-
Paraguay	121.4	2006	18.0	2006	39	22	4.9	7.3	2006	14.1 <sup>b</sup>		32.5 <sup>e</sup>
Uruguay	n/a	14 2007	11.9	2007	16	15	1.7	4.9	2004	8.0 <sup>a</sup>		- <sup>f</sup>
Non-Latin Caribbean	92.1		...		24	34	3.6	4.8		3.4		11.4
Anguilla	-	2007	...		...	...	-	-	2006	5.5 <sup>b</sup>		...
Antigua & Barbuda	-	2007	21.8	2007	...	11	-	2.4	2004	3.7 <sup>a</sup>		...
Aruba	n/a	1 2004	n/a	3 2004	20	...	-	-	2004	5.9 <sup>a</sup>		40.1 <sup>d</sup>
Bahamas	n/a	4 2007	17.6	2007	18	14	...	...		...		...
Barbados	-	2005	14.2	2005	12	12	...	...		...		...
Cayman Islands	-	2007	n/a	6 2007	...	...	-	-	2003	2.2 <sup>g</sup>		...
Dominica	-	2007	n/a	13 2007	...	15	-	-	2004	5.4 <sup>a</sup>		...
Grenada	-	2007	11.0	2007	43	20	4.3	8.7	2005	0.8		7.1
Guyana	161.2	2005	22.0	2005	59	62	9.9	6.1	2005	1.1		21.4
Jamaica	95.0	2003	...		18	32	...	...		...		...
Montserrat	-	2007	n/a	1 2007	...	...	-	-	2003	...		...
Netherlands Antilles	...		...		17	...	...	...		...		...
Saint Kitts & Nevis	-	2007	n/a	15 2007	...	19	-	-	2005	1.1		...
Saint Lucia	n/a	1 2006	15.0	2005	17	14	...	...		...		...
Saint Vincent & the Grenadines	n/a	2 2007	26.2	2006	28	20	2.9	-	2004	1.4 <sup>a</sup>		4.4 <sup>d</sup>
Suriname	n/a	8 2006	19.1	2006	36	39	2.4	8.7	2003	8.7 <sup>g</sup>		9.6
Trinidad & Tobago	n/a	9 2004	16.5	2004	18	38	-	3.0	2004	...		5.1 <sup>d</sup>
Turks & Caicos Islands	n/a	1 2007	n/a	2 2007	...	...	-	-	2005	3.8		...
Virgin Islands (UK)	-	2006	n/a	6 2006	...	...	-	-	2003	...		...
Virgin Islands (US)	-	2005	n/a	11 2005	10	...	-	-	2005	1.7		5.4

BI 16 - 17: (a) value 2004; (b) value 2006; (c) value 2007; (d) value 2002-2004; (e) value 2004-2006; (f) value 2001, 2003, 2004; (g) value 2003.

# mortality indicators

	18Tc 18Ta 18Mc 18Ma 18Fc 18Fa general mortality rates (all causes) (1,000 pop) (2003-2005)						19Tc 19Ta 19Mc 19Ma 19Fc 19Fa mortality rates from communicable diseases (100,000 pop) (2003-2005)					
	total corrected adjusted		male corrected adjusted		female corrected adjusted		total corrected adjusted		male corrected adjusted		female corrected adjusted	
	The Americas	6.8	6.3	7.4	7.3	6.3	5.3	56.4	55.5	61.0	63.9	51.9
North America	8.1	5.3	8.1	6.0	8.1	4.7	42.6	28.2	42.2	31.6	43.0	25.0
Bermuda	...	...	...	...	...	...	...	...	...	...	...	...
Canada a	7.1	4.4	7.3	5.0	7.0	3.8	28.6	17.4	27.4	19.0	29.8	15.9
United States of America	8.2	5.4	8.2	6.1	8.2	4.8	44.1	29.4	43.8	33.0	44.4	26.0
Latin America & the Caribbean	6.1	6.8	6.9	8.1	5.3	5.6	64.8	74.4	72.6	86.4	57.4	63.5
Latin America	6.1	6.8	6.9	8.0	5.3	5.6	64.7	74.3	72.5	86.3	57.3	63.5
Mexico b	5.3	6.2	6.1	7.3	4.6	5.2	37.7	46.3	44.7	55.0	31.1	38.4
Central American Isthmus	5.3	6.8	6.0	7.8	4.6	5.8	86.7	102.6	94.9	115.1	78.7	91.3
Belize	...	...	...	...	...	...	...	...	...	...	...	...
Costa Rica b	4.1	4.7	4.5	5.4	3.6	4.0	20.8	23.8	23.1	27.1	18.5	20.6
El Salvador b	5.9	7.1	6.6	8.3	5.3	6.0	71.9	92.9	76.9	107.6	67.4	81.6
Guatemala a	5.5	7.2	6.5	8.5	4.6	6.0	142.8	160.2	157.7	178.4	128.4	143.3
Honduras b	5.1	6.9	5.7	7.7	4.6	6.1	...	...	...	...	...	...
Nicaragua	5.4	7.7	6.0	8.6	4.8	6.8	49.6	68.2	53.1	74.2	46.2	62.6
Panama a	5.1	5.9	5.8	6.8	4.4	5.0	56.4	63.2	67.9	77.3	44.5	48.9
Latin Caribbean	7.9	7.8	8.5	8.8	7.2	6.9	139.9	146.5	158.7	169.2	122.8	126.9
Cuba b	7.8	5.6	8.3	6.3	7.3	5.0	67.2	47.3	70.2	53.0	64.3	42.0
Dominican Republic a	6.5	7.8	7.4	8.9	5.6	6.8	76.1	85.1	86.2	95.6	65.8	75.6
French Guiana	3.9	5.3	4.7	6.3	3.0	4.2	48.3	60.3	53.3	66.7	43.0	53.3
Guadeloupe	6.3	4.9	7.2	6.2	5.6	3.9	39.9	31.5	44.8	39.2	35.3	24.7
Haiti a	9.9	12.3	10.4	13.2	9.4	11.6	337.9	384.2	390.4	455.4	292.5	325.3
Martinique	6.8	4.4	7.5	5.5	6.1	3.6	47.1	30.4	53.8	38.9	41.0	23.4
Puerto Rico	7.4	5.1	8.5	6.5	6.3	3.9	67.8	48.3	81.1	63.4	55.4	35.5
Andean Area	5.6	6.8	6.3	7.9	4.9	5.8	63.2	79.9	70.9	91.8	55.6	69.0
Bolivia b	7.8	9.5	8.3	10.5	7.2	8.5	...	...	...	...	...	...
Colombia	5.4	6.7	6.1	7.9	4.7	5.6	40.1	52.2	45.1	60.3	35.2	45.2
Ecuador	4.3	5.0	4.8	5.8	3.7	4.1	52.5	59.9	61.0	71.0	43.9	49.2
Peru a	6.2	7.6	6.9	8.6	5.6	6.6	126.7	156.3	140.8	177.7	112.6	136.2
Venezuela	5.1	6.3	5.8	7.4	4.3	5.3	43.1	58.0	47.9	65.4	38.4	50.8
Brazil	6.4	7.1	7.5	8.6	5.4	5.8	62.3	72.0	70.1	84.3	54.7	60.7
Southern Cone	6.9	5.9	7.5	7.2	6.4	4.8	67.5	57.9	69.3	67.6	65.7	49.6
Argentina b	7.6	6.0	8.2	7.5	7.0	4.9	83.7	65.2	84.9	76.6	82.6	55.8
Chile	5.3	4.9	5.8	6.0	4.8	4.0	33.2	30.8	35.0	36.4	31.5	25.9
Paraguay b	5.6	7.3	6.2	8.2	5.1	6.4	59.8	78.0	66.9	88.6	52.6	67.9
Uruguay c	9.3	6.0	9.8	7.4	8.9	4.8	58.1	40.3	60.2	48.1	56.1	33.8
Non-Latin Caribbean	7.0	7.6	8.0	9.2	6.0	6.2	78.5	81.4	94.4	101.5	62.8	62.8
Anguilla b	4.0	3.9	4.6	4.4	3.5	3.3	2.6	2.4	-	-	5.3	4.7
Antigua & Barbuda a	6.9	9.8	7.3	12.0	6.5	8.1	45.2	61.8	45.2	70.2	45.3	55.0
Aruba a	4.2	3.8	4.6	4.5	3.8	3.2	34.6	31.4	38.1	37.4	31.5	26.4
Bahamas	...	...	...	...	...	...	...	...	...	...	...	...
Barbados	...	...	...	...	...	...	...	...	...	...	...	...
Cayman Islands a	3.3	3.2	3.8	3.7	2.9	2.7	23.1	22.4	28.0	28.0	18.2	16.7
Dominica a	8.0	6.8	8.3	7.7	7.8	6.0	60.7	52.7	63.3	59.8	58.2	45.7
Grenada	8.0	8.9	8.7	11.4	7.3	6.9	83.3	89.7	79.2	100.4	87.3	80.0
Guyana	6.9	8.0	7.9	9.3	6.0	6.8	114.9	123.2	136.3	148.2	93.1	98.2
Jamaica	...	...	...	...	...	...	...	...	...	...	...	...
Montserrat	...	...	...	...	...	...	...	...	...	...	...	...
Netherlands Antilles	...	...	...	...	...	...	...	...	...	...	...	...
Saint Kitts & Nevis	7.8	7.0	8.4	8.4	7.2	5.7	96.2	84.2	102.2	101.9	90.2	69.9
Saint Lucia	...	...	...	...	...	...	...	...	...	...	...	...
Saint Vincent & the Grenadines a	6.6	7.6	7.0	8.9	6.2	6.5	77.1	86.2	90.2	108.7	64.0	65.6
Suriname	6.2	7.0	7.2	8.6	5.2	5.5	82.5	85.9	103.2	112.7	61.3	61.2
Trinidad & Tobago a	7.5	8.2	8.7	10.1	6.4	6.6	65.9	67.1	81.6	86.4	50.6	50.1
Turks & Caicos Islands	2.2	3.0	2.4	3.1	2.1	3.0	41.5	47.7	55.3	69.5	27.2	27.4
Virgin Islands (UK)	...	...	...	...	...	...	...	...	...	...	...	...
Virgin Islands (US)	5.7	4.4	7.0	5.8	4.6	3.3	30.7	23.7	35.2	27.4	26.7	20.9

BI 18 - 28: (a) value 2002-2004; (b) value 2004-2006; (c) URY refers to 2004-2006 for general mortality and to 2001, 2003, 2004 for cause-specific mortality.

BI 19: ICD-10 codes A00-B99, G00-G03, J00-J22; ICD-9 codes 001-139, 320-322, 460-466, 480-487.

# mortality indicators

20Tc mortality rates from malignant neoplasms (100,000 pop) (2003-2005)	20Ta mortality rates from external causes (100,000 pop) (2003-2005)	20Mc 20Ma 20Fc 20Fa	21Tc mortality rates from external causes (100,000 pop) (2003-2005)	21Ta 21Mc 21Ma 21Fc 21Fa	22 corrected mortality rate (2003-2005)		25 rate ratio homicide mortality male:female (2003-05)	
					23 (100,000 pop)			
					24 (100,000 male pop)			
total corrected adjusted	male corrected adjusted	female corrected adjusted	total corrected adjusted	male corrected adjusted	female corrected adjusted	suicide land transport accidents	male homicide	
133.7	116.3	140.4	132.9	127.4	103.8	66.8	64.3	8.4
192.2	123.9	202.6	144.1	182.2	108.5	56.3	48.3	3.7
211.6	130.0	225.2	150.3	198.4	114.2	44.1	35.0	2.5
190.2	123.2	200.2	143.4	180.4	107.9	57.6	49.7	3.8
97.6	106.1	102.1	119.2	93.4	95.9	73.3	73.9	10.0
97.6	106.1	102.2	119.2	93.5	96.0	73.3	74.0	10.1
70.3	78.2	70.8	83.3	69.7	73.2	57.6	60.7	7.3
70.2	96.0	65.3	95.2	76.4	98.9	78.5	83.3	8.2
88.4	102.7	93.0	116.1	83.8	90.6	50.8	49.2	5.5
77.6	93.1	61.7	86.4	97.7	106.3	114.8	107.6	7.6
56.1	89.5	51.7	84.8	60.3	93.9	77.5	93.3	10.0
67.1	102.0	59.5	94.6	76.1	111.6	70.7	80.1	7.6
89.3	102.6	94.8	111.1	83.9	94.1	56.5	57.5	8.8
117.2	110.1	130.2	128.5	104.2	94.6	69.5	62.5	6.1
184.1	130.8	207.6	151.9	159.9	112.9	64.5	54.0	3.1
88.5	110.7	94.8	125.5	82.5	97.1	90.0	79.6	7.2
70.0	103.6	83.5	128.1	56.1	79.8	75.8	81.1	6.0
154.6	117.4	191.2	159.2	120.4	85.8	53.8	47.7	4.3
56.7	81.6	57.9	87.6	55.4	76.7	63.0	61.5	10.9
176.4	114.7	210.5	148.0	145.6	89.5	47.5	39.0	4.4
123.2	82.4	143.5	103.2	104.5	66.7	54.7	49.3	13.6
87.8	107.6	83.8	111.2	92.8	105.9	89.5	87.7	10.3
88.1	110.6	83.5	116.9	94.4	108.8	109.3	100.9	9.9
66.3	79.7	64.1	81.3	68.5	78.7	61.3	63.5	10.4
109.5	126.2	105.5	126.2	112.5	124.1	57.7	69.7	5.3
76.0	98.5	72.0	102.5	81.9	96.1	102.2	94.6	13.9
102.5	111.2	111.6	128.4	93.8	97.9	80.8	83.4	11.6
147.9	124.7	160.7	152.4	135.5	104.3	49.3	45.5	7.2
156.8	125.8	172.6	155.9	141.7	103.7	47.8	44.4	6.0
128.2	117.1	133.0	136.2	123.4	103.3	46.4	43.7	9.0
91.1	115.3	92.2	127.5	90.1	104.4	63.1	55.4	11.4
240.4	158.4	285.1	212.0	199.0	119.2	56.0	48.6	3.3
90.1	98.9	98.4	118.2	82.0	83.9	68.6	67.2	6.6
110.6	106.0	146.8	142.2	74.2	74.2	38.1	35.9	20.7
128.1	185.3	147.8	263.2	108.0	133.0	35.8	38.0	3.0
126.7	114.1	132.2	132.1	121.7	100.6	16.3	14.7	...
72.5	66.2	90.6	83.7	54.6	50.6	35.2	34.2	...
196.5	164.8	236.0	212.5	157.1	125.0	35.2	33.6	5.9
136.2	154.2	159.3	213.6	113.9	113.9	50.4	56.0	0.7
56.0	66.7	55.0	69.7	57.0	65.6	94.1	95.7	4.9
102.4	94.3	125.9	129.0	79.1	68.7	59.6	56.7	...
100.3	121.8	109.2	147.0	91.4	102.4	49.5	53.8	...
74.2	85.3	74.4	93.7	74.2	78.7	74.1	75.8	4.4
102.0	110.5	113.1	135.7	91.2	91.3	62.3	58.5	33.3
25.5	41.0	13.2	22.0	38.1	59.7	34.8	36.1	...
109.7	79.3	135.1	104.1	86.6	60.0	59.9	59.2	15.1
86.6	116.3	140.4	132.9	127.4	103.8	66.8	64.3	60.4

BI 23: ICD-10 codes V01 - V89.

BI 24: ICD-10 codes X85 - Y09.

# mortality indicators

26Tc mortality rates from diabetes mellitus (100,000 pop) (2003-2005)						27Tc mortality rates from ischemic heart diseases (100,000 pop) (2003-2005)						28Tc mortality rates from cerebrovascular diseases (100,000 pop) (2003-2005)					
total corrected adjusted		male corrected adjusted		female corrected adjusted		total corrected adjusted		male corrected adjusted		female corrected adjusted		total corrected adjusted		male corrected adjusted		female corrected adjusted	
32.0	27.0	29.8	27.7	34.2	26.3	96.2	81.0	104.7	98.3	88.0	66.1	50.7	42.3	46.5	42.9	54.9	41.7
25.3	16.0	24.9	17.8	25.7	14.5	154.1	93.9	162.6	113.9	145.8	76.9	51.1	30.7	40.9	28.3	61.1	32.4
25.3	14.8	25.8	17.0	24.8	12.8	128.8	74.3	142.8	93.5	115.1	57.7	48.5	27.4	40.3	25.9	56.5	28.4
25.3	16.2	24.8	17.9	25.8	14.7	156.8	96.1	164.7	116.2	149.1	79.0	51.4	31.1	40.9	28.6	61.5	32.8
36.1	38.8	32.8	38.1	39.4	39.4	60.5	65.5	69.0	80.8	52.2	52.2	50.4	54.3	50.0	58.0	51.1	51.2
35.9	38.6	32.6	37.8	39.2	39.2	60.2	65.2	68.8	80.5	52.0	52.0	50.3	54.1	49.8	57.8	50.9	51.0
74.0	83.1	70.4	83.3	77.1	81.9	58.9	66.2	67.8	80.4	50.4	53.9	30.6	34.5	30.0	35.8	31.1	33.2
25.2	35.5	20.8	30.8	30.2	40.2	41.8	59.1	44.7	67.0	39.4	52.0	28.3	39.6	27.5	40.8	29.3	38.8
18.3	21.8	15.7	19.9	21.1	23.6	57.8	69.8	65.9	84.4	49.4	56.2	24.2	29.2	22.8	29.3	25.8	29.1
26.2	32.2	19.5	27.2	34.6	37.2	48.1	59.3	46.3	66.8	51.2	53.8	22.5	27.5	19.6	28.0	26.3	27.8
21.1	35.5	18.6	31.8	23.5	38.9	17.8	29.6	20.1	34.2	15.6	25.4	20.1	32.8	20.5	34.4	19.8	31.3
33.9	54.5	27.4	45.6	41.2	63.9	66.9	110.2	68.4	117.0	65.8	104.0	40.2	65.8	38.1	65.2	42.7	66.9
33.5	39.1	27.4	32.4	40.1	46.1	56.1	65.6	63.8	75.5	48.3	55.7	57.1	66.6	58.9	69.5	55.6	63.9
31.1	28.7	26.5	25.7	35.7	31.4	88.9	82.1	94.9	93.7	82.9	71.6	75.3	69.1	72.6	70.0	77.9	68.3
19.1	13.2	13.0	9.6	25.6	16.7	150.4	99.9	157.5	111.8	143.4	88.5	80.9	53.8	76.4	54.0	85.8	53.8
29.3	36.8	26.4	33.4	32.7	40.4	81.8	105.4	89.5	117.5	74.2	93.3	65.8	85.8	68.6	92.0	63.5	79.9
12.8	20.5	9.5	15.1	16.0	25.8	13.0	19.1	16.9	24.5	8.9	13.3	37.0	58.0	42.2	65.2	31.6	50.3
34.4	25.2	27.9	23.1	40.5	26.6	27.0	20.2	29.3	24.6	25.0	16.6	77.3	56.4	78.3	64.5	76.5	50.0
31.9	46.3	25.6	37.9	37.0	53.1	18.2	27.5	16.6	25.8	19.5	28.8	93.9	143.5	85.1	131.3	100.8	153.5
31.0	18.4	23.8	15.8	37.5	20.3	26.4	16.2	27.2	19.0	25.7	13.9	81.0	48.4	86.4	58.4	76.1	40.7
68.6	44.3	69.8	50.3	67.6	39.5	108.0	68.2	124.5	88.1	92.8	52.4	40.2	25.1	41.0	28.5	39.5	22.5
22.2	28.4	19.7	27.1	25.2	29.7	57.1	73.1	63.1	87.3	51.4	60.3	35.0	44.2	32.7	44.6	37.9	44.1
21.7	28.0	17.9	25.7	26.1	30.3	72.5	93.9	78.2	113.2	67.4	77.7	40.3	51.9	35.6	51.3	46.1	53.1
23.7	29.1	20.7	26.7	26.7	31.3	21.3	25.9	25.8	32.9	16.8	19.4	26.8	32.3	27.1	34.4	26.4	30.3
13.9	16.0	13.6	16.6	14.1	15.4	30.5	34.1	34.3	40.7	26.7	28.3	28.1	31.6	28.8	33.9	27.3	29.3
30.9	42.0	28.6	41.0	34.1	43.1	75.8	104.2	85.5	123.8	66.2	85.5	37.0	51.2	34.7	51.1	40.3	51.5
28.7	30.9	24.9	28.6	32.6	33.0	62.6	67.4	72.9	83.7	52.5	53.0	66.3	70.9	67.7	77.7	65.0	65.5
25.7	20.9	25.2	23.6	26.2	18.7	54.8	44.6	65.9	62.1	44.0	30.5	60.1	48.6	58.6	55.0	61.5	43.4
24.8	19.0	25.7	22.9	23.8	15.9	53.4	40.9	65.4	58.7	41.9	26.8	58.4	44.6	58.3	51.9	58.6	38.7
21.5	19.4	20.7	21.3	22.3	18.0	51.2	46.3	60.6	62.1	42.1	33.5	50.0	45.1	48.8	50.2	51.2	41.1
45.1	61.3	35.3	50.5	55.2	70.8	50.9	69.2	59.3	84.9	42.2	54.8	64.1	87.6	60.8	87.9	67.6	87.0
22.9	13.7	22.0	15.5	23.8	12.3	94.7	57.1	109.6	79.0	80.8	40.4	120.6	71.0	107.6	75.8	132.6	66.8
73.8	82.2	70.2	84.8	77.5	80.0	97.7	108.7	113.0	136.0	82.7	85.0	77.2	86.0	77.1	93.8	77.3	79.4
55.3	53.1	26.2	25.8	84.8	78.9	29.0	27.3	31.5	30.5	26.5	23.4	29.0	27.2	21.0	20.2	37.1	34.2
87.9	130.8	80.4	146.7	95.6	121.5	67.6	102.1	70.4	125.5	64.8	84.5	63.0	92.8	53.3	90.4	73.0	94.3
-	-	-	-	-	-	62.8	56.5	80.7	79.1	46.2	38.5	35.7	32.3	33.6	33.7	37.8	31.2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.2	21.4	16.5	16.0	28.1	26.6	51.9	48.0	62.0	58.1	41.9	38.1	21.4	20.2	18.1	17.7	24.8	22.6
60.2	47.7	44.9	40.7	75.5	53.0	32.7	26.2	38.8	34.1	26.5	19.7	44.4	35.4	32.7	29.9	56.1	39.3
79.4	89.1	67.0	91.3	91.3	86.6	53.6	61.1	66.2	91.5	41.4	38.8	73.8	81.9	66.7	90.9	80.7	75.2
53.0	64.8	44.3	56.0	61.8	73.2	84.9	103.9	95.9	121.9	73.6	86.5	79.4	98.3	79.9	103.5	78.9	92.9
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.0	26.2	25.2	25.8	34.7	25.5	84.3	73.6	92.4	93.6	76.4	56.6	100.4	86.7	75.6	76.5	125.0	94.7
95.7	114.3	71.3	95.4	119.9	130.1	64.7	75.5	63.2	84.5	66.3	67.3	54.4	63.3	48.3	64.1	60.5	62.2
33.7	39.5	32.8	41.4	34.7	37.9	58.3	68.5	73.0	91.7	43.4	47.8	107.1	126.5	110.5	140.9	103.9	114.0
105.0	115.5	106.9	128.5	103.1	104.6	132.5	146.2	154.6	186.5	111.0	112.7	76.6	84.6	78.1	95.5	75.2	76.1
14.7	24.8	15.8	27.2	13.6	22.3	10.7	15.1	10.5	13.2	10.9	17.1	-	-	-	-	-	-
34.1	24.3	36.5	28.3	32.0	21.3	121.1	84.8	137.0	104.0	106.7	69.1	40.3	29.6	41.0	32.7	39.7	26.9

# morbidity indicators

	29 tuberculosis incidence rate <sup>1</sup> (100,000 pop) 2006	30 malaria risk areas pop (%)	31 malaria API	32 malaria reported cases (1,000 pop)	33 malaria reported cases	34 dengue reported cases	35 aids incidence rate (100,000 pop)	36 male-female ratio of aids cases	37 proportion of low birthweight (<2,500 g) (%)	
	total	SS+	2007	2007	2007	2007	2006	2006	2004-07, lay	
<b>The Americas</b>	25.0	14.0	6.3	7.1	779,055	902,662	11.5	2.8	8.0	
<b>North America</b>	4.5	1.6	-	-	1,732	488	12.2	2.8	8.0	
Bermuda	4.5	3.0	-	-	...	-	12.1	3.0	6.0	
Canada	4.4	1.2	-	-	168 b, c	- b	0.8	3.1	6.0	
United States of America	4.5	1.7	-	-	1,564 b, c	488	13.4 a	2.8 a	8.2	
<b>Latin America &amp; the Caribbean</b>	37.1	21.2	10.1	11.2	777,323	902,174	10.9	2.7	8.0	
<b>Latin America</b>	37.4	21.4	10.2	11.3	761,586	898,628	10.8	2.8	8.0	
Mexico	17.0	11.3	1.8 b	1.4 b	2,514 b	48,436	5.1	3.7	8.3	
<b>Central American Isthmus</b>	31.5	19.7	9.2	16.6	31,697	83,167	7.4	2.9	8.7	
Belize	30.1	21.3	46.8	6.0	845	40	15.2	1.0	6.9	
Costa Rica	11.1	6.5	3.3	7.8	1,223	26,440	4.2	7.0	6.8	
El Salvador	24.3	13.5	27.4 b	- b	49 b	12,476	6.1	2.5	8.0	
Guatemala	27.8	19.2	3.0	36.8	15,382	5,886	7.4	2.1	...	
Honduras	45.9	29.0	8.7 b	12.9 b	11,561 b	33,508	8.3	1.2	10.0	
Nicaragua	36.1	23.2	10.7 a	8.1 a	1,356	1,415	1.1	4.6	8.3	
Panama	49.8	26.1	-	3.8	1,281	3,402	22.7	2.9	9.3	
<b>Latin Caribbean</b>	55.9	31.3	24.2	2.8	31,105	29,677	6.2	...	7.9	
Cuba	6.8	3.8	-	-	35 c	28	3.2	5.1	5.2	
Dominican Republic	47.4	27.6	9.0 b	4.7 b	3,525 b	9,628	3.5	1.4	...	
French Guiana	35.9 a, g	...	10.9 b	120.2 b	4,074 b	661	...	...	...	
Guadeloupe	7.8 a, g	...	-	-	6 b, c	3,266	...	...	9.8	
Haiti	147.8	79.0	80.1	3.1	23,452	...	...	...	...	
Martinique	6.1 a, g	...	-	-	10 b, c	5,082	5.8	2.3	11.5	
Puerto Rico	2.8	1.7	-	-	3 c	11,012	21.4	2.2	13.0	
<b>Andean Area</b>	53.4	32.0	16.0	14.7	236,731	149,013	11.7	3.4	7.8	
Bolivia	96.4	61.9	7.5	19.6	14,458	7,332	2.0	2.5	...	
Colombia	24.4	16.8	11.4	19.3	107,189	43,541	1.6	2.8	8.1	
Ecuador	34.8	24.1	22.1 b	2.2 b	8,464	10,587	3.6	3.1	5.4	
Peru	124.4	69.8	32.5 b	7.2 b	64,871 b	6,907	3.5	3.0	8.4	
Venezuela	24.7	13.0	7.3	19.0	41,749	80,646	43.8	5.2	8.0	
<b>Brazil</b>	41.0	21.7	11.4	18.6	458,487	559,954	17.2	1.5	8.1	
<b>Southern Cone</b>	22.7	12.5	2.2	0.3	1,052	28,381	3.6	3.5	6.8	
Argentina	24.0	12.4	- b	0.5 b	209 b	173	3.6	2.4	7.2	
Chile	15.1	9.3	-	-	5 c	27	2.5	6.4	5.9	
Paraguay	38.4	24.0	23.6 b	0.3 b	823 b	28,181	5.6	3.1	6.0	
Uruguay	16.7	9.2	-	-	15 b, c	-	4.9	2.3	8.3	
<b>Non-Latin Caribbean</b>	19.2	9.6	2.3	11.4	15,737	3,546	33.1	1.3	12.2	
Anguilla	-	-	-	-	- b	-	-	-	16.0	
Antigua & Barbuda	5.8	5.8	-	-	-	1	10.1	...	5.3	
Aruba	...	...	-	-	...	-	-	0.0	...	
Bahamas	...	...	-	-	49 b, c	-	77.7	1.4	10.5	
Barbados	1.7	1.4	-	-	3 a, c	1,426	34.5	1.6	13.6	
Cayman Islands	-	-	-	-	1 b, c	- b	17.8	3.0	7.9	
Dominica	27.5	11.6	-	-	-	111	5.8	...	10.1	
Grenada	0.9	0.9	-	-	-	-	10.4	1.2	9.0	
Guyana	96.1	39.8	15.2	101.6	11,657	352	25.8	1.5	12.6	
Jamaica	3.5	2.3	-	-	382 b, c	1,448	43.9	1.3	13.7	
Montserrat	-	-	-	-	- b	-	-	0.0	11.9	
Netherlands Antilles	2.6	2.6	-	-	...	- b	...	...	...	
Saint Kitts & Nevis	2.6	2.6	-	-	...	-	23.1	0.8	10.8	
Saint Lucia	9.2	8.0	-	-	-	39	16.1 a	1.5 a	11.4	
Saint Vincent & the Grenadines	10.8	6.7	-	-	-	2	34.2	1.7	7.9	
Suriname	27.9	13.8	10.5 b	...	3,631 b	41	45.3	1.1	10.9	
Trinidad & Tobago	17.5	11.2	-	-	14 c	47	10.3	1.4	10.5	
Turks & Caicos Islands	33.3	33.3	-	-	...	-	42.9	0.5	...	
Virgin Islands (UK)	- a	- a	-	-	- b	6	4.3 a	...	11.0	
Virgin Islands (US)	...	...	-	-	-	73	28.8	1.0	11.2	

## Cholera, 2007

country cases

CAN 1 (imported)

USA 7 (includes 4 imported)

total 8 \*

## Measles&, 2007

country cases

CAN 101

USA 43

VEN 32

total 176

## Yellow Fever, 2007

country cases deaths

BOL 6 6

BRA 13 10

COL 6 6

PRY 1 0

PER 23 18

total 49 40 \*

\* Source:  
Prevention and Control of  
Communicable Diseases;  
PAHO, 2008 and  
Comprehensive Family  
Immunization Project;  
PAHO, 2008

# resources, access & coverage indicators

	38 human resources per 10,000 pop			41 hospital beds per 1,000 pop		42A national health expenditure as a % of GDP		43 44		45 immunization coverage (%)				49 contraceptive use (women, all methods) (%)
	physicians c2005	nurses c2005	dentists c2005	2004-07, lay	public 2004	private 2004	prenatal	at birth	year	DPT3 2007	Polio3 2007	BCG 2007	measles/MMR 2007	
The Americas	...	...	...	2.4	...	...	93.9	91.4		93	94	96	93	...
North America	22.2	78.4	5.4	3.2	...	...	96.5	99.4		95	93	n/a	92	...
Bermuda	...	...	...	5.0	3.7 n	5.3 s	100.0	100.0	2007	94	94	n/a	89	...
Canada	19.1	77.2	5.8	3.4	7.4 b	1.4 b, p	...	100.0	2007	94 h	90 h	n/a	94 h	...
United States of America	22.5	78.5	5.4	3.1	8.1 b	4.6 b, p	96.5	99.4	2005	95 f, h	93 h	n/a	92 h	...
Latin America & the Caribbean	...	...	...	1.8	...	...	92.4	87.8		93	94	96	94	68
Latin America	...	...	...	1.8	...	...	92.7	88.0		93	94	96	94	68
Mexico	14.0	19.0	0.7	1.6	2.4	2.7 b, q	94.2	93.7	2006	98	98	99	96	71
Central American Isthmus	12.3	6.0	3.0	1.0	...	...	76.7	54.5		93	93	97	94	64
Belize	9.3	15.7	0.9	1.2 a	1.9	1.5 p	99.2	94.6	2007	96	97	99	96	56
Costa Rica	20.0	15.3	6.5	1.3	4.8 c	3.2 c, q	91.7	94.3	2006	89	89	91	90	96
El Salvador	12.6	8.1	5.5	0.7 a	3.7 c, n	3.9 c, q	51.9 a	43.7 o	2007	100 *, l	100 *, l	100 *, l	100 *, l	67
Guatemala	9.7	3.6	1.6	0.6	2.2 b	4.8 b, q	70.4	31.4	2007	93	93	97	93	...
Honduras	8.5	3.3	1.3	...	3.9 b	2.9 b, q	91.7	66.9	2005	86	86	91	89	43
Nicaragua	16.4	1.4	2.9	1.0 a	3.5 b	4.1 b, r	90.2	80.2	2006	100 *	100 *	100 *	100 *	72
Panama	13.8	11.5	2.9	2.2	4.3 b	2.0 b, q	83.9 e	91.0	2006	88	87	100	89	48
Latin Caribbean	...	...	...	2.6	...	...	93.0	69.7		80	80	84	79	51
Cuba	62.7	79.5	9.4	4.9	6.3 c, o	...	100.0	99.9	2007	93	99	100	100	77
Dominican Republic	20.0	3.9	9.0	1.0 a	1.2 d	3.2 d, q	98.9	97.8	2007	87	86	92	96	51
French Guiana	...	...	...	3.0	...	...	49.0	49.0	2004	...	...	...	...	...
Guadeloupe	...	...	...	6.1	...	...	98.0	99.2	2005	...	...	...	...	...
Haiti	...	...	...	1.3	2.7 o	2.1 q	84.5	26.1	2005	68	66	70	54 k	23
Martinique	...	...	...	4.2	...	...	99.6	99.9	2004	...	...	...	...	50
Puerto Rico	22.0	65.9	3.9	3.0	3.5	...	97.8	99.8	2006	...	...	...	...	...
Andean Area	12.7	6.4	4.7	1.1	...	...	...	85.3		84	85	92	85	52
Bolivia	...	...	...	1.1	4.2 b	1.6 b, q	...	62.5	2007	82	82	86	83	21
Colombia	12.7	6.1	7.8	1.0	3.4 o	2.4 q	93.5	96.9	2005	93	93	93	95	56
Ecuador	15.4	5.2	1.7	1.7	2.2	6.1 q	...	80.0	2005	100 *	100	100 *	100 *	66
Peru	11.5	7.6	1.1	1.2 a	2.3 d	2.1 d, r	91.0	71.0	2006	87	87	100	95	71
Venezuela	...	...	...	0.9 a	4.4 c	2.0 c, q	...	95.0	2005	61	67	82	56	30
Brazil	16.4	5.5	11.6	2.4	3.6 b, n	3.8 b, q	97.4	97.1	2005	98	100	100 *	100 *	81
Southern Cone	24.2	4.2	6.8	2.1	...	...	89.9	98.0		94	92	97	95	68
Argentina	32.1	3.8	9.3	...	4.6 b, m	3.2 b, q	88.4 c	99.4	2006	96	94	100 *	99	68
Chile	9.3	4.3	1.8	2.3	3.9 b, m	2.1 b, q	96.0	99.7	2006	96	95	98	92	64
Paraguay	6.0	2.8	0.9	1.3	2.1	2.9 q	85.3 e	88.2	2006	78	78	78	80	73
Uruguay	38.7	10.2	12.4	2.9 a	7.0 c, m, n	3.1 c, q	94.9	98.7	2006	95	95	99	97	78
Non-Latin Caribbean	...	...	...	2.7	...	...	95.5	96.1		88	89	90	84	...
Anguilla	...	...	...	2.2	4.3	2.6 p	100.0	100.0	2007	100	95	100 *	100	43
Antigua & Barbuda	...	...	...	2.0	2.9	1.0 p	100.0	100.0	2007	99	98	n/a	99	...
Aruba	...	...	...	3.2	8.5 c, o	2.5 c, q	...	...	...	...	...	...	...	68
Bahamas	16.7	23.8	2.5	3.2	3.4 c	2.9 c, p	98.0	99.0	2007	95	95	n/a	96	...
Barbados	...	...	...	6.6	4.3 d	1.8 d, p	100.0	100.0	2006	93	93	n/a	75	...
Cayman Islands	...	...	...	3.0	3.7	...	99.9	100.0	2007	91	91	84	87	43
Dominica	...	...	...	4.0	3.8	2.2 p	100.0	94.0	2007	96	93	90	96	...
Grenada	...	...	...	2.6	3.2	5.4 s	100.0	98.8	2007	100 *	100 *	n/a	98	54
Guyana	2.2	3.4	0.1	2.5	5.6	1.1 s	96.3	96.6	2006	94	94	97	96	34
Jamaica	8.5	16.5	0.8	2.0	3.1 b	2.4 b, q	...	94.5	2006	85	85	87	76	...
Montserrat	...	...	...	3.0	7.1	1.1 p	100.0	100.0	2007	100 *	100 *	100	100	...
Netherlands Antilles	...	...	...	...	11.5	0.9 p	...	...	...	100 g	100 g	n/a	82 g	...
Saint Kitts & Nevis	...	...	...	5.7	2.1	1.8 p	100.0	100.0	2007	100	100	97	99	54
Saint Lucia	...	...	...	2.9	3.7	1.4 p	99.2	97.9	2006	99	99	100	94	...
Saint Vincent & the Grenadines	6.9	19.8	1.4	3.5	3.6	0.6 p	95.0 c	100.0	2007	100 *	100 *	100 *	100 *	20 a
Suriname	...	...	...	3.3	3.8	0.7	89.9	89.8	2006	84	84	n/a	85	46
Trinidad & Tobago	...	...	...	2.7	2.5 c	2.9 c, q	94.4	99.6	2004	88	90	n/a	91	38
Turks & Caicos Islands	...	...	...	1.4	4.8	...	100.0 b	100.0	2007	80	80	100	87	99
Virgin Islands (UK)	...	...	...	1.9	2.3	...	99.0	100.0	2006	95	83	98	71	...
Virgin Islands (US)	14.7	...	...	...	3.0	...	91.7	98.3	2005	...	...	...	...	...

BI 41 - 49: (a) value public sector; (b) value 2006; (c) value 2005; (d) value 2003; (e) value 2007; (f) value 2004; (g) value St. Maarten; (h) < 2 years; (k) < 1 year; (l) data under country review.

BI 42 AB: (m) incl. 'Obras Sociales' (ARG), ISAPRES and FONASA (CHL), IAMC (URY); (n) institutional expenditure; (o) expenditure by activities or budgetary program; (p) medical care and expenses; (q) health; (r) health care and health conservation; (s) personal care and health.

BI 45 - 48: (\*) reported coverage > 100%.

# socioeconomic indicators

	50T literate population (15+ years old) (%) 2007			51 calories availability (Kcal/pc/day)	52A gross national income (US\$ per capita) 2006		53 annual GDP growth (%)	54 highest 20%/ lowest 20% income ratio	55T population with access (%) to			56T improved sanitation 2006			
	total	male	female		2003	2003			2005-06	2000-05, l <sup>a</sup>	improved sources of drinking water, 2006	total	urban	rural	
											total	urban	rural		
The Americas	...	...	...	3,205	20,040	22,268	4.4	14.3		94	98	79	86	92	66
North America	...	...	...	3,739	43,928	43,314	2.9	8.2		99	100	95	100	100	99
Bermuda	...	...	...	2,235	...	...	...	...		...	...	...	...	...	...
Canada	...	...	...	3,605	36,650	36,280	2.8	5.5		100	100	99	100	100	99
United States of America	...	...	...	3,754	44,710	44,070	2.9	8.5		99	100	94	100	100	99
Latin America & the Caribbean	86.4	87.1	85.8	2,875	4,952	8,961	5.3	18.2		90	96	71	77	86	47
Latin America	86.4	87.1	85.8	2,888	4,969	8,998	5.3	18.3		90	97	71	77	86	47
Mexico	92.4	94.4	90.6	3,171	7,830	11,990	4.8	12.8 <sup>c</sup>		95	98	85	81	91	48
Central American Isthmus	82.1	84.4	80.0	2,389	2,614	5,330	5.3	15.6		83	93	69	65	79	46
Belize	...	...	...	2,876	3,740	7,080	5.6	...		...	100	...	...	...	...
Costa Rica	95.9	95.7	96.2	2,813	4,980	9,220	8.2	13.0		98	99	96	96	96	95
El Salvador	85.5	88.4	82.8	2,556	2,680	5,610	4.2	20.7		84	94	68	86	90	80
Guatemala	73.2	79.0	68.0	2,227	2,590	5,120	4.5	13.9		75 <sup>e</sup>	90 <sup>e</sup>	60 <sup>e</sup>	47 <sup>e</sup>	77 <sup>e</sup>	17 <sup>e</sup>
Honduras	83.1	82.4	83.7	2,373	1,270	3,420	6.0	17.1		84	95	74	66	78	55
Nicaragua	80.5	79.7	81.4	2,291	930	2,720	3.7	8.8 <sup>c</sup>		79	90	63	48	57	34
Panama	93.4	94.0	92.8	2,287	5,000	8,690	8.1	24.0		92	96	81	74	78	63
Latin Caribbean	84.5	83.8	85.1	2,593	...	...	6.1	...		82	90	69	67	78	50
Cuba	99.8	99.8	99.8	3,286	...	...	5.4	...		91	95	78	98	99	95
Dominican Republic	89.1	88.8	89.5	2,281	2,910	5,500	10.7	13.5		95	97	91	79	81	74
French Guiana	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...	...	...		...	98	94	...	...	...
Haiti	62.1	60.1	64.0	2,109	430	1,070	2.3	26.4		58	70	51	19	29	12
Martinique	...	...	...	...	...	...	...	...		...	...	85	...	...	...
Puerto Rico	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Andean Area	71.7	73.1	70.3	2,485	3,568	7,183	7.3	20.1		90	97	74	74	83	50
Bolivia	90.3	95.3	85.4	2,219	1,100	3,810	4.6	42.0		86	96	69	43	54	22
Colombia	93.6	93.6	93.5	2,567	3,120	6,130	6.8	21.0 <sup>c</sup>		93	99	77	78	85	58
Ecuador	92.6	93.6	91.6	2,641	2,910	6,810	3.9	...		95	98	91	84	91	72
Peru	90.5	95.2	85.8	2,579	2,980	6,490	7.7	15.3		84	92	63	72	85	36
Venezuela	...	...	...	2,272	6,070	10,970	10.3	15.8		...	...	...	...	...	...
Brazil	90.5	90.1	90.9	3,146	4,710	8,700	3.7	21.0		91	97	58	77	84	37
Southern Cone	96.9	97.0	96.9	2,892	5,227	10,771	6.9	17.7		91	98	70	90	94	69
Argentina	97.6	97.6	97.7	2,959	5,150	11,670	8.5	17.9 <sup>d</sup>		96	98	80	91	92	83
Chile	96.5	96.6	96.5	2,872	6,810	11,300	4.0	15.8		95	98	72	94	97	74
Paraguay	93.7	94.4	93.1	2,524	1,410	4,040	4.3	25.8		77	94	52	70	89	42
Uruguay	98.0	97.6	98.3	2,883	5,310	9,940	7.0	10.1 <sup>d</sup>		100	100	100	100	100	99
Non-Latin Caribbean	...	...	...	2,751	5,544	9,369	5.4	...		94	97	91	87	87	87
Anguilla	...	...	...	...	...	...	...	...		...	...	...	99	...	...
Antigua & Barbuda	...	...	...	2,313	11,050	15,130	11.5	...		...	95	...	...	98	...
Aruba	98.1	98.2	98.1	...	...	...	...	...		100	100	100	...	...	...
Bahamas	...	...	...	2,709	...	...	...	...		...	98	...	100	100	100
Barbados	...	...	...	3,123	...	15,150	...	...		100	100	100	99	99	100
Cayman Islands	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Dominica	...	...	...	2,785	4,160	7,870	4.0	...		100	...	...	...	...	...
Grenada	...	...	...	2,990	4,650	8,770	0.7	...		97	...	97	96	97	97
Guyana	...	...	...	2,764	1,150	3,410	4.8	...		93	98	91	81	85	80
Jamaica	86.0	80.5	91.1	2,690	3,560	7,050	2.5	9.7 <sup>c</sup>		93	97	88	83	82	84
Montserrat	...	...	...	...	...	...	...	...		100	100	100	96	96	96
Netherlands Antilles	96.4	96.3	96.4	...	...	...	...	...		...	...	...	...	...	...
Saint Kitts & Nevis	...	...	...	...	8,460	12,440	5.8	...		99	99	99	96	96	96
Saint Lucia	...	...	...	2,975	5,060	8,500	4.5	...		98	98	98	...	...	...
Saint Vincent & the Grenadines	...	...	...	...	3,320	6,220	1.5	...		...	...	...	...	...	96
Suriname	90.4	92.7	88.1	2,697	4,210	7,720	5.8	...		92	97	79	82	89	60
Trinidad & Tobago	98.7	99.1	98.3	2,788	12,500	16,800	12.0	...		94	97	93	92	92	92
Turks & Caicos Islands	...	...	...	...	...	...	...	...		100	100	100	...	98	...
Virgin Islands (UK)	...	...	...	...	...	...	...	...		98	98	98	100	100	100
Virgin Islands (US)	...	...	...	...	...	...	...	...		...	...	...	...	...	...

BI 52A - 54: (a) estimated to be US\$ 11,116 and more; (b) estimated to be US\$ 906 - 3,595; (c) based on expenditure shares; (d) urban data.

BI 55 - 56: (e) value 2002 and provided by country.

# infant and maternal mortality: WHO estimates vs. country figures

Figure 1: Infant Mortality Rate WHO vs. country figures

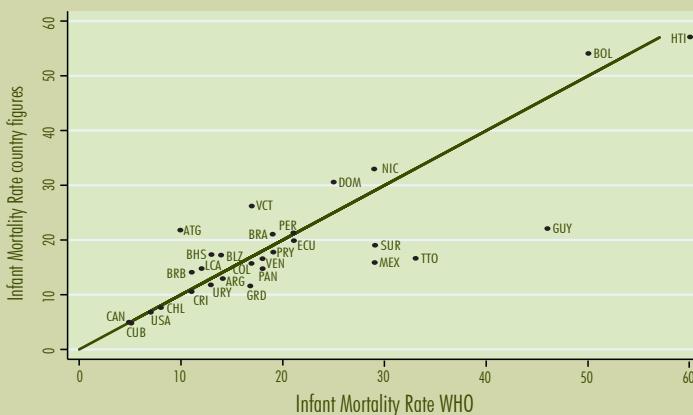


Figure 2: Maternal Mortality Ratio WHO vs. country figures

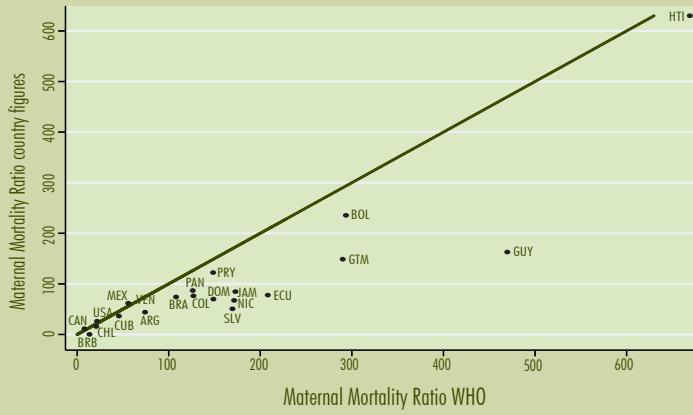


Table 1: Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR)

country	IMR, WHO, 2006	IMR, country	year	MMR WHO, 2005	MMR country	year
ARG	14	13	2006	77	48	2006
ATG	10	22	2007	...	-	2007
BHS	13	18	2007	...	...	
BLZ	14	17	2007	...	...	
BOL	50	54	2003	290	229	2003
BRA	19	21	2005	110	75	2005
BRB	11	14	2005	16	-	2005
CAN	5	5	2005	7	6	2005
CHL	8	8	2006	16	18	2006
COL	17	16	2005	130	73	2005
CRI	11	10	2007	...	...	
CUB	5	5	2007	45	30	2007
DOM	25	31	2007	150	73	2007
ECU	21	20	2006	210	73	2006
GRD	17	11	2007	...	-	2007
GTM	...	...		290	149	2005
GUY	46	22	2005	470	161	2005
HND	23	23	2006	...	...	
HTI	60	57	2006	670	630	2006
JAM	...	...		170	95	2003
LCA	12	15	2005	...	...	
MEX	29	16	2007	60	59	2006
NIC	29	33	2006	170	90	2006
PAN	18	15	2006	130	84	2006
PER	21	21	2003	...	...	
PRY	19	18	2005	150	121	2006
SLV	22	22	2007	170	71	2007
SUR	29	19	2006	...	...	
TTO	33	17	2004	...	...	
URY	13	12	2007	...	...	
USA	7	7	2005	11	15	2005
VCT	17	26	2006	...	...	
VEN	18	17	2006	57	60	2005

Figures 1 and 2 show the difference between WHO estimates and the numbers reported by the country for both the maternal mortality ratio (per 100,000 live births) and the infant mortality rate (per 1,000 live births). Deviations from the straight line reflect the differences between rates/ratios reported by the countries and WHO estimates. Table 1 shows maternal and infant mortality reported by countries and estimated by WHO.

**Infant Mortality Rate (IMR):** Four countries (GUY, MEX, SUR, TTO) report infant mortality rates lower than the WHO estimates. The relative difference between the reported and estimated mortality in these countries is greater than 50%. Two countries (ATG, VCT) show reported rates higher than the estimated rate, with a relative difference of over 30% (Figure 1). In general, the differences observed may stem from the assumptions used in the WHO estimation methodology or from possible under-registration of births and/or infant deaths. In Mexico, for example, we observe a large difference between the rate reported by the country and the estimated rate although Mexico has a good vital statistics system. Additionally, it can be observed that countries with higher reported rates than estimated tend to have smaller populations and the estimation error is larger.

**Maternal Mortality Ratio (MMR):** Figure 2 shows the comparison between the maternal mortality ratio in the two different sources where the estimates are in most cases higher than the figures reported by the countries. In four countries, the estimates are more than 100% higher than the figures reported (ECU, SLV, GUY, DOM). The estimates for ARG, COL, GTM, JAM, NIC, and PAN are 50% to 100% higher than the country reported figures. The estimates for BRA and CUB are approximately 50% higher than their reported figures. Observed differences between the estimated and reported maternal mortality ratio are higher than those for the infant mortality rate.

**Conclusion:** Since monitoring of maternal and infant mortality is part of the Millennium Development Goals, having methodologies that allow the validation of reported indicators is essential. The analysis of the data has shown that estimation does not always provide reliable indicators for certain countries. For example, estimation of infant mortality in Mexico shows: a) a rate different to the national reality and b) a rate not consistent to other countries. It is therefore necessary to work with the countries in the identification of methodologies that will lead to an improvement in the quality of mortality data, and to develop correction methods for immediate use in areas such as monitoring and health situation analysis.

**Limitations:** Estimates of WHO correspond to the year 2005 (MMR) and 2006 (IMR). The data reported by the countries does not necessarily correspond to the year of the estimates. The magnitude of some differences between reported and estimated is very large and cannot be explained solely due to the difference in years.

The following countries have been excluded from the analysis for lack of up-to-date information (2003 or most recent year): MMR: ANT, GUF, HON, PER; IMR: ANT, GTM, JAM. Furthermore, countries with few events were not included, owing to the fluctuation in the rate/ratio over time.

**Source:** Technical reports from the PAHO/WHO Representative Office in the countries of the Region of the Americas; 2008. WHO, World Health Statistics 2008, Geneva, WHO, 2008.

**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 (SRB), 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 U.S. (VIR)

# technical notes & sources

## Technical notes:

- Infant mortality rate (IMR) and maternal mortality ratio (MMR) (BI 10, 11) are reported or estimated by countries. Data are presented when the variation coefficient (relative standard error) is less than 23%; otherwise the number of deaths is shown. 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-9 codes 780-799; ICD-10 codes 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.
- Corrected mortality rates (BI 18Tc/Mc/Fc – BI 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>). The rates represent the average mortality for three years. General corrected mortality rates for Bolivia and Honduras were determined with UN life-tables and UN population estimates.
- 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. Data from previous years were used to calculate the estimated APIs.
- National Health Expenditure (BI 42A) corresponds to expenditure in the function 'health' (Division 07) of the Functional Classification of the Government Expenditure by Functions 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). Data come from the International Monetary Fund's Government Finance Statistics database (Printed version 2006 and CD, 2004) and from public health insurance institutions' financial reports. ([www.paho.org/Spanish/DPM/SHD/HP/nhexp-metodos.htm](http://www.paho.org/Spanish/DPM/SHD/HP/nhexp-metodos.htm)).
- Denominator for rates of BI 29, 30, 31, 35 y 41: UN WPP 2006 Revision; US Census Bureau.

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.

## Data sources:

- Technical reports from PAHO/WHO Country Representatives; Region of the Americas; 2008, (BI 10-11, 37, 41, 43-44, 49). As of 20 June 2008.
- Technical reports from PAHO/WHO Regional Units; 2008 (BI 29-36, 38-40, 42AB, 45-48). As of 3 June 2008.
- United Nations Population Division. World Population Prospects: The 2006 Revision, New York; 2007 (BI 1-6, 9THM, 12).
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- World Health Organization. World Health Statistics 2008. Geneva, WHO; 2008 (BI 13).
- United Nations Population Division. World Urbanization Prospects: The 2007 Revision, New York; 2006 (BI 7).
- PAHO/WHO. Technical Information System: Regional Mortality Database, HDM/HAI; Washington, D.C.; 2008 (BI 14-28). As of 8 August 2008.
- UNESCO. Institute for Statistics (UIS). Data Centre, UIS Estimates (BI 50THM). Accessed June 2008 at: <http://www.stats.uis.unesco.org>.
- United Nations. Food and Agriculture Organization (FAO), FAOSTAT Statistical Database. Rome, 2007 (BI 51). Accessed August 2008 at: <http://apps.fao.org>.
- The World Bank World Development Indicators 2008. Washington DC; 2008 (BI 52AB - 54).
- WHO/UNICEF. Joint Monitoring Programme for Water Supply and Sanitation (JMP), 2008. With data of 2006. In press. (IB-55-56).

## Suggested citation:

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## 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; (AD) acute diarrheal diseases: CIE9 (001-009); CIE10 (A00-A09); (ARI) acute respiratory infections: CIE9 (460-466; 480-487); CIE10 (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.

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## Quality of mortality data in the Americas, 2003 or most recent year

The quality of mortality data was measured by means of a composite index that is composed of "Proportion of under-registered deaths" and the "Proportion of deaths due to ill-defined and unknown conditions". The index has four categories: good quality data ( $\leq 10\%$ ), medium quality (11-20%), poor quality (21-40%) and very poor quality (>41%).

DATA QUALITY INDEX	COUNTRIES
good	ARG, CAN, CHL, CRI, CUB, GLP, GRD, GTM, GUF, MEX, MTQ, PRI, SUR, TTO, URY, USA, VCT, VEN, VIR
medium	BRA, COL, ECU, GUY, PAN, SLV
poor	ABW, DOM, NIC, PER, PRY
very poor	BOL, HTI
no data	AIA, ANT, ATG, BHS, BLZ, BMU, BRB, CYM, DMA, HND, JAM, KNA, LCA, MSR, TCA, VGB

Index: 0.7 \* Proportion of under-registered deaths (%) + 0.3 \* Proportion of certified deaths due to ill-defined and unknown conditions (%)

Source: PAHO/WHO; Technical Information System: Regional Mortality Database; PAHO, 2008. As of 8 August 2008.

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.

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