

# CRICS 9. 6th Regional Coordination Meeting of the Virtual Health Library

## **Scientific Editors Meeting**

Strengthening of LILACS as a repository of the Latin American and Caribbean health sciences literature

### **Panel 1**

**LILACS' contribution for health decision making**

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LILACS' contribution for health decision making

Oct 21, 2012. WDC

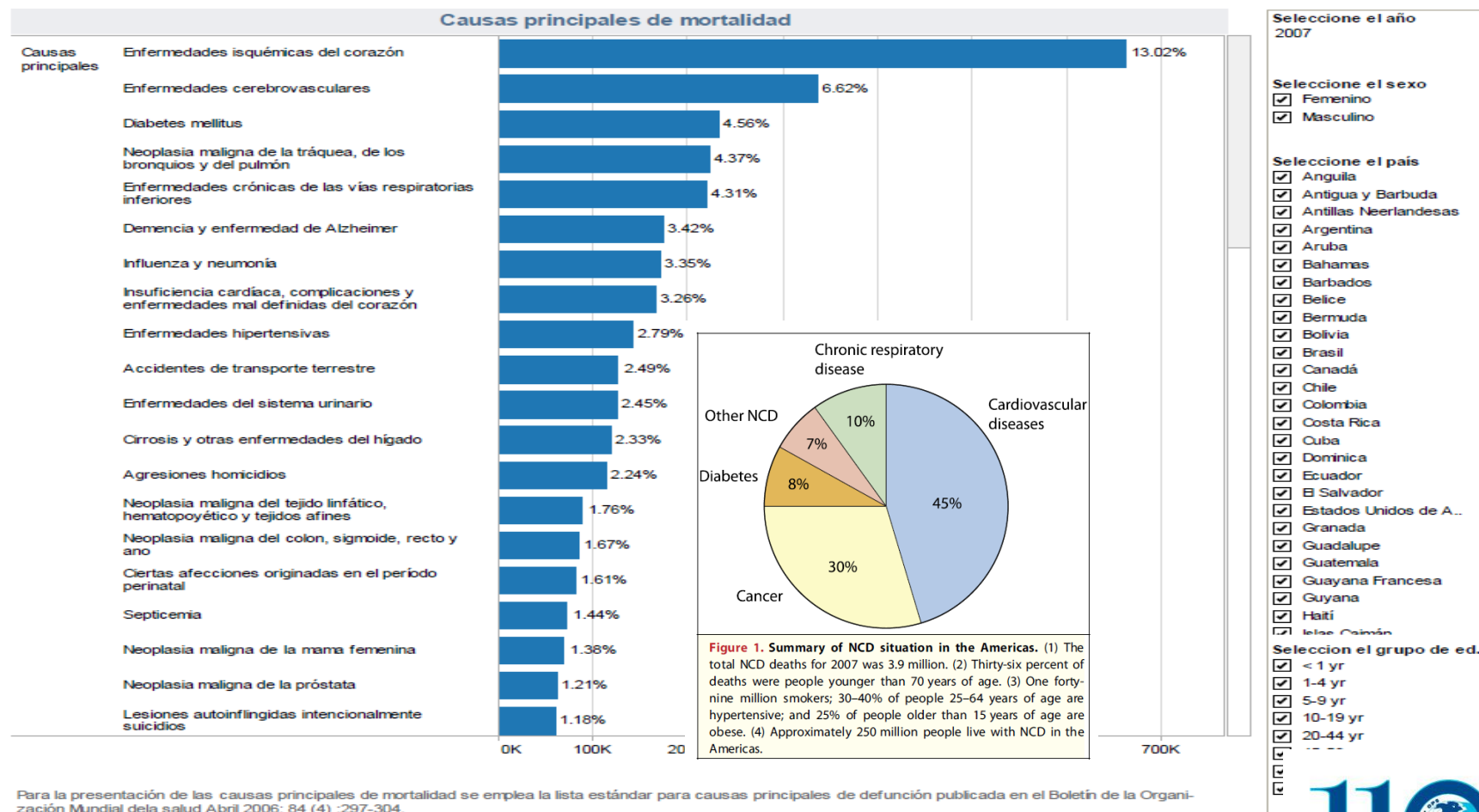
# **The use of LILACS indexed papers for decision making in health. The case of hypertension**

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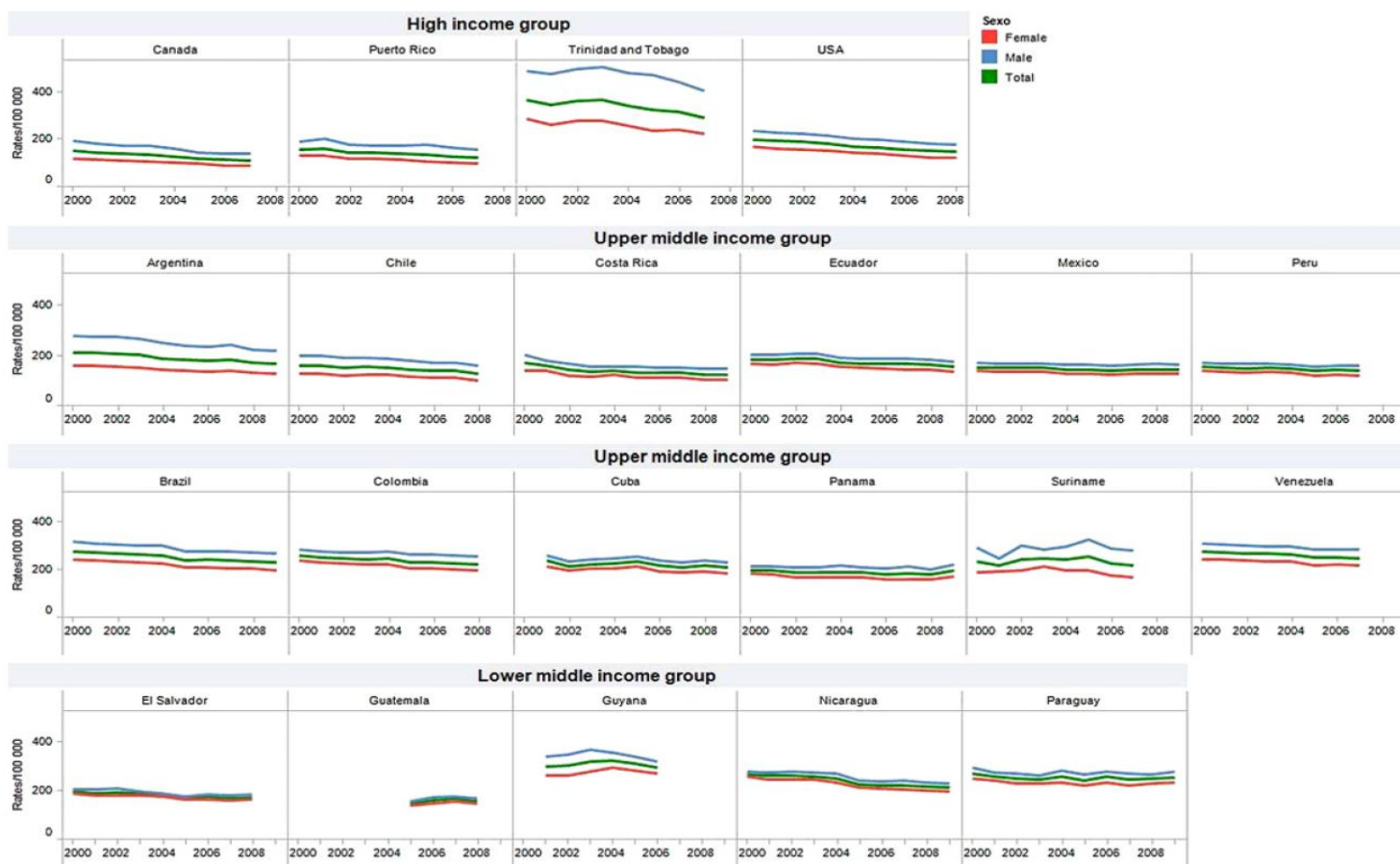
# NCD, Epidemiology Situation



Para la presentación de las causas principales de mortalidad se emplea la lista estándar para causas principales de defunción publicada en el Boletín de la Organización Mundial de la Salud Abril 2006; 84 (4) :297-304.

# NCD, Epidemiology Situation

## Global burden of cardiovascular disease

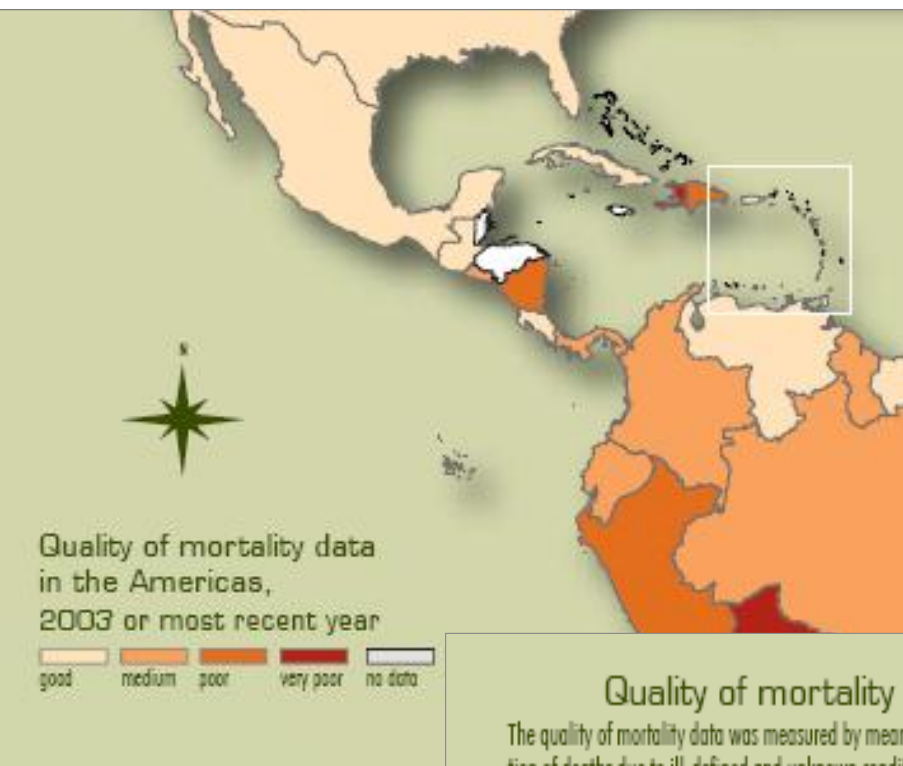


**Figure 1** Trends in mortality due to cardiovascular diseases (ICD-10 I00–I99) (age-adjusted rates/100 000). Selected countries in the region of the Americas, 2000 to latest available year.

# Identify needs for NCD Epidemiology and Surveillance capacity building

<b>NCD Surveillance</b>	<b>N (%)</b>
<b>Dedicated budget for surveillance?</b>	10 (32.3)
<b>Dedicated personnel?</b>	21 (67.7)
<b>Country information system includes?</b>	
• Specific cause of mortality	29 (93.5)
• Hospital based morbidity	26 (83.9)
• Risk factor surveys	22 (71)
<b>Disease specific registries?</b>	25 (80.6)
<b>Unique personal identifier?</b>	13 (41.9)
<b>NCD data analysis from a social determinants perspective?</b>	14 (45.2)
<b>Use of NCD surveillance data for policy making and planning?</b>	26 (83.9)
<b>Established mechanism to disseminate NCD surveillance data?</b>	20 (64.5)

# Identify needs for NCD Epidemiology and Surveillance capacity building



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

## Composite Index of data quality.

Components:

- Under-registered deaths (%)
- Certified deaths as ill-defined and unknown condition (%)

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

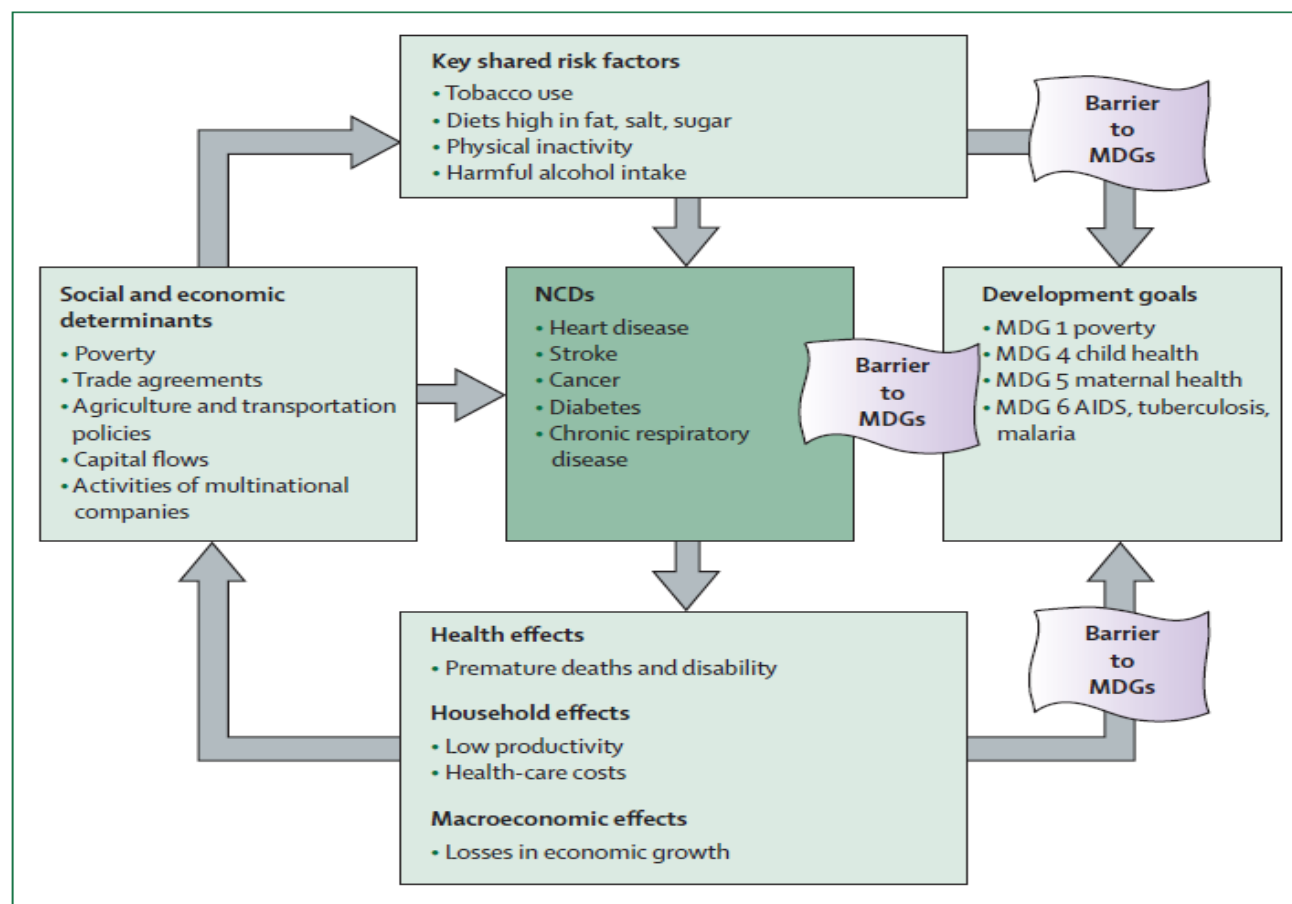
The quality of mortality data was measured by means of a composite index that is composed of "Proportion of under-registered deaths" and the "Proportion of deaths due to ill-defined and unknown conditions". The index has four categories: good quality data ( $\leq 10\%$ ), medium quality (11-20%), poor 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:  $0.7 * \text{Proportion of under-registered deaths (\%)} + 0.3 * \text{Proportion of certified deaths due to ill-defined and unknown conditions (\%)}$

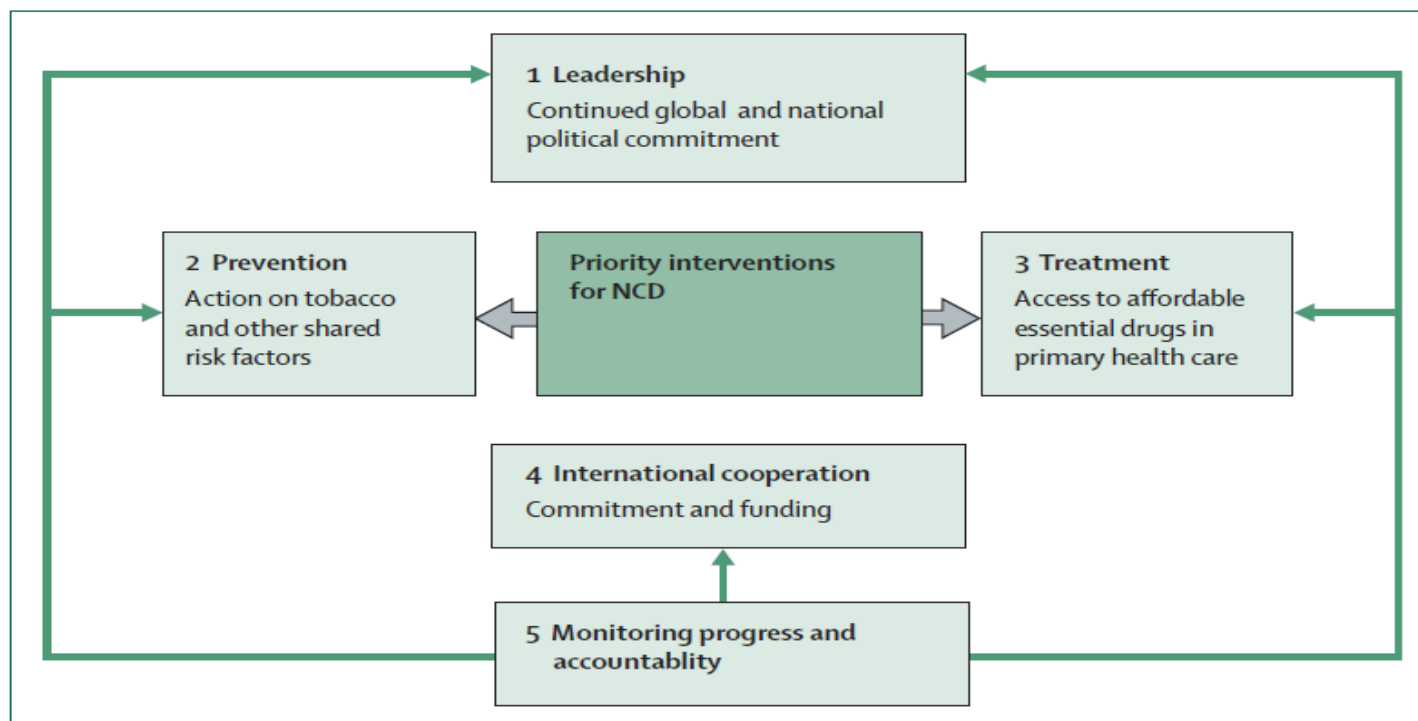
Source: PAHO/WHO; Technical Information System: Regional Mortality Database; PAHO, 2008. As of 8 August 2008.

# What are the top global needs in building capacity for NCD epidemiology and surveillance?



**Figure 1: Associations between poverty, non-communicable diseases (NCDs), and development goals<sup>15</sup>**  
MDG=Millennium Development Goal.

# What are the top global needs in building capacity for NCD epidemiology and surveillance?



**Figure 2:** Five priority actions by countries and international agencies for the non-communicable disease (NCD) crisis

## Monitoring, reporting, and accountability

- Identify ambitious targets and a transparent reporting system
- Assess progress on the priority actions and interventions
- Report regularly to the UN and other forums on progress on these national and international commitments



**From UN HLM on NCD September 2011**

**WHO's global vision to reduce the toll of morbidity, disability and premature mortality related to NCDs**

**Surveillance**

**Mapping the  
epidemic of  
NCDs**



**Prevention**

**Reducing the  
level of  
exposure to  
risk factors**



**Management**

**Strengthen  
health care for  
people with  
NCDs**



**The use of LILACS indexed papers for  
decision making in health.  
The case of hypertension**

# **Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years**

Burroughs Peña MS, Abdala CVM, Silva LC, Ordúñez P. Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years. *Rev Panam Salud Publica*. 2012;32(1):15–21.

# Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years

The main objective of this paper is to compare the usefulness for surveillance of the peer-reviewed literature on the prevalence of hypertension in Latin America and the Caribbean published from 2001 to 2010 with a previous study of the published literature from 1962 to 2000.

## METHODS

A bibliographic search (available at <http://search.bvsalud.org/hipertension/>) was conducted in MEDLINE (for international literature in the medical and biomedical areas) and LILACS (for Latin American and Caribbean health sciences literature) from 2001 to 2010 using the following search terms in English, Spanish, and Portuguese: hypertension, high blood pressure, prevalence, population, community, epidemiology, Latin America, South America, Central America, Caribbean, and the names of all the countries in Latin America and the Caribbean. The bibliographic results were then reviewed.

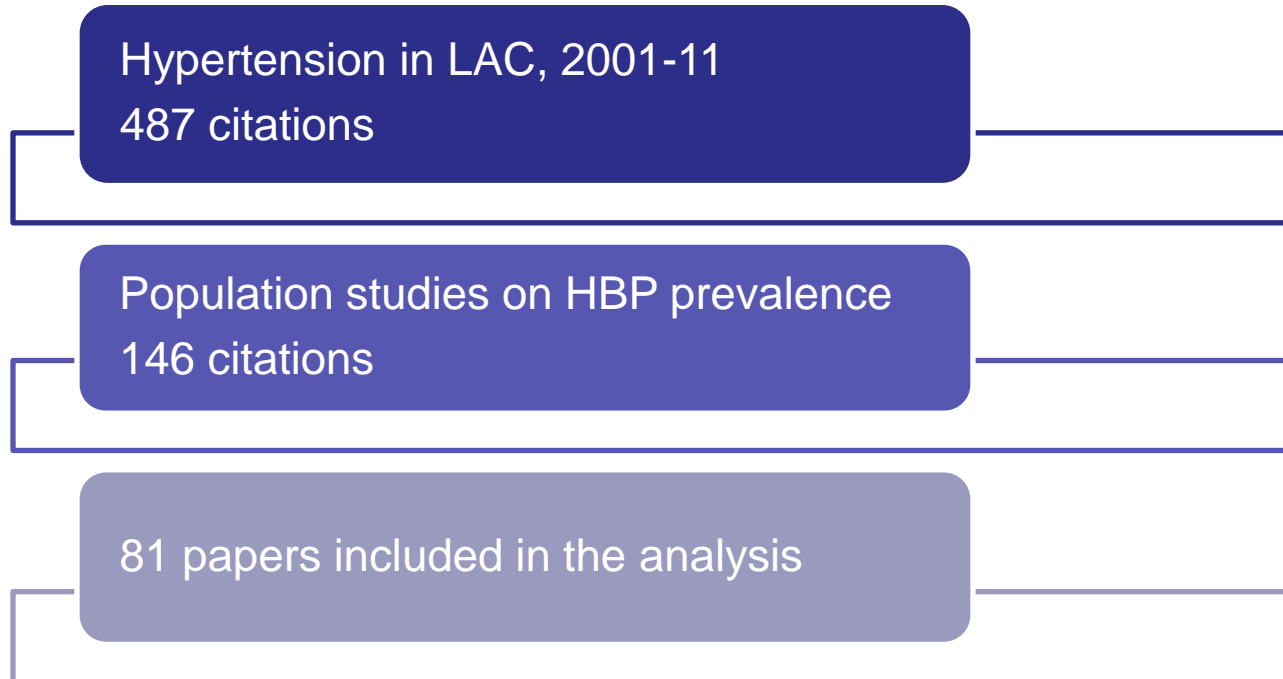
# Prevalence estimates for hypertension in Latin America and the Caribbean: are they useful for surveillance?

*Pedro Ordúñez,<sup>1</sup> Luis Carlos Silva,<sup>2</sup> María Paz Rodríguez,<sup>1</sup>  
and Sylvia Robles<sup>1</sup>*

*Rev Panam Salud Publica/Pan Am J Public Health 10(4), 2001*

Question number	Question
Basic aspects	
A	Is the problem being studied on a general population?
B	Is the study's sampling design fully described?
C	Was a probabilistic sample used?
D	Are prevalences given by age groups and sex?
Complementary aspects	
1	Is the problem under study described in both qualitative and quantitative terms?
2	Were standardized techniques used to measure arterial blood pressure?
3	Were universally accepted cut-offs used in diagnosing the ailment?
4	Did the data collectors receive training?
5	Were certified instruments and observers used?
6	Was there quality control of the data?
7	Were estimates calculated according to the sampling design?
8	Were estimates made by place of residence, occupation, or education level?
9	Are the errors of the estimates reported according to the sampling design?
10	Are extrapolations explained or discussed?
11	Are any qualitative judgments made that can serve as the basis for action?
Hypertension-specific questions	
12	In addition to prevalence, was mean blood pressure estimated?
13	Is the percentage of hypertensive individuals who know their condition
14	Is the percentage of hypertensive individuals under treatment indicated?
15	Is the percentage of hypertensive individuals whose disease is under

# Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years



<http://search.bvsalud.org/hipertension/>

# Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years

TABLE 1. Reviewed studies that met specific methodologic requirements for hypertension prevalence studies in Latin America and the Caribbean: comparison of 1962–2000 and 2001–2010

Question number	Question	1962–2000		2001–2010	
		%	No.	%	No.
Basic aspects			<i>n</i> = 58		<i>n</i> = 81
A	Is the problem being studied on a general population?	75.9	44	80.2	65
B	Is the study's sampling design fully described?	74.1	43	77.8	63
C	Was a probabilistic sample used?	69.0	40	70.4	57
D	Are prevalences given by age groups and sex?	67.2	39	67.9	55

<http://search.bvsalud.org/hipertension/>



# Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years

Complementary aspects			n = 28		n = 24
1	Is the problem under study described in both qualitative and quantitative terms?	63.8	18	100.0	24
2	Were standardized techniques used to measure arterial blood pressure?	79.3	22	100.0	24
3	Were universally accepted cut-offs used in diagnosing the ailment?	84.5	24	100.0	24
4	Did the data collectors receive training?	58.6	16	83.3	20
5	Were certified instruments and observers used?	46.6	13	25.0	6
6	Was there quality control of the data?	41.4	12	29.2	7
7	Were estimates calculated according to the sampling design?	25.9	7	41.7	10
8	Were estimates made by place of residence, occupation, or education level?	50.0	14	66.7	16
9	Are the errors of the estimates reported according to the sampling design?	10.3	3	62.5	15
10	Are extrapolations explained or discussed?	53.4	15	75.0	18
11	Are any qualitative judgments made that can serve as the basis for action?	72.4	20	95.8	23

<http://search.bvsalud.org/hipertension/>



# Usefulness for surveillance of hypertension prevalence studies in Latin America and the Caribbean: the past 10 years

Hypertension-specific questions			<i>n</i> = 28		<i>n</i> = 24	
12	In addition to prevalence, was mean blood pressure estimated?	55.2	15	25.0	6	
13	Is the percentage of hypertensive individuals who know their condition indicated?	24.1	7	45.8	14	
14	Is the percentage of hypertensive individuals under treatment indicated?	31.0	9	41.7	10	
15	Is the percentage of hypertensive individuals whose disease is under control indicated?	19.0	5	45.8	14	

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<http://search.bvsalud.org/hipertension/>

**TABLE 2. Reported prevalence of hypertension in Latin America and Caribbean countries from peer-reviewed literature, 2001–2010**

Country	Ref. no.	Year	Setting	Age (years)	No.	%	95% CI	Prevalence (%)				
								Men	Women	Awareness	Treatment	Control
Argentina	14	2001	Rural/town	15–75	1 523	35.8	NA	43.2	28.5	32.0	28.0	4.0
Argentina	15	2010	Urban	25–64	1 482	29.0	26.9–31.1	37.7	21.7	64.1	NA	18.0
Brazil	16	2001	Urban	≥ 20	NA	NA	NA	NA	NA	NA	NA	NA
Brazil	17	2001	Rural	≥ 18	2 314	24.8	NA	22.0	26.9	NA	NA	NA
Brazil	18	2001	Urban	≥ 18	688	31.5	NA	33.9	29.9	77	61.8	17.1
Brazil	19	2003	Rural/urban	20–69	411	35.5	30.9–40.3	40.1	32.2	46.6	29.5	9.7
Brazil	20	2005	Urban	≥ 30	1 137	22.5	NA	24.6	20.6	NA	NA	NA
Brazil	21	2006	Urban	18–80	1 174	34.7	32.2–37.4	35.0	34.4	NA	NA	NA
Brazil	22	2007	Urban	≥ 18	707	40.5	36.8–44.2	43.3	38.3	55.6	46.8	10.1
Brazil	23	2007	Urban	20–60	1 020	NA	NA	NA	26.2	NA	NA	NA
								(23.5–28.9)				
Brazil	24	2008	Urban	≥ 18	835	27.4	24.4–30.6	32.1	24.2	NA	NA	NA
Brazil	25	2008	Urban	≥ 18	1 717	25.2	22.7–27.7	NA	NA	NA	NA	NA
Brazil	26	2009	Urban	≥ 20	3 180	29.5	NA	27.7	30.9	NA	NA	NA
Brazil	27	2009	Urban	20–59	2 022	33.7	31.7–36.1	31.1	38.1	NA	NA	NA
Brazil	28	2009	Urban	≥ 18	1 168	32.7	NA	35.8	30.9	NA	NA	NA
Brazil	29	2009	Rural	18–90	1 003	30.1	NA	NA	NA	73.5	61.9	24.2
Brazil	30	2010	Urban	≥ 18	1 717	25.2	21.4–30.0	23.8	26.8	74.4	NA	34.3
Chile	31	2007	Urban	≥ 15	8 472	21.7	NA	20.0	23.0	66.6	59.9	30.7
Chile	15	2010	Urban	25–64	1 655	23.8	21.6–26.1	27.3	20.7	60.1	NA	20.3
Colombia	32	2002	Urban	≥ 20	356	22.9	18.6–27.3	29.8	17.2	NA	NA	NA
Colombia	15	2010	Urban	25–64	1 553	13.4	11.5–15.2	14.6	12.4	68.8	NA	30.6
Cuba	33	2008	Urban	25–74	1 475	21.4	17.5–25.3	23.4	20.0	78.5	61.2	39.9
Ecuador	15	2010	Urban	25–64	1 638	8.6	7.3–10.0	7.2	10.1	67.6	NA	28.0
Guadeloupe	34	2010	Urban/rural	25–74	1 005	NA	NA	33.1	37.3	NA	NA	NA
Haiti	35	2006	Urban	≥ 20	1 620	NA	NA	48.7	46.5	NA		
Martinique	36	2009	Rural/urban	≥ 16	1 504	22.5	20.1–25.1	20.0	25.0	NA		
Mexico	15	2010	Urban	25–64	1 720	11.7	10.3–13.1	11.2	12.1	75.7		
Peru	37	2009	Urban	20–80	1 878	15.7	14.0–17.4	16.0	15.4	47.9		
Peru	15	2010	Urban	25–64	1 652	12.6	11.1–14.0	14.4	10.7	53.1		
Venezuela	15	2010	Urban	25–64	1 848	24.7	22.7–26.8	27.5	22.9	72.0		

**Note:** CI: confidence interval, NA: not available.

## Suggested citation

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## ABSTRACT

**Objective.** *To compare the usefulness for surveillance of the peer-reviewed literature on the prevalence of hypertension in Latin America and the Caribbean published from 2001 to 2010 with a previous study of the published literature from 1962 to 2000.*

**Methods.** *A bibliographic search was conducted of publications from 2001 to 2010 that examined the prevalence of hypertension using MEDLINE and LILACS databases. The methodology of each paper was evaluated with the same critical appraisal tool used in the previous study.*

**Results.** *A total of 81 papers were published from 2001 to 2010 on the prevalence of hypertension in Latin America and the Caribbean. Only 24 of these studies met the minimum methodologic criteria for evaluation. While the total number of studies published in the past 10 years exceeds the number published from 1962 to 2000, the percentage of studies that met the minimum methodologic criteria has not substantially increased. In addition to major methodologic shortcomings, less than 46% of the published studies reported rates of awareness, treatment, and control of hypertension. The hypertension prevalence estimates from the peer-reviewed literature range from 7% to 49%. These studies were primarily done in urban centers and are not evenly distributed throughout the region.*

**Conclusions.** *The quality and geographic distribution of the published literature on the prevalence of hypertension in Latin America and the Caribbean are inadequate. Research resources and efforts should be directed in the future toward closing this gap.*