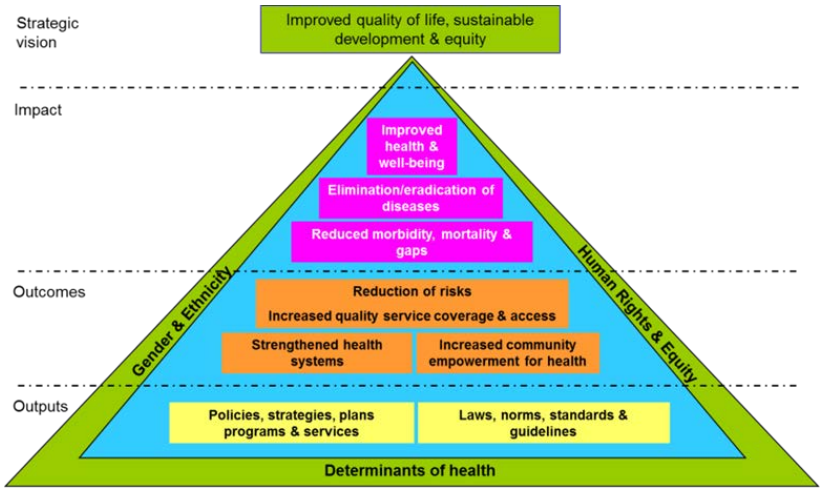
COMPENDIUM OF IMPACT & OUTCOME INDICATORS



PAHO STRATEGIC PLAN 2014-2019

"Championing Health: Sustainable Development and Equity"

Pan American Health Organization

World Health Organization
REGIONAL OFFICE FOR THE Americas

October 2014

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INTRODUCTION

This compendium includes the technical specifications for the impact and outcome indicators of the Strategic Plan of the Pan American Health Organization (PAHO) 2014-2019 (amended, September 2014). The compendium provides definitions and measurement criteria for all indicators, in order to facilitate a systematic approach to the joint monitoring and reporting on implementation of the Strategic Plan by the PAHO Member States and the Pan American Sanitary Bureau (PASB). This is the first time such a compendium has been developed for a PAHO strategic plan.

A standard template is used for all indicators. This template was adapted from the technical-specifications format used by the PAHO Core Health Data and Country Profiles Initiative. The template, along with its guidelines, is shown below for ease of reference. The content of the compendium is organized by impact goals and categories of the Strategic Plan.

The compendium was prepared by the Pan American Sanitary Bureau (PASB), in collaboration with the Countries Working Group (CWG) for the PAHO Strategic Plan 2014-2019. This group was established by the 153rd PAHO Executive Committee, through Resolution CD52.R8, and was composed of 12 Member States: Bahamas, Brazil (Chair), Canada, Chile, Costa Rica, Ecuador, El Salvador (Vice Chair), Jamaica, Mexico, Paraguay, Peru, and the United States of America.

PAHO STRATEGIC PLAN 2014-2019 INDICATOR TEMPLATE[a]

Code and title of the indicator	*Includes the number and a brief title for the outcome (OCM), as established in the PAHO Strategic Plan (SP,) 2014-2019*
Name of the indicator	*Includes the text for the indicator, as defined in the SP.*
Estimated impact in magnitude and equity	*This applies only to the impact indicators: it includes the expected changes in the health of the population (i.e. reduction in morbidity and mortality or improvements in well-being), and the reduction in the gap of health inequities.*
Definition of the indicator	*This describes how the indicator is defined, and includes key parameters, baseline, and target:* *Baseline: as established in the Strategic Plan.* *Target: as established in the Strategic Plan.*
Purpose of the indicator	*This indicates why it is important to use the proposed indicator and/or its parameters.*
Technical note	*Describes how the indicator is calculated, including the numerator, denominator, and corresponding formula, as applicable.*
Type of indicator	*Indicates if the indicator measurement is absolute or relative.*
Measurement units	*Indicates the units of measurement to be used for the indicator.*
Frequency of measurement	*Indicates how often the data for the indicator is collected and reported, specifying whether the data is to be collected at the beginning, middle, or end of the year. If possible, this should also indicate the specific date/month when the data will become available for reporting/publishing.*
PASB unit responsible for monitoring the indicator	*This specifies the name of the PASB entity or unit responsible for formulating, monitoring, and evaluating the indicator.*
Data source	*It includes the originator of the indicator data. Should indicate the leading data source, as applicable.*
Limitations	*This indicates the challenges or restrictions related to the monitoring and reporting on the indicator.*
References	*This provides a list of the main references (documents or other materials) that offer relevant information about the indicator's definition and technical specifications.*

[a] *Adapted from the Technical Specifications template used for the PAHO Core Health Data and Country Profiles Initiative. Health Information and Analysis Unit (PAHO/CHA/HA)*

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 1: Improve health and well-being with equity

Code and title of the indicator	1.1 Healthy life expectancy (HALE)
Definition of the indicator	Healthy life expectancy is the number of years that a person at a given age can expect to live in good health, taking into account age-specific mortality, morbidity, and functional health status.
Estimated impact in magnitude and equity[b]	At least a 1.0% increase in HALE for the Americas achieved by 2019 (65.3 years), as compared to the baseline rate in 2014 (64.6 years). *This information will be updated once the most recent data from the Institute for Health Metrics and Evaluation (IHME) is received.*
Purpose of the indicator	This indicator is a single index that captures the expected years of survival free of disability. Such single measures of overall population health provide a useful adjunct to measure health gaps, such as Disability Adjusted Life Years (DALYs), which are often disaggregated by disease and injury.
Technical note[c]	To calculate healthy life expectancy for a particular population (defined by sex, country, and year), the first step is to compute the average health of individuals in that population within each age interval. Information about the prevalence for all sequelae and their associated disability weights are then combined, accounting for comorbidity. These average health values are equivalent to 1 minus the indicator Years Lived with Disability (YLD) per person in a population. Average health values are then incorporated into the life table by Sullivan's method (see Sullivan, 1971 in the reference section). For the purpose of the SP2014 – 2019, the computations required for this index will be made in conjunction with IHME.
Type of indicator	Relative measure.
Measurement units	Number of years.
Frequency of measurement	HALE will be measured biennially with the information gathered from Member Countries between January and December of a given year. The information will be analyzed every June on the following year.
PASB unit responsible for monitoring the indicator	Health Information and Analysis Unit (CHA/HA)
Data source	PAHO/WHO regional mortality data and IHME databases; estimates from WHO's Global Burden of Disease Study and from IHME.
Limitations	The indicator involves many steps and intensive computations for its

[b] *Equity-oriented* targets are included in impact goals 2, 3, 4 and 5, as reflected in the approved PAHO Strategic Plan 2014-2019, amended September 2014. For information on equity measurement please refer to Annex A: Measuring Impact of the PAHO Strategic Plan 2014-2019 at the end of this document.

[c] Please see reference section for links to technical material that guide the concepts, definitions and measurement methods. This applies to all subsequent technical specifications.

	calculation, which requires colaboration with IHME.
References	1. Imai K, Soneji S. On the estimation of disability – free life expectancy. *J Am Stat Assoc* 2007; 102: 1199-1211. 2. Salomon JA, Vos T, Hogan DR, et al. Common values in assessing health outcomes from disease and injury: disability weights measurement study for the Global Burden of Disease 2010. *Lancet* 2012; 380: 2129 – 2143. 3. Salomon JA, Wang H, Freeman MK, et al. Healthy life expectancy for 187 countries, 1990 – 2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; 380: 2144 – 2162. 4. Sullivan DF. A single index of mortality and morbidity. *HSMHA Health Rep* 1971; 86: 347-354. 5. Vos T, Flaxman AD, Naghavi M et al. Years lived with disability (YLD) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; 380: 2163 – 2196. 6. Wang H, Dwyer-Lindgren L, Lofgren KT, et al. Age – specific and sex – specific mortality in 187 countries, 1970 – 2010. *Lancet* 2012; 380: 2071 – 2094.

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 2: Ensure a healthy start for newborns and infants

Code and title of the indicator	2.1 Infant Mortality Rate (IMR)[d]
Definition of the indicator	Approximates a child's risk of dying before reaching the first year of life.
Estimated impact in magnitude and equity	*Magnitude target*: At least a 15% reduction in the regional IMR achieved by 2019 (10.5 per 1,000 live births), as compared to 2014 (12.3 per 1,000 live births). *Equity-oriented targets*:[e] A *relative gap* reduction of at least 10% in the IMR ratio between the top and bottom country groups of the health needs index (HNI) by 2019, compared to 2014. An *absolute reduction* of at least 3 excess infant deaths per 1,000 live births between 2014 and 2019 across the HNI country gradient.
Purpose of the indicator	Besides measuring child survival, IMR is considered an important proxy measure of population health, reflecting the association between the causes of infant mortality and other determinants related to the health situation of a population, such as economic development; general living conditions; social well-being; environmental quality; and opportunity for and access to adequate medical care, especially to medical care related to perinatal atention.
Technical note	The *magnitude* of the IMR is calculated by dividing the number of deaths in children under 1 year of age by the number of live births in the same year and place, and expressed as the number of infant deaths per 1,000 live births. Given that data on incidence and prevalence of diseases are frequently lacking, IMR provides an important information for identifying infant vulnerable populations. *Equity gaps* are measured through the reduction in equality in two ways: *relative* (dimensionless, analogous to the relative risk) and *absolute*, or gradient (with the same units as the health rate)[e]. The *relative gap* indicator is the quotient between the mortality rate from

[d] The IMR impact goal calculations were based on estimates from the United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2012 Revision, Volume I: Comprehensive Tables. New York:UN; 2013. (ST/ESA/SER.A/336).

[e] For a more detailed explanation of how relative and absolute equity gaps are calculated, please refer to Annex A: Measuring Impact of the PAHO Strategic Plan 2014-2019 at the end of this document.

	the group of countries in the stratum with the highest health needs index (HNI), and the group of countries in the stratum with the lowest HNI.[f] The *absolute gap* indicator is the slope of the regression line resulting from regressing country-level IMR on a relative scale of country-level social position, as defined by their HNI**.**
Type of indicator	IMR is a relative measure. Equity-oriented measures consider both relative and absolute dimensions.
Measurement units	IMR is expressed in number of infant deaths per 1,000 live births at the Regional level.
Frequency of measurement	IMR estimates provided by the UN World Population Prospects, includes country estimates for 1950-2100. Any review between 2014 and 2019 will be considered.
PASB unit responsible for monitoring the indicator	Family, Gender and Life Course/Healthy Life Course (FGL/HL), Health Information and Analysis Unit (CHA/HA), and Sustainable Development and Health Equity (SDE)
Data source	United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2012 Revision, Volume I: Comprehensive Tables. New York:UN; 2013. (ST/ESA/SER.A/336).
Limitations	As with other mortality indicators in the Americas, precise infant mortality rates are challenging to obtain, given limitations of mortality registry coverage and difficulties in the adequate classification of deaths, as well as the timeliness and coverage of newborn registries, that often differ by place (urban, rural) and/or by specific population groups, such as indigenous population and/or other ethnic groups.
References	1. Technical Note based on: PAHO/WHO Glossary of Basic Health Indicators http://www.paho.org/hq/index.php?option=com_content&view=article&id=2470&Itemid=2003&lang=en 2. Data: "Level and Trends in Child Mortality, Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation, Report 2013" http://data.unicef.org/child-mortality/under-five

[f] The health needs index (HNI) in PAHO's budget policy was approved by the 28th Pan American Sanitary Conference in 2012.

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 3: Ensure safe motherhood

Code and title of the indicator	3.1 Maternal Mortality Ratio (MMR)[g]
Definition of the indicator	Approximates a woman's risk of dying while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.
Estimated impact in magnitude and equity	*Magnitude target:* At least an 11% reduction in the regional Maternal Mortality Ratio (MMR) achieved by 2019 (43.6 per 100,000 live births), as compared to 2014 (48.7 per 100,000 live births). *Equity-oriented Targets*:[h] A *relative gap* reduction of at least 25% in the MMR between the top and bottom country groups of the HNI by 2019, compared to 2014. An *absolute gap* of no more than 18 excess maternal deaths per 100,000 live births between 2014 and 2019 across the HNI country gradient.
Purpose of the indicator	The indicator is useful for monitoring maternal health, assessing obstetric risks, and measuring progress on health service support for a safe motherhood.
Technical note	The *magnitude* of the MMR is calculated dividing the number of maternal deaths by the number of live births in a given year and place, and expressed as the number of maternal deaths per 100,000 live births. Under the leadership of the World Health Organization (WHO), the Maternal Mortality Estimation Inter-agency Group (MMEIG) uses maternal deaths mainly from WHO's mortality database for 1985 onwards, using the deaths in Chapter XI, "Complication of pregnancy, childbirth and the puerperium" from ICD-9, and the deaths in Chapter XV, "Pregnancy, childbirth and the puerperium" from ICD-10.[i] *Equity gaps* are measured through the reduction in equality in two ways: *relative* (dimensionless, analogous to the relative risk) and *absolute*, or gradient (with the same units as the health rate)[e]. The *relative gap* indicator is the quotient between the mortality rate from

[g] Impact goal calculations of MMR were based on maternal mortality estimates provided in Trends in Maternal Mortality : 1990 to 2010 (see full citation of the source in the reference section).

[h] For a more detailed explanation of how relative and absolute equity gaps are calculated, please refer to Annex A: Measuring Impact of the PAHO Strategic Plan 2014-2019 at the end of this document.

[i] For more specific methodological details see Chapter 3, "Methodology for the 1990-2010 estimates of maternal deaths," in Trends in Maternal Mortality: 1990 to 2010 (see full citation of the source in the reference section).

	the group of countries in the stratum with highest health needs index (HNI), and the group of countries in stratum with the lowest HNI.[j] The *absolute gap* indicator is the slope of the regression line resulting from regressing country-level MMR on a relative scale of country-level social position, as defined by their HNI.
Type of indicator	MMR is a relative measure. Equity-oriented measures consider both relative and absolute dimensions.
Measurement units	MMR is expressed in the number of maternal deaths per 100,000 live births at the regional level.
Frequency of measurement	MMR estimates are produced every five years, with annual statistical interpolations.
PASB unit responsible for monitoring the indicator	Family, Gender and Life Course/Healthy Life Course (FGL/HL), Latin-American Center for Perinatology, Women and Reproductive Health (FGL/CLP), Health Information and Analysis Unit (CHA/HA), and Sustainable Development and Health Equity (SDE)
Data source	Maternal Mortality Estimation Inter-Agency Group (MMEIG), comprised of WHO, UNICEF, UNFPA, and The World Bank)
Limitations	Precise maternal mortality ratios are challenging to obtain, given limitations of mortality registry coverage and difficulties for the adequate classification of deaths. In places with serious limitations, censuses and surveys can be used as alternatives to estimate maternal mortality levels.
References	1. World Health Organization, World Bank, UNICEF, United Nations Population Fund. Trends in Maternal Mortality: 1990 to 2010. WHO, UNICEF, UNFPA and the World Bank estimates. Geneva:WHO; 2012. Available from: http://whqlibdoc.who.int/publications/2012/9789241503631_eng.pdf?ua=1 [last accessed on 12 September 2014].

[j] The health needs index (HNI) in PAHO's budget policy was approved by the 28th Pan American Sanitary Conference in 2012.

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 4: Reduce mortality due to poor quality of health care

Code and title of the indicator	4.1 Mortality amenable to health care rate (MAHR)
Definition of the indicator	Mortality amenable to health care refers to premature deaths that should have not occurred in the presence of timely and effective health care.
Estimated impact in magnitude and equity	*Magnitude target:* At least a 9% reduction in the regional mortality amenable to health care rate (MAHR) achieved by 2019 (77.2 per 100, 000 population), as compared to 2014 (84.7 per 100,000 population). *Equity-oriented targets*:[k] A *relative gap* of no more than 6% increase in the MAHR between the top and bottom country groups of the HNI by 2019, compared to 2014. An *absolute gap* of no more than 8 excess preventable deaths per 100,000 population between 2014 and 2019 across the HNI country gradient.
Purpose of the indicator	The indicator is useful for assessing the potential impact of health care on a population's health, given the assumption that there are a set of causes of premature death that should not occur in the presence of timely and effective medical interventions. In other words, the causes of such deaths are considered treatable and, thus, are regarded as avoidable with appropriate medical care.
Technical note	The *magnitude* of the MAHR is calculated by adding a set of specific causes of death (see the table below and Figure 4.1) divided by the total population in a specific year, expressed as deaths per 100,000 population at regional level. To take into account the different demographic structures of the Americas, the regional rate is age–adjusted, using WHO's standard population. (See Ahmad et al, 2001 in the reference section.) *Equity gaps* are measured through the reduction in equality in two ways: *relative* (dimensionless, analogous to the relative risk) and *absolute*, or gradient (with the same units as the health rate)[e]. The *relative gap* indicator is the quotient between the mortality rate from the group of countries in the stratum with highest Health Needs Index (HNI),[l] and the group of countries in the stratum with the lowest HNI. The *absolute gap* indicator is the slope of the regression line resulting from regressing country-level MAHR on country-level social position, as defined by their HNI.
Type of indicator	MAHR is a relative measure. Equity-oriented measures consider both relative and absolute dimensions.

[k] For a more detailed explanation of how relative and absolute equity gaps are calculated, please refer to Annex A: Measuring Impact of the PAHO Strategic Plan 2014-2019 at the end of this document.

[l] The health needs index (HNI) in PAHO's budget policy was approved by the 28th Pan American Sanitary Conference in 2012.

Measurement units	MAHR is expressed in number of premature deaths per 100,000 population at the regional level.
Frequency of measurement	MAHR is measured annually, with information gathered from Member Countries between January and December of a given year. The information is then analyzed on the following year.
PASB unit responsible for monitoring the indicator	Health Information and Analysis Unit (CHA/HA) and Sustainable Development and Health Equity (SDE)
Data source	PAHO/WHO Regional Mortality Information System.
Limitations	MAHR is an attractive option to approximate the impact of health care on premature mortality, but should not be considered as a definitive evidence of differences in effective health care. It is a proxy indicator of the potential weaknesses in the health services. More in depth research is required in this area. It is also important to consider that the ranking of countries based on MAHR and other indicators such as Years of Potential Life Lost (YPLL) might differ substantially, because YPLL considers mortality from all causes and also depends on the threshold age selected for the calculations. In addition, MAHR may be underestimated, due to data quality problems such as the proportion of deaths that have not been registered and the proportion of ill-defined causes, which differ from country to country. Either way, MAHR is an option that provides information that is not directly reflected in general mortality indicators used to measure the outcomes of health systems.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31). 2. Canada, Health Canada (Statistics Canada): Health Indicators 2012: Definitions, Data Sources and Rationale, May 2012. 3. Rutstein DD et al. Measuring the Quality of Medical Care: A Clinical Method. *N Engl J Med* 1976; 294: 582-588. 4. Mexico, Secretaría de Salud. La Mortalidad en México 2000 – 2004 - Muertes evitables: magnitud, distribución y tendencias. México, 2006. 5. Nolte E, McKee M. Does health care saves lives? Avoidable mortality revisited. The Nuffield Trust, 2004. 6. Nolte E, McKee M. Measuring the health of nations: updating an earlier analysis. *Health Affairs*. 2008; 27(1):58-71. 7. Nolte E, McKee M. Variations in amenable mortality – Trends in 16 high-income nations. *Health Policy* 103 (2011) 47 – 52. 8. Tobias M, Jackson G. Avoidable mortality in New Zealand, 1981-1997. *Aust N Z Public Health*. 2001; 25 (1) 12-20. 9. Tobias M, Yeh L. How much does health care contribute to health gain and to health inequality? Trends in amenable mortality in New Zealand 1981–2004. *Aust N Z Public Health*. 2009; 33:70-78. 10. United Kingdom, Office for National Health Statistics (England & Wales). Avoidable Mortality in England and Wales, 2010. Statistical Bulletins 2010 and 2011.

LIST OF CAUSES OF DEATH CONSIDERED AMENABLE TO HEALTH CARE (SEPTEMBER 2013).[m]

Causes/ categories	Group or cause name	Age	ICD-10 code
Certain infectious and parasitic diseases	Intestinal infections	0-14	A00-A09
	Tuberculosis	0-74	A15-A19, B90
	Certain zoonotic bacterial diseases (tularemia, anthrax, brucellosis, glanders and melioidosis, rat-bite fevers, erysipelas, other zoonotic bacterial diseases **)**	0-74	A21-A26, A28
	Leprosy, infection due to other mycobacteria, listeriosis, tetanus neonatorum, obstetrical tetanus, streptococcal septicaemia, other septicaemia, other bacterial diseases	0-74	A30-A33, A34, A40, A41, A48
	Other infectious diseases (diphtheria, tetanus, poliomyelitis)	0-74	A35, A36, A80
	Whooping cough	0-14	A37
	Scarlet fever, erysipelas, other bacterial diseases	0-74	A38, A46, A49.1,
	Chlamydial lymphogranuloma (venereum), chancroid, granuloma inguinale, unspecified sexually transmitted disease	0-74	A55, A57, A58, A64
	Relapsing fevers	0-74	A68
	Measles, rubella (German measles), unspecified viral infection characterized by skin and mucous membrane lesions	1-14	B05, B06, B09
	Acute hepatitis A, acute hepatitis B, other acute viral hepatitis (C), chronic viral hepatitis (chronic), unspecified viral hepatitis, HIV-AIDS infection	0-74	B15 – B19, B20 – B24
	Plasmodium falciparum malaria, Plasmodium vivax malaria, Plasmodium malariae malaria, other parasitologically confirmed malaria, unspecified malaria	0-74	B50- B54
	Schistosomiasis, other fluke infections, echinococcosis, teniasis, cysticercosis, other cestode infections, onchocerciasis, filariasis, trichinellosis, hookworm disease, ascariasis, strongyloidiasis, trichiuriasis, enterobiasis, other intestinal helminthiases, unspecified intestinal parasitism, other helminthiases, cellulitis	0-74	B65-B69, B71, B73-B83, L03
Neoplasms	Malignant neoplasm of lip	0-74	C00

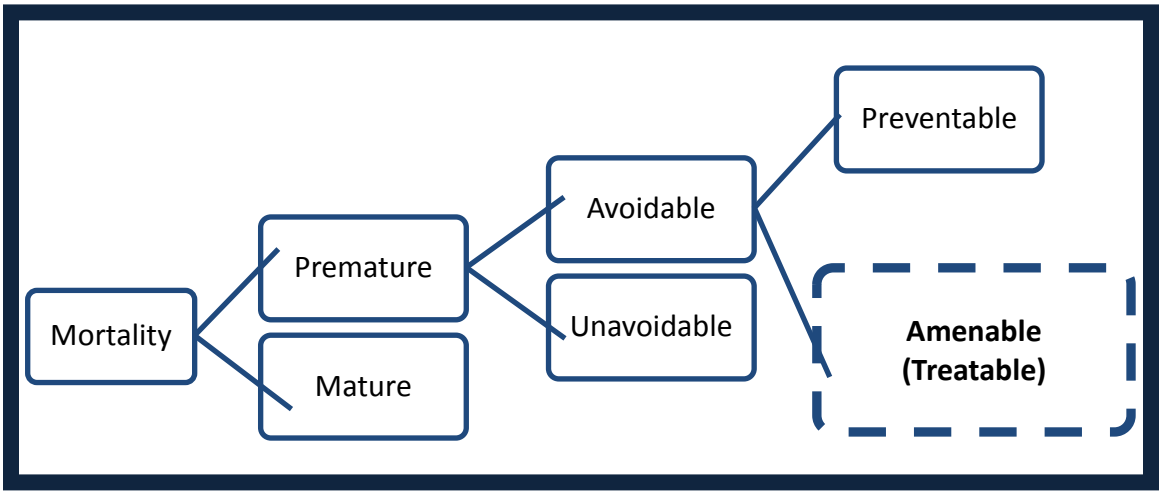
[m] **Mortality amenable to health care** has been defined as "those premature deaths that should have not occurred in the presence of timely and effective health care." The list is based on proposals from England (Nolte and McKee, 2004, 2008, 2011), England & Wales (United Kingdom, 2010), Mexico (Mexico, 2006), Canada (Canada, 2012), New Zealand (Tobias and Jackson, 2001; Tobias and Yeh, 2009). (See the full citations in the references section.)

Causes/ categories	Group or cause name	Age	ICD-10 code
(cancers)	Malignant neoplasm of stomach, colon, rectosigmoid junction, rectum, anus and anal canal, liver and intrahepatic bile ducts	0-74	C16, C18-C21, C22
	Malignant melanoma of skin, other malignant neoplasm of skin	0-74	C43, C44
	Malignant neoplasm of breast (female only)	0-74	C50
	Malignant neoplasm of cervix uteri	0-74	C53
	Malignant neoplasm of cervix of the uteri and body of the uterus	0-74	C54, C55
	Malignant neoplasm of testis	0-74	C62
	Malignant neoplasm of bladder	0-74	C67
	Malignant neoplasm of Thyroid gland	0-74	C73
	Hodgkin's disease	0-74	C81
	Leukemia	0-44	C91-C95
	In situ neoplasms	0-74	D00 – D09
	Benign neoplasms	0-74	D10 – D36
Endocrine, nutritional and metabolic diseases	Diseases of the thyroid	0-74	E00-E07
	Diabetes mellitus, Cushing's syndrome, adrenogenital disorders, other disorders of adrenal gland, glycogen storage disease, disorders of galactose metabolism	0-49	E10-E14, E24, E25, E27, E74.0, E74.2
Diseases of the nervous system	bacterial meningitis (not elsewhere classified); meningitis due to other and unspecified causes; encephalitis, myelitis, and encephalomyelitis; intracranial and intraspinal abscess and granuloma (except nonpyogenic meningitis)	0-74	G00, G03, (except G03.0) G04, G06
	Epilepsy	0-74	G40-G41
Diseases of the circulatory system	Rheumatic fever without heart involvement, Rheumatic fever with heart involvement, Rheumatic chorea	0-74	I00 – I02
	Chronic rheumatic heart disease	0-74	I05-I09
	Hypertensive disease	0-74	I10-I13, I15
	Ischemic heart disease	0-74	I20-I25 [except I24.9 y I25.0
	Cerebrovascular diseases, atherosclerosis,[n] peripheral vascular disease, unspecified	0-74	I60-I69, I70 I73.9
Diseases of	All respiratory diseases (excluding	1-14	J00-J09, J20-J99

[n] Deaths by I70 and I73.9 diminished by 50%.

Causes/ categories	Group or cause name	Age	ICD-10 code
the respiratory system	pneumonia/influenza)		
	Influenza	0-74	J10-J11
	Pneumonia, asthma	0-74	J12-J18, J45-J46
Diseases of the digestive system	Gastric ulcer, duodenal ulcer, peptic ulcer-site unspecified, gastrojejunal ulcer, gastritis and duodenitis	0-74	K25-K27, K28, K29
	Diseases of appendix	0-74	K35-K38
	Hernia	0-74	K40-K46
	Paralytic ileus and intestinal obstruction without hernia	0-74	K56
	Cholelithiasis, cholecystitis, other diseases of gallbladder, other diseases of biliary tract, acute pancreatitis, other diseases of pancreas	0-74	K80-K86
	Postprocedural disorders of digestive system, not elsewhere classified	0-74	K91
Diseases of the genitourinary system	Glomerular diseases, obstructive and reflux uropathy, renal failure, calculus of kidney , calculus of lower urinary tract, unspecified renal colic, disorders resulting from impaired renal tubular function, unspecified contracted kidney, small kidney, nonspecific urethritis, urethral stricture	0-74	N00-N08, N13, N17-N19, N20, N21, N23, N25-N27, N34.1, N35
	Hyperplasia of prostate	0-74	N40
	Salpingitis and oophoritis, Inflammatory disease of uterus (except cervix), inflammatory disease of cervix uteri, other female pelvic inflammatory diseases, diseases of Bartholin's gland, other inflammation of vagina and vulva	0-74	N70 – N73, N75, N76
	Dysplasia of cervix uteri, other non inflammatory disorders of cervix uteri, other non inflammatory disorders of vulva and perineum	0-74	N87, N88, N90
	Postprocedural urethral stricture	0-74	N99.1
Maternal and perinatal	Pregnancy, childbirth and the puerperium	All	O00-O99
	Certain conditions originating in the perinatal period	0-74	P00-P96
	Congenital malformations, deformations and chromosomal abnormalities	All	Q00-Q99
External causes	Misadventures to patients and medical care	All	Y60-Y69, Y83-Y84

Figure 4.1. Relationship between different concepts of avoidable and amenable mortality.



Avoidable mortality refers to untimely deaths that should not occur in the presence of timely and effective health care, including prevention. It serves to focus attention on the portion of population health attainment that can potentially be influenced by the health system.

- Potentially **avoidable** mortality—are premature deaths that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary);
- Mortality from **preventable** causes—refers to a subset of avoidable mortality that informs efforts to reduce the number of initial cases (that is, incidence reduction); through these efforts, deaths can be prevented by avoiding new cases altogether; and
- Mortality from **amenable** (treatable) causes—is a subset of avoidable mortality that informs efforts to reduce the number of people who die once they have a condition, or case - fatality reduction.

Sources: Adapted from Tobias and Yeh, 2009 and Statistics Canada — Canadian Institute for Health Information: Health Indicators 2012. (see the full citation in the reference section)

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 5: Improve the health of the adult population with an emphasis on NCDs and risk factors

Code and title of the indicator	5.1 Premature mortality from noncommunicable diseases
Definition of the indicator	Premature mortality from noncommunicable diseases (NCDs) is defined as deaths among people aged 30-69 years from causes included in the following codes from the 10th revision of International Classification of Diseases (ICD-10): cardiovascular diseases (I00-I99); malignant neoplasm (C00-C97), diabetes mellitus (E10-E14), and chronic respiratory diseases (J30-J98).
Estimated impact in magnitude and equity	*Magnitude target:* At least a 9% reduction in the regional Premature NCD Mortality Rate (PNMR) achieved by 2019 (239.6 per 100, 000 population), as compared to 2014 (260.8 per 100,000 population). *Equity-oriented targets*:[o] A *relative gap* of no more than 6% increase in the PNMR ratio between the top and bottom country groups of the HNI by 2019, compared to 2014. An *absolute gap* of no more than 18 excess premature deaths due to NCDs per 100,000 population between 2014 and 2019 across the HNI country gradient.
Purpose of the indicator	NCDs account for a higher proportion of deaths in the majority of countries. It is helpful to monitor the progress of policies, programs, and interventions implemented in a country, territory, or geographical area that are intended to reduce premature mortality due to NCDs.
Technical note	The *magnitude* of the PNMR is calculated by adding the deaths from the causes listed above among people 30 to 69 years of age in a given calendar year divided by the total population in a specific year, expressed as death per 100,000 population at the regional level. To take into account the different demographic structures of the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al., in the reference section.)
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of NCD deaths per 100,000 population aged 30-69 per year.
Frequency of measurement	NCD mortality rate is measured annually, with the information gathered from Member Countries between January and December of a given year; the information is then analyzed on the following year.
PASB unit responsible for monitoring the	Health Information and Analysis Unit (CHA/HA) and Sustainable Development and Health Equity (SDE)

[o] For a more detailed explanation of how relative and absolute equity gaps are calculated, please refer to Annex A: Measuring Impact of the PAHO Strategic Plan 2014-2019 at the end of this document.

indicator	
Data source	Deaths: PAHO Regional Database, where mortality data are provided annually by the countries of the Americas. Population: United Nations Population Division. Census population can be used at country level.
Limitations	One of the limitations of this indicator relates to the under-registration of deaths and ill-defined causes.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31).

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 6: Reduce mortality due to communicable diseases

Code and title of the indicator	6.1 HIV mortality rate
Definition of the indicator	Measures the risk of dying from HIV infection, regardless of gender and age.
Estimated impact in magnitude	*Magnitude target*: At least a 15% reduction in the mortality rate due to HIV/AIDS by 2019, compared to 2014.
Purpose of the indicator	Mortality due to HIV/AIDS is a basic impact indicator that measures the effectiveness of the national response to the HIV/AIDS epidemic. Analysis of HIV/AIDS mortality is important for understanding the disease burden associated with HIV/AIDS infection and the success of the response in terms of prevention and treatment.
Technical note	The *magnitude* of the rate is calculated by adding all deaths with an underlying cause of death with any code B20 to B24 from the International Classification of Diseases, 10th Revision (ICD-10)among all population groups (regardless of gender and age), divided by the total population in a given year and country. To take into account the different population structures in the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al., 2001 in the reference section.) Numerator: all deaths with an underlying cause of death with any code B20 to B24 from the International Classification of Diseases, 10th Revision (ICD-10), among all population groups (regardless of gender and age) Denominator: total population in a given year and country.
Type of indicator	Relative measure: rate, age-adjusted.
Measurement units	It is expressed as the number of HIV deaths per 100,000 population, per year.
Frequency of measurement	Information will be updated annually, in the second semester of each year.
PASB unit responsible for monitoring the indicator	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT) and Health Information and Analysis Unit (CHA/HA)
Data Source	PAHO Regional Database.
Limitations	One of the limitations of this indicator has to do with the tendency of countries to under-register deaths, particularly deaths due to HIV/AIDS. Mortality due to HIV/AIDS infection is under-reported, even in countries with high quality vital statistic systems. Another limitation of vital statistics data is the time lag from the occurrence of an event until the information is available for use. In addition, not all vital statistic mortality data may be reported to PAHO in a timely manner; thus, country-data subsets will be used in order to ensure a

	comparable rate analysis. For consistency, results will be triangulated with other information sources, such as Spectrum estimates on HIV deaths in the Region. Targets are based on HIV mortality rate trends in the past quinquennium. Future trends (2014-2019), in an era of more stabilized and higher HIV treatment coverage, may follow different patterns in HIV mortality trends than those seen in the past quinquenium.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31).

Code and title of the indicator	6.2 Dengue Mortality Rate
Definition of the indicator	Number of deaths caused by dengue and reported by countries in the Region of the Americas.
Estimated impact in magnitude	*Magnitude target*: At least a 30% reduction in the case fatality rate due to dengue by 2019 (0.05%), as compared to 2012 (0.07%).
Purpose of the indicator	Measure the impact that countries and territories have attained in early and appropriate diagnosis and management of patients with dengue after implementation of recommendations in PAHO/WHO new dengue guidelines.
Technical note	Dengue is now considered as a single disease, encompassing both dengue and severe dengue. Therefore, the case fatality rate has to be calculated using all dengue cases (probable and confirmed) as the denominator.This indicator will make it possible to measure how countries are progressing on adecuate patient case management.
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of dengue deaths per 100 dengue cases.
Frequency of measurement	The indicator is measured monthly when data is updated with the information gathered from Member States. A regional report with analized information will be produced twice a year and will be discussed with all countries.
PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Diseases (CHA/VT)
Data Source	Report of the Region's countries to PAHO/WHO.
Limitations	The indicator measures the progress in each country on the implementation of the guidelines recommended by PAHO/WHO and the impact in the reduction of the case fatality rate; nevertheless, the indicator cannot determine the coverage of the progress at the national level.
References	1. Dengue Guidelines for diagnosis, treatment, prevention and control; 2009. WHO 2. Global Strategy for dengue prevention and control, 2012–2020. WHO 3. PAHO/WHO. Number of Reported Cases of Dengue and Severe Dengue (SD) in the Americas, by Country: Figures for 2012. Availabe at: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=21641&lang=es

Code and title of the indicator	6.3 Tuberculosis mortality rate
Definition of the indicator	Measures the risk of dying from tuberculosis, regardless of gender and age.
Estimated impact in magnitude	*Magnitude target*: At least a 24% reduction in the tuberculosis mortality rate by 2019 (0.8 per 100,000 population), as compared to 2014 (1.1 per 100,000 population).
Purpose of the indicator	Tuberculosis is a preventable and curable disease that should not be a cause of death. The indicator measures the impact of the TB-control program interventions that are implemented in health care systems.
Technical note	The *magnitude* of the rate is calculated by adding all deaths with an underlying cause of death with any code A15 to A19 from the International Classification of Diseases, 10th Revision (ICD-10), among all population groups (regardless of gender and age), divided by the total population in a given year and country. To take into account the different population structures in the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al. in the reference section.)
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of tuberculosis deaths per 100,000 population, per year.
Frequency of measurement	The indicator is measured annually with the information gathered from Member States between January and December of a given year. The information is then analyzed the following year.
PASB unit responsible for monitoring the indicator	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections Unit (CHA/HT) and Health Information and Analysis Unit (CHA/HA)
Data Source	PAHO Regional Database.
Limitations	One of the limitations of this indicator is the tendency of countries to under-register deaths due to tuberculosis.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31).

Code and title of the indicator	6.4 Malaria mortality
Definition of the indicator	Annual malaria mortality is defined as the number of deaths attributed to malaria in a given year. This indicator measures the decline in the annual malaria mortality in the Region, measured in 2019 compared to the annual malaria mortality measured in 2011.
Estimated impact in magnitude	*Magnitude target*: At least a 75% reduction in mortality due to malaria by 2019 (28 deaths) compared to 2011 (112 deaths).
Purpose of the indicator	This indicator evaluates the performance of the countries' malaria programs and health service delivery, particularly their capacity to provide rapid response with quality-assured diagnosis and treatment, hence preventing severe malaria cases and reducing malaria mortality.
Technical note	PAHO/WHO's annual World Malaria Report forms, which are used by countries to send annual updates, facilitate country reporting of important data sets that feed into calculating this indicator, such as: • number of deaths attributed to malaria reported in 2019, • number of deaths attributed to malaria reported in 2011
Type of indicator	Absolute measure.
Measurement units	It is expressed as the number of malaria deaths per year.
Frequency of measurement	Annual; often coinciding, for most countries, with the last semester of the succeeding year and consistent to scheduled year-end annual publication of the WHO World Malaria Report (data from the previous year is published annually on December; e.g., 2012 data will published on December 2013).
PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Diseases (CHA/VT)
Data Source	Country reports notified by national authorities to PAHO country offices and corresponding technical unit.
Limitations	Variations in the reporting cycles of countries; indicator does not necessarily include private-sector coverage, which is important in the context of malaria elimination; indicator does not necessarily measure the implementation of other important malaria policies that do not pertain to mortality.
References	1. Pan American Health Organization (2014) Interactive Malaria Statistics. PAHO, Washington DC. http://www.paho.org/hq/index.php?option=com_content&view=article&id=2632&Itemid=2130&lang=en 2. Annual World Health Organization World Malaria Report. 3. PAHO Directing Council Resolutions CD51.R9.

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 7: Curb premature mortality due to violence, suicides, and accidents among adolescents and young adults (15-24 years of age)

Code and title of the indicator	7.1 Homicide rate among youth 15-24 years of age
Definition of the indicator	Measures the risk for a youth 15 to 24 years of age to die from an assault, regardless of gender.
Estimated impact in magnitude	*Magnitude target*: At least a 6% reduction in the homicide rate achieved by 2019 (25.7 per 100,000 youth 15 to 24 years of age), compared to 2014 (27.3 per 100,000 youth 15-24 years of age).
Purpose of the indicator	The rationale for using the homicide rate as an indicator stems from the facts that 1) homicide is the leading cause of death among young people 10-24 years of age in the Region of the Americas; 2) homicides among young people reduce or reverse economic progress by adding to the cost of health and social services, reducing productivity, decreasing the value of property, and disrupting a range of essential services; 3) violence involving young people is associated with and the possible cause of premature death, injury, and disability; and 4) there is evidence of the impact of these events in lowering a country's life expectancy
Technical note	The *magnitude* of the rate is calculated by adding all deaths with an underlying cause of death with any code X85 to Y09 (assaults) and Y35 (legal interventions) from the International Classification of Diseases, 10th Revision (ICD-10), among the population 15 to 24 years of age (regardless of sex), divided by the population 15 to 24 years of age in a given year in the Region. To take into account the different demographic structures of adolescents and young adults in the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al., 2001 in the reference section.)
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of homicide deaths per 100,000 population aged 15-24, per year.
Frequency of measurement	The indicator is measured annually with the information gathered from Member Countries between January and December of a given year. The information is then analyzed in the following year.
PASB unit responsible for monitoring the indicator	Family, Gender and Life Course/Healthy Life Course (FGL/HL), and Health Information and Analysis Unit (CHA/HA)
Data Source	PAHO Regional Database.
Limitations	One of the limitations of this indicator has to do with the tendency of countries to under-register deaths, particularly deaths due to homicide.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31).

Code and title of the indicator	7.2 Suicide rate among youth 15-24 years of age.
Definition of the indicator	Measures the risk for a youth 15 to 24 years of age to die from intentional self-harm, regardless of sex.
Estimated impact in magnitude	*Magnitude target*: No increase in the suicide rate by 2019 (7.8 per 100,000 youth 15 to 24 years of age), compared to 2014 (7.8 per 100,000 youth 15-24 years of age).
Purpose of the indicator	The rationale for using suicide rate as an indicator stems from the facts that 1) approximately 85,688 young people between the ages 15-24 commit suicide each year in the Region of the Americas; 2) high levels of suicide rates have been associated with social stress, historical traumas passed from generation to generation, physical and sexual violence by intimate partners and non-partners, and poor mental health.
Technical note	The *magnitude* of the rate is calculated by adding all deaths with an underlying cause of death with any code X60 to X84 in the International Classification of Diseases, 10th Revision (ICD-10), among the population 15 to 24 years of age (regardless of sex), divided by the population 15 to 24 years of age in a given year in the Region. To take into account the different demographic structures of adolescents and young adults in the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al, 2001 in the reference section.)
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of suicide deaths per 100,000 population aged 15-24, per year.
Frequency of measurement	The indicator is measured annually with the information gathered from Member Countries between January and December of a given year. The information is analyzed in the following year.
PASB unit responsible for monitoring the indicator	Family, Gender and Life Course/Healthy Life Course (FGL/HL), and Health Information and Analysis Unit (CHA/HA)
Data Source	PAHO Regional Database.
Limitations	One of the limitations of this indicator deals with the tendency of countries to under-register deaths, particularly deaths due to suicide.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva: WHO; 2001. (GPE discussion paper series 31).

Code and title of the indicator	7.3 Mortality rate due to road traffic injuries among youth 15-24 years of age
Definition of the indicator	Measures the risk for a youth 15-to-24 years of age to die from road traffic related injuries, regardless of gender.
Estimated impact in magnitude	*Magnitude target*: No increase, or at least a 1% reduction in mortality rate due to road traffic injuries, achieved by 2019 (20.3 per 100,000 youth 15-24 years of age), compared to 2014 (20.5 per 100,000 youth 15-24 years of age).
Purpose of the indicator	The rationale for using mortality rate due to road traffic injuries as an indicator stems from the fact that, worldwide, transport-related injuries are the leading cause of mortality among youth 15-29 years of age, with young men being most at risk, and have been proven to have huge social and economic consequences.
Technical note	The *magnitude* of the rate is calculated by adding all deaths with an underlying cause of death with any code V01 to V89 from the International Classification of Diseases, 10th Revision (ICD-10), among the population 15 to 24 years of age (regardless of gender), divided by the population 15 to 24 years of age in a given year and country. To take into account the different demographic structures of adolescents and young adults in the Americas, the regional rate is age-adjusted using WHO's standard population. (See Ahmad et al., 2001 in the reference section.)
Type of indicator	Relative measure.
Measurement units	It is expressed as the number of deaths from road traffic injuries per 100,000 population.
Frequency of measurement	The indicator is measured annually with information gathered from Member Countries between January and December of a given year. The information is analyzed in the following year.
PASB unit responsible for monitoring the indicator	Family, Gender and Life Course/Healthy Life Course (FGL/HL), Noncommunicable Diseases and Mental Health/Risk Factors (NMH/RF) and Health Information and Analysis Unit (CHA/HA)
Data Source	PAHO Regional Database.
Limitations	One of the limitations of this indicator has to do with the tendency of countries to under-register deaths, particularly deaths due to road traffic injuries.
References	1. Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. *Age standardization of rates: A new WHO standard 2000 – 2025*. Geneva:WHO; 2001. (GPE discussion paper series 31).

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 8: Eliminate priority communicable diseases in the Region

Code and title of the indicator	8.1 Elimination of mother-to-child transmission of HIV and congenital syphilis
Definition of the indicator	This is a composite indicator reflecting the commitment of PAHO Member States to the dual elimination of congenital syphilis and mother-to-child transmission of HIV (Resolution CD50.R12). Elimination refers to the reduction of vertical transmission of HIV and syphilis to a level below public health significance. A country or territory has achieved elimination once the following sub-indicators have been attained: • for HIV, a reduction of the rate of mother-to-child transmission of HIV to 2% or less, and a reduction of the incidence of mother-to-child transmission of HIV to 0.3 cases or fewer per 1,000 live births; • for congenital syphilis: a reduction of the incidence of congenital syphilis (including stillbirths) to 0.5 cases or fewer per 1,000 live births
Estimated impact in magnitude	*Magnitude target*: Elimination in 16 countries and territories, compared to the baseline of 0 countries and territories in 2013.
Purpose of the indicator	Vertical transmission of HIV and syphilis are preventable through primary prevention of HIV and syphilis infection among women of reproductive ages, high coverage of quality antenatal care that includes routine HIV and syphilis screening, and effective follow-up of seropositive women and exposed infants. In 2010, PAHO Member States approved resolution CD50.R12, committing themselves to the dual elimination by the year 2015. This indicator measures the progress towards this goal.
Technical note	The three sub-indicators are computed as follows: a) Reported rate of mother-to-child transmission of HIV—percentage of infants born to HIV-positive mothers, who tested positive for HIV Numerator: number of infants born to HIV-positive mothers in a given calendar year who were diagnosed as positive for HIV. Denominator: reported number of infants born to HIV-positive mothers within a given calendar year, with definitive diagnosis (HIV-positive or HIV-negative). b) Annual rate of reported cases of mother-to-child transmission of HIV per 1,000 live births Numerator: number of children born to mothers living with HIV who were diagnosed as positive in a given calendar year. Denominator: estimated number of live births within the same defined calendar year. c) Annual rate of reported cases of congenital syphilis per 1,000 live births Numerator: number of reported cases of congenital syphilis according to the national case definition in a given year. The national case definition should include stillbirths due to syphilis. Denominator: Estimated number of live births within the same time frame

Type of indicator	Relative measure.
Measurement units	The three sub-indicators are expressed as: a) Percentage, b) Annual rate per 1,000 live births, c) Annual rate per 1,000 live births.
Frequency of measurement	The data is usually reported in the second quarter of the following year. After data cleaning and verification, updates are available in the second half of the year following the reporting period.
PASB unit responsible for monitoring the indicator	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)
Data source	The data for the three sub-indicators is obtained as follows: a) Reported rate of mother-to-child transmission of HIV: percentage of infants born to HIV-positive mothers, who tested positive for HIV Numerator and denominator: prenatal care records or other health facility registries. b) Annual rate of reported cases of mother-to-child transmission of HIV per 1,000 live births Numerator: HIV and prenatal-care case-monitoring registries or other health facility registries. Denominator: generated through a population estimate of the number of live births over the past 12 months. This can be obtained from national vital statistics, the UN Population Division estimates, or from PAHO's health information system. c) Annual rate of reported cases of congenital syphilis per 1,000 live births Numerator: in most Latin American and Caribbean countries, congenital syphilis is subject to compulsory notification; the data source is the national registration system for congenital syphilis cases. Denominator: generated through a population estimate of the number of live births over the past 12 months. This can be obtained from national vital statistics, the UN Population Division estimates, or from PAHO's health information system.
Limitations	Countries will only be counted if there has been some external validation of the reported data high quality vital statistic systems. Another limitation of vital statistic data is the time lag that occurs from the occurrence of the event until the information is available for use.
References	1. Pan American Health Organization. Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis. 50th Directing Council, 62nd Session of the Regional Committee. Resolution CD50.R12. PAHO, Washington, D.C., 2010. Available from: http://new.paho.org/hq/dmdocuments/2010/CD50.R12-e.pdf

Code and title of the indicator	8.2 Elimination of onchocerciasis
Definition of the indicator	This indicator measures the progress made in the countries towards the elimination of onchocerciasis.
Estimated impact in magnitude	*Magnitude target*: Elimination in four countries. Baseline 2013: 1 (COL) Target 2019:[p] four countries (ECU, GUT, MEX)
Purpose of the indicator	PAHO's Directing Council committed the Region's countries to the elimination of onchocerciasis, originally setting 2012 as the year for eliminating ocular morbidity and interrupting transmission of the disease in the Region, first in 2008, through Resolution CD48.R12, "Towards the Elimination of Onchocerciasis (River Blindness) in the Americas" and further strengthened in 2009, with Resolution CD49.R19 (2009) "Elimination of Neglected Diseases and other Poverty-related Infections." Blindness caused by onchocerciasis has been considered to be eliminated in the Region of the Americas since 1995. Up to 2013, 184,310 persons are considered as being no longer at risk,[q] since the disease has been interrupted or eliminated in 11 out of the 13 foci in the 6 endemic countries. This is an impact indicator that tracks not only the elimination of a disease, but also progress in terms of access to health services by people living in remote and poor areas. A country needs to implement several interventions for onchocerciasis for approximately 16 years (mass drug administration, epidemiological and entomological surveillance, health education, among others). Hence, to reach the elimination status is an achievement based on a big effort from the countries and the communities over many years.
Technical note	Elimination is reached once an endemic country reports that there are no more new cases in humans and no more blackflies infected in each of its foci after completing a post-treatment surveillance period of three years (during this period the mass drug administration is stopped). The elimination status for the four target countries will be calculated as follows: • Mexico: elimination reached in its three foci. As of 2013, Mexico had eliminated onchocerciasis in two foci. • Guatemala: elimination reached in its four foci. As of 2013, Guatemala had eliminated onchocerciasis in three foci. • Ecuador: elimination reached in its one focus. The country reached elimination status in 2013 and an WHO International Verification Team will visit the country in 2014.Colombia: elimination reached in its one focus. The country received its verification of elimination from WHO in 2013.
Type of indicator	Absolute. Either a country has or has not achieved the elimination status in all its foci.

[p] The target for 2019 includes the countries listed plus those already in the baseline.
[q] World Health Organization. Weekly Epidemiological Record. 2013;88(36):381–388

Measurement units	Number of countries achieving the elimination status.
Frequency of measurement	The evaluation of the epidemiological and entomological indicators is made once at the end of a three-year period of post-treatment surveillance. An International Verification Team verifies a country's elimination status once the country has reached the optimal level of the epidemiological and entomological indicators. Based on the recommendations provided by the IVT to the Director of WHO, the Organization decides whether the verification can be granted to the country.
PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Diseases (CHA/VT)
Data Source	Reports are presented by national authorities to OEPA (Onchocerciasis Elimination Program of the Americas) and via OEPA, to PAHO's Neglected, Tropical and Vector Borne Diseases unit.
Limitations	The sanitary regulations in some countries for submission of samples to international certificated laboratories for analysis are cumbersome resulting in delays on the results of the entomological samples. The data provided to evaluate whether this indicator has been accomplished could be delayed due to countries inherent sanitary regulations.
References	1. WHO. Certification of elimination of human onchocerciasis: criteria and procedures. Guidelines, 2000. 2. OEPA. Guide for the detection of a Potential Recrudescence during the period of Post Treatment Surveillance (PTS). 2011.

Code and title of the indicator	8.3. Chagas elimination
Definition of the indicator	Measures the interruption of Chagas by the main vector in a territory or territorial unit at risk.
Estimated impact in magnitude	*Magnitude target*: Elimination in 21 endemic countries. Baseline 2013: 17 (ARG, BLZ, BOL, BRA, CHI, COL, COR, ELS, GUT, GUY, HON, MEX, NIC, PAN, PAR, PER, URU Target 2019[r]: 21 (ECU, SUR, FRG, VEN)
Purpose of the indicator	Elimination of Chagas disease is a basic impact indicator that measures, through a serological and entomological component, the actions of vector control and the lack of an effective, sustained, steady and domestic *Trypanozoma cruzi* vectorial transmission.
Technical note	Serological prevalence of *Trypanosoma* infection in children 0-5 years old Seropositive children for Chagas, divided by children examined from sample, multiplied by 100 Index of domestic infection by the main vector: Number of infested houses, divided by the number of houses examined, multiplied by 100
Type of indicator	Absolute measure
Measurement units	It is expressed as the number of countries that have eliminated Chagas by by the main vector in the entire territory or territorial units at risk, per year.
Frequency of measurement	Information will be updated annually
PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Diseases (CHA/VT)
Data Source	Report of the national Chagas programs and the ministries of health
Limitations	Limitations deal on the political priority and resources that the countries allocate to Chagas.
References	1. Governments of El Salvador, Guatemala, Honduras, Japan and Nicaragua. Buenas Prácticas en el control de la Enfermedad de Chagas en Guatemala, El Salvador, Honduras y Nicaragua. Tokyo: Ed. JICA; 2014. 2. OPS: Iniciativa de los países de américa central, para la interrupción de la transmisión vectorial y transfusional de la enfermedad de chagas (IPCA). Historia de 12 años de una Iniciativa Subregional. ED.OPS, OPS/HSD/CD/005-11, 87 pp, Tegucigalpa, 2012. http://www.paho.org/hq/index.php?option=com_content&view=article&id=6143&Itemid=4283 3. Salvatella,R.; Irabedra,P.; Castellanos,L.G.: Interruption of vector transmission by native vectors and "the art of the possible". Mem.Inst.Oswaldo Cruz, Rio de Janeiro, Vol. 109(1): 122-125, February 2014. http://memorias.ioc.fiocruz.br/issues/past-issues/item/1632-

[r] The target for 2019 includes the countries listed plus those already in the baseline.

	interruption-of-vector-transmission-by-native-vectors-and-"the-art-of-the-possible" 4. Salvatella,R.; Irabedra,P.; Sánchez,D.; Castellanos, L.G.; Espinal, M.: South-south cooperation for Chagas disease The Lancet, 382(9890): 395-396, August 2013. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)61671-2/fulltext 5. Salvatella, R.; Schmunis,G.: Chagas disease. In: Medcalf,A.; Bhattacharya,S.: Tropical diseases. Lessons from history. Ed.Orient Black Swan, Ed.I:88-90, Hyderabad, 2014.

Code and title of the indicator	8.4 Malaria Elimination
Definition of the indicator	This indicator measures the progress made in the countries towards elimination of malaria by 2019 according to PAHO/WHO elimination criteria.
Estimated impact in magnitude	*Magnitude target*: Elimination in at least three out of the seven countries in the pre-elimination phase (ARG, BLZ, COR, ECU, ELS, MEX, PAR), compared to zero in 2013.
Purpose of the indicator	For countries aiming to eliminate malaria, this indicator will measure their compliance with the PAHO/WHO malaria elimination criteria and the installed capacities that the countries have developed. The indicator is also very important for monitoring regionwide progress related to PAHO's Directing Council resolutions CD51.R9 (2011) and CD49.R19 (2009).
Technical note	PAHO/WHO's annual World Malaria Report forms, which are used by countries to send annual updates, facilitates country reporting of important data sets that feed into calculating this indicator. This is an impact indicator that makes a qualitative assessment of a country's achieving malaria elimination.
Type of indicator	Absolute measure.
Measurement units	It is expressed as the number of countries that have eliminated malaria per year.
Frequency of measurement	Annual; often coinciding, for most countries, with the last semester of the preceding year and consistent to scheduled year-end annual publication of the WHO World Malaria Report (data from previous year is published annually on December; e.g. 2012 data will published on December 2013).
PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Diseases (CHA/VT)
Data source	Joint assessment of PAHO country offices, corresponding technical unit, and relevant stakeholders.
Limitations	Variations in the reporting and assessment cycles in the countries. Another limitation includes the possibility of subjectivity during the qualitative assessment. In addition, the possibility that criteria or capacity requirements may evolve and be eventually modified also is a limitation.
References	1. Pan American Health Organization (2014) Interactive Malaria Statistics. PAHO, Washington DC. http://www.paho.org/hq/index.php?option=com_content&view=article&id=2632&Itemid=2130&lang=en 2. Annual World Health Organization World Malaria Report 3. PAHO Directing Council Resolutions CD51.R9

Code and title of the indicator	8.5 Zero human cases of dog-transmitted rabies in 35 Member States
Definition of the indicator	This indicator measures the progress made in the countries towards elimination of human cases of dog-transmitted rabies.
Estimated impact in magnitude	*Magnitude target*: Zero human cases of dog-transmitted rabies in 35 Member States in 2019 compared to 17 Member States in 2014.
Purpose of the indicator	To measure the capacity of countries to detect and control transmission of canine rabies in humans.
Technical note	The indicator will be assessed based on the absence of reported cases from national surveillance systems to SIRVERA.
Type of indicator	Absolute
Measurement units	Number of cases—count of human cases as detected by surveillance systems.
Frequency of measurement	Annual
PASB unit responsible for monitoring the indicator	Pan American Foot-and-Mouth Disease Center – PANAFTOSA (CHA/AFT)
Data source	Country surveillance systems and results as reported to SIRVERA (regional database for rabies hosted in PANAFTOSA).
Limitations	• The development and implementation of the evaluation framework may not be successful. • Data is not available to populate epidemiology and process-related indicators. • Country reporting to SIRVERA may not be timely.
References	1. The Regional System of Epidemiological Surveillance of Rabies in the Americas (SIRVERA)

SECTION 1: COMPENDIUM OF IMPACT INDICATORS

Impact Goal 9: Prevent death, illness, and disability arising from emergencies

Code and title of the indicator	9.1 Crude mortality rate in emergencies
Definition of the indicator	The crude mortality rate (CMR) estimates the rate at which members of a population have died over a given period of time. Emergencies in this indicator refers to a Grade 2 or Grade 3 emergency, as per WHO's Emergency Response Framework: **Grade 2 Emergency:** a single- or multiple-country event with moderate public health consequences that requires a moderate PAHO/WHO Country Office response and/or a moderate international WHO response. **Grade 3 Emergency:** a single- or multiple-country event with substantial public health consequences that requires a substantial PAHO/WHO Country Office response and/or a substantial international WHO response
Estimated impact in magnitude	*Magnitude target*: At least 70% of emergencies in which the crude mortality rate returns to accepted baseline (pre-disaster levels) within three months.
Purpose of the indicator	Provides an indication of disaster attributable deaths caused by direct and indirect exposure to emergencies and disasters. This measure is a useful proxy for assessing the effectiveness of national disaster risk management and response policies and programs to protect a populations' health.
Technical note	The crude mortality rate (CMR) is the most important public health indicator to monitor in crisis situations. A CMR is applicable to an entire population—both sexes and all age groups. In emergency situations, the most commonly used population denominator and time period for CMR is per 10,000 population per day (i.e., the number of deaths/10,000/day). However, it can also be expressed per 1,000 population per year, or per 1,000 population per month. It is important to note that demographers refer to this mortality indicator as the crude death rate (CDR).[s]
Type of indicator	Relative measure
Measurement units	Percentage of emergencies
Frequency of measurement	The CMR for each emergency will be reviewed monthly after the emergency with the information gathered from Member Countries and partners. The compiled information for emergencies occurring between January and December of a given year will be analyzed in June of the following year.

[s] Additional information can be found on the glossary page of the Center for Research on the Epidemiology of Disasters. Available from: *http://cedat.be/glossary* .

PASB unit responsible for monitoring the indicator	Health Information and Analysis Unit CHA/HA and PED/EOC
Data Source	PAHO/WHO Regional mortality data and the Institute for Health Metrics and Evaluation (IHME) data bases; official country statistics and demographic reports; estimates from the Global Burden of Disease Study
Limitations	• Inaccurate reporting of deaths caused by disasters; • Absence of reliable CMR information; • Delay in reporting the CMR
References	1. Center for Research on the Epidemiology of Disasters (CRED). *http://cedat.be/glossary* .

SECTION 2: COMPENDIUM OF OUTCOME INDICATORS

CATEGORY 1 – COMMUNICABLE DISEASES

1.1 HIV/AIDS and STIs

Code and title of the indicator	OCM 1.1.1. "ANTIRETROVIRAL THERAPY (ART) COVERAGE"
Name of the indicator	Number of countries and territories that have 80% coverage of antiretroviral therapies (ART) in eligible populations[a]
Definition of the indicator	This indicator measures the coverage of access to ART. A coverage of 80% or higher among those eligible to receive treatment is internationally defined as universal access. Baseline 2013: 6 Target 2019: 22
Purpose of the indicator	The proposed indicator is meant to monitor access to ART, a key element in the prevention-treatment-care continuum that has a strong impact on public health outcomes, including a reduction of HIV-related morbidity and mortality, and prevention of transmission.
Technical note	Calculation at the country level: For country-level calculation, the numerator is the number of persons on antiretroviral therapy, and it is derived from reports provided by the ministries of health. The denominator is the estimate of the number of people in need of ART[a]. Country denominators are generated using standardized statistical modeling methods and tools, and are provided by UNAIDS. Calculation at the regional level: Having calculated the percentage of coverage at the country level, the regional indicator is obtained by counting the number of countries and territories with 80% coverage or higher. Multiple data sources are used, because not all countries are covered in the various reports. Country-level data collection is continuous, with country coverage being calculated at the end of the year.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual, measured at the end of the year.

[a] Until mid-2013, the eligibility criteria were persons living with HIV who had a CD4 count of 350/ml or lower. Based on the new WHO guidelines, published in June 2013, the recommended threshold for initiation of ART has been raised to a CD4 count of 500/ml or lower, meaning that the number of eligible persons (denominator) will increase.

PASB unit responsible for the indicator	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)
Data source	UNAIDS and WHO, and the country Universal Access and GARP reports
Limitations	There are some uncertainties regarding the accuracy of the statistical modeling when applied to smaller countries with concentrated epidemics. It is very difficult to arrive at reliable estimates for denominators in very small populations. UNAIDS is also not generating denominators for all countries, including small-island states. The recommended change in eligibility criteria from a CD4 threshold of 350/ml to 500/ml will increase the estimated number of eligible persons (denominator), resulting in an apparent drop in coverage. The impact of this change will need to be factored into the monitoring of this indicator. This indicator measures the overall coverage of antiretroviral treatment, but does not measure inequities in coverage, particularly related to key populations such as MSM, sex workers, and transgender persons. Local issues, such as undocumented immigrants, will also influence the accuracy of the indicator. It is critical to continue monitoring the access of these key populations to treatment, as well as the quality of care they receive.
References	1. Pan American Health Organization. HIV Continuum of Care Monitoring Framework, 2014, Addendum to meeting report: Regional consultation on HIV epidemiologic information in Latin America and the Caribbean. Washington, DC: PAHO; April 2014. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=25746&Itemid

Code and title of the indicator	OCM 1.1.2 COVERAGE OF HIV ANTIRETROVIRAL TREATMENT FOR PREVENTION OF VERTICAL TRANSMISSION OF HIV
Name of the indicator	Number of countries and territories with at least 95% coverage of HIV prophylaxis treatment for prevention of mother-to-child transmission of HIV
Definition of the indicator	This indicator measures the percentage of HIV-infected women receiving antiretrovirals (ARTs) to prevent vertical transmission. Baseline 2013: 0 Target 2019: 24
Purpose of the indicator	In 2010, the PAHO Member States adopted the Strategy and Plan of Action for Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis by 2015 (Resolution CD50.R12). The risk of mother-to-child transmission of HIV can be significantly reduced by providing antiretrovirals to pregnant women living with HIV, in combination with other measures, including providing antiretrovirals to the exposed infant, implementation of safe delivery practices, and safer infant feeding practices. This indicator gauges progress towards the elimination targets by monitoring this important element of the prevention cascade.
Technical note	Calculation at the country level: At the country level, the numerator is the number of pregnant HIV-infected women who received antiretrovirals to reduce mother-to-child transmission of HIV during the preceding 12 months. It is calculated from national program records aggregated from health facility records. It should have a national scope and include all public, private, and NGO-run health facilities that provide ARVs to pregnant women living with HIV. The numerator includes pregnant women already in treatment for their own health. Administration of a single dose of nevirapine (NVP) will not be included as a valid scheme for prevention of mother-to-child transmission of HIV. The denominator is the estimated number of pregnant, HIV-infected women in the preceding 12 months. Two methods can be used to estimate the denominator: a) Multiplying the total number of women who gave birth in the preceding 12 months (these data can be obtained from central statistics office estimates of births or UN Population Division estimates) by the most recent national estimate of HIV prevalence in pregnant women (which can be derived from HIV sentinel surveillance in antenatal clinics). b) Using a projection model such as the one provided by Spectrum Software (i.e. using as the output the number of pregnant women needing PMTCT). This method is indicated in countries with generalized epidemics. In low or concentrated epidemics this

	method may provide a high level of uncertainty. Calculation at the regional level: Having calculated the percentage of coverage at the country level, the regional indicator is obtained by counting the number of countries and territories with 95% coverage or more.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annually, at the end of the calendar year
PASB unit responsible for the indicator	HIV, Hepatitis, Tuberculosis and Sexually Transmitted Infections (CHA/HT)
Data source	Universal Access reporting system.
Limitations	This indicator measures the ARVs delivered, but not the ARVs consumed. As a result, it cannot determine adherence to the complete ARV regimen, nor can it distinguish among the various ARV regimens and treatments used for prophylaxis. There may be discrepancies between denominators generated by countries and denominators generated through projection models or the UN Population Division estimates.
References	1. Pan American Health Organization. Strategy and Plan of Action for Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis. Regional Monitoring Strategy, 3rd Edition. Washington, DC: PAHO; 2013. Available from: http://www.paho.org/Hq/index.php?option=com_content&view=article&id=7264%3Aelimination-mother-child-transmission-hiv-congenital-syphilis&catid=4679%3Acha-hiv-topics&Itemid=39600&lang=en

Code and title of the indicator	OCM 1.1.3 COVERAGE OF SYPHILIS TREATMENT IN PREGNANT WOMEN
Name of the indicator	Number of countries and territories with at least 95% coverage of syphilis treatment in pregnant women
Definition of the indicator	This indicator measures the percentage of pregnant women who tested positive for syphilis and who received appropriate treatment. Appropriate treatment for syphilis in pregnant women consists of at least one dose of intramuscular (IM) penicillin G. Baseline 2013: 0 Target 2019: 22
Purpose of the indicator	In 1995, the PAHO Member States adopted the Regional Plan of Action for the Elimination of Congenital Syphilis in the Americas (Resolution CD38.R8). In 2010 this commitment was renewed with the adoption of the Strategy and Plan of Action for the Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis by the year 2015 (Resolution CD50.R12). Mother-to-child transmission of syphilis can be interrupted by the timely administration of an appropriate dose of penicillin. This indicator monitors the coverage of treatment in pregnant women who have tested positive for syphilis.
Technical note	Calculation at the country level: At the country level, the numerator is the number of pregnant women who tested positive for syphilis during pregnancy and who received appropriate treatment, and is aggregated from health facility records. Treatment can be provided to syphilis-infected women at various sites (i.e. antenatal clinics (ANCs); sexual and reproductive health clinics) during pregnancy. Women should not be counted in the numerator if they have not been tested or treated, and the data collection and reporting system should be cross-referenced to minimize the risk of double counting. The denominator consists of the total number of pregnant women with positive syphilis serology during pregnancy, and is extracted from national program records aggregated from facility registers. Note: As an alternate method, a population-based country coverage may be calculated using the number of syphilis-infected pregnant women who received appropriate treatment, divided by the expected number of seropositive pregnant women. The expected number of seropositive pregnant women can be estimated by multiplying the estimated number of women who gave birth over the past 12 months by the most recent national estimate of syphilis prevalence in pregnant women. Calculation at the regional level: Having calculated the percentage of coverage at the country level, the

	regional indicator is obtained by counting the number of countries and territories with 95% coverage or higher.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annually, at the end of the calendar year.
PASB unit responsible for the indicator	HIV, Hepatitis, Tuberculosis and Sexually Transmitted Infections (CHA/HT)
Data source	Ministries of health and the Universal Access reporting system.
Limitations	This indicator reflects the coverage among pregnant women tested for syphilis, and is therefore not a population-based indicator. Calculations based on high coverage of syphilis testing at ANCs would approximate a population-based coverage (see method of calculation above).
References	1. Pan American Health Organization. Strategy and Plan of Action for Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis. Regional Monitoring Strategy, 3rd Edition. Washington, D.C.: PAHO; 2013. Available from: http://www.paho.org/Hq/index.php?option=com_content&view=article&id=7264%3Aelimination-mother-child-transmission-hiv-congenital-syphilis&catid=4679%3Acha-hiv-topics&Itemid=39600&lang=en (under "Resources").

CATEGORY 1 – COMMUNICABLE DISEASES

1.2 Tuberculosis

Code and title of the indicator:	OCM 1.2.1 TB PATIENTS SUCCESSFULLY TREATED
Name of the indicator:	Cumulative number of TB bacteriologically confirmed patients successfully treated in programs that have adopted the WHO-recommended strategy since 1995
Definition of the indicator:	The indicator measures the sum obtained from the contribution of each country in the Region of its number of TB bacteriologically confirmed patients successfully treated in the program. A bacteriologically confirmed TB case requires a biological specimen that is positive by smear microscopy, culture, or WHO-approved rapid diagnostics (WRD). Successfully treated is defined as a patient that is cured or who has completed treatment. A cured patient is a pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smear- or culture-negative in the last month of treatment and on at least one previous occasion. Treatment completed is a TB patient who completed treatment without evidence of failure, but for whom no record exists to show that sputum smear or culture results in the last month of treatment and on at least one previous occasion were negative.[a] Baseline 2013: 1,450,000 patients Target 2019: 2,500,000 patients
Purpose of the indicator:	Show the effort in monitoring and applying the directly observed treatment short-course (DOTS) and the STOP TB Strategy used throughout the Region's countries in TB confirmed patients.
Technical note:	The indicator is calculated by adding the number of bacteriologically confirmed TB patients successfully treated in the countries each year. The sum of new cases successfully treated Is used due to the significant variability in the number of cases reported and treated by the different countries of the Region and the relation to the TB burden for each country.
Type of indicator	Absolute
Measurement units	Number of patients
Frequency of measurement	Annual. The data received in May corresponds to the reported data from the previous year.
PAHO responsible unit of the indicator	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)
Data source	The data is obtained from annual country reports through WHO's TB global data collection system.
Limitations	The number of TB cases that concluded treatment during a year is only available two years later for analysis. This method of reporting causes delays in the response opportunity and technical cooperation provided by the Regional TB Program.

[a] Based on World Health Organization. Definitions and reporting framework for tuberculosis — 2013 revision. Geneva:WHO; 2013.

References	1. World Health Organization. The Stop TB Strategy: Building on and enhancing DOTS to meet the TB-related Millennium Development Goals. Geneva:WHO; 2006. Available from: http://www.who.int/tb/strategy/en/ 2. World Health Organization. Definitions and reporting framework for tuberculosis — 2013 revision. Geneva:WHO; 2013. Available from: http://apps.who.int/iris/bitstream/10665/79199/1/9789241505345_eng.pdf 3. World Health Organization. Global tuberculosis report 2013. Geneva: WHO; 2013. Available from: http://www.who.int/tb/publications/global_report/en/

Code and title of the indicator:	OCM 1.2.2 MULTIDRUG-RESISTANT TUBERCULOSIS (MDR-TB)
Name of the indicator:	Annual number of tuberculosis patients with confirmed or presumptive MDR-TB, based on WHO definitions (2013), including rifampicin-resistant cases, placed on MDR-TB treatment in the Americas
Definition of the indicator:	This indicator measures the total number of patients with MDR-TB (includes rifampicin-resistant cases) in the Region that receive treatment in the TB program. Baseline 2013: 2,960 patients Target 2019: 5,490 patients
Purpose of the indicator:	The purpose of the indicator is to show changes in the detection in multidrug resistance cases in the Region, as a result of specific contributions and efforts made by each country, along with technical cooperation provided by the TB Regional Program.
Technical note:	The indicator is calculated by adding the number of MDR-TB patients (including rifampicin-resistant cases) on treatment in the countries each year.
Type of indicator:	Absolute
Measurement units:	Number of patients.
Frequency of measurement:	Annual. The data received in May corresponds to the reported data from the previous year.
PAHO responsible unit of the indicator:	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)
Data source:	The data is obtained from annual country reports through WHO's TB global data collection system.
Limitations:	The number of TB patients placed on MDR-TB treatment is available only after one year. This method of reporting causes delays in the response opportunity and technical cooperation provided by the Regional TB Program.
References	1. World Health Organization. Global tuberculosis report 2013. Geneva: WHO; 2013. Available from: http://www.who.int/tb/publications/global_report/en/

Code and title of the indicator:	OCM 1.2.3 NEW TB PATIENTS DIAGNOSED
Name of the indicator:	Percentage of new TB patients diagnosed in relation to the total number of TB incident cases
Definition of the indicator:	This indicator measures the new cases detected annually by Member States in relation to WHO estimated annual cases. Baseline 2013: 79% Target 2019: 90%
Purpose of the indicator:	The purpose of this indicator is to show the effectiveness of country efforts in detecting cases and achieving the 2019 target of 90%.
Technical note:	Calculation at the regional level: The numerator is calculated by adding the number of TB patients diagnosed by the countries in the previous year. The denominator is calculated by adding the number of cases estimated by WHO for each country in the same year, multiplied by 100.
Type of indicator:	Relative
Measurement units:	Percentage
Frequency of measurement:	Annual. The data received in May corresponds to the reported data from the previous year.
PAHO responsible unit of the indicator:	HIV, Hepatitis, Tuberculosis, and Sexually Transmitted Infections (CHA/HT)
Data source:	The numerator data is obtained from the annual country reports through WHO's TB global data collection system. The denominator data is obtained from the estimates published in the WHO TB global annual report.
Limitations:	The number of TB patients diagnosed is available only after one year. This method of reporting causes delays in the response opportunity and technical cooperation provided by the Regional TB Program.
References	1. World Health Organization. Global tuberculosis report 2013. Geneva: WHO; 2013. Available from: http://www.who.int/tb/publications/global_report/en/

CATEGORY 1 – COMMUNICABLE DISEASES

1.3 Malaria and other vector-borne diseases (incl. Dengue and Chagas)

Code and title of the indicator	OCM 1.3.1. MALARIA TREATMENT AND POLICY
Name of the indicator	Percentage of confirmed malaria cases in the public sector receiving first-line antimalarial treatment according to national policy (based on PAHO/WHO recommendations).
Definition of the indicator	Proportion of patients diagnosed (via microscopy or Rapid Diagnostic Test [RDT]) with malaria in government institutions, who received corresponding antimalarial treatment according to national policies based on PAHO/WHO recommendations. Baseline 2013: 85% Target 2019: 95%
Purpose of the indicator	Indicator is strongly aligned with the main indicator used by the WHO Global Malaria Program and reflects a focus on the importance of testing, treating, and tracking (i.e. cases are confirmed with appropriate diagnostic test; there is reliable access to effective antimalarial treatment; and the public sector takes a key coordination role in monitoring progress and implementing malaria-related policies).
Technical note	Calculation at the regional level: The numerator is the confirmed malaria cases in the public sector that are receiving first-line antimalarial treatment according to national policy. The denominator is the total confirmed malaria cases in the public sector. The result is multiplied by 100.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Annual; for most countries, often coinciding with the last semester of the succeeding year and consistent with scheduled year-end annual publication of the WHO World Malaria Report (data from previous year is published annually in December; e.g., 2012 data will published in December 2013).
PAHO responsible unit for the indicator	Neglected, Tropical, and Vector Borne Diseases (CHA/VT)
Data source	Country reports, using forms for PAHO/WHO's annual World Malaria Report, are submitted by national authorities to PAHO country offices and the corresponding technical unit.
Limitations	Variations in the reporting cycles of countries; indicator does not necessarily include private-sector coverage, which is important in the context of malaria elimination; indicator does not necessarily measure implementation of other important malaria policies that do not pertain to treatment and diagnosis.
References	1. PAHO Directing Council Resolutions CD51.R9 and CD49.R9, 2. WHO Guidelines for the treatment of malaria (2010), among others.

Code and title of the indicator	OCM 1.3.2. MALARIA ELIMINATION
Name of the indicator	Number of countries and territories with installed capacity to eliminate malaria
Definition of the indicator	Number of countries which satisfy WHO criteria for malaria elimination program phase according to WHO guidelines (2012). Baseline 2013: 10 Target 2019: 21
Purpose of the indicator	Compliance with required parameters is a concrete measure of the quality and strength of the country's national malaria program. The indicator also is very important in terms of monitoring the Region's progress in regards to PAHO's Directing Council resolutions CD51.R9 and CD49.R19.
Technical note	This is an outcome indicator that makes a qualitative assessment of a country's capacity and prospects for malaria elimination. Checklist is based on WHO guidelines (2012) which include such criteria (see reference) as malaria burden and foci; implementation of key diagnosis, treatment, and surveillance intervention, in both public and private sectors; other enabling measures; political commitment of stakeholders; etc.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Updated once a year; for most countries, often coinciding with the last semester of the preceding year and consistent with scheduled year-end annual publication of the WHO World Malaria Report (data from previous year is published annually in December; e.g. 2012 data, was published in December 2013).
PAHO responsible unit for the indicator	Neglected, Tropical, and Vector Borne Diseases (CHA/VT)
Data source	Joint assessments of PAHO country offices, corresponding technical unit, and relevant stakeholders
Limitations	Variations in the reporting and assessment cycles in the countries. Other limitations include the potential subjectivity of qualitative assessments, and the possibility that criteria or capacity requirements may evolve and eventually be modified.
References	1. World Health Organization. World Malaria Report 2012. Geneva: WHO; 2012. (Table R.2; page 67)

Code and title of the indicator	OCM 1.3.3 DENGUE PATIENT MANAGEMENT
Name of the indicator	Number of countries and territories with installed capacity for the management of all dengue cases.
Definition of the indicator	Number of countries that have updated their national dengue guidelines according to PAHO/WHO's 2012 guidelines and that have trained clinicians at subnational level. Baseline 2013: 14 Target 2019: 30
Purpose of the indicator	Indicates progress in the implementation of the PAHO/WHO guidelines for patient management as a tool to prevent deaths caused by dengue in the Americas.
Technical note	Calculated by counting the countries that show evidence that their national guidelines have been updated and that doctors and nurses, especially at the primary health care level, have been trained in the use of the PAHO/WHO dengue guidelines for patient management by the Dengue Regional Program and/or the Technical Advisory Group in dengue (TAG-Dengue).
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Semiannually, once per semester.
PASB unit responsible for monitoring the indicator:	Neglected, Tropical, and Vector Borne Diseases Unit (CHA/VT)
Data source	Reports of diverse monitoring visits of international experts on dengue (TAG-Dengue) and/or country progress reports on the implementation of the Integrated Management Strategy for Dengue Prevention and Control (IMS-Dengue). The visits of international experts are done per country request or in response to an outbreak.
Limitations	While the indicator measures country actions to implement the PAHO/WHO recommended guidelines and to train doctors and nurses at the national and subnational levels, it does not measure the percentage achieved in such progress. In addition, the possible introduction of the new dengue vaccine presents new challenges and opportunities for dengue case management. According to the scenarios encountered, the dengue regional program reserves the right to modify/update the PAHO/WHO guidelines as needed, following the TAG-Dengue recommendations.
References	1. World Health Organization, The Special Programme for Research and Training in Tropical Diseases. Dengue Guidelines for diagnosis, treatment, prevention and control, new edition 2009. Geneva: WHO; 2009. Available from: http://www.who.int/tdr/publications/documents/dengue-diagnosis.pdf 2. World Health Organization. Global strategy for dengue prevention and control, 2012–2020. Geneva: WHO; 2012. Available from: http://apps.who.int/iris/bitstream/10665/75303/1/9789241504034_eng.pdf

Code and title of the indicator:	OCM 1.3.4 CHAGAS
Name of the indicator:	Number of countries and territories where the entire endemic territory or territorial unit has a domestic infestation index (by the main triatomine vector species or by the substitute vector, as the case may be) of less than or equal to 1%.
Definition of the indicator:	Number of countries and territories that have reached a set index of domestic infestation by the implied vector, as an expression of a potential decline on vector transmission to humans. Baseline 2013: 17 Target 2019: 21
Purpose of the indicator:	Shows the progress achieved by the vector control program (anti-triatomine) in a Chagas-endemic country, territory, or geographic area during a specific point in time, where the domestic infestation index (by the main triatomine vector species or by a substitute vector, as the case may be) is less than or equal to 1% as a result of a reduction or arrest in vector transmission.
Technical note:	Calculation at the country level: The domestic infestation index (by the main triatomine vector species or by the substitute vector, as the case may be) is calculated for each country by dividing the number of dwellings infested by the number of dwellings surveyed in a given area and then multiplied by 100. Calculation at the regional level: The regional indicator is obtained by counting the number of endemic countries where the domestic infestation index (by the main triatomine vector species or by the substitute vector, as the case may be) is equal to or less than 1%.
Type of indicator:	Absolute
Measurement units:	Number of countries and territories
Frequency of measurement:	Annual
Data source:	The data is obtained from annual country reports received for the Annual Chagas Subregional Initiative Meeting. Complementary data is also acquired through field evaluation reports conducted by international missions, along with PAHO/WHO's Chagas Regional Program.
PAHO responsible unit for the indicator:	Neglected, Tropical, and Vector Borne Unit (CHA/VT)
Limitations:	The data generally shows situations reflected only in representative samples and complementary seroepidemiological entomological surveys.
References	1. Salvatella R, Irabedra P, Sánchez D, Castellanos LG, Espinal M. South-south cooperation for Chagas disease. *The Lancet* 3 August 2013;382(9890): 395-396, August 2013. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)61671-2/fulltext

	2. Salvatella R, Schmunis G. Chagas disease. In: Medcalf A, Bhattacharya S. Tropical diseases. Lessons from history. Ed. Orient Black Swan, Ed.I:88-90, Hyderabad, 2014. 3. Governments of El Salvador, Guatemala, Honduras, Japan and Nicaragua. Buenas Prácticas en el control de la Enfermedad de Chagas en Guatemala, El Salvador, Honduras y Nicaragua. Tokyo: Ed. JICA; 2014. 4. Pan American Health Organization. Initiative of the Countries of Central America for Control of Vector-borne and Transfusional Transmission and Medical Care for Chagas Disease (IPCA). Historia de 12 años de una Iniciativa Subregional, 1998-2010. Washington, D.C.: PAHO; 2011. (OPPS/HSD/CD/005-11). (Spanish only). Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=6143&Itemid=4283 5. Salvatella,R.; Irabedra,P.; Castellanos,L.G.: Interruption of vector transmission by native vectors and "the art of the possible". Mem.Inst.Oswaldo Cruz, Rio de Janeiro, Vol. 109(1): 122-125, February 2014. Available from: http://memorias.ioc.fiocruz.br/issues/past-issues/item/1632-interruption-of-vector-transmission-by-native-vectors-and-"the-art-of-the-possible"

CATEGORY 1 – COMMUNICABLE DISEASES

1.4 Neglected, Tropical, and Zoonotic Diseases

Code and title of the indicator:	OCM 1.4.1 LEISHMANIASIS
Name of the indicator:	Number of countries with annual increase in the proportion of diagnosed and treated cases of leishmaniasis, per the recommended treatment in the PAHO/WHO guidelines.
Definition of the indicator:	Early diagnosis and adequate treatment of cutaneous and mucocutaneous leishmaniasis, and of visceral leishmaniasis, are essential to mitigate the severe forms of the disease that can cause deformities or death, according to the clinical form developed. This indicator monitors the number of people diagnosed by laboratory criteria and who have been properly treated, as a result of an increase in the quality and coverage of medical attention. Baseline 2013: 0 Target 2019: 12
Purpose of the indicator:	The indicator tracks the progress in (laboratory diagnosis and treatment coverage) of PAHO/WHO's Regional Leishmaniasis Program in endemic countries over a set period of time.
Technical note:	The indicator is calculated considering the following: • Individual calculations per leishmaniasis type must be made: i) for cutaneous and mucocutaneous leishmaniasis (jointly) and ii) for visceral leishmaniasis. • There are countries that have both types of leishmaniasis, and countries that have only one type. • Individual calculations must be made to estimate: i) the annual increase in the proportion of diagnosed cases by laboratory criteria, and ii) the annual increase in the proportion of treated cases, as a result of an increase in the quality and coverage of medical attention. The correct way to express this indicator is by calculating all the cases of cutaneous and mucocutaneous leishmaniasis, and of visceral leishmaniasis, diagnosed by laboratory criteria, expressed as individual percentages. This calculation must also be done to estimate the proportion of treated cases by leishmaniasis type. The percentage results of diagnosed and treated cases of all leishmaniasis types are added up; the result is one estimate (similar to a proxy indicator), reflecting the increase or decrease of the leishmaniasis cases diagnosed by laboratory criteria and treated in each country. This single final number will reflect the proportional increase, or decrease, of all leishmaniasis cases that have been correctly diagnosed, treated, and reported in each country of the Americas.

	It is important to note that PAHO will keep a record of the individual reports, by country, by type of leishmaniasis, and by treated and diagnosed cases.
Type of indicator:	Absolute
Measurement units:	Number of countries
Frequency of measurement:	Annual
Data source:	Neglected, Tropical and Vector Borne Diseases Unit (CHA/VT)
PAHO responsible unit for the indicator:	Country data from national systems and/or national annual reports, registered annually in the Regional System of Leishmaniasis (SisLeish).
Limitations:	Because the data from the Regional System of Leishmaniasis (SisLeish) only reflects the information included by the countries, it is not known whether there is information regarding the diagnosis and treatment of cases that are not being considered.
References	1. Organización Panamericana de la Salud. Leishmaniasis en las Américas: recomendaciones para el tratamiento. Washington, DC: OPS; 2013. (Spanish only).

Code and title of the indicator	OCM 1.4.2. LEPROSY
Name of the indicator	Number of endemic countries and territories with high burden of leprosy that have reduced, by 35%, the rate of new cases with grade-2 disabilities per 100,000 population, as compared to their own baseline 2012 data.
Definition of the indicator	Disabilities in leprosy are mainly caused by delayed diagnosis and improper management of leprosy reactions. This indicator monitors the reduction of the disease burden caused by leprosy. Key parameters: • Number of new cases with grade-2 disability per year. • Country population estimates by mid-year of the corresponding year. Baseline 2013: 0/10 Target 2019: 10/10
Purpose of the indicator	The reduction of the rate of and the prevention of new cases of leprosy with grade-2 disabilities is one of the main objectives of WHO's Enhanced Global Strategy for Further Reducing the Disease Burden Due to leprosy (2011-2015). This indicator is useful for monitoring the implementation of innovative case-finding approaches in order to reduce the delay in diagnosis of leprosy cases and the occurrence of grade-2 disabilities among new cases, including examination of household contacts of cases at the time of diagnosis and incorporating special efforts to improve control activities for populations living in difficult-to-access and suburban areas.
Technical note	Calculation at the country level: The rate of new cases with grade-2 disabilities among new cases, per 100,000 population, is calculated as follows: **Number of new cases with grade-2 disability detected in a given year, times 100,000, divided by the country's estimated population at midyear** The reduction in the rate of new cases with grade-2 disability per 100,000 population is calculated as follows: 100-[(rate of new cases with grade-2 disabilities among new cases per 100 000 population a given country in the target year divided by the rate of new cases with grade-2 disabilities among new cases per 100 000 population in the baseline year) times 100]. The reduction is expressed as a percentage. Calculation at the regional level: The regional indicator is obtained by counting the number of countries and territories that reduced, by 35%, the rate of new cases with grade-2 disabilities per 100,000 population, as compared to their own baseline 2012 data.
Type of indicator	Absolute
Measurement units	Number of countries and territories

Frequency of measurement:	Annually, by July 1st of the year (year X+1) following that for which the reports are received (year X).
PASB unit responsible for monitoring the indicator	Neglected, Tropical, and Vector Borne Diseases Unit (CHA/VT)
Data source	Annual reports by the managers of national leprosy elimination programs to PAHO´s Regional Leprosy Program through PAHO´s country offices.
Limitations	The main challenges include: • raising awareness on the importance of assessing and recording grade-2 disability in all newly diagnosed cases at the moment of diagnosis; • monitoring the percentage of cases in which this assessment is carried out; and • providing adequate training and standardization for assessing the disability grade.
References	1. World Health Organization, Regional Office for South-East Asia. Enhanced global strategy for further reducing the disease burden due to leprosy (2011-2015): Operational Guidelines (updated). New Delhi: WHO-SEA; 2009. Available from: http://www.ilep.org.uk/fileadmin/uploads/Documents/WHO_Publications/OperationalGuidelines_2011_2015_FINAL.pdf 2. World Health Organization. WHO expert committee on Leprosy. Eighth report. Geneva: WHO; 2012. (WHO Technical report series 968). Available from: http://www.searo.who.int/entity/global_leprosy_programme/publications/8th_expert_comm_2012.pdf

Code and title of the indicator	OCM 1.4.3 LYMPHATIC FILARIASIS
Name of the indicator	Number of endemic countries having achieved the recommended treatment target coverage(65% or more) of population at risk of lymphatic filariasis.
Definition of the indicator	The treatment coverage is the proportion of the population at risk of lymphatic filariasis who was treated (the target is to reach 65% of coverage or more). This indicator will monitor the compliance of treatment coverage of endemic countries whose populations still require mass drug administration (MDA) for lymphatic filariasis (once per year). Baseline 2013: 1/4 Target 2019: 4/4
Purpose of the indicator	In order to interrupt vector transmission of the parasite causing lymphatic filariasis, WHO (2011) recommends a minimum of 65% coverage with the medicines used for mass drug administration (MDA), administered annually) in the general population at risk. The key measure to achieve interruption of transmission of lymphatic filariasis is to reach, each year for five years or more, 65% of the population at risk who ingest the medicine to reduce the burden of microfilaremia in the blood and, therefore, to interrupt transmission. To this end, the indicator will allow monitoring the achievement of adequate levels of treatment coverage in the population every year.
Technical note	The program or epidemiological coverage of the population at risk in the implementation unit (IU) or target area is recommended. The indicator allows for an evaluation to be made on the feasibility of implementing a transmission assessment survey. The general measure recommended by WHO is known as the epidemiological drug coverage of the program, which is calculated for each IU as: the number of people who have ingested the medicines during the MDA/total population in the IU x 100. The target is 65% or more. In addition, the coverage can be measured in targeted or eligible populations by IU. This coverage is defined as the number of people who have received the MDA treatment in the IU/all individuals eligible for treatment in the IU x 100 (the eligible population is usually about 85% of the total population in one IU, since children under 2 years old, pregnant women, and seriously ill people should not be included in the MDA). The coverage to be used for the decision making or the implementation of transmission assessment surveys (TAS) is the program or epidemiological coverage, not the coverage of targeted or eligible populations.
Type of indicator	Absolute. A country either has or has not achieved the minimum coverage.
Measurement units	Number of countries

Frequency of measurement	Annual, after the finalization of the annual MDA campaign carried out by the national lymphatic filariasis elimination program. Data is frequently totaled and reported at end of the year.
PASB unit responsible for monitoring the indicator:	Neglected, Tropical, and Vector Borne Unit (CHA/VT)
Data source	Information obtained from data compiled by national and district-level health authorities and their collaborating partners (NGOs and other organizations and entities) after each MDA cycle.
Limitations	The compilation, confirmation, and review of coverage data from the field (often diverse or isolated communities) takes considerable time, which may result in inadvertent delays that impede national authorities from reporting data to PAHO in a timely matter.
References	1. World Health Organization. Monitoring and epidemiological assessment of mass drug administration in the global programme to eliminate lymphatic filariasis: A manual for national elimination programmes. Geneva: WHO; 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241501484_eng.pdf

Code and title of the indicator	OCM 1.4.4 ONCHOCERCIASIS
Name of the indicator	Number of endemic countries having achieved the recommended treatment target coverage (85% or more for each round of treatment) of population at risk of onchocerciasis
Definition of the indicator	The treatment coverage is the proportion of the population at risk of onchocerciasis and eligible for treatment, who was treated (the target is to reach 85% coverage or more for each round of treatment). This indicator monitors compliance with treatment coverage by endemic countries whose populations still require mass drug administration (MDA) for onchocerciasis (twice or four times per year, depending on the endemicity level). The eligible population includes the population over 5 years who lives in affected communities, excluding chronically ill people, pregnant women, and infants during their first year of life Baseline 2013: 1/2 Target 2019: 2/2
Purpose of the indicator	Recommended target coverage of 85%, administered via MDA, is the minimum recommended by WHO to interrupt vector transmission of the parasite causing onchocerciasis. The key measure to achieve onchocerciasis elimination is to have a large number of people ingesting the drug to kill the parasite each year for approximately 16 years, depending on local epidemiological characteristics and the annual frequency of MDA. Therefore, the chosen indicator should reflect the number of people who ingest the drug every year and in each treatment cycle, referred to as coverage.
Technical note	In each focus detected in the country, the number of people eligible for treatment who took the medication (Ivermectin-Mectizan) is divided by the total population eligible for treatment in the focus, and the result is multiplied by 100. The minimum target coverage is 85% per round in each focus.
Type of indicator	Absolute. A country or a focus has achieved the minimum coverage or it has not achieved it.
Measurement units	Number of countries
Frequency of measurement	Annual, after the national onchocerciasis program has completed all of its targeted annual rounds of MDA. Data is totaled and reported at end of year.
PASB unit responsible for monitoring the indicator:	Neglected, Tropical, and Vector Borne Unit (CHA/VT)
Data source	Data reported by the national authorities to the Onchocerciasis Elimination Program of the Americas (OEPA), and via OEPA to the corresponding PAHO/WHO technical unit.

Limitations	The compilation, confirmation, and review of coverage data from the field (often diverse or isolated communities) takes considerable time, which may result in inadvertent delays that impede national authorities from reporting data to PAHO in a timely matter
References	1. World Health Organization. Certification of elimination of human onchocerciasis: criteria and procedures. Guidelines. Geneva: WHO; 2000. (Document WHO/CDS/CPE/CEE/2001.18a.) Available from: http://whqlibdoc.who.int/hq/2001/WHO_CDS_CPE_CEE_2001.18b.pdf 2. Onchocerciasis Elimination Program of the Americas. Guide for the detection of a potential recrudescence during the period of post treatment surveillance (PTS): OEPA; 2011. Available from: http://www.oepa.net/Documentos/GuiaVEPT/Guide_Detection_Potential_Recrudescence_During_PTS_Englishversion.pdf

Code and title of the indicator	OCM 1.4.5 TRACHOMA
Name of the indicator	Number of endemic countries having achieved the recommended treatment target coverage (80% or more) of population at risk of trachoma that could lead to blindness.
Definition of the indicator	The treatment coverage is the proportion of the general population at risk of trachoma who were treated (goal is to reach 80% coverage or more). This indicator will monitor compliance with treatment coverage by endemic countries whose populations still require mass drug administration (MDA) for blinding trachoma (once each year). The population at risk is anyone who lives in municipalities and communities where the baseline prevalence of trachoma inflammation – follicular or trachoma inflammation–intense is equal to or greater than 10% in children 1 to 9 years of age. Baseline 2013: 0/3 Target 2019: 3/3
Purpose of the indicator	In order to reduce the prevalence of follicular trachoma and eliminate blinding trachoma, WHO recommends a minimum of 80% coverage (with MDA medicines) for each annual MDA round among the general population at risk. The key measure to achieve the elimination of blindness trachoma is to have—each year, and for three or more years, through the MDA (azithromycin and tetracycline ointment) or a targeted treatment—a large number of people ingesting the medication to kill the bacteria. To that end, the indicator should reflect the number of people who ingest the drug each year, referred to as coverage.
Technical note	In each community, at least 80% coverage for each annual round of MDA should be achieved, which is defined as the number of people treated with medicines recommended, divided by the number of residents of the endemic area, times 100 (to express as a %).
Type of indicator	Absolute. A country has or has not achieved the minimum coverage.
Measurement units	Number of countries
Frequency of measurement	Annual, after the national trachoma campaign has completed its annual MDA or targeted treatment. Data is frequently totaled and reported at end of year.
PASB unit responsible for monitoring the indicator	Neglected, Tropical, and Vector Borne Unit (CHA/VT)
Data source	Information obtained from data compiled by national and district-level health authorities after each MDA cycle or targeted treatment.
Limitations	Compilation, confirmation, and review of coverage data from the field (often diverse or isolated communities) takes considerable time, which may result in inadvertent delays that impede national authorities from reporting data to PAHO in a timely matter.

References	1. World Health Organization, the London School of Hygiene & Tropical Medicine, and the International Trachoma Initiative. Trachoma control: A guide for programme managers. Geneva: WHO; 2006. Available from: http://apps.who.int/iris/bitstream/10665/43405/1/9241546905_eng.pdf?ua=1

Code and title of the indicator	OCM 1.4.6 SCHISTOSOMIASIS
Name of the indicator	Number of endemic countries having achieved the recommended treatment target coverage (75% or more) of population at risk of schistosomiasis.
Definition of the indicator	The treatment coverage is the proportion of school-age children at risk of schistosomiasis who were treated (target is to reach at least 75% coverage). This indicator will monitor compliance with treatment coverage by endemic countries whose populations still require mass drug administration (MDA) for schistosomiasis (once per year if base prevalence is equal to or higher than 50%; once every two years if base prevalence is equal to or higher than 10% but lower than 50%; and once every three years if base prevalence is lower than 10%). Baseline 2013: 0/2 Target 2019: 2/2
Purpose of the indicator	Recommended target coverage of 75% is the minimum recommended by WHO reduce population-level morbidity caused by these intestinal parasites in school-age children. The target population for treatment is school-aged children who live in areas at risk, which become areas of intervention for mass drug administration (MDA) with praziquantel or for targeted treatment, depending on the prevalence level, usually conducted via a campaign. Other population groups can be treated and can benefit, but are not included in this coverage measure. The key measure to achieve control or elimination of schistosomiasis is to have a large number of people ingesting the medicine (praziquantel), which kills the parasite and mature eggs each year, until desired prevalence targets are met. Therefore, the chosen indicator should reflect the number of people who ingest the medicine each year, referred to as coverage.
Technical note	The indicator is calculated as the number of school-aged children receiving the medicine, divided by the total number of school-age children in the area of intervention, multiplied by 100. The minimum target coverage is 75%.
Type of indicator	Absolute. A country has or has not achieved the minimum target coverage.
Measurement units	Number of countries
Frequency of measurement	Annual, after the national schistosomiasis program or national authorities have completed an annual round of MDA targeting school-aged children. Data is totaled and reported at end of year.
PASB unit responsible for monitoring the indicator:	Neglected, Tropical, and Vector Borne Unit (CHA/VT)
Data source	Information obtained from data compiled by national and district-level health authorities, after each MDA cycle or targeted treatment.
Limitations	Compilation, confirmation, and review of coverage data from the field (often diverse or isolated communities) takes considerable time, which may result in inadvertent delays that impede national authorities from reporting data to

	PAHO in a timely matter. Some endemic countries need to adjust information systems in order to distinguish individual from collective treatment data in reports.
References	1. World Health Organization. Helminth control in school-age children: a guide for managers of control programmes, 2nd ed. Geneva: WHO; 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241548267_eng.pdf

Code and title of the indicator	OCM 1.4.7 SOIL-TRANSMITTED HELMINTHIASIS
Name of the indicator	Number of endemic countries having achieved the recommended treatment target coverage (75% or more) of population at risk of soil-transmitted helminthiasis (STH).
Definition of the indicator	The treatment coverage is the proportion of the population at risk of STH that has been treated (goal is to reach at least a 75% coverage). This indicator will monitor compliance with treatment in endemic countries whose population still requires mass drug administration (MDA) for STH (once or twice per year). Populations at risk are those who live in areas with a baseline prevalence of STH equal to or greater than 20%; in the absence of prevalence data, populations at risk are those who live in areas where access to improved sanitation facilities is poor. Priority age groups for STH treatment are: preschool-aged children (1–4 years old) and school-aged children (5-14 years); pregnant women in their second and third trimesters and workers in the agriculture and mining sectors may be included. The coverage should be estimated for each population group at risk and for each treatment round. Baseline 2013: 5/24 Target 2019: 16/24
Purpose of the indicator	The deworming target coverage of 75% is the minimum recommended by WHO to reduce population-level morbidity caused by these intestinal parasites in preschool- and school-aged children. The target population for treatment is preschool- and school-aged children who live in areas at risk, which become areas of intervention for mass drug administration (MDA) with albendazole or mebendazole or for targeted treatment, usually conducted once or twice a year via a campaign. The key measure to achieve control of STH is to have a large number of people ingesting the medicine which kill the parasites each year, until desired prevalence targets are met. Thus the indicator chosen must reflect the number of people consuming the medicine each year, referred to as coverage.
Technical note	The indicator is calculated as the number of preschool- or school-aged children receiving the medicine(s), divided by the total number of preschool- or school-aged children in the area of intervention, multiplied by 100 (to express as a percent). It is important to note that the universe of endemic countries may change each year.
Type of indicator	Absolute. A country has or has not achieved the minimum coverage target.
Measurement units	Number of countries
Frequency of measurement	Annual, after the national STH program or national authorities have completed one or more rounds of MDA targeting school-age children. Data is totaled and reported at end of year.

PASB unit responsible for monitoring the indicator	Neglected, Tropical and Vector Borne Unit (CHA/VT)
Data source	Information obtained from data compiled by national and district-level health authorities, after each MDA cycle or targeted treatment.
Limitations	Compilation, confirmation, and review of coverage data from the field (often diverse or isolated communities) takes a considerable time, which may result in inadvertent delays that impede national authorities from reporting data to PAHO in a timely matter. Data from other actors (outside the ministries of health) which conduct deworming, such as NGOs, are not usually reported to PAHO by ministries of health, which may lead to an underestimation of the total population being treated.
References	1. World Health Organization. Helminth control in school-age children: a guide for managers of control programmes, 2nd ed. Geneva:WHO; 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241548267_eng.pdf

Code and title of the indicator	OCM 1.4.8 HUMAN RABIES TRANSMITTED BY DOGS
Name of the indicator	Number of countries and territories with established capacity and effective processes to eliminate human rabies transmitted by dogs
Definition of the indicator	This indicator measures countries' capacities to eliminate human rabies transmitted by dogs, from both a public health and animal health perspective, based on a model structure (currently in development). In relation to public health, the model includes six capacities (i.e. risk analysis, pre-exposure prophylaxis, post-exposure prophylaxis, case-related control activities, education, and surveillance). In regards to animal health, the model considers six capacities (i.e. risk analysis, vaccination, population control, import controls, surveillance, and case-related control activities). For each capacity there are up to three levels of performance to be assessed. The performance assessment in relation to each capacity takes place as part of regular country rabies program evaluations. The aim is to host the tool online so countries can continuously evaluate their capacities. Baseline 2013: 28 Target 2019: 35
Purpose of the indicator	This indicator demonstrates country progress in strengthening core capacities towards the elimination of human rabies transmitted by dogs. A country can use these results to inform the allocation of rabies program resources (e.g. investment in specific capacity when underperforming). The tool is then able to provide the optimum investment profile.
Technical note	Calculation at the country level: Improvements in capacity are assessed by reviewing the weighted capacity-specific scores by country resulting from the model, in order to receive an overall country score. Calculation at the regional level: The regional indicator is calculated by counting the countries that have improved their capacities and that have committed themselves to eliminate human rabies transmitted by dogs.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual, at the end of each calendar year.
PASB unit responsible for monitoring the indicator:	Pan American Foot-and-Mouth Disease Center – PANAFTOSA (CHA/AFT)
Data source	Ministries of health (results of rabies program evaluations).
Limitations	• Not all countries report the required information on a timely basis to be assessed for inclusion in indicator calculation. • Reporting and monitoring of the indicator depends on a model structure that is still in development and will not be finalized until mid-2014.

References	1. Del Rio Vilas VJ, Burgeño A, Montibeller G, Clavijo A, Vigilato MA, Cosivi O. Prioritization of capacities for dog mediated human rabies in the Americas: building the framework. *Pathogens and Global Health* 2013; 107(7):340-345.

CATEGORY 1 – COMMUNICABLE DISEASES

1.5 Vaccine Preventable diseases (incl. maintenance of polio eradication)

Code and title of the indicator	OCM 1.5.1 DPT3 COVERAGE
Name of the indicator	Regional average coverage with three doses of the diphtheria, tetanus, and pertussis (DPT)-containing vaccine.
Definition of the indicator	The number of children who, on completing their first year of life, have received three doses of DPT (diphtheria, pertussis, and tetanus) toxoid, expressed as a percentage of the corresponding mid-year population[a] for a specific year, in a given country, territory, or geographic area. Baseline 2013: 92% Target 2019: 94%
Purpose of the indicator	Shows an efficient organization, a favorable economic and legal environment, and a political commitment with immunization as a priority.
Technical note	Calculation at the country level: Number of children under 1 year of age who have received three doses of the DPT vaccine, divided by the total population of children under 1 year in a country, territory, or geographical area at specific time. Calculation at regional level: When data have been obtained from the countries, a weighted average is calculated of the population of children under 1 year of age in the Region. One hundred percent (100%) coverage is reported as 99%.
Type of indicator	Relative
Measurement units	Proportional
Frequency of measurement	Annual. The reported data correspond to the end of the preceding year and are received in April of the following year.
PASB unit responsible for monitoring the indicator	Comprehensive Family Immunization Unit (FGL/IM)
Data source	Data are obtained from annual reports by countries to the PAHO Comprehensive Family Immunization Unit via the PAHO/WHO-UNICEF joint reporting form, as well as from the United Nations Population Division's *World Population prospects: 2012 revisions*.
Limitations	The data reflect only administrative coverage, which can vary if population data are outdated or if there is a great deal of migration.
References	1. Pan American Health Organization. Immunization in the Americas, 2013 Summary. Washington, DC: PAHO; 2013. Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=3573&Itemid=2573&lang=en

[a] The denominator corresponds to the population estimates obtained from the United Population Division (see "Data source" for more details) and calculated at mid-year.

Code and title of the indicator	OCM 1.5.2 MEASLES AND RUBELLA
Name of the indicator	Number of countries and territories with reestablishment of endemic transmission of measles and rubella virus.
Definition of the indicator	Number of countries with presence of a chain of transmission of a virus strain that continues uninterrupted for >12months in a defined geographical area. Baseline 2013: 0 Target 2019: 0
Purpose of the indicator	Shows the capacity of national immunization programs to sustain elimination over time.
Technical note	This is calculated as the number of countries with reestablishment of endemic transmission of measles and rubella virus in a specific year, for a given country, territory, or geographic area.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Weekly
PASB unit responsible for monitoring the indicator	Comprehensive Family Immunization Unit (FGL/IM)
Data source	Data are obtained from weekly reports by countries to the PAHO Comprehensive Family Immunization Unit via MESS-ISIS.
Limitations	The data depend on the quality of the surveillance system and on laboratory capacity.
References	1. Pan American Health Organization. Plan of action for the documentation and verification of measles, rubella, and congenital rubella syndrome elimination in the Region of the Americas. Washington, DC: PAHO; 2011. 2. Pan American Health Organization. *Measles/Rubella Weekly Bulletin*. Washington, DC: PAHO. Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=730&Itemid=39426&lang=en

Code and title of the indicator	OCM 1.5.3 INTRODUCTION OF NEW VACCINES
Name of the indicator	Number of countries and territories that have introduced one or more new vaccines
Definition of the indicator	The number of countries where one or more new vaccines[a] have been added to the national immunization schedule and have been used for a sustained period of at least 12 months (excluding those used only in the private sector and not included in the national immunization schedule; includes vaccines included in national schedule but for selective use at risk populations, e.g. seasonal influenza vaccine). Baseline 2013: 34 Target 2019: 51
Purpose of the indicator	Shows progress in the introduction of appropriate new vaccines into national immunization programs.
Technical note	This indicator is calculated as the number of countries where one or more new vaccines have been added to the national immunization schedule.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual. The reported data correspond to the end of the preceding year and are received in April of the following year.
PASB unit responsible for monitoring the indicator	Comprehensive Family Immunization Unit (FGL/IM)
Data source	Data are obtained from annual reports by countries to the PAHO Comprehensive Family Immunization Unit via the PAHO/WHO-UNICEF joint reporting form.
Limitations	The data reflect only administrative reports from routine data reported by countries to PAHO; incompleteness and data quality issues are of concern.
References	1. Pan American Health Organization. Introduction and implementation of new vaccines field guide. Washington DC: PAHO; 2010. (Scientific and technical publication 632). Available from: http://www2.paho.org/hq/dmdocuments/2010/FieldGuide_NewVaccines_1stEd_e.pdf

[a] A new vaccine is defined as a vaccine that has not become part of the official immunization schedule in the country.

Code and title of the indicator	OCM 1.5.4 POLIO
Name of the indicator	Number of countries and territories reporting cases of paralysis due to wild or circulating vaccine-derived poliovirus (cVDPV) in the preceding 12 months
Definition of the indicator	The number of countries and territories reporting cases of paralysis due to wild or circulating vaccine derived poliovirus (cVDPV) in the preceding 12 months. Baseline 2013: 0 Target 2019: 0
Purpose of the indicator	Shows that the Region remains permanently polio free and that the investment in polio eradication strengthens public health and immunization programs.
Technical note	Countries reporting cases of paralysis due to wild or circulating vaccine derived poliovirus (cVDPV) in the preceding 12 months.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Weekly
PASB unit responsible for monitoring the indicator	Comprehensive Family Immunization Unit (FGL/IM)
Data source	Data are obtained from weekly reports by countries to the PAHO Comprehensive Family Immunization Unit via PESS-ISIS.
Limitations	The data depend on the quality of the surveillance system and on laboratory capacity.
References	1. Pan American Health Organization. *Polio Weekly Bulletin*. Washington, DC:PAHO. Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=295&Itemid=3626&lang=en

CATEGORY 2. NCDS AND RISK FACTORS

2.1 Noncommunicable diseases and risk factors

Code and title of the indicator	OCM 2.1.1 HARMFUL USE OF ALCOHOL 2.1.1a - Per Capita Consumption in 15 years of age and older
Name of the indicator	Total (recorded and unrecorded) alcohol per capita (APC) consumption among persons 15+ years of age within a calendar year in liters of pure alcohol, as appropriate, within the national context.
Definition of the indicator	Consumption of pure alcohol (ethanol) per person aged 15 years old and older in a given calendar year. Baseline 2013: 8.4 L Target 2019: 5% reduction
Purpose of the indicator	Reducing the disease burden attributable to alcohol is a global public health priority, as affirmed by the WHO Global Strategy to Reduce the Harmful Use of Alcohol. The strategy defines the harmful use of alcohol as drinking that causes detrimental health and social consequences for the drinker (harmful drinking), the people around the drinker, and society at large, as well as patterns of drinking that are associated with increased risk of adverse health outcomes (hazardous drinking). It is estimated that 2.3 million deaths annually, or 3.8% of all deaths worldwide, are attributed to alcohol consumption, and more than half of them are due to NCDs, including cancers and cardiovascular diseases. The risk of most health conditions attributable to alcohol is correlated with the overall levels of alcohol consumption, with no evidence of a threshold effect for cancers and hypertension. Per capita alcohol consumption is an indicator that is sensitive to policy changes; it is correlated with overall mortality and with alcohol-specific mortality, depending on the prevalence of heavy episodic drinkers and dependent drinkers.
Technical note	Recorded adult per capita consumption is calculated as the sum of beverage-specific (beer, wine, spirits, and other) consumption of pure alcohol during a given calendar year, based on data from various sources. The priority in calculations of recorded per capita alcohol consumption is given to government statistics on sales of alcoholic beverages during a calendar year or data on production, export, and import of alcohol in different beverage categories. In countries where data on government sales or production are not available, calculations are based on country-specific and publicly available data from the private sector, including alcohol producers, or on country-specific data from the United Nations Food and Agriculture Organization statistical database (FAOSTAT), which also may include estimates of unrecorded alcohol consumption. For main categories of alcohol beverages, “beer” includes malt beers, “wine” includes wine made from grapes, “spirits” include all distilled beverages, and “other” includes one or several other alcoholic beverages, such as fermented beverages made from sorghum, maize, millet, and rice, or cider, fruit wine, fortified wine. Estimates of unrecorded alcohol consumption are largely based on

	survey data, FAOSTAT data, other data sources such as customs or police reports, and expert opinions. The indicator is calculated by the total sum of recorded and unrecorded alcohol consumed in a population during a given calendar year, divided by the midyear resident population aged 15 years and older for the same calendar year. WHO utilizes all the information available in region and country levels to provide estimates of per capita consumption by country and for the region.
Type of indicator	Absolute
Measurement units	Liters of pure alcohol (ethanol) per person aged 15 years and older per year
Frequency of measurement	Data is measured annually. WHO utilizes a three-year average (for example, data for 2010 is the average of data for 2008, 2009, and 2010) for global reports that include regional averages and country-by-country estimates.
PASB unit responsible for monitoring the indicator	Mental Health and Substance Use (NMH/MH)
Data source	Administrative reporting systems for recorded per capita alcohol consumption; survey data are the preferred sources for unrecorded per capita alcohol consumption. In their absence, data sets of FAO and the UN Statistical Office are used, as well as expert opinions on unrecorded alcohol consumption. WHO also uses public-information sources from the alcohol industry and develops estimates for all countries, which are then sent for approval to the respective MOH. WHO has estimates available for all countries in the Region at the Global Information System on Alcohol and Health (GISAH), which has an interface with the Regional Information System on Alcohol and Health (AMRISAH), the system for the Region of the Americas. The WHO Global Status Report on Alcohol and Health 2014 is the data source for this indicator's baseline, and is based on the last iteration with Member States in 2012 through a global survey responded by officially nominated focal points in each MOH. The population data for the report were obtained primarily from the United Nations Population Division and refer to the total population aged 15 years and older, with data for males and females shown separately whenever available.
Limitations	Most countries in the region do not currently provide sales data on alcoholic beverages and, therefore, estimates are carried out by WHO using data from FAO and the alcohol industry (economic operators). Data on unrecorded alcohol consumption is largely is based on empirical investigations and the judgment of experts. Potential limitations include: • incomplete administrative records, • bias through self-reporting, including under-reporting of alcohol consumption, misunderstanding or misinterpretation of questions or of the size of a standard drink, and limited validity of survey instruments •

References	1. World Health Organization. Global strategy to reduce the harmful use of alcohol. Geneva: WHO; 2010. Available from: http://www.who.int/substance_abuse/alcstratenglishfinal.pdf?ua=1 2. World Health Organization. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva:WHO; 2009. Available from: http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf 3. Rehm J, Baliunas D, Borges GL, Graham K, Irving H, Kehoe T, et al. The relation between different dimensions of alcohol consumption and burden of disease - an overview. *Addiction* 2010; 105(5): 817-843. Related links: 1. http://apps.who.int/gho/data/view.main?showonly=GISAH 2. http://apps.who.int/gho/data/?showonly=GISAH&theme=main-amro

Code and title of the indicator	OCM 2.1.1. HARMFUL USE OF ALCOHOL: 2.1.1b - Prevalence of alcohol-use disorders
Name of the indicator	Prevalence of alcohol-use disorders among adolescents and adults, as appropriate within the national context
Definition of the indicator	Persons 15 years of age who suffer from disorders attributable to the consumption of alcohol (according to ICD-10: F10.1 Harmful use of alcohol; F10.2 Alcohol dependence) during a given calendar year. Harmful use of alcohol is defined as a pattern of alcohol use that is causing damage to health, with the damage being physical (as in cases of liver cirrhosis) or mental (as in cases of depressive episodes secondary to heavy consumption of alcohol). Alcohol dependence (also known as alcoholism or alcohol dependence syndrome) is defined as a cluster of behavioral, cognitive, and physiological phenomena that develop after repeated alcohol use and that typically include a strong desire to consume alcohol, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to alcohol use than to other activities and obligations, increased tolerance, and sometimes a physiological withdrawal state. Baseline 2013: 6.0% for both ICD-10 codes (2.6% for harmful use and 3.4% for alcohol dependence) in 2010 Target 2019: 5% relative reduction from baseline
Purpose of the indicator	It is important to grasp the extent of the health consequences related to the consumption of alcohol in a population. Alcohol-use disorders comprise an array of disorders attributable to alcohol and, therefore, reveal an important proportion of a population which suffers from the direct impact of alcohol.
Technical note	The prevalence for each ICD-10 code is calculated as a percentage of the total population aged 15+ years. The diagnosis is derived from the use of standardized and validated questionnaires used in general population surveys, such as the AUDIT (alcohol use disorders identification test), ASSIST (Alcohol, Smoking, and Substance Involvement Screening Test) or other validated instruments that which were used in a particular survey. Each validated instrument has a specific algorithm (e.g., the sum of points according to the responses to the questions) to arrive at one or another diagnosis (presence or absence). Based on the responses, the calculation is done by dividing the number of individuals who met the criteria for either F10.1 or F10.2 by the total population aged +15 years. By using the algorithms specified in the validated instruments, presence or absence of harmful use of alcohol or alcohol dependence can be determined. Alcohol use disorders (AUDs) will be scored if either disease category is present. Global Burden of Disease estimates are the primary data source, as well as national surveys from each country, when available.
Type of indicator	Relative

Measurement units	Percentage of AUDs according to ICD-10 codes F10.1 and F10.2 in the general population 15 years of age and older.
Frequency of measurement	At least every five years
PASB unit responsible for monitoring the indicator	Mental Health and Substance Use (NMH/MH)
Data source	Updated information on population-based (preferably nationally representative) surveys using validated instruments is available from: http://apps.who.int/gho/data/view.main?showonly=GISAH Additional health-service reporting systems may provide complementary or confirmatory information regarding the frequency and severity of alcohol use disorders. Data on the prevalence of people with AUDs were modelled using WHO regression models. Where available, the original survey data on the measures of interest (harmful use of alcohol and alcohol dependence) were used instead of the predicted estimates. The regression models used data collected through a systematic search of all survey data on the measures of interest from 2000 onward, and took into account per capita consumption, population structure, the size of the Muslim population in the country, the region of the country, and the year from which the survey data were obtained. The validity of the predicted estimates was assessed by comparing predicted estimates with the survey data.
Limitations	Potential limitations include: • bias through self-reporting, including under-reporting, • misunderstanding or misinterpretation of questions, and • limited validity of survey instruments
References	1. World Health Organization. Global status report on alcohol and health, 2014, Geneva:WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf?ua=1 2. World Health Organization. The Alcohol, smoking, and substance involvement screening test (ASSIST): Manual for use in primary care. Geneva: WHO; 2010. Available from: http://whqlibdoc.who.int/publications/2010/9789241599382_eng.pdf 3. Babor T, Higgins Biddle JC, Saunders JB, Monteiro MG. The Alcohol Use Disorders Identification Test (AUDIT): Guidelines for use in primary care, second edition. Geneva:WHO; 2001. Available from: http://apps.who.int/iris/bitstream/10665/67205/1/WHO_MSD_MSB_01.6a.pdf?ua=1 Related links: 1. http://www.who.int/substance_abuse/activities/gsrhua/en/ 2. http://apps.who.int/gho/data/view.main?showonly=GISAH

Code and title of the indicator	OCM 2.1.1. HARMFUL USE OF ALCOHOL 2.1.1c - Heavy episodic drinking
Name of the indicator	Age-standardized prevalence of heavy episodic drinking (HED)
Definition of the indicator	Heavy episodic drinking among those aged 15 years of age and older is defined as those who report drinking 6 (60 grams) or more standard drinks in a single drinking occasion at least once monthly. Baseline 2013: 13.7% Target 2019: 5% reduction
Purpose of the indicator	Prevalence of HED is considered the best indicator for describing the pattern of alcohol consumption associated with multiple negative health outcomes. The volume of alcohol consumed on a single occasion is important for many acute consequences of drinking such as alcohol poisoning, injury, and violence; it is also important wherever intoxication is socially disapproved of. HED is associated with detrimental consequences, even if the average level of consumption of the person concerned is relatively low.
Technical note	To calculate the age-standardized prevalence of heavy episodic drinking requires the application of age-specific heavy episodic drinking prevalence rates to the WHO World Standard Population summed over all ages (15+ years old). It is also possible to calculate the percentage of HED for those aged 15-19 years of age, as percentage of drinkers in the population aged 15+ years old**.** The Global Information System on Alcohol and Health provides these indicators, with 95% confidence intervals.
Type of indicator	Relative
Measurement units	Percent of the total population 15+ years of age who report a heavy episodic drinking episode at least once a month, by sex.
Frequency of measurement	At least every five years
PASB unit responsible for monitoring the indicator	Mental Health and Substance Use (NMH/MH)
Data source	Population-based (preferably nationally representative) surve
Limitations	Potential limitations include: • bias through self-reporting, including under-reporting of alcohol consumption, • misunderstanding or misinterpretation of questions or of the size of a standard drink, and • limited validity of survey instruments
References	1. World Health Organization. Global status report on alcohol and health, 2014, Geneva:WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf?ua=1 2. World Health Organization. The Alcohol, smoking, and substance involvement screening test (ASSIST): Manual for use in primary care. Geneva: WHO; 2010. Available from:

	http://whqlibdoc.who.int/publications/2010/9789241599382_eng.pdf 3. Babor T, Higgins Biddle JC, Saunders JB, Monteiro MG. The Alcohol Use Disorders Identification Test (AUDIT): Guidelines for use in primary care, second edition. Geneva:WHO; 2001. Available from: http://apps.who.int/iris/bitstream/10665/67205/1/WHO_MSD_MSB_01.6a.pdf?ua=1 Related links: 1. http://www.who.int/substance_abuse/activities/gsrhua/en/ 2. http://apps.who.int/gho/data/view.main?showonly=GISAH

Code and title of the indicator	OCM 2.1.2 TOBACCO USE 2.1.2a – Tobacco use in adolescents
Name of the indicator	Prevalence of current tobacco use among adolescents 13 to 15 years of age
Definition of the indicator	Estimate for prevalence of current tobacco use for the Region of the Americas. Population of 13 to 15 years old reporting the use of any tobacco product (smoked and smokeless) during the 30 days prior to the survey, Baseline 2013: To be determined Target 2019: To be determined
Purpose of the indicator	This indicator allows monitoring the tobacco consumption in adolescents aged 13 to 15 years old in the Americas. The 13-15-year-old age group has been selected based on the need to understand the initiation of tobacco use and patterns of consumption in this young population.
Technical note	Percentage of the population of 13 to 15 years old reporting to use any tobacco product (smoking[a] and smokeless[b]) during the 30 days prior to the survey, including daily and non-daily use. <u>Country calculation:</u> Calculation of the prevalence rate for 13-15-year-olds for country X = Total number of current tobacco users 13-15 years old in country X / Total size of the surveyed population for country X (tobacco users and non-users) <u>Regional calculation:</u> Calculation of the prevalence rate for 13-15-year-olds for the Region = Total number of current tobacco users 13-15 years old for the Region / Total number of 13-15-year-olds of the surveyed population (tobacco users and non-users) for the Region *This information comes from a survey that collects data through a sample that is weighted to represent the country's entire population.* *<u>Age range definition 13-15 years old:</u> In the Region of the Americas, 32 of the 35 PAHO Member States have produced information through the Global Youth Tobacco Survey (GYTS). This survey is applied to the population aged 13-15 years old, and the methodology and questionnaire have been validated and applied by 180 countries worldwide. The age group of 13-15 years was selected based on the need to understand the initiation and pattern of consumption in this young population.*

[a] Smoked tobacco products include manufactured cigarettes, bidis, cigars, pipes, waterpipes (narghile, hookah, shisha), hand rolled tobacco, kreteks, and any other form of smoked tobacco.

[b] Smokeless tobacco is tobacco that is not burned and can be chewed, applied, or snuffed. Smokeless tobacco products include chewed or oral tobacco, spit or spitting tobacco, snuff, snus, chimó, and dip.

	Extending the age range to 13-17 years, as presented in the May 2014 version of the Global Monitoring Framework (GMF), poses a challenge for countries reporting tobacco use for the following reasons: 1. *Few countries have produced current information for tobacco use for the population 13-17 years old. Given that only a few countries are able to report on this age range, it is, therefore, preferable to continue to report on the 13-15-year-old age group, so more countries can participate.* 2. *The information in this age range [can be best captured through household surveys. In addition, collecting data through school-based surveys can be challenging, especially because in many countries of the Americas students tend to drop out of school at age 16 or 17.* 3. *If most of the countries have gathered data for the 13-15-year-old group and the age range for reporting is widened to the 13-17-year-old group, it will be impossible to build the indicator.* *For these reasons, PAHO and WHO's Technical Tobacco Control Area recommend that the tobacco use indicator for youth should report on the population aged 13 to 15 years old. PAHO Member States have requested that PAHO and WHO develop a methodology to collect data on the 16 and 17 age range in the future.*
Type of indicator	Relative
Measurement units	Prevalence
Frequency of measurement	At least every five years
PASB unit responsible for monitoring the indicator	Risk Factors (NMH/RF)
Data source	School based surveys: • Global Youth Tobacco Survey (GYTS) • Global School Health Survey (GSHS) • Drug abuse surveys Eventually, Population-based surveys and National Household Surveys as: National Health Surveys, National Drug Abuse Surveys, etc) will be used as a data source for this indicator
Limitations	• Different surveys use different age ranges. • Variations in the sample used (national, subnational). • Variations in the survey methodologies (school-based surveys, household surveys). • Information for smokeless tobacco use is not always collected. • As with all self-reported surveys, data is subject to limitations as

	respondents may under- or over-report their tobacco use.
References	1. Centers for Disease Control and Prevention. Global Youth Tobacco Survey Collaborative Group. Global Youth Tobacco Survey (GYTS): Sample Design and Weights, Version 1.0. Atlanta, GA:CDC; 2013. 2. Centers for Disease Control and Prevention. Global Youth Tobacco Survey Collaborative Group. Global Youth Tobacco Survey (GYTS): Implementation Instructions, Version 1.1. Atlanta, GA:CDC; 2012. 3. Centers for Disease Control and Prevention. Global Youth Tobacco Survey Collaborative Group. Global Youth Tobacco Survey (GYTS): Indicator Definitions, Version 1.0. Atlanta, GA: CDC; 2013. 4. Centers for Disease Control and Prevention. Global Tobacco Surveillance System. GTSS Data. Global Youth Tobacco Survey (GYTS). Atlanta, GA:CDC Available from: http://nccd.cdc.gov/gtssdata/Ancillary/Documentation.aspx?SUID=1&DOCT=1

Code and title of the indicator	OCM 2.1.2 TOBACCO USE 2.1.2b Tobacco use in adults
Name of the indicator	Age-standardized prevalence of current tobacco use (18+ years of age)
Definition of the indicator	Age-standardized prevalence estimate for current tobacco use for the Region of the Americas. Population 18 years old and older that reports using any tobacco product (smoked and smokeless) during the 30 days prior to the survey, including daily and non-daily use. Baseline 2013: 21% Target 2019: 17% (to achieve the global target of 30% reduction by 2025)
Purpose of the indicator	This indicator allows monitoring the tobacco consumption in the population aged 18 years and older in the Americas.
Technical note	Percentage of the population 18 years old and older that reports using any tobacco product (smoked[a] and smokeless[b]) during the 30 days prior to the survey, including daily and non-daily use. <u>Country calculation:</u> Calculation of age-standardized prevalence rate for the population 18 years and older for country X = Total number of current tobacco users 18 years old and older for country X / Total population for country X <u>Regional calculation:</u> Calculation of age-standardized prevalence rate for the population 18years old and older+ for the Region = Total number of current tobacco users 18 years old and older / World standard population aged 18 years and older To assist countries in their effort to monitor and report on their tobacco related Global Monitoring Framework indicators and targets, WHO is currently developing a methodology to fit country collected data to a Bayesian hierarchical negative binomial model. The model is currently being tested and refined. A paper describing the methods will be submitted to a peer reviewed journal. The results will be shared with countries before publication. One of the outputs of this exercise will be age-specific rates for tobacco use. These rates will be needed to generate age-standardized prevalence summary estimates.

[a] Smoked tobacco products include manufactured cigarettes, bidis, cigars, pipes, waterpipes (narghile, hookah, shisha), hand rolled tobacco, kreteks, and any other form of smoked tobacco.

[b] Smokeless tobacco is tobacco that is not burned and can be chewed, applied or snuffed. Smokeless tobacco products include chewed or oral tobacco, spit or spitting tobacco, snuff, snus, chimó, and dip.

Type of indicator	Relative
Measurement units	Prevalence
Frequency of measurement	At least every five years.
PASB unit responsible for monitoring the indicator	Risk Factors (NMH/RF)
Data source	• Global Adult Tobacco Survey (GATS), • National risk factors surveys (STEPS or similar). • Other national surveys including Tobacco Questions for Survey (TQS), national health surveys, national drug abuse surveys.
Limitations	• Lack of a surveillance system in place to monitor, systematically and periodically, the tobacco epidemic among the adult population in most of the Region's countries. • Different age ranges used in different surveys. • Limited representativeness of the sample (national, subnational). • Different survey methodologies (household surveys, telephone surveys). • Different survey questions; not all surveys include all tobacco products, nor do all report daily and non-daily consumption.**[OK?]** • Limited access to disaggregated data for producing standardized estimates. • As with all self-reported surveys, data is subject to limitations, as respondents may under- or over-report their tobacco use.
References	1. Centers for Disease Control and Prevention. Global Tobacco Surveillance System. GTSS Data. Global Adult Tobacco Survey (GATS). Atlanta, GA:CDC. Available from: http://nccd.cdc.gov/gtssdata/Ancillary/Documentation.aspx?SUID=4&DOCT=1 2. Centers for Disease Control and Prevention. Global Adult Tobacco Survey Collaborative Group. Tobacco Questions for Survey: A Subset of Key Questions from the Global Adult Tobacco Survey (GATS), 2nd edition. Atlanta, GA:CDC; 2011. Available from: http://www.who.int/tobacco/publications/surveillance/tqs/en/ 3. Centers for Disease Control and Prevention. Global Adult Tobacco Survey Collaborative Group. Global Adult Tobacco Survey (GATS): Sample Design Manual, Version 2.0. Atlanta, GA: CDC; 2010. 4. Centers for Disease Control and Prevention. Global Adult Tobacco Survey Collaborative Group. Global Adult Tobacco Survey (GATS): Core Questionnaire with Optional Questions, Version 2.1. Atlanta, GA: CDC; 2014. 5. Centers for Disease Control and Prevention. Global Adult Tobacco Survey Collaborative Group. Global Adult Tobacco Survey (GATS): Indicator definitions. Atlanta, GA: CDC; 2012.

Code and title of the indicator	OCM 2.1.3 - INSUFFICIENT PHYSICAL ACTIVITY 2.1.3a - Insufficient physical activity in adolescents (IPA13-17)
Name of the indicator	Prevalence of insufficient physical activity in adolescents 13 - 17 years of age
Definition of the indicator	Prevalence of adolescents 13 to 17 years old participating in fewer than 60 minutes of moderate to vigorous intensity physical activity daily Baseline 2013: The last country reported prevalence data of insufficient physical activity between 2009-2012 Target 2019: A reduction of 5% with respect to the country base-line prevalence value by 2016 – 2019
Purpose of the indicator	Monitor each country progress in its levels of physical activity among adolescents 13-17 years old. Physical activity provides fundamental health benefits for children and youth, including increased cardiovascular fitness and muscular strength, a reduction in body fat, and improved cardiovascular [and metabolic disease risk profile. Physical activity also reduces stress and symptoms of depression.
Technical note	Self-reported method using the standardized questionnaires GPAQ or IPAQ.[a] Country prevalence of Physical Inactivity calculation: number of individuals not meeting the recommended amount of physical activity, divided by the total number of persons surveyed, multiplied by 100. Regional calculation: countries that have achieved a 5% reduction of their own baseline values.
Type of indicator	Absolute
Measurement units	Numeric
Frequency of measurement	At least every five years, although it is desirable to monitor physical inactivity every year, using a phone survey.
PASB unit responsible for monitoring the indicator	Risk Factors (NMH/RF)
Data source	• Global School Health Survey[b] • National representative surveys: the countries conduct these surveys every four to five years; they provide accurate measurements and representative national samples • Frequent surveillance data, such as CDC's Behavioral Risk Factor Surveillance System and Brazil's Vigitel.
Limitations	• Enumerators (census takers) should undergo training before conducting surveys. • Limited representativeness of the sample (national, subnational) • Limited access to disaggregated data to produce the standardized estimates.

[a] See http://www.who.int/chp/steps/resources/GPAQ_Analysis_Guide.pdf
[b] See http://new.paho.org/saludyescuelas/index.php?option=com_k2&view=item&id=145&Itemid=190&lang=en

References	1. World Health Organization. Global recommendations on physical activity for Health. Geneva: WHO; 2010. Available from: http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf?ua=1 2. World Health Organization. Global Recommendation on Physical Activity for Health. 5-17 years old. Available from: http://www.who.int/dietphysicalactivity/physical-activity-recommendations-5-17years.pdf?ua=1 3. World Health Organization. Global strategy on diet, physical activity and health [Internet]. Geneva:WHO; 2004. Available from: http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_web.pdf

Code and title of the indicator	OCM 2.1.3 INSUFFICIENT PHYSICAL ACTIVITY 2.1.3b - Insufficient physical activity in adults (IPA>18)
Name of the indicator	Age-standardized prevalence of insufficient physical activity in adults
Definition of the indicator	Prevalence of adults 18 years old and older that do not engage in at least 150 minutes of moderate physical activity each week. Baseline 2013: The last country reported prevalence data on insufficient physical activity between 2009-2012 Target 2019: A reduction of 5% with respect to the country baseline prevalence value by 2016-2019
Purpose of the indicator	Monitor each country's progress in its levels of physical-activity among adults. Physical activity provides fundamental health benefits, including greater cardiovascular fitness, a reduction in body fat, favorable cardiovascular and metabolic disease risk profile Physical activity also reduces stress and symptoms of depression.
Technical note	• Self-reported method using the standardized Global Physical Activity Questionnaire (GPAQ) (see the GPAQ Analysis Guide at: http://www.who.int/chp/steps/resources/GPAQ_Analysis_Guide.pdf) or • the International Physical Activity Questionnaire (IPAQ) (Available at: http://www.ipaq.ki.se/ipaq.htm) Prevalence of physical inactivity: individuals not meeting the recommended amount of physical activity, divided by the total number of individuals surveyed, times 100. Standardization using the WHO World Standard Population Regional calculation: countries that have achieved a 5% reduction of their baseline values.
Type of indicator	Absolute
Measurement units	Number
Frequency of measurement	At least every five years, although it is desirable that measurements of physical inactivity be monitored every year using a phone-survey methodology
PASB unit responsible for monitoring the indicator	Risk Factors (NMH/RF)
Data source	National representative surveys: these are surveys conducted every four to five years by the countries, which provide accurate measurements and representative national samples. Frequent surveillance data, such as CDC's the Behavioral Risk Factor Surveillance System or Brazil's Vigitel.
Limitations	• Enumerators should undergo comprehensive training before conducting surveys • Limited Representativeness of the sample (national, subnational) • Limited access to disaggregated data to produce the standardized estimates.

References	1. World Health Organization. Global recommendations on physical activity for Health. Geneva: WHO; 2010. Available from: http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf?ua=1 2. World Health Organization. Global Recommendation on Physical Activity for Health. 18-64 years old. Available from: http://www.who.int/dietphysicalactivity/physical-activity-recommendations-18-64years.pdf?ua=1 3. World Health Organization. Global strategy on diet, physical activity and health [Internet]. Geneva:WHO; 2004. Available from: http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_web.pdf

Code and title of the indicator	OCM 2.1.4 CONTROL OF HYPERTENSION AT THE POPULATION LEVEL
Name of the indicator	Percentage of controlled hypertension at population level (<140/90mmHg) among persons 18+ years of age
Definition of the indicator	Percentage of controlled hypertension at population level (<140/90mmHg) among persons 18 years of age and older. Baseline 2013: 15% Target 2019: 35%
Purpose of the indicator	This indicator measures the level of control of hypertension (the main risk factor for suffering and dying from a cardiovascular event) at the population level, as a measure of the effectiveness and efficiency of health system performance.
Technical note	Country calculation: (A) The numerator is the total number of persons with controlled hypertension (persons with measured systolic blood pressure of < 140 mmHg and diastolic blood pressure of < 90 mmHg). (B) The denominator is the total number of persons with hypertension (defined as persons who have measured systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg, or who report having been diagnosed with hypertension by a health professional, or who report currently taking medication for the treatment of high blood pressure). Calculation: (A/ B) x 100 (age weighted prevalence expressed in percentage) Regional calculation: Depending of the quality of data and the harmonization of methods of country estimates, PAHO can estimate a regional rate of control. Otherwise, PAHO will provide a control range for those countries that report by the established deadline.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every four-to-five years, coinciding with the risk factors survey. It is expected that countries will be able to report data on this indicator six months after the end of the survey.
PASB unit responsible for monitoring the indicator	Noncommunicable Diseases and Disabilities (NMH/ND)
Data source	National surveys. It is expected that countries will use the STEPs-wide approach, which is a WHO methodology NCD risk-factor surveillance. Countries may use another methodology for NCD risk-factor surveillance, which would require an additional PAHO review.
Limitations	Based on the current NCD Plan of Action, countries are expected to conduct surveys every four-to-five years, although this has not been the case in the past.

References	1. Chobanian AV. The Hypertension Paradox—More Uncontrolled Disease despite Improved Therapy. N Engl J Med. 2009;361:878-887. DOI: 10.1056/NEJMx090045 2. Ordúñez García P, Pérez Flores E, Hospedales J. Más allá del ámbito clínico en el cuidado de la hipertensión arterial. Rev Panam Salud Publica 2010;28(4):311–8. 3. 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. 4. Lim SS, Vos T, Flaxman AD, Danaei G, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;380: 2224–60. 5. Go AS, Bauman MA, Coleman King SM, Fonarow GC, Lawrence W, Williams KA, Sanchez E. An effective approach to high blood pressure control: a science advisory from the American Heart Association, the American College of Cardiology, and the Centers for Disease Control and Prevention. J Am Coll Cardiol 2014;63:1230–8. 6. James PA, Oparil S, Carter BL, et al. Evidence-Based Guideline for the Management of High Blood Pressure in Adults: Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8). JAMA. 2014;311(5):507-520. doi:10.1001/jama.2013.284427. 7. The Lancet. Editorial. Hypertension: an urgent need for global control and prevention. Lancet 2014: 383: 1861

Code and title of the indicator	OCM 2.1.5 RAISED BLOOD GLUCOSE/DIABETES
Name of the indicator	Age-standardized prevalence of raised blood glucose/diabetes among persons 18 + years of age
Definition of the indicator	Percentage of persons 18 + years old, with raised blood glucose, diabetes or on medication for raised blood glucose/diabetes Baseline 2013: 18.8% (Source: Diabetes Atlas 2012. http://www.idf.org/diabetesatlas Target 2019: 18.8% (same level as baseline to contribute to the global target to halt the rise in diabetes and obesity by 2025)
Purpose of the indicator	Expresses the prevalence of raised blood glucose/diabetes. The two conditions represent a high risk of chronic complications such as cardiovascular disease, diabetic nephropathy, amputation, and blindness.
Technical note	Country calculation: (A) Numerator: total number of persons 18 + years old, with diabetes (defined as fasting plasma glucose >125mg dl or 7.0mmol/l; or 2hr plasma glucose ≥11.1mmol/l or 200 mg/dl; or A1c ≥ 6.5%), or raised blood glucose (fasting blood glucose 100-125 mg dl) or who are on medication for raised blood glucose/diabetes in country X. (B) Denominator: total number of population of 18 + years in country X. Calculation: (A/B) x 100 (expressed as a percentage) Regional calculation: (A) Numerator: total number of persons 18 + years old, with diabetes (fasting plasma glucose>125mg dl or 7.0mmol/l; or 2hr plasma glucose ≥11.1mmol/l or 200 mg/dl; or A1c ≥ 6.5%), or raised blood glucose (fasting blood glucose 100-125 mg dl), or who are on medication for raised blood glucose/diabetes in the Region. (B) Denominator: population 18 + years old in the Region Calculation: (A/B) x 100 (expressed as a percentage)
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every four-to-five years, coinciding with the risk factor survey.
PASB unit responsible for monitoring the	Noncommunicable Diseases and Disabilities (NMH/ND)

indicator	
Data source	National surveys. It is expected that country use the STEPs-wide approach, which is a WHO methodology for NCD risk-factor surveillance. Countries may use another methodology for NCD risk-factor surveillance, which would require an additional PAHO review.
Limitations	• Lack of periodicity of the surveys • Depending of the quality of data and harmonization of methods of country estimates, PAHO can estimate a regional rate of control. Otherwise, PAHO will provid a control range for those countries that report by the established deadline.
References	1. World health Organization, International Diabetes Federation. Definition and diagnosis of diabetes mellitus and intermediate hyperglycemia: report of a WHO/IDF consultation Geneva:WHO; 2006. Available from: http://www.who.int/diabetes/publications/Definition%20and%20diagnosis%20of%20diabetes_new.pdf

Code and title of the indicator	OCM 2.1.6 OVERWEIGHT AND OBESITY 2.1.6a Prevalence of overweight and obesity in adolescents (13-17 years)
Name of the indicator	Prevalence of overweight and obesity in adolescents aged 13-17 years of age
Definition of the indicator	Percentage of adolescents 13-17 years of age who are overweight or obese. Baseline 2013: TBD, based on the WHO NCD Global Monitoring Framework Target 2019: TBD based on WHO NCD Global Monitoring Framework
Purpose of the indicator	Monitor trends in the prevalence of overweight and obesity in adolescents aged 13 to 17 years. Overweight and obesity during adolescence is associated with increased risk of obesity in adulthood, which may lead to a variety of disabilities and diseases such as diabetes and cardiovascular disease. Overweight adolescents are at risk of being bullied and having low self-esteem This indicator is aligned with WHO NCD Global Monitoring Framework indicators and PAHO's Plan of Action for the Prevention of Obesity in Children and Adolescents, 2014-2019.
Technical note	Measurements: Weight and height by age and sex in adolescents (13 to 17 years of age) measured according to WHO standards. Body Mass Index (BMI): weight (Kg)/height (m^2), according to WHO growth references for school-aged children and adolescents. Even though it has limitations, BMI is the easiest indicator to collect and is the most accepted for measuring body fat. Overweight: BMI for age >+1 standard deviations (SD) of WHO's 2007 reference median (equivalent to BMI 25 kg/m^2 at 19 years). Obesity: BMI for age >+2 standard deviations (SD) of WHO's 2007 reference median (equivalent to BMI 30 kg/m^2 at 19 years). Country calculation: not applicable (N/A)[a] Regional calculation: standardized WHO statistical methods. WHO maintains the Global Database on Body Mass Index, which includes population-based surveys that fulfill a set of criteria. Data are checked for validity and consistency, and raw data sets are analyzed following a standard procedure to obtain comparable results.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years.
PASB unit responsible	Working Group on Obesity (FGL/NMH)

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

for monitoring the indicator	
Data source	Global School-based Student Health Survey, National Survey of Nutrition and Health.
Limitations	• Traditionally, the Global School-based Student Health Survey only included children 13-15 years old; it is expected that new surveys will include the group 13-17 years old. • Nationally representative surveys are not available for all countries, and frequency varies depending on country policies and availability of funding. • National surveillance systems are generally not reliable because of weak data collection procedures. Natural disasters may prevent surveys from being completed. • There is a time lapse between data collection and publishing.
References	1. World Health Organization.[Internet.] Global Database on Body Mass Index. Global database on body mass index. Available from: http://apps.who.int/bmi/index.jsp 2. World Health Organization. *Global health risks: mortality and burden of disease attributable to selected major risks.* Geneva:WHO; 2009. Available from: http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf 3. World Health Organization. Nutrition Landscape Information System (NLIS) country profile indicators: interpretation guide. Geneva:WHO; 2012. Available from: http://www.who.int/nutrition/nlis_interpretationguide_isbn9789241599955/en/ 4. Pan American Health Organization. Plan of Action for the Prevention of Obesity of Obesity in Children and Adolescents. Washington, DC: PAHO; 2014. (Document CD53/9).

Code and title of the indicator	OCM 2.1.6 OVERWEIGHT AND OBESITY 2.1.6b Overweight and obesity in adults
Name of the indicator	Prevalence of overweight and obesity in adults (men and women 18+ years of age)
Definition of the indicator	Percentage of adult men and women 18 years of age and older who are overweight or obese. Baseline 2013: TBD, based on WHO's NCD Global Monitoring Framework Target 2019: TBD, based on WHO's NCD Global Monitoring Framework
Purpose of the indicator	The indicator will monitor trends in the prevalence of overweight and obesity in adult men and women 18 years of age and older**.** Overweight and obesity in adults are associated with increased disease prevalence and disability, such as diabetes, cancer, and cardiovascular disease.
Technical note	Measurements: Weight and height by age and sex in adult men and women 18 years of age and older, measured according to WHO standards. Body Mass Index (BMI): eight (Kg)/height (m2), according to WHO references of growth for adults. Even though it has limitations BMI is the easiest indicator to collect and is the most accepted one for measuring body fat. Overweight: BMI ≥ 25.0. Obesity: BMI ≥ 30.0. Country calculation: N/A[a] Regional calculation: standardized WHO statistical methods. WHO maintains the Global Database on Body Mass Index, which includes population-based surveys that fulfill a set of criteria. Data are checked for validity and consistency, and raw data sets are analyzed following a standard procedure to obtain comparable results.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years.
PASB unit responsible for monitoring the indicator	Working Group on Obesity (FGL/NMH)
Data source	National nutrition and health surveys.
Limitations	• Few of the Region's countries have information on the prevalence of overweight and obesity in adult men and women (18 years of age and

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

	older). Most nationally representative surveys include only women aged 15-49 years old. • Nationally representative surveys are not available for all countries. • Usually, nationally representative surveys are implemented every five years. However, such frequency varies depending on country policies and availability of funding. • National surveillance systems are generally not reliable because of weak data collection procedures. Natural disasters may prevent surveys from being completed. • There is also a time-lapse between data collection and publishing.
References	1. World Health Organization. NCD Global Monitoring Framework: Indicator Definitions and Specifications.[Internet]. Geneva: WHO 2. Global database on body mass index. Available from: http://apps.who.int/bmi/index.jsp 3. United States, Department of Health and Human Services, National Institutes of Health; National Health, Lung and Blood Institute; and North American Association for the Study of Obesity. The Practical Guide Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. Bethesda, MD:NIH; 2000. (NIH Publication No. 00-4084). Available from: https://www.nhlbi.nih.gov/files/docs/guidelines/prctgd_c.pdf 4. de Onis M, Onyango AW, Borghi E, Siyam A, Nishidaa C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. *Bulletin of the World Health Organization* 2007;85:660–667. 5. World Health Organization. Physical status: the use and interpretation of anthropometry: report of a WHO Expert Committee. Geneva: WHO; 1995. (Technical report series 854). 6. World Health Organization. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva: WHO; 2009. Available from: http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf 7. Nutrition Landscape Information System (NLIS) country profile indicators: interpretation guide. WHO. October 2012 **.** Available from: http://www.who.int/nutrition/nlis_interpretationguide_isbn9789241599955/en/ ((please use same URL for Spanish version – only available in English))

Code and title of the indicator	OCM 2.1.7 CONTROL OF SALT CONSUMPTION
Name of the indicator	Age-standardized mean population intake of salt (sodium chloride) per day, in grams, in persons aged 18+ years of age
Definition of the indicator	This indicator measures the average intake of salt (sodium chloride) in the population. Baseline 2010: 11.5 g Target 2019: 7 g (to achieve the global target of 30% relative reduction by 2025)
Purpose of the indicator	Expresses the average intake of salt/sodium in the population; it is in direct relation to the level of blood pressure in the population. Reducing overconsumption of salt is the most cost-effective intervention for the prevention of high blood pressure in the population, which is the main risk factor for suffering and dying of a cardiovascular event.
Technical note	Measurement of sodium/salt excretion in urine. The gold standard for estimating salt intake is through 24-hour urine collection; however, other methods such as casual and timed spot urine and food frequency surveys are also accepted, as they may be more feasible to administer at the population level. Country calculation: (A) Numerator: the sum of all levels of sodium in 24-hour urine in the adult population participating in the population study. (B) Denominator: all participants in the study. Calculation: A/B (expressed in g/person/day). PAHO has a protocol for determining the levels of sodium in 24 hour urine. This protocol is available to the countries to include in their national risk factor studies, mainly through PanAm STEPs. Regional calculation: To calculate the age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18 years of age and older requires the application of age-specific mean population salt intake to the WHO World Standard Population, summed over all ages. The process of age-standardization will be done by PAHO at the regional level. Based on regional data provided by PAHO, WHO HQ produces the estimates of the global percentage of mean population intake of salt.
Type of indicator	Absolute
Measurement units	Grams of salt, based on 24- hour urine sodium (Na)/person/day)
Frequency of	Every four-to-five years, coinciding with the risk factor survey.

measurement	
PASB unit responsible for monitoring the indicator	Noncommunicable Diseases and Disabilities (NMH/ND)
Data source	National surveys (PanAm STEPs or national nutrition surveys
Limitations	Frequency of reporting: four-to-five years, if the country completes its national survey.
References	1. World Health Organization. Creating an enabling environment for population-based salt reduction strategies: report of a joint technical meeting held by WHO and the Food Standards Agency, United Kingdom. Geneva:WHO; 2010. 2. World Health Organization. Prevention of cardiovascular disease: pocket guidelines for assessment and management of cardiovascular risk. Geneva:WHO; 2007. 3. Brown IJ et al. Salt intakes around the world: implications for public health. *International Journal of Epidemiology* 2009;38:791-813. 4. Cappuccio F et al. Policy options to reduce population salt intake. *British Medical Journal* 2011;343:d499 5. He FJ, MacGregor GA. A comprehensive review on salt and health and current experience of worldwide salt reduction programmes. *Journal of Human Hypertension* 2009;23:363-384. 6. World Health Organization. Strategies to monitor and evaluate population sodium consumption and sources of sodium in the diet. Report of a joint technical meeting convened by WHO and the Government of Canada, Canada. October 2010. Geneva:WHO; 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241501699_eng.pdf

Code and title of the indicator	OCM 2.1.8 CERVICAL CANCER
Name of the indicator	Number of countries and territories that have a cervical cancer screening program which achieves 70% coverage, as measured by the proportion of women 30-49 years of age who have been screened for cervical cancer at least once, or more often and for younger or older age groups according to national programs or policies, by 2019
Definition of the indicator	This indicator counts the number of countries that have a cervical cancer screening program with 70% coverage as the proportion of women aged 30-49 years of age that report they were screened at least once or more often in their lifetime for cervical cancer, using any of the following methods: visual inspection with acetic Acid (VIA), Pap smear and human papillomavirus (HPV) test. It will also include the number of countries that have achieved a cervical cancer screening coverage of 70% by 2019 for women in lower or higher age groups, as defined by their national program or policy. Baseline 2013: 5 Target 2019: 15
Purpose of the indicator	Cervical cancer is the most common female cancer in low- and middle-income countries. There were an estimated 530,000 cases of cervical cancer and 270,000 deaths from the disease worldwide in 2008, with more than 80% occurring in low- and middle-income countries. Screening programs in high-income countries have resulted in a dramatic decline in cervical cancer mortality over the last three decades. High screening coverage is necessary in order for a program to reduce mortality, and is one of the indicators used to assess the quality of a program. WHO has established a target of 70% screening coverage for cancer screening programs.
Technical note	Country calculation: (A) Numerator: the total number of women in the specified age group in the national screening policy (which may vary from country to country), who are given a cervical cancer screening test in the time frame specified by the national policy. (B) Denominator: the total number of women in that age group in the country's population. Calculation: A/B Regional calculation: Add the total number of countries that report at least 70% screening coverage for women 30-49 years of age who have been screened at least once (or more often and for lower or higher age groups, as defined by the national screening policy).
Type of indicator	Absolute
Measurement units	Number of countries and territories

Frequency of measurement	There is no systematic reporting system established, and the frequency varies widely in the Region, with some countries measuring this indicator annually, but others not measuring it at all. Each country independently monitors its own cervical cancer screening coverage, either through the national program's monitoring and evaluation system, or through population-based surveys.
PASB unit responsible for monitoring the indicator	Noncommunicable Diseases and Disabilities (NMH/ND)
Data source	The data source is population-based (preferably nationwide) surveys on cervical cancer screening, whenever available.
Limitations	The quality and completeness of screening coverage measurement is challenging, in that it requires an information system and a systematic and well-defined method to capture information on women screened (vs. tests performed). Perhaps the greatest limitation is that most countries do not routinely, nor systematically, track their screening coverage. Potential limitations for self-reported data include: • bias through self-reporting, including mistakenly assuming any pelvic exam was a test for cervical cancer; and • limited validity of survey instruments.
References	1. World Health Organization. NCD Global Monitoring Framework: Indicator Definitions and Specifications.[Internet.] Geneva: WHO. 2. Pan American Health Organization. PAHO Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control in Latin America and the Caribbean. Washington, D.C.: PAHO, 2008;. Available from: http://www2.paho.org/hq/dmdocuments/2011/PAHO_Cervical_Cancer_Strategy_En.pdf 3. World Health Organization. Guidelines for screening and treatment of precancerous lesions for cervical cancer prevention. Geneva: WHO; 2013. Available from: http://www.who.int/reproductivehealth/publications/cancers/screening_and_treatment_of_precancerous_lesions/en/ 4. Pan American Health Organization. Cervical Cancer Prevention and Control Programs: A rapid assessment in 12 countries of Latin America. Washington, DC:PAHO; 2010. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=16119&Itemid= 5. Pan American Health Organization. Situational Analysis of Cervical Cancer Prevention and Control in the Caribbean. Washington. DC:PAHO; 2013. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23829&Itemid=

Code and title of the indicator	OCM 2.1.9 TREATED END-STAGE RENAL DISEASE
Name of the indicator	Number of countries and territories with a prevalence rate of treated end-stage renal disease of at least 700 patients per million population.
Definition of the indicator	This indicator measures the sum of countries and territories reporting a point prevalence of renal replacement therapy of at least 700 patients per 1,000,000 population. Baseline 2013: 8 Target 2019: 17
Purpose of the indicator	The indicator is important because it assesses the level of access to services and treatment (peritoneal dialysis, hemodialysis, and transplantation) for patients with end-stage renal disease requiring renal replacement therapy.
Technical note	Country calculation: (A) Numerator: the total number of patients with end-stage renal disease who are receiving treatment for renal replacement (peritoneal dialysis, hemodialysis, or patients living with a functioning renal transplant), as of December 31 of each calendar year. (B) Denominator: the total population in the country on December 31 of a given year. Calculation: (A / B) x 1 million population (point prevalence, expressed as the number of patients treated for end-stage renal disease, per 1,000,000 population] Regional calculation: Sum of the total number of countries that achieved a point prevalence of treated end-stage renal disease of at least 700 patients per 1,000,000 population.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annually; countries are expected to report data on this indicator six months after the end of the previous calendar year.
PASB unit responsible for monitoring the indicator	Noncommunicable Diseases and Disabilities (NMH/ND)
Data source	National registries/records of dialysis and transplantation.
Limitations	Based on the PAHO Strategy and Plan of Action for the Prevention and Control of Noncommunicable Diseases, 2013-2019 countries will be expected to strengthen the quality of their registries and report annually. This has not occurred to date; registries, mainly administered by nephrology societies, have been voluntary. Data will depend on quality, completion, and the updating of national registries of dialysis and transplantation.
References:	1. Lugon JR, Strogoff de Matos JP. Disparities in end-stage renal disease care in South America. Clin Nephrol. 2010 Nov;74 Suppl 1:S66-71. 2. United States. National Institutes of Health, National Institute of Diabetes

	and Digestive and Kidney Diseases. U.S. Renal Data System, USRDS 2013 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States. Bethesda, MD:NIH; 2013 3. Rosa-Diez G, Gonzalez-Bedat M, Pecoits-Filho R et al. Renal replacement therapy in Latin American end-stage renal disease. Clin Kidney J 2014;0: 1–6. 4. Vanholder R, Biesen WV, Lameire N. Renal replacement therapy: how can we contain the costs? Lancet 2014: 383: 1783-1785.

CATEGORY 2. NCDS AND RISK FACTORS

2.2 Mental health and psychoactive substance use disorders

Code and title of the indicator	OCM 2.2.1 MENTAL HEALTH OUTPATIENT TREATMENT
Name of the indicator	Number of countries and territories that have increased the rate of consultations through mental health outpatient treatment facilities over the regional average of 975 per 100,000 population
Definition of the indicator	The indicator measures the establishment of ambulatory and outpatient mental health facilities. Baseline 2013: 19 Target 2019: 30
Purpose of the indicator	This indicator is essential for monitoring the transformation of mental health care; it is based on the PAHO Regional Strategy and Plan of Action on Mental Health and WHO's Global Mental Health Action Plan 2013-2020". The indicator is important for monitoring the transition from an asylum-hospital-based model of care for people with mental disorders to an outpatient-based model that is decentralized, community-based, and linked to the primary health care services.
Technical note	Country calculation: (A) Numerator: the number of mental health consultations in ambulatory or outpatient facilities in one year. (B) Denominator: the total population (general population) Calculation: (A/B) x 100,000 The calculation should exclude hospitalized patients, including those in general hospitals, community residential facilities, and in partial hospitalization (same-day hospitalization) services. This is in line with the operational criteria of the WHO's Assessment Instrument for Mental Health Systems (WHO-AIMS).[a] ((moved to footnote - please apply change in Spanish version)) Regional calculation: Total the number of countries that have increased the rate of users treated through mental health outpatient facilities above the regional average of 975/100,000 population. Source: WHO-AIMS: Report on mental health systems in Latin America and the Caribbean (see reference section for bibliographic details).
Type of indicator	Absolute
Measurement units	Number of countries and territories.

[a] http://www.who.int/mental_health/evidence/AIMS_WHO_2_2.pdf?ua=1

Frequency of measurement	Biennial (PAHO will request information from target countries every two years).
PASB unit responsible for monitoring the indicator	Mental Health and Substance Use (NMH/MH)
Data source	Country reports. The baseline (rate by country) and the regional rate is based on the evaluation reports of mental health systems in the countries. These are developed with PAHO technical cooperation; 34 countries and territories have conducted evaluations using WHO AIMS.
Limitations	• The main limitations are related to deficiencies in national health information systems, particularly with regard to outpatient data as diagnostic and specialist services, leading to underreporting. • PAHO and WHO suggest updating WHO AIMS every five years (some of the Region's countries already have done so). That said, this is a voluntary initiative that depends on the countries; PAHO promotes this periodic update but does not have decision power in this regard.
References	1. Pan American Health Organization. WHO-AIMS: Report on mental health systems in Latin America and the Caribbean. Washington, DC:PAHO; 2013. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=21325&Itemid=

CATEGORY 2. NCDS AND RISK FACTORS

2.3 Violence and Injuries

Code and title of the indicator	OCM 2.3.1 ROAD SAFETY: USE OF SEATBELTS
Name of the indicator	Number of countries and territories with at least 70% use of seatbelts by all passengers
Definition of the indicator	Number of countries and territories with at least 70% use of seatbelts by all passengers. Baseline 2013: 4 Target 2019: 7
Purpose of the indicator	Upon enactment of legislation for front seatbelt use in many countries in the Region, measuring rear seatbelt use indicates progress towards a comprehensive legislation. This indicator is in line with PAHO's Plan of Action on Road Safety (2011), and it is a good advocacy tool for placing this issue on the public health agenda.
Technical note	The indicator is calculated based on the percentage reported by the countries that responded to the questionnaire for WHO's Global Status Report on Road Safety. Regional calculation: the sum of the countries that have attained 70% or higher use of seatbelts by all passengers.
Type of indicator	Absolute
Measurement units	Number of countries and territories. (Note: data is not available for the territories.)
Frequency of measurement	Data is collected every three years through a questionnaire at a national consensus meeting. The most recent data (2010) can be found in the Global Status Report on Road Safety 2013: (http://www.who.int/violence_injury_prevention/road_safety_status/2013/en/) ; the next data collection started in early 2014.
PASB unit responsible for monitoring the indicator	Risk Factors (NMH/RF)
Data source	WHO Global Status Report on Road Safety; information gathered from national road safety questionnaires.
Limitations	Different methodologies have been used for the two WHO global reports on road safety to date, which makes the data not comparable. In addition, the questionnaires are based on the perception of the national team who fills them out and, therefore, the data is influenced by the background of the participants. Poor data quality has also been found in many countries,.
References	1. Pan American Health Organization. Plan of Action on Road Safety. Washington, DC: 30 September 2011. (Document CD51/7, Rev. 1). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=20287&Itemid=

Code and title of the indicator	OCM 2.3.2 VIOLENCE PREVENTION
Name of the indicator	Number of countries and territories that use a public health perspective in an integrated approach to violence prevention
Definition of the indicator	Number of countries that include at least four recommendations of the 2002 WHO World Report on Violence and Health in their national or in at least one subnational action plan on violence prevention in children, youth, and women and that implement them systematically on a large scale.[a] Baseline 2013: 3 Target 2019: to be determined based on WHO's 2014 Global status report on violence prevention
Purpose of the indicator	The indicator shows how countries in the Americas have advanced in including and implementing, systematically and on a large scale,[a] the public health perspective in their national or at least one subnational action plan on violence prevention in children, youth, and women.
Technical note	PAHO will count the number of countries that include and implement at least four recommendations from the 2002 WHO World report on violence and health within their national or at least one subnational action plan on violence prevention in children, youth, and women. The recommendations of WHO's World report are as follows: 1. Create, implement and monitor a national action plan for violence prevention. 2. Enhance capacity for collecting data on violence 3. Define priorities for, and support research on, the causes, consequences, costs and prevention of violence 4. Promote primary prevention responses 5. Strengthen responses for victims of violence 6. Integrate violence prevention into social and educational policies, and thereby promote gender and social equality 7. Increase collaboration and exchange of information on violence prevention 8. Promote and monitor adherence to international, treaties, laws and other mechanisms to protect human rights 9. Seek practical, internationally agreed responses to the global drug trade and the global arms trade
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Data will be updated every two years at the end of the second year.

[a] Large scale means more than 30% of the relevant population in the targeted territory (national or subnational).

PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Data source	Data will be obtained from PAHO/WHO Country Office reports to PAHO HQ (SDE) upon request as part of the process of preparing and updating the global status reports on violence prevention
Limitations	Data will include information only on those countries that participated in the Global status report on violence prevention that will be published in 2014. In addition, data will not reflect the quality of the action plan nor of the actions implemented.
Reference	1. World Health Organization. World Report on violence and health. Geneva: WHO; 2002. Available from: http://whqlibdoc.who.int/hq/2002/9241545615.pdf

CATEGORY 2. NCDS AND RISK FACTORS

2.4 Disabilities and Rehabilitation

Code and title of the indicator	OCM 2.4.1 CARE COVERAGE FOR PEOPLE WITH DISABILITIES
Name of the indicator	Number of countries that have attained at least 12% access to habilitation and rehabilitation services and social services for persons with disabilities
Definition of the indicator	Number of countries and territories that have achieved 12% coverage of habilitation and rehabilitation services in the health sector for people with disabilities Baseline in 2013: 0 Target for 2019: 16
Purpose of the indicator	Shows the number of countries that have reached 12% coverage at least in access to habilitation and rehabilitation services in the health sector for people with disabilities. In view of the low coverage of access to rehabilitation services for people with disabilities (the world average is 6% according to the WHO report), the proposed indicator measures the progress in improving the coverage of access to services health.
Technical note	Country Calculation: (A) Numerator: Number of people with a disability of any kind treated in habilitation and rehabilitation services in the health sector in country X. (B) Denominator: Total estimated number of persons with disabilities for country X. Calculation: (A/B) x 100 Regional Calculation: The number of countries with more than 12% access to habilitation and rehabilitation services is counted.
Type of indicator	Absolute
Measurement units	Number of Countries and Territories
Frequency of measurement	Annually (at the end of each year). Information is collected daily, processed monthly and averaged at the end of each year.
PASB unit responsible for monitoring the indicator	Noncommunicable Diseases and Disabilities (NMH/ND)
Data source	Reports of health services of the ministries of health, multipurpose surveys supplemented with the Ministries of Health and / or social development programs in each country
Limitations	• Obsolete data on persons with disabilities • Underreporting of persons with disabilities attending rehabilitation services in the health sector ' • Responses in the multipurpose surveys are based on perceptions. • Few countries have a record of this information

References	1. World Health Organization World Bank. World report on disability. Geneva, WHO; 2011 Available from: http://www.who.int/disabilities/world_report/2011/report.pdf 2. Pan American Health Organization. Disability: Prevention and Rehabilitation in the Context of the Right to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health and Other Related Rights. Washington, DC: PAHO; 25 September 2006. (Document CD47/15, Corrig.). Available from: http://www1.paho.org/english/gov/cd/CD47-15c-e.pdf 3. Pan American Health Organization. Health in the Americas, 2012 edition. Washington, DC: PAHO; 2012. Available from: http://www.paho.org/saludenlasamericas/index.php?lang=en 4. Pan American Health Organization. Aplicación de la clasificación internacional del funcionamiento, de la discapacidad y de la salud en las Américas. Washington, DC:PAHO; 2012. (Spanish only). Available from: http://publicaciones.ops.org.ar/publicaciones/otras%20pub/informeCIF.pdf

Code and title of the indicator	OCM 2.4.2 CATARACT SURGICAL RATE
Name of the indicator	Number of countries and territories reaching cataract surgical rate of 2,000/million population/year
Definition of the indicator	This indicator provides a quantifiable measure of the provision of cataract surgery in the Region's countries and territories. It is based on the total number of countries and territories in the Region of the Americas that report having reached a cataract surgery rate of 2,000 per 1,000,000 population on a given year. Baseline 2013: 19 Target 2019: 25
Purpose of the indicator	Cataracts are the leading cause of blindness. Visual impairment and blindness caused by cataracts are avoidable, because there is a treatment that is safe and effective to restore sight. The cataract surgical rate is a quantifiable measure of the provision of cataract surgery. It is also often used as a proxy to measure the provision of general eye care services.
Technical note	Country calculation: (A) Numerator: number of total cataract surgical operations in the country (per year calendar) (B) Denominator: total population in the country Calculation: (A/B) x 1,000,000 Regional calculation: Once data is obtained on the cataract surgical rate in the countries, the indicator is calculated by adding the number of countries that have reached 2,000 cataract surgeries, per 1,000,000 inhabitants, per calendar year.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual. Data on cataract surgical rate has been collected from ministries of health or from eye care national committees every year during the past 10 years. Data is collected at the end of each calendar year and reporting is completed by April of the following year. Publication of data will take place in June every year
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	The data is obtained from the annual reports of the countries (ministries of health or coordinators of the national committees for the prevention of blindness) and is submitted to the PAHO/WHO Regional Program on Eye Health.
Limitations	This indicator is useful only when it includes all cataract surgeries performed in a country, including at governmental, private, and nongovernmental facilities.

References	1. World Health Organization. Draft action plan for the prevention of avoidable blindness and visual impairment 2014-2019. Towards universal eye health: a global action plan 2014–2019 [Internet]. Geneva: WHO; May 2013. (Document A66/11). Available from: http://www.iapb.org/sites/iapb.org/files/Towards%20Universal%20Eye%20Health_a%20Global%20Action%20Plan%202014-2019.pdf 2. Batlle, JF, Lansingh VC, Silva JC, Eckert KA, Resnikoff S. Cataract Situation in Latin America: Barriers to Cataract Surgery. American Journal of Ophthalmology 2014 Aug;158(2):242-250 doi: 10.1016/j.ajo.2014.04.019. 3. Lewallen S, Perez-Straziota C, Lansingh V, Limburg H, Silva JC. Variation in Cataract Surgery Needs in Latin America. Arch Ophthalmol. 2012 Dec;130(12):1575-8. doi: 10.1001/archophthalmol.2012.2147 4. Lansingh VC, Resnikoff S, Tingley-Kelley K, Nano ME, Martens M, Silva JC, Duerksen R, Carter MJ. Cataract surgery rates in Latin America: a four-year longitudinal study of 19 countries. Ophthalmic Epidemiol 2010 Mar;17(2):75-81.

CATEGORY 2. NCDS AND RISK FACTORS

2.5 Nutrition

Code and title of the indicator	OCM 2.5.1 STUNTING IN CHILDREN
Name of the indicator	Percentage of children less than five years of age who are stunted
Definition of the indicator	Percentage of children under 5 years old with height-for-age below -2 standard deviations from the median of the WHO Child Growth Standards. Baseline 2010: 13.5% Target 2019: 7.5%
Purpose of the indicator	Stunting is the result of long-term nutritional deprivation; it is a risk factor for child mortality and often results in delayed mental development, poor school performance, and reduced intellectual capacity.
Technical note	Measurements: weight and height in children 0-to-5 years of age. Children's weight and height is measured using WHO's recommended methodology, e.g. children younger than 24 months are measured in a supine position, and children 24 months and older are measured while standing. Stunting: children younger than 5 years of age with a height-for-age less than -2 standard deviations from the median of the WHO Child Growth Standards. Country calculation: N/A[a] Regional calculation: WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that meet a set of criteria. Data are checked for validity and consistency, and raw data sets are analyzed following a standard procedure to obtain comparable results. Prevalence below and above defined cut-off points for weight-for-age, height-for-age, weight-for-height, and body mass index (BMI)-for-age, in preschool children are presented using z-scores based on the WHO Child Growth Standards. A detailed description of the methodology and procedures of the database including data sources, criteria for inclusion, data quality control, and database work-flow, are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis and Blössner, 2003). Predominant type of statistics: adjusted. A well-established methodology for deriving global and regional trends and forecasting future trends, have been published (de Onis et al., 2004a, 2004b.)

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	National nutrition surveys, demographic and health surveys (DHS), multiple indicator cluster surveys (MICS), and national surveillance systems.
Limitations	• Nationally representative surveys are not available for all countries. • While nationally representative surveys usually are carried out every five years, the frequency may vary depending on country policies and availability of funding. • National surveillance systems are generally not reliable because of weak data collection procedures. Natural disasters may prevent surveys from being completed. • There is also a time lapse between data collection and publishing.
References	1. de Onis, M. and Blössner M. The World Health Organization Global Database on Child Growth and Malnutrition: methodology and applications; International Journal of Epidemiology 2003; 32:518-26. Available from: http://www.who.int/nutgrowthdb/publications/methodology/en/ 2. de Onis, M. Garza, et al. For the WHO Multicentre Growth Reference Study Group (2004a): The WHO Multicentre Growth Reference Study: Rationale, Planning, and Implementation. Available from: http://www.sprs.com.br/templates/sprs/pdf/download/oms_curvas.pdf 3. de Onis, M. Garza, et al. For the WHO Multicentre Growth Reference Study Group (2004b): The WHO Multicentre Growth Reference Study: Planning, study design, and methodology. Available from: http://www.ingentaconnect.com/content/nsinf/fnb/2004/00000025/A00101s1/art00003 4. World Health Organization. Nutrition. Global targets 2025. To improve maternal, infant and young child nutrition. Geneva: WHO. [Internet.] Available from: http://www.who.int/nutrition/topics/nutrition_globaltargets2025/en/ 5. World Health Organization. Physical status : the use and interpretation of anthropometry : report of a WHO Expert Committee. Geneva:WHO; 1995. (Technical report series 854). 6. United Nations Children's Fund, World Health Organization, The World Bank. UNICEF-WHO-World Bank Joint Child Malnutrition Estimates. (UNICEF, New York; WHO, Geneva; The World Bank, Washington, DC; 2012). Available from: http://www.who.int/nutgrowthdb/jme_unicef_who_wb.pdf?ua=1 7. Joint child malnutrition estimates (UNICEF-WHO-WB): Global and regional trends by UN Regions, 1990-2025 Stunting: 1990-2025. Available from:

	http://apps.who.int/gho/data/view.main.NUTUNSTUNTINGv?lang=en 8. World Health Organization. Nutrition Landscape Information System (NLIS) country profile indicators: interpretation guide. Geneva: WHO; October 2012. Available from: http://apps.who.int/iris/bitstream/10665/44397/1/9789241599955_eng.pdf?ua=1

Code and title of the indicator	OCM 2.5.2 ANEMIA IN WOMEN OF REPRODUCTIVE AGE
Name of the indicator	Percentage of women of reproductive age (15-49 years) with anemia
Definition of the indicator	Percentage of non-pregnant women of reproductive age (15-49 years of age) with hemoglobin under 12 g/dl Baseline 2010: 22.5% Target 2019: 18%
Purpose of the indicator	To monitor trends in anemia prevalence in women of reproductive age (15-49 years of age) Anemia is associated with increased risks of maternal mortality. Iron-deficiency anemia is the most prevalent micronutrient deficiency; it reduces the work capacity of individuals and entire populations, with serious consequences for the economy and national development.
Technical note	Anemia in women of reproductive age (15-49 years of age): hemoglobin under 12 g/dl, adjusted by altitude. Country calculation: N/A[a] Regional calculation: WHO maintains the micronutrients database in the Vitamin and Mineral Nutrition Information System (VMNIS), a tool for collating information on the population status of various nutrients worldwide. Based on this information, WHO has published global estimates of the prevalence of anemia and of vitamin A and iodine deficiency. Data from the most recent national survey were used in preference to subnational surveys. For those countries that did not have survey data, WHO calculated their prevalence by developing a regression model using indicators of population health status as covariates.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	Vitamin and Mineral Nutrition Information System (VMNIS), national health or nutrition surveys, demographic and health surveys (DHS), multiple indicator cluster surveys (MICS).
Limitations	• Nationally representative surveys are not available for all countries. • While nationally representative surveys usually are carried out every five years, the frequency may vary depending on country policies and availability of funding. • National surveillance systems are generally not reliable because of weak

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

	data collection procedures. Natural disasters may prevent surveys from being completed. • There is also a time lapse between data collection and publishing.
References:	1. World Health Organization, United States Centers for Disease Control and Prevention. Methodological approaches to estimating global and regional prevalences of vitamin and mineral deficiencies. Report on the joint WHO/US CDC technical consultation, Atlanta, USA, 7–9 December 2010. Geneva: WHO; 2014. Available from: http://www.who.int/nutrition/publications/micronutrients/methodological_estimates_global_vitamin/en/ 2. Indicators for assessing infant and young child feeding practices. Part 1. Definitions. Conclusions of a consensus meeting held 6–8 November 2007 in Washington, DC, USA. Geneva:WHO; 2008. Available from: http://whqlibdoc.who.int/publications/2008/9789241596664_eng.pdf 3. World Health Organization. Nutrition Landscape Information System (NLIS), country profile indicators: interpretation guide. Geneva:WHO; 2012. Available from: http://apps.who.int/iris/bitstream/10665/44397/1/9789241599955_eng.pdf?ua=1

Code and title of the indicator	OCM 2.5.3 OVERWEIGHT CHILDREN
Name of the indicator	Percentage of children less than five years of age who are overweight.
Definition of the indicator	Percentage of children younger than 5 years of age who are overweight Baseline 2008-2012: 7% Target 2016-2019: 7%
Purpose of the indicator	To monitor trends of obesity in children younger than 5 years of age Childhood overweight is associated with a higher probability of overweight in adulthood, which can lead to a variety of disabilities and diseases such as diabetes and cardiovascular diseases. Overweight children are at risk of being bullied and having low self-esteem.
Technical note	Measurements: weight and height in children 0 to 5 years of age. Children's weight and height is measured using the WHO recommended methodology, e.g. children under than 24 months of age are measured in a supine position, while children 24 months and older are measured while standing. Overweight and obesity in children aged 0-5 years: weight-for-height greater than two standard deviations from the median weight-for-height of WHO's Child Growth Standards. Country calculation: N/A[a] Regional calculation: WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that meet a set of criteria. Data are checked for validity and consistency and raw data sets are analyzed following a standard procedure to obtain comparable results. Prevalence below and above defined cut-off points for weight-for-age, height-for-age, weight-for-height and body mass index (BMI)-for-age, in preschool children are presented using z-scores based on the WHO Child Growth Standards. A detailed description of the methodology and procedures of the database, including data sources, criteria for inclusion, data quality control and database work-flow, are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis & Blössner, 2003). Predominant type of statistics: adjusted**.** A well-established methodology for deriving global and regional trends and forecasting future trends, have been published (de Onis. et al., 2004a, 2004b)
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	National nutrition surveys, demographic and health surveys (DHS), multiple indicator cluster survey (MICS), and national surveillance systems.
Limitations	• Nationally representative surveys are not available for all countries. • While nationally representative surveys usually are carried out every five years, the frequency may vary depending on country policies and availability of funding. • National surveillance systems are generally not reliable because of weak data collection procedures. Natural disasters may prevent surveys from being completed. • There is also a time lapse between data collection and publishing.
References:	1. de Onis, M. and Blössner M. The World Health Organization Global Database on Child Growth and Malnutrition: methodology and applications; International Journal of Epidemiology 2003; 32:518-26. Available from: http://www.who.int/nutgrowthdb/publications/methodology/en/ 2. de Onis, M. Garza, et al. For the WHO Multicentre Growth Reference Study Group (2004a): The WHO Multicentre Growth Reference Study: Rationale, Planning, and Implementation. Available from: http://www.sprs.com.br/templates/sprs/pdf/download/oms_curvas.pdf 3. de Onis, M. Garza, et al. For the WHO Multicentre Growth Reference Study Group (2004b): The WHO Multicentre Growth Reference Study: Planning, study design, and methodology. Available from: http://www.ingentaconnect.com/content/nsinf/fnb/2004/00000025/A00101s1/art00003 4. World Health Organization. Nutrition. Global targets 2025. To improve maternal, infant and young child nutrition. Geneva: WHO. [Internet.] Available from: http://www.who.int/nutrition/topics/nutrition_globaltargets2025/en/ 5. World Health Organization. Physical status : the use and interpretation of anthropometry : report of a WHO Expert Committee. Geneva:WHO; 1995. (Technical report series 854). 6. De Onis M, Onyango AW, Borghi E,Siyam A, Nishidaa C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. *Bulletin of the World Health Organization* 2007; 85:660–667. 7. United Nations Children's Fund, World Health Organization, The World Bank. UNICEF-WHO-World Bank Joint Child Malnutrition Estimates. (UNICEF, New York; WHO, Geneva; The World Bank, Washington, DC; 2012). Available from: http://www.who.int/nutgrowthdb/jme_unicef_who_wb.pdf?ua=1 8. World Health Organization. Nutrition Landscape Information System (NLIS) country profile indicators: interpretation guide. Geneva: WHO; October 2012. Available from: http://apps.who.int/iris/bitstream/10665/44397/1/9789241599955_eng

	.pdf?ua=1

CATEGORY 3. DETERMINANTS OF HEALTH AND HEALTH PROMOTION THROUGHOUT THE LIFE COURSE

3.1Women's, maternal, newborn, child, and adolescent and adult health, and sexual and reproductive health

Code and title of the indicator	OCM 3.1.1 UNMET NEEDS REGARDING FAMILY PLANNING
Name of the indicator	Percentage of unmet need with respect to modern methods of family planning.
Definition of the indicator	Unmet needs regarding family planning is the percentage of women of childbearing age (15-to-49 years of age), who are sexually active, not using any contraceptive method, and report that they do not want any more children or that they wish to delay the next pregnancy.[a] The unmet need is expressed as a percentage based on women in childbearing age (15-49 years old) who are married or in consensual union. Baseline in 2013: 15% Goal for 2019: 11%
Purpose of the indicator	Since satisfying family-planning needs is one of the most cost-effective investments to alleviate poverty and improve health, this indicator measures the adoption of relevant WHO guidelines or innovative policies to increase access to family planning. The unmet needs concept targets the gap between women's reproductive intentions and their contraceptive behavior.
Technical note	Despite international treaties and agreements to promote human and reproductive rights, unmet family-planning needs persist. Rates in Latin America and the Caribbean are highly variable, and there are also vast differences between the richest and the poorest quintiles. For most of the estimations of unmet family-planning needs, such as the United Nations Population Fund (UNFPA), which is the United Nations agency that deals with this issue, the method used is the one adopted for demographic and health surveys. The proposed indicator is more appropriate for PAHO/WHO, as it best represents the Organization's role in the adoption of strategies designed to expand access to family planning in accordance with guidelines and resolutions. The standard definition of unmet needs regarding family planning, includes,

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	(A) Numerator: • All pregnant women (married or in consensual union) whose pregnancies were unwanted or mistimed at the time of conception. • All women with postpartum amenorrhea (married or in consensual union) who are not using family planning and whose last birth was unwanted or untimely. • All fertile women (married or in consensual union) who are not pregnant nor postpartum amenorrheic, and who either want no more children (limit), or wish to postpone the birth of a child for at least two years or do not know when they want to have another child (space), and do not use any contraceptive method. (B) Denominator: • Number of women in reproductive age (15-49 years of age) who are married or in consensual union. Calculation: (A/B) x 100; in a given country and year. The numerator excludes: Pregnant women with amenorrhea who became pregnant unintentionally due to contraceptive failure (assuming that these women are in need of a better method of contraception). Infertile women are also excluded from the definition. It is assumed that women are infertile if they: • Have been married for five years or more and have not had a birth in the past five years, • Are not currently pregnant and have not used contraceptive methods in the past five years (or, if the time of the last use of contraceptives is not known, if they have never used any type of contraception), and • self-report that they are infertile, menopausal, or have had a hysterectomy, or (for women who are not pregnant or with postpartum amenorrhoea), if the last menstrual period occurred more than six months prior to the survey. It is assumed that women who are married or in consensual union are sexually active. If unmarried women are to be included in the calculation of unmet family-planning needs (in the complementary national surveillance reports on the MDGs), it is necessary to determine the time of their most recent sexual activity. Unmarried women are now considered at risk for pregnancy (and potentially in the numerator) if they have had sex in the month preceding the survey interview. Regional calculation: the regional weighted mean According to the standard definition, women who are using a traditional method of contraception are not considered as having an unmet need for

	family planning[a]. Given that traditional methods can be considerably less effective than modern methods, additional analyses are often used to distinguish between traditional and modern methods. For a list of the main traditional and modern methods of family planning, please visit http://www.who.int/mediacentre/factsheets/fs351/en/
Indicator type	Relative
Units of measurement	Percentage
Measurement Frequency	Biennial
PASB Unit responsible for surveillance	Latin American Center for Perinatology (FGL-CLAP/SMR)
Data source	Data extraction template for the theoretical study and the qualitative assessment of the indicator. Information about family planning unmet need is collected through household surveys are coordinated internationally, such as demographics and health surveys (DHS), Multiple Indicator Cluster Surveys (MICS), reproductive health surveys (RHS) and national surveys based on similar methodologies. These surveys tend to be conducted every three to five years. For more information on data sources for each data point, see: • http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Products%2fProgressReports.htm , and • http://mdgs.un.org/unsd/mdg/Data.aspx
Limitations	For most of the estimates of unmet needs in relation to family planning, such as those of UNFPA, use the procedure adopted in the demographic and health surveys. There may be differences in the definition used in some surveys. Those differences are marked with notes in the data series. As estimated unmet needs are affected by changes in the definition, caution should be used in interpreting trends. Strict comparison must be avoided between estimates based on different definitions.
References	1. Bradley SEK, Croft TN, Fishel J.D, Westoff CF. *Revising Unmet Need for Family Planning*. Calverton, Maryland:ICF International; 2012. (DHS analytical studies 25) Available from: http://dhsprogram.com/pubs/pdf/AS25/AS25[12June2012].pdf 2. United Nations. Department of Economic and Social Affairs. Population Division. *Model-based estimates and projections of family planning indicators 2014*. New York: United Nations, 2014. Available from: http://www.un.org/en/development/desa/population/theme/family-planning/cp_model.shtml 3. United Nations. Department of Economic and Social Affairs. *Population Division. 2014 Update for the MDG database: Unmet Need for Family*

[a] For a definition of unmet need in family planning, please visit http://dhsprogram.com/Topics/Unmet-Need.cfm .

	Planning (POP/DB/CP/B/MDG2014). New York:UN; 2014. Available from: http://www.un.org/en/development/desa/population/theme/family-planning/index.shtml 4. United Nations. Department of Economic and Social Affairs. Population Division. *The Millennium Development Goals report 2014*. New York:UN; 2014. Available from: http://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2014/English2014.pdf

Code and title of the indicator	OCM 3.1.2 PERCENTAGE OF DELIVERIES ATTENDED BY TRAINED PERSONNEL
Name of the indicator	Percentage of deliveries attended by trained personnel.
Definition of the indicator	This indicator measures the number of deliveries assisted by trained personnel in a specific year, and given country, territory, or geographic area. Baseline 2013: 95% Target 2019: 97%
Purpose of the indicator	This indicator seeks to identify women's access to qualified midwifery personnel in health institutions. It also seeks to monitor existing inequalities within countries, as countries improve the collection of this information disaggregated by specific population groups (rural, peri-urban, indigenous, Afro-descendants, teenagers etc.).
Technical note	The number of deliveries assisted by trained personnel in a specific year, regardless of the method or site of delivery, expressed as a percentage of the total number of births in that same year, in a given country, territory, or geographic area. Trained staff includes medical obstetricians, physicians with training in delivery care, university midwives, and nurses with training in delivery care and graduated midwives; it does not include traditional midwives, trained or not. Country Calculation: The numerator includes the deliveries assisted by trained personnel in a given year, regardless of where they occurred, expressed as a percentage of the total number of births in that same year, in a given country, territory , or geographic area. Trained staff includes medical obstetricians, physicians with trained in delivery care, university midwives and nurses with trained in delivery care and graduated midwives; it not include traditional midwives, trained or not. • Numerator: Deliveries assisted by trained personnel in a specific year • Denominator: Total number of births in that same year Calculation: (A/B) x 100 Regional Calculation: For the Region as a whole, a population weighted average is calculated. The value for each country is multiplied by the corresponding weighting factor, which is the proportion of the each country’s population, considering that the weighted average for the region may not be greater than 1. Subsequently, the weighted regional average is obtained from the summation of all country values. Baseline: The baseline corresponds to a regional proportion (not country) of 95% and was established on the basis of data available in the Health Situation in the Americas: Basic Indicators 2013.
Type of indicator	Relative
Measurement units	Percentage

Frequency of measurement	Annually. The estimate will be updated annually, based on data gathered from January to December of the previous year; the estimate for each previous year will be available by September of the following year.
PASB unit responsible for monitoring	Pan American Center for Perinatology (CLAP/FGL), in collaboration with Health Information Analysis/Communicable Diseases and Health Analysis - HA/CHA
Data source	Estimates are provided by the Ministry of Health of each in each country, based on data collected routinely by the national information system or provided by surveys.
Limitations	The main challenge is that most countries still lack routine data on this indicator, and completeness and coverage vary widely. Information is even scarcer when considering the groups that most frequently lack access to skilled health personnel. Besides quality of data reported, lag time in reporting or lack of reporting from some countries and territories poses difficulties for computing the regional average. Additional difficulties are related to standardization of the definition of skilled health personnel. Finally, this indicator may not adequately capture women's access to good quality care.
References	1. World Health Organization, International Confederation of Midwives, International Federation of Gynecology and Obstetrics. Making pregnancy safer : the critical role of the skilled attendant : a joint statement by WHO, ICM and FIGO. Geneva: WHO; 2004. Available from: http://whqlibdoc.who.int/publications/2004/9241591692.pdf?ua=1 2. Pan American Health Organization. Health Situation in the Americas: basic health indicators 2012. Washington, DC: PAHO, 2012. Available from: http://ais.paho.org/chi/brochures/2012/BI_2012_ENG.pdf?ua=1

Code and title of the indicator	OCM 3.1.3 POSTNATAL CARE
Name of the indicator	Percentage of mothers and newborns receiving postpartum care within seven days of childbirth
Definition of the indicator	This indicator attempts to measure access to postpartum care by mothers and newborns at the health facilities level, after discharge or among women that have had a delivery at home. Percentage of mothers and newborns who received postpartum and postnatal care, respectively, within seven days of childbirth, expressed as a percentage of total number of live births in the same year, in a given country, territory or geographic area. Baseline 2013: 40% Target 2019: 60%
Purpose of the indicator	Monitor and assess progress towards Member States' commitment to improve access to both postpartum and postnatal care, in order to identify risk conditions that call for early interventions.
Technical note	Data is provided from the baseline of the Plan of Action to Accelerate the Reduction of Maternal Mortality and Severe Maternal Morbidity. Although most maternal and newborn deaths occur around the time of delivery and in the immediate postpartum period, postpartum care has been a relatively neglected area of maternity-services provision. Recent WHO guidelines recommend that the first postpartum visit take place within the first week, preferably within the first two to three days with a second visit at four to six weeks. The visit should include early detection and treatment of complications and preventive care for both mother and baby. Postpartum care, as well as postnatal care, requires a package of services, rather than a single intervention. Because no widely accepted operational definition exists for either postpartum or postnatal care, and because the content and quality of care are likely to vary from setting to setting, similar coverage rates between countries may not reflect similar levels of care. Furthermore, after delivery, the mother and the newborn need very different care and attention. Postpartum care statistics should make it clear whether care was provided principally for the mother or baby or both, because this information may be difficult to determine retrospectively. In this sense, some large surveys, such as demographic and health surveys (DHS), routinely collect data on postpartum care. Routine health information systems (HIS) may also collect data, although historically more programs have collected data on postnatal care for the newborn (for immunization coverage) than for the mother. Understanding that it may be complex to have the data for both the care of the mother and of the newborn, two proxies are proposed for this indicator, measured as follows:

	• Proxy A—percentage of mothers who received postpartum care within seven days of delivery (vaginal or cesarean section), expressed as a percentage of the total number of live births in the same year, in a given country, territory, or geographic area. • Proxy B—percentage of newborns who received postnatal care within seven days of childbirth, expressed as a percentage of the total number of live births in the same year, in a given country, territory or geographic area.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Biannual. Data indicator will be updated biannually, based on data gathered from January to December of the two previous years. In other words, the estimate for each biennium will be available in September.
PASB unit responsible unit for monitoring the indicator	Pan American Center for Perinatology (CLAP/FGL), in collaboration with Health Information Analysis/Communicable Diseases and Health Analysis - HA/CHA
Data source	Country reports with routine estimates to monitor their own plans; if not available, data surveys may be used.
Limitations	This indicator is being used for the first time among indicators monitored in the PAHO Strategic Plan. Since this data is not routinely gathered by most countries, special attention should be given to establish data collection mechanisms in all countries.
References	1. United Nations. Every Woman Every Child. Keeping promises, measuring results: report of the Commission. NY: UN, 2011. Available from: http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf

Code and title of the indicator	OCM 3.1.4 BREASTFEEDING
Name of the indicator	Percentage of infants under 6 months of age who are exclusively breastfed.
Definition of the indicator	Percentage of infants aged under 6 months who are exclusively fed breast milk. Baseline 2013: 18% Target 2019: 45%
Purpose of the indicator	Monitor regional trends of exclusive breastfeeding in children under 6 months of age.
Technical note	Exclusive breastfeeding is defined as the feeding an infant with no other food or drink (not even water), but breast milk (including expressed milk or milk from a wet nurse) for six months of life, but allows the infant to receive oral rehydration solution (ORS), drops, or syrups (vitamins, minerals, and medicines). Exclusive breastfeeding is an unequalled way of providing the ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process, with important implications for the health of mothers. Breast milk is the natural first food for infants. It provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to one-half or more of a child's nutritional needs during the second half of the first year of age and up to one-third during the second year of life. Country calculation: Does not apply Regional calculation: information compiled from national surveys from 19 countries.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Every five years
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	WHO Global Data Bank on Infant and Young Child Feeding (GDBIYCF), national health or nutrition surveys, demographic and health surveys (DHS), multiple indicator cluster surveys (MICS).
Limitations	• Nationally representative surveys are not available for all countries. • Usually, nationally representative surveys are implemented every five years, but this frequency may vary depending on country policies and the availability of funding. • National surveillance systems are generally not reliable because of weak

	data collection procedures. Natural disasters may prevent surveys from being completed. • There is also a time lapse between data collection and publishing. • This indicator captures only behavior in the last 24 hours and sometimes in the last 3 days prior to the interview.
References	1. The WHO Global Data Bank on Infant and Young Child Feeding. Available at: http://www.who.int/nutrition/databases/infantfeeding/en/ 2. Indicators for assessing infant and young child feeding practices: conclusions of a consensus meeting held 6–8 November 2007 in Washington D.C., USA. Available at: http://nutritioncluster.net/?s=infant+and+young+child+feeding+practices

Code and title of the indicator	OCM 3.1.5 ANTIBIOTIC TREATMENT FOR PNEUMONIA
Name of the indicator	Percentage of children aged 0-59 months with suspected pneumonia receiving antibiotics
Definition of the indicator	The indicator is calculated as the number of children 0-59 months with suspected pneumonia (i.e., with signs of fast breathing and a diagnosis of pneumonia at a health service) who are receiving the correct oral antibiotic treatment according to national norms, divided by the total number of children 0-59 months with suspected pneumonia Baseline 2013: 29% Target 2019: 40%
Purpose of the indicator	Shows progress (coverage) of health services providing correct case management of pneumonia, using correct antibiotics in a country, territory, or geographical area at a given time
Technical note	Although this is one of the indicators used by the Commission on Information and Accountability (CoIA), it is not routinely collected in the countries' health services. Data sources are usually demographic health surveys (DHS), or multiple indicator cluster surveys (MICS), or other data collection mechanisms (such as "Countdown to 2015"). Pneumonia mortality in children < 1 years of age in the Region of the Americas is under 10%, based on PAHO 2012 data. WHO and PAHO Member States view the collection of this indicator on a routine basis as a way to strengthen the health systems and services.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Annual using standardized collection process or health facility surveys.
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Data source	Data sources are usually DHS, MICS, or other collection processes (such as "Countdown to 2015").
Limitations	This indicator is not tracked routinely in the health system.
References	1. United Nations. Every Woman Every Child. Keeping promises, measuring results: report of the Commission. NY: UN, 2011. Available from: http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf

Code and title of the indicator	OCM 3.1.6 FERTILITY RATE IN WOMEN 15-19 YEARS
Name of the indicator	Specific fertility rate in women 15-19 years of age.
Definition of the indicator	The annual number of births to adolescent girls 15-19 years of age per 1,000 adolescent girls 15-19 years of age in the Americas. Baseline 2013: 60 per 1,000 Target 2019: 52 per 1,000
Purpose of the indicator	This indicator shows progress in adolescent sexual and reproductive health in a country, territory, or geographical area at a given time. Decreasing adolescent fertility helps to improve adolescent, maternal, and neonatal health; reduce child mortality; combat poverty; and enhance economic growth. Adolescent fertility entails high medical, social, and economic costs for society, and it contributes to the intergenerational transmission of poverty, as daughters of teenage mothers are more likely to be teenage mothers themselves.
Technical note	The age-specific adolescent fertility rate is computed as a ratio. The numerator is the number of live births to adolescent girls 15-19 years of age during a given period of time; the denominator is the number of adolescent girls 15-19 years of age during the same period of time, usually multiplied by 1,000. It is recommended that calculations be disaggregated by ethnicity and geographic location (rural/urban), provided that relevant data are available, to measure inequities and their impact on fertility in the adolescent population.
Type of indicator	Relative
Measurement units	Rate per 1,000 adolescent girls 15-19 years of age.
Frequency of measurement	Annual. The reported data correspond to the end of the preceding year and are received in April of the following year.
Data source	Data are obtained from annual reports from the countries and UN and census reporting.
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL/HL)
Limitations	• For civil registration, rates are subject to limitations that depend on the completeness of birth registration, the treatment of infants born alive but dead before registration or within the first 24 hours of life, the quality of the reported information relating to age of the mother, and the inclusion of births from previous periods. The population estimates may suffer from limitations connected to age misreporting and coverage. • For survey and census data, both the numerator and denominator come from the same population. The main limitations concern age misreporting, birth omissions, misreporting the date of birth of the child, and sampling variability in the case of surveys.
References	1. World Bank, "Youth at Risk in Latin America and the Caribbean:

	Understanding the Causes, Realizing the Potential", 2008. Available from: http://siteresources.worldbank.org/INTLACREGTOPLABSOCPRO/Resources/YouthatriskinLAC.pdf 2. United Nations Department of Economic and Social Affairs, "Millennium Development Goals Indicators: Adolescent Fertility". Available from: http://www.un.org/en/development/desa/population/

Code and title of the indicator	OCM 3.1.7 PERIODIC MEDICAL OCCUPATIONAL EVALUATIONS
Name of the indicator	Number of countries and territories that adhere to PAHO's recommendation to conduct periodic medical occupational evaluations (PMOE) among the adult working population (18-65 years of age).
Definition of the indicator	This is a process (trailing) indicator that describes the increment in the number of countries that adhere to PAHO's recommendation aimed at addressing the health of adults within the life cycle. Such recommendation involve establishing mechanisms so that informal workers can access and perform PMOE in PHC services or social protection solidary schemes; and workers in the formal sector can do so in health care insurance systems or through workers' compensation systems during their work life. Baseline 2013: 3 Target 2019: 10
Purpose of the indicator	This indicator addresses men's and women's health during their economically active period, in the middle of their life course. Conducting PMOE among adults 18 to 65 years of age, clearly contributes to easily and effectively detecting and addressing various health needs in middle-aged populations. These groups are frequently exposed to various unhealthy lifestyles and habits, such as smoking, drinking, a sedentary lifestyle and work styles, and poor diet; as well as to hazardous working and employment conditions that can help endanger their health and well-being. Acknowledging that occupational diseases (ODs) and Noncommunicable Diseases (NCDs) occur in this age group, occupational medical evaluations performed at the workplace and at primary health care (PHC) services represent a great opportunity to carry out joint, practical, accessible and effective activities that allow timely identification and control such diseases, contributing to decrease their frequency. This effort also contributes to avoiding long-term care needs and decreasing high health and social costs, which is particularly useful for the health sector, given that occupational-disease costs would be assumed by workers' compensation schemes, and not by public health services. Consequently, protecting and promoting the health and well-being of adults will contribute help decrease the burden of disease and mortality caused by ODs and NCDs, and will help boost individual, family, and national productivity and well-being.
Technical note	With this indicator PAHO aims to record country efforts to address and evaluate the health status of working men and women 18-to-65 years old in the workplace, as well as to avoid various morbidities and disorders that could evolve into ODs and NCDs by detecting and controlling them early.

	The term Periodic Occupational Medical Evaluations[a] (PMOE) refers to systematic medical evaluations conducted among workers once they are part of the work force.[b] Although these evaluations can be part of specific surveillance systems related to known occupational hazards, they can also be combined with activities designed to enhance workers' health protection, promotion, and wellbeing at the workplace. PAHO, in recommending their use, aims at having countries learn about workers' general health status through activities such as awareness campaigns; screening tests; and promotion of healthy habits, lifestyles, and work styles; while simultaneously detecting variations in workers' health and well-being after hazardous occupational exposures have begun. PMOEs can be obtained from basic workers' (occupational) health services or public PHC teams, as well as from specialized occupational medicine services (occupational clinics) and from those services that provide health insurances or from workers' compensation systems. PMOEs can be performed by basic workers' (occupational) health services or by PHC professionals; in cases of suspected ODs or NCDs diagnoses, the worker may be referred to a specialized health care or occupational medicine service based on the workers' health needs. To evaluate this indicator, which tallies the number of countries performing PMOEs, each country should indicate if it: a) Performs joint activities of health promotion and healthy workplaces, b) Provides PHC services and workers' (occupational) health services for the informal workforce c) Provides PHC services and workers' (occupational) health services for the formal workforce d) Carries out all of the above For options b) and c), countries can collect the number of PMOEs, distributed by age, sex, and economic sector, if data is available. During the first phase of implementation (two years), it is expected that the type of activities will be reported and, as much as possible, the number of PMOEs for the informal and informal workforce will be voluntarily collected and reported. Any result along these lines will be considered a success. Later it will be adjusted to define its frequency, impact, and trends.
Type of indicator	Absolute
Measurement units	Number of countries and territories

[a] Evaluations: refer to a set examinations and tests done to determine workers' health and wellbeing. They may include screening tests, diagnostic tests or follow-up assessments for assuring that workers' health conditions are not affecting workers' lives or working performance.

[b] They are not pre-occupational evaluations, in other words, the ones done before starting a job and that determine the workers' baseline health status. They are neither a post-occupational evaluation such as the one performed after retirement to determine if work did deteriorate or damage workers' health and wellbeing.

Frequency of measurement	Biannual average (This will be refined based on the PAHO Regional Action Plan on Workers' Health, the Action Plan for preventing NDCs, PHC and UHC, taking into account age strata and risk levels for men's and women's health).
Data source	Annual surveys conducted and reported by the countries, as designed and assisted by the Workers' Health Program/SDE, with inter-department approach.
PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Limitations	This indicator is a new indicator and, as a result, it is not routinely tracked by the health systems, although many countries carry out similar medical preventive assessments. Since workers' (occupational) health services are often relayed to the employer and enforced by the labor sector, intersectoral efforts should be agreed upon and conducted to improve and strengthen workers' health information systems, under the leadership and surveillance of the ministries of health, based on the principles of Health in All Policies (HiAP).
References	1. Colombia. Ministry of Social Protection. Res. 2346 DE 2007, resolution that regulates the practice of occupational evaluations and the content and use of occupational clinical histories are regulated. Spanish only, available from: http://fondoriesgoslaborales.gov.co/documents/Normatividad/Resoluciones/Res-2346-2007.pdf 2. PAHO. Resolution CD41.R13 (1999). Workers' Health. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/1411/CD41.R13en.pdf?sequence=1 3. WHO. Global Strategy on Occupational Health for All: The Way to Health at Work. WHO, 1995. Available from: http://www.who.int/occupational_health/en/oehstrategy.pdf?ua=1

CATEGORY 3. DETERMINANTS HEALTH AND HEALTH PROMOTION THROUGHOUT THE LIFE CYCLE

3.2 Aging and Health

Code and title of the indicator	OCM 3.2.1 OLDER ADULTS ACCESS TO COMMUNITY HEALTH PROGRAMS
Name of the indicator	Number of countries and territories with at least one evidence-based self-care program for older adults (60 and over) living with multiple chronic conditions
Definition of the indicator	Increased access to evidence-based interventions so older adults can maintain independent living. Baseline 2013: Not available (new indicator) Target 2019: 15
Purpose of the indicator	Demonstrates regional progress in strengthening the capacity of primary health care programs to support chronic care through evidence-based self-care community settings. Increased access to multisectoral, community, evidence-based self-care programs is reflected by an increase in the number of such self-care programs and community support services available to older adults.
Technical note	This indicator addresses the recommendations of CD49/8 and Resolution CD49.R15 “Plan of Action on the Health of Older Persons, including Active and Healthy Aging” and WHO EB130.R6 “Strengthening noncommunicable disease policies to promote active ageing”. In the Americas, life expectancy increased by more than 20 years in the last half-century. Longer life expectancy has led to a rise in chronic disease, disability, and dependency, thus increasing the burden of care. The resulting challenges greatly affect older adults, particularly older women. The Chronic Care Model promotes the incorporation of community services and evidence-based self-care programs in primary health care as an integral approach to address the diverse heath care needs of people living with chronic diseases. As health problems have shifted from acute to chronic diseases, community support and self-care have become particularly important. Further, the health services alone cannot respond to chronic-care demands, especially among the older population. To this end, a multisectoral approach is needed, one that integrates community resources for implementing interventions that promote self-care skills as a way to effectively manage chronic conditions. Evidence shows that individuals and families who engage in self-management behaviors are able to improve their health outcomes. In 2002, WHO’s global report titled “Innovative Care for Chronic Conditions: Building Blocks for Action” put forward a new care model for older patients with

	chronic disease that placed self-care in chronic care in a central role (see WHO, 2002 in the reference section). Older adults who participate in evidence-based self-care programs gain the skills and knowledge necessary to remain independent longer. Increased access to community and evidence-based self-care programs reflects efforts to improve chronic care, thus avoiding long-term care needs and decreasing health and social costs. Country calculation: Registry at the national, subnational, and local levels of the number of evidenced-based chronic disease self-care interventions. Regional calculation: Regional registry and data collection of all evidence-based chronic disease self-care interventions at country-level.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual
PASB unit responsible for monitoring the indicator	Healthy Life Course (FGL /HL)
Data source	Desk review of country reports and qualitative assessment (interviews with national key counterparts).
Limitations	Health services alone cannot address all of the health needs of older adults, and policies and social support systems must be considered in measuring the progress of countries in prolonging independence in older adults.
References	1. CD49/8: Plan of Action on the Health of Older Persons, including Active and Healthy Aging. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=2581&Itemid= 2. CD49.R15: Plan of Action on the Health of Older Persons, including Active and Healthy Aging. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=3071&Itemid= 3. EB130.R6: Strengthening noncommunicable disease policies to promote active ageing. Available from: http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_R6-en.pdf 4. United Nations. Department of Economic and Social Affairs. Population Division. *World Population Prospects: The 2012 Revision, Volume II: Demographic Profiles.* New York: UN; 2012. Available from: http://esa.un.org/wpp/Demographic-Profiles/pdfs/904.pdf 5. Pan American Health Organization. Innovative Care for Chronic Conditions : Organizing and Delivering High Quality Care for Chronic Noncommunicable Diseases in the Americas. Washington, DC : PAHO, 2013. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=21115&Itemid=270&lang=en 6. World Health Organization. Innovative Care for Chronic Conditions: Building Blocks for Action: Global Report. Geneva: WHO; 2002.

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3.3 Gender, Equity, Human Rights and Ethnicity

Code and title of the indicator	OCM 3.3.1 GENDER, EQUITY, HUMAN RIGHTS, AND ETHNICITY
Name of the indicator	Number of countries and territories that have an institutional response that addresses inequities in health, gender, equity, human rights, and ethnicity.
Definition of the indicator	Number of countries and territories implementing health policies, programs, and laws that support the achievement of gender equity, health equity, the right to health, and ethnic equity. Baseline 2013: 32 Target 2019: 39
Purpose of the indicator	To measure the progressive advances of PAHO Member States in the formulation and implementation of policies, plans, and legislation to reduce inequities in health within a framework of gender, human rights, and ethnicity.
Technical note	Number of countries that meet the criteria below: Given that this is a combined indicator, we propose that the individual themes be assessed before evaluating the complete indicator. If at least two of the four themes meet the criteria as outlined below for each Cross-Cutting Theme (CCT), the indicator will be considered as having been minimally met. **Gender** When countries meet **three** of the following measurement criteria they will be assessed as having adopted a minimum institutional response to mainstreaming gender in health. • Having a gender unit (office) with a designated focal point; • Having a gender policy in health; • Having gender and health capacity building activities; • Having gender and health publications, brochures, reports, and/or fact sheets with data disaggregation and analysis; • Having gender and health specific projects or initiatives; • Having a gender and health monitoring and evaluation mechanism or reports; • Having an operational budget for gender and health. **Equity** When countries meet **two** of the following measurement criteria, they will be assessed as having adopted a minimum institutional response to equity in health. • Having a health equity analysis staff within the Ministry of Health; • Having integrated health equity into health information systems; • Having health equity measuring, analysis, and monitoring capacity

	building activities in place; • Having periodical and systematic reporting of health equity gaps and gradient status; • Having interinstitutional and intersectoral collaboration in social and health equity policy development. **Human Rights** When countries meet **two** of the following measurement criteria, they will be assessed as having adopted a minimum institutional response to human rights in health. • Having the health sector and the national human rights authorities collaborate in the evaluation and monitoring of the implementation of human rights instruments; • Having the health sector participate in the development of health policies and plans that integrate human rights instruments; • Having human rights and health capacity building initiatives for health care providers; • Adopting normative and legislative mechanisms to disseminate human rights instruments for the protection of the right to health and other human rights; and • Disseminating health-related human rights instruments to civil society and other stakeholders. **Ethnicity** When countries meet **two** of the following measurement criteria they will be assessed as having adopted a minimum institutional response to ethnicity and health. • Having an ethnicity unit (office) with a designated focal point; • Having an intercultural policy or normative statement for the development of health; • Having ethnicity and health capacity building activities targeting health providers; • Having in place special initiatives targeting indigenous, Afro-descendant, and other ethnic or racial populations to generate and systematize publications, brochures, reports, and/or fact sheets with data disaggregation and analysis; • Having specific health services adaptations or legislation to embrace intercultural health (integrated services and respect for traditional medicines).
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Biennially (end of 2014, end of 2016), with a final assessment at the end 2019.
PASB unit responsible for monitoring the	CCTs' Secretariat: Gender and Cultural Diversity (FGL/GD), Legal Counsel (LEG) and Sustainable Development and Health Equity (SDE)

indicator	
Data source	The data will be obtained from different sources such as: • self-administered surveys • observatories • key Interviews • laws or approved government health policies and/or programs • country reports submitted to the United Nations treaty bodies • country reports of the Inter-American Commission on Human Rights • Universal Periodic Review (UPR) of the Human Rights Council Reports on the issue of health by human rights defenders
Limitations	1. There are no records for the required information in the four areas in all countries. 2. The complexity arising from joining four related but distinct issues within a national and methodological approach. 3. Qualitative and quantitative analysis is needed to define whether countries are complying with the criteria.
References	1. Hosseinpoor AR, ed. *Handbook on Health Inequality Monitoring*. Geneva:WHO; 2013. 2. Whitehead M. *The Concepts and Principles of Equity and Health*. Copenhagen:WHO Regional Office for Europe; 1991. 3. Pan American Health Organization. Ethnicity and Health. Washington DC:PAHO; 2003 (Document CE132/16). Available from: http://www1.paho.org/english/gov/ce/ce132-16-e.pdf 4. Pan American Health Organization. Health of the Indigenous Peoples of the Americas. Washington, DC: 2006. (Document CD47/13). Available from: http://www1.paho.org/english/gov/cd/CD47-13-e.pdf [last accessed 15 September 2014]. 5. Pan American Health Organization. Plan of Action for Implementing the Gender Equality Policy. Washington, DC: PAHO; 2009. (Document CD49.R12 [2009]). Available from: http://www.paho.org/hq/dmdocuments/2009/CD49.R12%20 (Eng.).pdf 6. Pan American Health Organization. Health and Human Rights. Washington, DC:PAHO; 2010. (Document CD50.R8 [201]). Available from: http://www.un.org/disabilities/documents/paho_mh_resolution.pdf [

Note: For Outcome 3.3.1, the indicators relate to all other technical indicators and a few corporate indicators; specifically, this outcome relates to the first four impact indicators of the Strategic Plan.

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3.4 Social Determinants of Health

Code and title of the indicator	OCM 3.4.1 RIO POLITICAL DECLARATION
Name of the indicator	Number of countries and territories implementing at least two of the five pillars of the Rio Political Declaration on Social Determinants of Health.
Definition of the indicator	The indicator refers to the number of countries that have implemented at least two of the five pillars of the Rio Political Declaration. Baseline 2013: 13 Target 2019: 27
Purpose of the indicator	This indicator shows the progress made by countries in implementing the Rio Political Declaration on Social Determinants of Health, including developing and maintaining effective public policies that address the social, economic, and environmental determinants of health, with a particular focus on reducing health inequities.
Technical note	The indicator is based on the Rio Political Declaration that was adopted by Member States and endorsed by the World Health Assembly. The Rio Political Declaration encompasses the following five pillars: 1. governance to tackle the root causes of health inequities—implementing action on social determinants of health; 2. promotion of participation—community leadership for action on social determinants of health; 3. the role of the health sector, including public health programs, in reducing health inequities; 4. global action on social determinants of health—aligning priorities and stakeholders; and 5. monitoring progress—measurement and analysis for informed policy-making that will build accountability for the social determinants of health. Different models and tools will be used to monitor each of these five pillars. A case in point is the third pillar, "to further reorient the health sector towards reducing health inequities." This entails a pledge to promote changes within the health sector and integrate health equity as a priority within health systems. Several models are used in considering whether existing health services exacerbate or alleviate health inequities, including the Tanahashi model for service delivery and coverage. Data obtained from countries on the five pillars of the Rio Political Declaration on Social Determinants of Health will be assessed in line with WHO's Strategy and Global Plan of Action on Social Determinants of Health (2012–2017) and its Guidelines on Health in All Policies, which sets forth specific indicators to measure progress within each of the five pillars of the Rio Political Declaration.

Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	This will be measured once a year, in line with the WHO Work Plan on the Social Determinants of Health
PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Data source	Data is obtained from progress reports from countries to PAHO's Sustainable Development and Health Equity Equity
Limitations	Tools for documenting and evaluating some of the Rio Political Declaration pillars are not widely available.
References	1. World Health Organization. 8th Global Conference on Health Promotion, Helsinki, Finland 10-14 June 2013. Available from: http://www.who.int/healthpromotion/conferences/8gchp/en/ 2. The Helsinki Statement on Health in all Policies. Available from: http://www.healthpromotion2013.org/images/8GCHP_Helsinki_Statement.pdf 3. Health in All Policies - Framework for Country Action. Available from: http://www.healthpromotion2013.org/images/HiAP_Framework_Conference_Draft_10_June.pdf 4. Pan American Health Organization. HiAP toolkit. Available from: http://new.paho.org/hiap/ 5. Pan American Health Organization. Plan of Action on Health in All Policies. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=26797&Itemid=270&lang=en Other relevant links: • http://dev.un.org/millenniumgoals/beyond2015.shtml • http://www.un.org/apps/news/infocus/sgspeeches/statments_full.asp?statID=1668 • http://ngosbeyond2014.org/articles/2012/8/1/high-level-panel-of-eminent-persons-on-the-post-2015-develop.html • http://www.wssinfo.org/fileadmin/user_upload/resources/DESA---post-2015-paper---Vandemoortele.pdf • http://www.un.org/millenniumgoals/pdf/deepak_nayyar_Aug.pdf • http://www.paho.org/spanish/gov/cd/CD47-inf2-s.pdf • http://www.paho.org/spanish/gov/csp/csp27-14-s.pdf • http://cursos.campusvirtualsp.org/course/view.php?id=99

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3.5 Health and the Environment

Code and title of the indicator	OCM 3.5.1 ACCESS TO IMPROVED WATER SOURCES
Name of the indicator	Number of countries and territories with a significant disparity (>5%) that have reduced the gap between urban and rural populations' access to improved water source.
Definition of the indicator	Number of countries reducing the gap between urban and rural population access to improved water sources between 2012-2019, according to WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation. For each country the indicator will measure the difference between the percentage of access to improved water sources in urban and rural areas comparing the reduction of this gap each year. Baseline 2013: 9 Target 2019: 24
Purpose of the indicator	To make evident the reduction of the gap between urban and rural water supply in the Region between 2012 and 2019.
Technical note	According to JMP, an improved drinking-water source, is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with fecal matter. Due to the characteristics of the indicator, progress will be achieved through an intersectoral work approach. Country data of urban and rural population's access to improved water sources are available through the JMP.
Type of indicator	Absolute
Measurement units	Number of countries and territories.
Frequency of measurement	Data are updated on a yearly basis.
PASB unit responsible for monitoring the indicator	Regional Task Force on Water and Sanitation- ETRAS (CHA/IR)
Data source	Data will be obtained from annual JMP reports. http://www.wssinfo.org/
Limitations	Data will only reflect the quantity of countries reducing gaps between urban and rural population's access to improved water sources and will not reflect its operation nor assess water quality.
References	1. WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation. http://www.wssinfo.org/

Code and title of the indicator	OCM 3.5.2 IMPROVED SANITATION
Name of the indicator	Proportion of the population with access to improved sanitation
Definition of the indicator	The indicator is based on parameters set by the WHO/UNICEF Joint Monitoring Program for Sanitation (JMP). The JMP defines improved sanitation as access to a facility that hygienically separates human excreta from human contact. The JMP uses data gathered from national household surveys and censuses. Baseline 2013: 88% Target 2019: 92%
Purpose of the indicator	Indicates the increased regional access to improved sanitation facilities that is a health determinant and a human right.
Technical note	The JMP uses several household surveys and censuses that may be available in the countries. Improved sanitation facilities include a flush/pour-flush toilet or latrine that flushes to a sewer, septic tank, or pit. A ventilated improved pit (VIP) latrine, pit latrines with the pit well covered by a slab, or composting toilets are also considered improved facilities. Improved sanitation facilities reduce the risk that individuals could come into direct contact with human excreta. The proportion of the population using improved sanitation facilities is determined by dividing the number of household members using improved sanitation facility by the total number of household members in households surveyed.
Type of indicator	Relative
Measurement units	Proportion
Frequency of measurement	Data are updated in a yearly basis.
PASB unit responsible for monitoring the indicator	Regional Task Force on Water and Sanitation – ETRAS (CHA/IR)
Data source	WHO/UNICEF JMP http://www.wssinfo.org/
Limitations	The use of household surveys and the lack of understanding of quality of service hide inequalities within countries.
References	1. WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation. http://www.wssinfo.org/

Code and title of the indicator	OCM 3.5.3 REDUCTION IN THE USE OF SOLID FUELS
Name of the indicator	Number of countries and territories in which the proportion of population relying on solid fuels is reduced by 5%
Definition of the indicator	Percentage of the population using solid fuels (SFU) is reduced by at least 5% (e.g. wood, animal dung, crop waste and coal used for cooking and/or heating), in countries where the % of SFU is >5% in urban and/or rural areas according to estimates made by WHO for the year 2012. Baseline 2013: 14 Target 2019: 20
Purpose of the indicator	To monitor progress of sustained reduction of the proportion of population relying on solid fuels for cooking and heating as a proxy for monitoring the reduction of the percentage of the population exposed to high levels of air pollutants produced by household emissions up to its elimination (=<5%).
Technical note	This indicator is a proxy for estimating the proportion of the population exposed to household emissions of air pollution due to incomplete combustion of solid fuels used for cooking and/or heating. The proportion of the population using solid fuels is estimated by WHO based on country reports and surveys. Information on sustained progress will be obtained by monitoring the country surveys, and on reports on the implementation of policies or programs to change the energy matrix to cleaner fuels, or to replace cookstoves with models with lower emissions of air pollutants in the target countries. Countries will be considered achieving sustained progress when the % of reduction of SFU is >=5%.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Biennial.
PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Data source	Data will be obtained from annual country reports or estimates made by WHO, based on different reliable sources such as the Global Alliance for Clean Cookstoves, an initiative created with the support of WHO, the World Bank, and the UNDP.
Limitations	Data will only provide an estimate of the number of countries presenting a sustained reduction of the population that relies on solid fuels for cooking and heating. A reduction on health effects, such as the reduction of infant mortality due to pneumonia, is expected, but this indicator will not measure that. The elimination of SFU is not a policy that can be defined and implemented only through the health sector. Intersectoral work is necessary to implement programs and projects that will impact this indicator, including such sectors as energy, environment, and economy, as well as development agencies and civil society.

References	1. Bonjour S, Adair-Rohani H, Wolf J, Bruce NG, Mehta S, Prüss-Ustün A, Lahiff M, Rehfuess EA, Mishra V, and Smith KR. Solid Fuel Use for Household Cooking: Country and Regional Estimates for 1980–2010. *Environ Health Perspect* 2013; 121:784-790. DOI:10.1289/ehp.1205987. 2. Wang X, Franco J, Masera OR, Troncoso K, Rivera MX. *What have we learned about Household Biomass Cooking in Central America?* Washington, D.C.: The World Bank; 2013. Available at: http://documents.worldbank.org/curated/en/2013/01/17524967/learned-household-biomass-cooking-central-america 3. Smith KR, Peel JL. Mind the gap. *Environ Health Perspect* 2010; 118(12):1643–1645. doi: 10.1289/ehp.1002517 4. Pope III CA, Burnett RT, Turner MC, Cohen A, Krewski D, Jerrett M, et al. Lung cancer and cardiovascular disease mortality associated with ambient air pollution and cigarette smoke: shape of the exposure–response relationships. *Environ Health Perspect* 2011;119 (11):1616–1621. doi: 10.1289/ehp.1103639 5. World Health Organization. Health Co-benefit of Climate Change Mitigation. Housing Sector. Health in the Green Economy. Geneva: WHO; 2011. 6. Institute of Health Metrics and Evaluation. GBD 2010 Results by Risk Factor 1990-2010; Results by Risk and Region: Available from: http://ghdx.healthdata.org/record/global-burden-disease-study-2010-gbd-2010-results-risk-factor-1990-2010-country-level 7. Desai MA, Mehta S, Smith KR.. *Indoor smoke from solid fuels: Assessing the environmental burden of disease at national and local levels*. Geneva: WHO; 2004. (Environmental burden of disease series 4). Available from: http://www.who.int/quantifying_ehimpacts/publications/en/Indoorsmoke.pdf 8. World Health Organization (WHO).Global Health Observatory. Available from: http://www.who.int/gho/phe/indoor_air_pollution/en/ Additional useful sites: • http://www.who.int/indoorair/publications/fuelforlife/en/ • http://www.who.int/indoorair/mdg/esdmodellingsolidfueluse.pdf • http://www.who.int/quantifying_ehimpacts/publications/9241591358/en/ • http://apps.who.int/gho/data/node.main.135 • http://www.who.int/bulletin/volumes/86/5/07-044529.pdf

Code and title of the indicator	OCM 3.5.4 CAPACITY TO ADDRESS WORKERS' HEALTH
Name of the indicator	Number of countries and territories with capacity to address workers' (occupational) health with emphasis on critical economic sectors and occupational diseases.
Definition of the indicator	Number of countries and territories that are implementing occupational health services, training, and education programs, as well as occupational surveillance programs, that focus on critical sectors (such as the informal, health, mining, agriculture, and construction sectors), and effectively increase activities to prevent, diagnose, and record occupational diseases from 2014 to 2019. Baseline 2014: 11 Target 2019: 24
Purpose of the indicator	The "invisible epidemic" of occupational diseases caused by the under-diagnosis and under-registration of these events calls for: building capacity to assure their timely detection, diagnosis, and registration; improving national workers' health information systems; and pursuing primary prevention through the control of hazardous conditions at the workplace. Implementation of specific workers' health services, education, and training, and occupational surveillance programs that focus on high-risk sectors and the adequate control of hazardous working conditions, should achieve decreases in the number, trends, and burden of occupational diseases, injuries, disabilities, and fatalities. Additionally, the implementation of primary prevention interventions (occupational risk assessments, engineering, and administrative controls) will prevent significant economic loses to workers and their families.
Technical note	Surveillance systems that incorporate training and education, have proven to be an effective method to detect, control, or eliminate hazardous working conditions; prevent occupational diseases, injuries, disabilities, and fatalities; and decrease the burden of mortality caused by all of them. In so doing, they contribute toward individual, family, and country productivity. Hazard control interventions (primary prevention) have long proven to be the best way to prevent chronic diseases and their consequences, thus avoiding long-term care needs that cause high health and social costs, particularly for the health care sector. These primary prevention interventions also induce the cost of occupational risks to shift to workers' compensation schemes. Given the fact that workers' health has a natural intersectoral, multidisciplinary and multi-partite stakeholder approach, its practice calls for the involvement of the labor sector and other key sectors such as mining, agriculture, environment, industry, construction, transportation, among others., PAHO's 1999 Regional Plan on Workers' Health (http://iris.paho.org/xmlui/bitstream/handle/123456789/1411/CD41.R13en.pdf?sequence=1), from which WHO's "Workers Health: global plan of action" was designed and with which it is harmonized, is currently being updated, upon the approval of PAHO's Directing Council (October 2013). [The new plan

	will provides the templates, guidelines, and timeline for collecting country reports that will release data on the number and rate of occupational injuries, diseases, disability, and fatalities, by age, gender, and economic sector; the countries also will report on any surveillance, training or education programs that they have put in place. Since the health sector is responsible for protecting the life and health of all populations, the ministries of health are called upon to lead and report about injuries, diseases, and fatalities caused by work, particularly those contributing to NCDs, such as occupational cancers, pneumoconiosis (asbestosis, silicosis), cardiovascular diseases, and others relevant to particular working setting, such as the chronic kidney disease (CKD) epidemics in Mesoamerica.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual
PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Data source	Data will be obtained from annual country reports in the templates defined by the Regional Plan on Workers' Health.
Limitations	This indicator is not routinely tracked by the health systems. Data will only reflect the number of countries that have strengthened their capacities to increase occupational surveillance systems and occupational health systems; it will not, however, specify hazardous conditions or their effects on workers' health.
References	1. PAHO. Resolution CD41.R13 (1999). Workers' Health. Available from: http://iris.paho.org/xmlui/bitstream/handle/123456789/1411/CD41.R13en.pdf?sequence=1 2. WHO. Global Strategy on Occupational Health for All: The Way to Health at Work. WHO, 1995. Available from: http://www.who.int/occupational_health/en/oehstrategy.pdf?ua=1

Code and title of the indicator	OCM 3.5.5 ENVIRONMENTAL HEALTH
Name of the indicator	Number of countries and territories with the capacity to address environmental health
Definition of the indicator	Number of countries and territories implementing policies, strategies, plans of action, or programs on air pollution, climate change, and chemical safety. Baseline 2012: 11 Target 2019: 24
Purpose of the indicator	To measure progress towards the attainment and maintenance of core public health capacities in environmental health in priority areas
Technical note	Public health capacities will be measured by milestones achieved along three priority areas—air pollution, climate change, and chemical safety. This indicator will consolidate information on these three priority thematic areas of environmental health, taking into consideration the approved PAHO Strategic Plan 2014-2019, WHO's Global estimates of the burden of disease caused by the environment and occupational risks, , and previously approved resolutions and binding international conventions. Three priority areas: (A) Capacity to address air pollution will be measured by the existence of a national legal framework for air quality that is compatible with WHO Air Quality Guidelines, and monitoring programs that include health advisories for different levels of air pollution. (B) Capacity to address climate change will be measured according to indicators proposed in the Regional Plan of Action on Climate Change. Capacity to address chemical safety will be measured by compliance with the health aspects of international conventions (e.g., the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on International Trade, and the Minamata Convention on Mercury), the implementation of strategies (such as the Strategic Approach to International Chemical Management [SAICM]), and the existence of a national plan on chemical safety that includes the health sector.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Biennial
PASB unit responsible for monitoring the indicator	Sustainable Development and Health Equity (SDE)
Data source	Data will be obtained from biennial country reports in the templates defined by each of the PAHO/WHO programs (air pollution, climate change, and chemical safety.
Limitations	Data will only reflect the quantity of countries strengthening their capacities to increase environmental health plans, programs, and services, but will not

	specify changes on health risks and hazard, or the effects on people's health. Policies that can have an effect on air pollution, climate change, and chemical safety cannot be defined by and implemented exclusively within the health sector. Intersectoral work will be necessary to implement programs and projects that will have an impact on this indicator, including with such sectors as energy, transportation, environment, and the economy, as well with the United Nations Environment Program, the Economic Commission for Latin America and the Caribbean, other UN and subregional agencies, and civil society.
References	1. World Health Organization. WHA55.11: Health and sustainable development. Geneva: WHO; 18 May 2002. (Document WHA55.11). Available from: http://apps.who.int/gb/archive/pdf_files/WHA55/ewha5511.pdf 2. Pan American Health Organization. Persistent Organic Pollutants. Washington, D.C.: PAHO ; 10 July 1999. (Document CD41.R12). Available from : http://www1.paho.org/english/gov/cd/cd41_12.pdf 3. World Health Organization. Strategic approach to international chemicals management: participation of global health partners. Geneva: WHO; 28 May 2003. (Document WHA56.22). Available from: http:/apps.who.int/gb/archive/pdf_files/WHA56/ea56r22.pdf 4. World Health Organization. WHA59.15: Strategic approach to international chemicals management. Geneva: WHO; 27 May 2006. (Document WHA59.15). Available from: http://apps.who.int/gb/ebwha/pdf_files/WHA59-REC1/e/Resolutions-en.pdf 5. World Health Organization. Improvement of health through sound management of obsolete pesticides and other obsolete chemicals. Geneva: WHO; 21 May 2010. (Document WHA63.26). Available from: http:/apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R26-en.pdf 6. World Health Organization. Improvement of health through safe and environmentally sound waste management. Geneva: WHO; 21 May 2010. (Document WHA63.25). Available from: http:/apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R25-en.pdf 7. World Health Organization. Climate change and health. Geneva: WHO; 24 May 2008. (Document WHA61.19). Available from: http:/apps.who.int/gb/ebwha/pdf_files/A61/A61_R19-en.pdf 8. Pan American Health Organization. Strategy and Plan of Action on Climate Change. Washington, D.C.: PAHO; 30 September 2011. (Document CD51/6, Rev.1). Available from: http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=14471&Itemid= 9. Pan American Health Organization. Strategy and Plan of Action on Urban Health. Washington D.C.: PAHO; 1 August 2011. (Document CD51/5). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=14577

	10. World Health Organization. United Nations Conference on Sustainable Development Rio+20. Geneva: WHO; 19 January 2012. (Document EB130/36). Available from: http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_36-en.pdf 11. United Nations. United Nations Conference on Sustainable Development. The Future We Want: Outcome document adopted at RIO+20. New York: UN; 2012. Available from: http://www.uncsd2012.org/content/documents/727The%20Future%20We%20Want%2019%20June%201230pm.pdf

CATEGORY 4: HEALTH SYSTEMS

4.1 Health governance and health financing, national health policies, strategies and plans

Code and title of the indicator	OCM 4.1.1 ADVANCES TOWARDS UNIVERSAL HEALTH COVERAGE (UHC)
Name of the indicator	Number of countries and territories that have implemented actions towards the progressive realization of universal access to health and universal health coverage
Definition of the indicator	Number of countries and territories that have implemented actions in at least four of the following: 1. Moving toward designing comprehensive, quality, universal and progressively expanded health services. 2. Advancing towards the elimination of direct payment that constitutes a barrier to access at the point of service. 3. Increasing investment in the first level of care, as appropriate, in order to improve its response capacity. 4. Strengthening leadership capacity of the health authority for social participation and dialogue within the sector and with other relevant sectors of the government. 5. Strengthening links between health and community to address the social determinants of health. Baseline: TBD in 2015 Target 2019: 12
Purpose of the indicator	The indicator assesses priority areas that are needed to monitor progress toward universal access to health and universal health coverage. There is a consensus that universal access to health and universal health coverage are fundamental goals and are relevant to all Member States, and that its realization requires progressive and systematic actions over time.
Technical note	Universal access to health and Universal health coverage are overarching goals to guide the transformation of health systems to ensure that all people and communities have equitable access to comprehensive and quality services. The indicator will be considered achieved if Member States have fulfilled at least four of the following: 1. Move toward designing comprehensive, quality, universal and progressively expanded health services, in accordance with health needs and priorities, system capacity, and the national context. These comprehensive, quality health services are essential in order to ensure, as appropriate to the national context, the right to health and other related rights. Consequently, these services should be available to all people, with no difference in quality, regardless of their ability to pay. Furthermore, these services should be designed with due regard to the differentiated and unmet needs of all people, and the specific needs of groups in conditions of vulnerability. Comprehensive, appropriate,

	timely quality health services are actions directed at populations and/or individuals that are culturally, ethnically, and linguistically appropriate, with a gender approach, and that take into account differentiated needs in order to promote health, prevent diseases, provide care for diseases (diagnosis, treatment, palliative and rehabilitation), and offer the necessary short-, medium-, and long-term care. 2. Advance towards the elimination of direct payment that constitutes a barrier to access at the point of service, replacing it by pooling mechanisms, based on solidarity, including taxes and fiscal revenues, in accordance with the national context. This needs to be carefully planned. This will increase financial protection by reducing inequity and exposure to catastrophic expenditure and impoverishment. This would allow the redistribution of resources from healthy to sick people, from the rich to the poor, and from the young to the old. 3. Increased investment in the first level of care, as appropriate, in order to improve its response capacity, increase access and progressively expand the supply of services in order to meet unmet health needs of the population in a timely fashion, in accordance with the services that should be accessible to everyone in order to achieve universal health care and universal health coverage. 4. Strengthened leadership capacity of health authorities by establishing new mechanisms or using existing ones, as appropriate, for social participation and dialogue with the responsible health authorities and other relevant government sectors in order to promote the formulation and implementation of inclusive policies and to ensure accountability and transparency in the work undertaken to achieve universal access to health and universal health coverage. In order to promote equity and the common good, the policy-making process should include dialogue and social participation to ensure that all groups are represented and that special interests do not prevail at the expense of public health interests. 5. Strengthened links between health and community to address the social determinants of health by promoting the active participation of municipalities and social organizations in improving living conditions and developing healthy spaces to live, work, and play. Facilitate the empowerment of people and communities through training, active participation and access to information for community members, in order for them to take an active role in policy making, in actions to address the social determinants of health and in health promotion and protection.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years, at the end of the year.
PASB unit responsible for monitoring the indicator	Health System and Services, Health Services and Access (HSS/HS)

Data source	• Policies, strategies and plans • National statistics • National health accounts
Limitations	The information to assess countries progress towards universal access to health and universal health coverage might be dispersed in various sources. As a consequence, a comprehensive analysis of the advances towards universal access to health and universal health coverage from National Health Authorities will be required.
References	1. Pan American Health Organization. Strategy for Universal Health Coverage. Washington, DC: PAHO; 12 May 2014. (Document CE154/12). 2. World Health Organization. The World Health Report 2008--Primary Health Care: Now More Than Ever. Geneva: WHO; 2008. Available from: http://www.who.int/whr/2008/whr08_en.pdf 3. World Health Organization. Declaration of Alma Ata. International conference on Primary Health Care; 6-12 June 1978; Alma Ata, USSR. Available from: http://www.who.int/publications/almaata_declaration_en.pdf 4. Pan American Health Organization. Renewing Primary Health Care in the Americas. Washington, DC: PAHO; 2007. (Position paper). Available from: http://apps.who.int/medicinedocs/documents/s19055en/s19055en.pdf 5. World Health Organization. World Health Report 2010. Health systems financing: the path to universal health coverage. Geneva: WHO; 2010. Available from: http://www.who.int/whr/2010/en/ 6. Pan American Health Organization. Integrated Health Service Delivery Networks: Concepts, Policy Options and a Road Map for Implementation in the Americas. Washington, DC: PAHO; 2010. (Series Renewing primary health care in the Americas 4). Available from: http://new.paho.org/hq/dmdocuments/2011/PHC_IHSD-2011Serie4.pdf 7. World Health Organization. World Health Report 2013. Research for universal health coverage. Geneva: WHO; 2013. Available from: http://www.who.int/whr/en/ 8. Etienne C. Equity in health systems. *Rev Panam Salud Pública*. 2013;33(2):81–82. Available from: http://www.scielosp.org/scielo.php?pid=S1020-49892013000200001&script=sci_arttext 9. Evans D, Etienne C. Health systems financing and the path to universal coverage. *Bulletin of the World Health Organization* 2010;88(6):402-402. doi: 10.2471/BLT.10.078741. Available from: http://www.who.int/bulletin/volumes/88/6/10-078741/en/index.html 10. Sachs JD. Achieving universal health coverage in low-income settings. Lancet. 2012;Sep 8;380(9845):944-947. doi: 10.1016/S0140-6736(12)61149-0. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22959391 11. World Health Organization, The World Bank. Monitoring Progress towards Universal Health Coverage at Country and Global Levels: A

	Framework. 2013 (WHO/World Bank Group discussion paper). Available from: http://www.who.int/healthinfo/country_monitoring_evaluation/UHC_WBG_DiscussionPaper_Dec2013.pdf

Code and title of the indicator	OCM 4.1.2 PUBLIC EXPENDITURE ON HEALTH
Name of the indicator	Number of countries and territories with public expenditure on health of at least 6% of Gross Domestic Product (GDP).
Definition of the indicator	The indicator measures the share of public expenditure on health as a percentage of the GDP, as a relative measure of the relevance in a country's economy as a whole. Baseline 2013: 7 Target 2019: 13
Purpose of the indicator	This indicator is a proxy to measure progress towards universal access to health and universal health coverage. Public expenditure on health equivalent to 6% of the GDP is a useful benchmark, in most cases, and is a necessary, though not sufficient, condition to reduce inequities and increase financial protection within the framework of universal access to health and universal health coverage.
Technical note	Evidence suggests that public expenditure on health should be 6% of the GDP in order to guarantee access to quality health services for the population. Therefore, the proposed goal is that target countries reach 6% of public expenditure on health as a percentage of the GDP. The formula to calculate the indicator for each country is: $\frac{\text{Public expenditure on health} \times 100}{\text{GDP}}$ Public expenditure on health considers the expenditures of institutional units from all levels of government: central, state, provincial and local when available, plus social security funds related to health. It is calculated using budgetary and administrative data. GPD represents a measure of the economic activity of a country in a year. Once assessments for each country are carried out, the countries that have reached the indicator will be added up and reported for monitoring purposes.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual (data from countries is normally available by mid-year).
PASB unit responsible for monitoring the indicator	Health Systems and Services, Health Services and Access (HSS/HS)
Data source	Data for central government, state, provincial, or regional governments and local or municipal government health expenditures come from the International Monetary Fund, Government Finance Statistics online database, national budget data from ministries of health and financial statements, and budget data from social security institutions.

	Data for GDP and exchange rates come from the International Monetary Fund's International Financial Statistics online database. Missing data for selected Caribbean countries come from official presentations made by country authorities at international events.
Limitations	The methodology to estimate public expenditure on health is not standardized and uses different sources across countries. Measurement would be more accurate if public expenditure on health was measured using the same methodology as used to estimate GDP.
References	1. OECD, Eurostat, WHO. A System of Health Accounts, 2011 Edition. OECD Publishing. Doi: 10.1787/9789264116016-*en* 2. Evans D, Etienne C. Health system financing and the path to universal coverage. Bulletin of the World Health Organization 2010;88:402. doi: 10.2471/BLT.10.078741. Available from: http://www.who.int/bulletin/volumes/88/6/10-078741/en/index.html 3. Sachs JD. Achieving universal health coverage in low-income settings. Lancet. 2012 Sep 8;380(9845):944-7. doi: 10.1016/S0140-6736(12)61149-0. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22959391

CATEGORY 4. HEALTH SYSYTEMS

4.2 People-centered integrated, quality health services

Code and title of the indicator	OCM.4.2.1 PEOPLE AND COMMUNITY CENTERED HEALTH SERVICES
Name of the indicator	Number of countries that have reduced by at least 10% hospitalizations for ambulatory care sensitive conditions
Definition of the indicator	Number of countries that show a reduction of at least 10% in hospitalizations for the following 20 ambulatory care sensitive conditions: 1. Vaccine-preventable diseases 2. Avoidable conditions—rheumatic fever, syphilis, tuberculosis, and pulmonary tuberculosis. 3. Infectious gastroenteritis and complications 4. Anemia 5. Nutritional deficiencies 6. Ear, nose, and throat infections 7. Bacterial pneumonia 8. Asthma 9. Lower airways diseases 10. Hypertension 11. Angina pectoris 12. Congestive heart failure 13. Cerebrovascular diseases 14. Diabetes mellitus 15. Epilepsy 16. Kidney and urinary-tract infections 17. Infection of skin and subcutaneous tissue 18. Inflammatory diseases of female pelvic organs 19. Gastrointestinal ulcer 20. Diseases related to pregnancy, childbirth and puerperium Baseline 2013: 0 Target 2019: 19
Purpose of the indicator	This is a proxy indicator. Hospitalization for ambulatory care sensitive conditions (ACSC) is an indicator of hospital activity that has proven useful as an indirect measure of the functioning of the first level of care. A people and community centered model of care requires increased response capacity at the first level of care, to adequately address health promotion, prevention and timely management of health conditions that will result in a reduction of preventable and unnecessary hospitalizations, and can also provide rehabilitative and palliative services closer to the communities.
Technical note	The ACSC evaluates the response capacity of the first level of care in terms of avoidable hospitalizations, under the logic that hospital admissions for conditions such as asthma, diabetes, or hypertension, for example, can be avoided or reduced with better health promotion programs, specific interventions for prevention and timely access to the first level of care. The

ACSC are conditions for which the first level of care has the potential capacity to prevent unnecessary hospitalizations, if provided with the adequate response capacity.

The assessment of ACSC can inform the process of decision-making regarding the configuration of integrated health service networks and contributes to the effectiveness of care. Moreover, the assessment of ACSC may provide evidence on the technical quality, the effectiveness and the continuity of care.

On the other hand, the long-term sustainability of health systems is more likely if the cost savings generated by reducing hospitalizations are transferred as incentives to strengthen the first level of care, creating a virtuous circle in which the combination of fewer hospitalizations, lower aggregate costs for hospitalization, and better first level quality care, increases efficiency of the health services and quality of health outcomes.

The following conditions are the main ACSC and their use as indicators is backed by extensive scientific evidence in the international literature:

	Pathology	Classification according to ICD-10
1	Vaccine-preventable diseases	A33-A37, A95, B16, B05-B06, B26, G00.0, A17.0, A19
2	Avoidable conditions including rheumatic fever, syphilis, tuberculosis, and pulmonary tuberculosis	A15-A16, A18, A17.1-A17.9, I00-I02, A51-A53, B50-B54, B77
3	Infectious gastroenteritis and complications	E86, A00-A09
4	Anemia	D50
5	Nutritional deficiencies	E40-E46, E50-E64
6	Ear, nose, and throat infections	H66, J00-J03, J06, J31
7	Bacterial pneumonia	J13-J14, J15.3-J15.4, J15.8-J15.9, J18.1
8	Asthma	J45-J46
9	Lower airways diseases	J20, J21, J40-J44, J47
10	Hypertension	I10-I11
11	Congestive heart failure	I20
12	Heart failure	I50, J81
13	Cerebrovascular diseases	I63-I67, I69, G45-G46
14	Diabetes mellitus	E10-E14
15	Epilepsy	G40-G41
16	Kidney infection and urinary tract infections	N10-N12, N30, N34, N39
17	Infection of skin and subcutaneous tissue	A46, L01-L04, L08
18	Inflammatory diseases of female pelvic organs	N70-N73, N75-N76
19	Gastrointestinal ulcer	K25-K28, K92.0, K92.1, K92.2
20	Diseases related to pregnancy, childbirth and puerperium	O23, A50, P35.0

Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years, at the end of the year

PASB unit responsible for monitoring the indicator	Health Systems and Services, Health Services and Access (HSS/HS)
Data source	Hospital discharges, statistical departments of ministries of health, and efficiency studies of health services
Limitations	The result of this indicator should be interpreted in relation to the situation in each country because the demand for hospitalization in some locations may be related to the availability of resources and the deficiencies of the health system. Therefore, it is important to consider other issues affecting the response capacity of the health service network to evaluate this indicator.
References	1. Alfradique ME, Bonolo PF, Dourado I, et al. Ambulatory care sensitive hospitalizations: elaboration of Brazilian list as a tool for measuring health system performance. *Cad Saude Publica*. 2009; 25(6): p. 1337-49. 2. Aparicio Llanos, A. Serie Sobre Hospitalizaciones Evitables Y Fortalecimiento de La Atención Primaria En Salud: El Caso de Costa Rica. Washington, DC: Inter-American Development Bank; December 11, 2012. Available from: http://publications.iadb.org/handle/11319/5735 . 3. Arrieta A. Serie Sobre Hospitalizaciones Evitables y Fortalecimiento de La Atención Primaria En Salud: El Caso de Perú. Washington DC:Inter-American Development Bank; December 11, 2012. Available from: http://publications.iadb.org/handle/11319/5734 4. Arrieta, Alejandro, and Ariadna García Prado. Series of Avoidable Hospitalizations and Strengthening Primary Health Care: The Case of Chile. Washington, DC:Inter-American Development Bank; December 11, 2012. Available from: http://publications.iadb.org/handle/11319/5733 5. Caminal J, Sánchez E, Morales M, Peiró R, Márquez S. Avances en España en la investigación con el indicador «Hospitalización por Enfermedades Sensibles a Cuidados de Atención Primaria». *Rev. Esp. Salud Publica* [serial on the Internet]. 2002 June [cited 2014 May 21];76(3):189-196. 6. Caminal J, Casanova C. Primary care evaluation and hospitalization due to ambulatory care sensitive conditions. Conceptual framework. *Aten Primaria* 2003; 31(1):61-5. 7. Caminal J, Mundet X, Ponsa JA, Sanchez E, Casanova C. Las hospitalizaciones por ambulatory care sensitive conditions: selección del listado de códigos de diagnóstico válidos para España. *Aten Primaria* 2003; 31(1): p. 6-14. 8. Caminal J, Starfield B, Sánchez E, Hermosilla E, Martín M. La atención primaria de salud y las hospitalizaciones por Ambulatory Care Sensitive Conditions. *Rev Clin Esp* 2001; 201(9): 501-7. 9. Ciapponi A, Glujovsky D, Daray F, López A. Serie Sobre Hospitalizaciones Evitables Y Fortalecimiento de La Atención Primaria En Salud: Revisión Exploratoria de La Evidencia de Eficacia de La Atención Primaria En Salud En La Prevención de Hospitalizaciones Evitables. Washington DC:Inter-American Development Bank; December 11, 2012. Available from: http://publications.iadb.org/handle/11319/5740.

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CATEGORY 4. HEALTH SYSYTEMS

4.3 Access to medical products and strengthening regulatory capacity

Code and title of the indicator	OCM.4.3.1 ACCESS TO ESSENTIAL MEDICINES
Name of the indicator	Number of countries that ensure access to medicines included in the national essential medicines list without any payment at the point of care/service/dispensing of the medicine
Definition of the indicator	Number of countries that have established provisions in their laws and norms to ensure access to national essential medicines without any sort of payment at the point of care. The medicines included in the national essential medicines list (EML) are selected following WHO's evidence-based criteria (efficacy, safety, and cost effectiveness). Baseline 2013: 1 Target 2019: 14
Purpose of the indicator	To evaluate the improvement of countries' legislation and norms that ensure the access to essential medicines (efficacious, safe, and cost-effective) with an equity perspective, as part of the progress towards universal health coverage (UHC).
Technical note	Achieving the indicator will require that the country have in place adequate norms and standards that: 1. explicitly ensure access to the national EML for all the population in the national territory, and explicitly waives any sort of payment at the point of care, service, and dispensing of the medicines; 2. define a legal framework that clearly outline roles and responsibilities of the pharmacotherapy committee, as well as the mechanisms for supply, prescription, dispensing, and promotion of rational use of medicines; and, 3. define mechanisms and sources for financing and sustainability.
Type of indicator	Absolute
Measurement units	Number of countries that have in place the described legal requirements and norms
Frequency of measurement	Biennial. Countries need to report via the PAHO Strategic Plan 2014-2019 monitoring system at the end of each biennium.
PASB unit responsible for monitoring the indicator	Health Systems and Services, Medicines and Health Technologies (HSS/MT)
Data source	Based on the data provided by national authorities and WHO pharmaceutical country profiles (completed biennially by countries), complemented with countries' legal framework update.
Limitations	Limitations of the indicator are related to the chosen methodology for measurement. While having an appropriate legal framework, a defined EML, and an explicit provision of essential medicines, the country might fail in the actual implementation. Nevertheless, all these elements are considered critical and need to be in place to ensure universal access to essential

	medicines within a territory.
References	1. World Health Organization. Prophylactic and Therapeutic Substances. Geneva:WHO; 1975. (Document WHA28.66) 2. World Health Organization. The selection of essential drugs. Report of a WHO Expert Committee. Geneva:WHO; 1977 (Technical report series 615). 3. Hogerzeil HV et al. Impact of an essential drugs programme on availability and rational use of drugs. *Lancet*, 1989, i(8630):141-142. 4. World Health Organization. World Health Report 2010. Health systems financing: the path to universal coverage. Geneva:WHO; 2010 5. World Health Organization. World Health Report 2010; Background Paper 34. Options for financing and optimizing medicines in resource poor countries. WHO (2010) 6. World Health Organization. What is Universal Health Coverage? Geneva:WHO; October 2012. (Online Q&A) Available from: http://www.who.int/features/qa/universal_health_coverage/en/index.html 7. Pan American Health Organization. Strategic Plan of the Pan American Health Organization 2014-2019. Washington, DC:PAHO; 2013. (Off. Doc 345). Available from: http://www.paho.org/hq/index.php?gid=14004&option=com_docman&task=doc_view 8. World Health Organization. Equitable Access to Essential Medicines: A Framework for Collective Action. Geneva: WHO; 2004 (WHO policy perspectives on medicines 008). 9. World Health Organization. How to develop and implement a national drug policy, 2nd ed. Geneva: WHO; 2001 10. World Health Organization. Development of Country Profiles and monitoring of pharmaceutical situation in countries. Geneva:WHO [Internet.] Available from: http://www.who.int/medicines/areas/coordination/coordination_assessment/en/ 11. Tamblyn R, et al. Adverse events associated with prescription drug cost-sharing among poor and elderly persons. *JAMA* 2001;285 (4): 421-9 12. Evans R, et al. User Fees for Health Care: Why a Bad Idea Keeps Coming Back (Or, What's Health Got to Do With It?). *Canadian Journal of Ageing* 1995; 14: 360-90 13. Arhin-Tenkorang D.Mobilizing Resources for Health: The Case for User Fees Revisited. Cambridge, MA:Center for International Development at Harvard University; 2001. (CID working paper 81).Available from: http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centers-programs/centers/cid/publications/faculty/wp/081.pdf 14. Lavis, J. et al .SUPPORT Tools for evidence-informed health Policymaking (STP) 13: Preparing and using policy briefs to support evidence-informed policymaking. *Health Research Policy and Systems* 2009;7(Suppl 1):S13

Code and title of the indicator	OCM 4.3.2 INCREASED REGULATORY CAPACITY
Name of the indicator	Number of countries and territories that have achieved or increased their regulatory capacity with a view to achieving the status of functional regulatory authority of medicines and other health technologies
Definition of the indicator	Number of countries and territories that have increased their regulatory capacity towards functionality in at least three of the following areas: • medicines, • radiation safety, • blood safety, and • medical devices. Baseline 2013: 7 Target 2019: 35
Purpose of the indicator	The indicator will assess the strengthening of target countries' regulatory functionality for health technologies. A health technologies regulatory functionality is required to ensure the availability of safe, quality, and effective medicines and other health technologies. Strengthening regulatory capacity has become a priority for countries in the Americas in their quest for advancing universal health coverage (UHC).
Technical note	Functionality will be considered acceptable when fulfilling the set of indicators recommended by PAHO/WHO for each of the four aforementioned areas. The indicator will be considered achieved if Member States have at least **three** of the following: 1. Evidence of increased regulatory system capacity for medicines: the process of evaluation and assessment of National Regulatory Authorities (NRAs) is based on verification of the indicators included in the data collection tool to strengthen regulatory systems by assessing the performance of their essential functions, as defined by resolution CD 50.R9 (see reference section). The assessment tool is based on the recommendations of the World Health Organization for strengthening regulatory bodies. The assessment of NRAs is based on fulfillment of core regulatory indicators included in the more updated data collection tool. According to worldwide discussion on WHO core regulatory functions, it is expected that a common harmonized assessment tool will be discussed through global consultation process by the end of 2014. Endorsement of the new assessment tool by WHO Expert Committees is expected in 2015. In the meantime, it is proposed that the following measure be used to establish the strengthening of regulatory systems for medicines: • Establishment of institutional development plans (IPDs) and assessment on the level of implementation of core regulatory indicators contained in the assessment tool to demonstrate the strengthening of the regulatory capacities. 2. Evidence of a functional regulatory system for radiation safety: To be

	considered functional for radiation safety, the country should have, at least, a regulatory infrastructure that includes a regulatory body and proper legislation and/or regulations, based on the Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards (BSS) and endorsed through Resolution CSP28.R15 by PAHO's 28th Pan American Sanitary Conference (see the reference section for both sources). Progress will be measured in accordance with the guidelines established by the task group on the implementation of the BSS (an interagency committee on radiation safety). 3. Evidence of functional national blood regulatory system: A country will be considered functional if it has a designated unit or structure within the national health authority, with an appropriate budgetary allocation that allows implementation of its mandate, and with a normative framework within the guidelines established in the "Blood services model law" and PAHO/WHO standards; it must achieve the performance indicators in the Regional Strategy for Universal Access to Blood Safety 2014-2019, CE154.R16 (draft). The level of implementation and progress at country level will be measured and published annually, as mandated in Resolution CD48.R7 (see reference section for details of this source). 4. Evidence of a functional regulatory system for medical devices: A country will be considered functional for the regulation of medical devices if all the following requirements are fulfilled: • regulation for medical devices established by legislation, • regulatory authority formally established with responsibilities for the regulation of medical devices, • regulatory requirements established according to the risk levels, • pre-market approval requirements established for all medical devices, • post-marketing surveillance programs, • good manufacturing practice (GMP) requirements. In order to verify if the above requirements are fulfilled, a questionnaire developed by the working group on medical devices will be applied to the countries.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years; comparing baseline status to the end of period evaluation results.
PASB unit responsible for monitoring the indicator	Health Systems and Services, Medicines and Health Technologies (HSS/MT)
Data source	• Assessment tools for National Regulatory Authorities on medicines and other health technologies. • Mapping of the situation of medical device regulation in the Region of the Americas, 2012. • PAHO and/or IAEA Evaluation of Radiation Safety Regulatory Infrastructure; 2012 based on International Basic Safety Standards (BSS).

	• Supply of Blood for Transfusion in the Caribbean and Latin American Countries 2010 and 2011. • Assessment criteria for national blood regulatory systems. Information provided by health authorities.
Limitations	The limitations are related to being able to establish adequate coordination with the countries to perform the evaluation, the updated data collection, and analysis. In the case of blood services, the new regional strategy that is going to guide the process needs to be approved**.**
References	1. Pan American Health Organization. System for evaluation of the National Regulatory Authorities for Medicines. Washington, DC:PAHO. [Internet.] Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=1615&lang=en 2. Pan American Health Organization. Resolution CD50.R9. Strengthening National Regulatory Authorities for Medicines and Biologicals. Washington, DC:PAHO; 2010. (Document CD50.R9). Available from: http://new.paho.org/hq/dmdocuments/2010/CD50.R9-e.pdf CSP28.R15 3. Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards. Available from: (http://www-pub.iaea.org/books/IAEABooks/8736/Radiation-Protection-and-Safety-of-Radiation-Sources-International-Basic-Safety-Standards-Interim-Edition-General-Safety-Requirements-Part-3 4. Pan American Health Organization. Radiation protection and safety of radiation sources: International Basic Safety Standards. Washington, DC:PAHO; 2012. (Document CSP28.R15). 5. Pan American Health Organization. Improving blood availability and transfusion safety in the Americas. Washington, DC: PAHO; 2008. (Document CD48.R7). 6. Pan American Health Organization. Ley modelo sobre servicios de sangre. Washington, DC:PAHO (Spanish only.) Available from: http://www1.paho.org/Spanish/AD/THS/EV/Blood-modelodesangre-ley.pdf 7. Pan American Health Organization. Plan of Action for Universal Access to Safe Blood. Washington, DC: 2014. (Document CE154.R16). (Pending approval of Directing Council in 2014.) 8. Pan American Health Organization. Caribbean regional standards for blood banks and transfusion services, Second Edition. Washington, DC:PAHO; 2012. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=19529&Itemid, 9. Pan American Health Organization. Estándares de Trabajo para Servicios de Sangre. 3ra Edición. Washington, DC: PAHO; 2012. (Spanish only.) Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=19531&Itemid

CATEGORY 4. HEALTH SYSTEMS

4.4 Health Systems Information and Evidence

Code and title of the indicator	OCM 4.4.1 COVERAGE AND QUALITY OF DATA OF VITAL AND HEALTH STATISTICS
Name of the indicator	Number of countries and territories meeting the coverage and quality goals of the PAHO Regional Action Plan for Strengthening Vital and Health Statistics
Definition of the indicator	Number of countries or territories that have improved birth and death coverage and improved the quality of mortality data by decreasing the percentage of ill-defined causes on death certificates. It is expected that improvements will be achieved in PAHO's framework for strengthening vital and health statistics (see PAHO, 2008 in the reference section below) and with a strategic plan or national roadmap. The Strategic Plan or national roadmap in the countries should include scheduled activities, tasks, results, and quantitative indicators to improve the coverage of births and deaths and decrease the percentage of ill-defined causes. It is anticipated that this Strategic Plan or national roadmap in the countries will be prepared with PAHO's technical cooperation under the Regional Plan for Strengthening Vital and Health Statistics (PEVS) and the Latin American and Caribbean Network for Strengthening Health Information Systems.[a] Baseline in 2013 : 14 Target for 2019 : 35
Purpose of the indicator	This indicator shows improvements in the coverage and quality of data on births and deaths provided by the health information system, which enables the formulation, implementation, monitoring, and assessment of health policies at national and subregional levels.
Technical note	Since countries and territories are at different stages in terms of coverage and quality of data, the indicator is deemed to be achieved if at least two of the following are reached, according with international recommendations: 1. Vital statistics coverage (births and deaths): • Birth coverage shall be measured by calculating the number of registered births, divided by the expected estimated number (according to the implicit hypothesis of current United Nations population projections), and multiplied by 100; and/or • Mortality coverage will be measured by calculating the number of registered deaths, divided by the number of estimated deaths (according to the implicit hypothesis of current United Nations

[a] http://www.relacsis.org/ (Spanish only.)

	population projections), and multiplied by 100. 2. Vital statistics quality (births and deaths): • The percentage of births without information of birthweight in the birth certificate (number of birth certificates missing the birthweight variable, divided by the total number of birth certificates, and multiplied by 100); and/or • The percentage of deaths from ill-defined causes (ICD-10, Chapter XVIII) (the number of death certificates with ICD-10 codes from Chapter XVIII on the death certificate, divided by the total of coded death certificates, and multiplied by 100). 3. Training on mortality statistics strategy through face to face or virtual courses certified by a National Center of Reference of the Latin American Network of WHO's Family of International Classifications (WHO Collaborating Center): • Number of courses conducted in a country in a given year. • The country maintains at least 50% of active certified coders in ICD-10 each year (number of certified coders in a given year, divided by the total number of existing coders in the same year, and multiplied by 100); and/or • Trained coders with continuity of service a year after a course was taught (number of coders trained in a given year who continue to work and code a year later, divided by the number of coders trained in the previous year). The baseline for 2013 will include the countries who have met the coverage and quality goals according to the information available on PEVS and presented as a Progress Report of 2013 (CD52-INF4-H-s_PEVS). For the intermediate years until 2019 the countries that have achieved the goal will be defined according to the above mentioned procedures, taking into account comparability criteria defined by specialized international organizations. After each country's evaluation, the number of countries that have met the indicator will be determined.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual. The reported data correspond to the end of the preceding year and are received on May of the following year.
Data source	• Country reports. Monitoring reports of the Strategic Plan or roadmap. • Analysis of database sent by the countries to PAHO
PAHO's responsible Unit for monitoring the indicator	Communicable Diseases and Health Analysis, Health Analysis and Information (CHA/HA)
Limitations	• Country capacity to develop a strategic plan or roadmap. • Country's decision not to continue with the implementation of the strategic plan or roadmap. • Country's lack of use of recommended international standards.

	• Limitations of estimate indicators at the country-level, according to international recommendations.
References	1. Pan American Health Organization. Regional Plan of Action for Strengthening Vital and Health Statistics. Washington, DC:PAHO; 7 August 2008. (Document CD48/9.) Available from: http://www1.paho.org/english/gov/cd/cd48-09-e.pdf?ua=1 2. Pan American Health Organization. Regional Plan of Action for Strengthening Vital and Health Statistics. Washington, DC: 16 July 2013. (Document CD52/INF/4). Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=22960&Itemid=270&lang=en

Code and title of the indicator	OCM.4.4.2 RESEARCH GOVERNANCE
Name of the indicator	Number of countries and territories with functional mechanisms for governance of health research
Definition of the indicator	Functional research governance is a necessary feature of national health research systems. It consists of principles, requirements, and standards, along with mechanisms to deliver them, for the production, dissemination, and use of research and evidence. Number of countries and territories that meet all of the following: 1. Defined national research priorities; 2. Ethical standards for the conduction of research with human subjects; 3. Annual increase in the proportion of prospectively registered clinical trials; and 4. A knowledge translation process in place, so that the country can scale-up the systematic integration of research evidence into policy and practice. Baseline 2013: 5 Target 2019: 26
Purpose of the indicator	The indicator measures the key aspects of research governance within a health research system. It will be used to monitor improvements in research governance at the country level.
Technical note	Working definitions for each element of the indicator: 1. Defined national research priorities: up-to-date, publicly available research priorities or agendas at the national level, with sustainable financing mechanisms for research and development (R&D). 2. Ethical standards for the conduction of research with human subjects: national legislation, regulations, or guidelines aimed at ensuring that research with human subjects fulfills ethical standards. Mere references to research with human subjects in the country's general health law or constitution will not be considered sufficient. 3. Annual increase in the proportion of prospectively registered clinical trials: increase of at least 10% in the number of clinical trials that have been prospectively registered, per year, in WHO's International Clinical Trials Registry Platform (ICTRP) or another clinical trial registry that meets WHO standards. The 10% target is based on studies of current trends (Reveiz, et all, 2012 and 2013; see reference section below). 4. A knowledge translation process is in place so that the country can scale-up the systematic integration of research evidence into policy and practice: Formal and standardized mechanisms for translating research into policy and practice in place at the national level (e.g. consolidated programs to develop evidence-based guidelines for practice and policy such as the Evidence-Informed Policy Network (EVIPnet). Once assessments for each country are carried out, the countries that have functional mechanisms for governance of health research, as defined above,

	will be added up and reported for monitoring purposes.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years. Data available from country level will be collected at the end of each calendar year.
PASB unit responsible for monitoring the indicator	Knowledge Management, Bioethics and Research (KBR/RC)
Data source	• National profiles on the Health Research Web Americas (jointly supported by the Council on Health Research for Development (COHRED) and PAHO, and kept up to date mainly by national health and science and technology authorities). • International Compilation of Human Research Standards, published yearly by the Office of Human Research Protection (OHRP/HHS, USA) and updated with PASB support with information from Member States. • WHO's International Clinical Trial Registry Platform (ICTRP). • Ministries of health or other institutions responsible for the governance of research
Limitations	• The indicator might not be sensitive enough. • Functional health research governance assumes a complex adaptive system that might fail to be measured by the four elements of the indicator (e.g. if priorities or standards are not followed).
References	1. Reveiz L, Elias V, Terry RF, Alger J, Becerra-Posada F. Comparison of national health research priority-setting methods and characteristics in Latin America and the Caribbean, 2002-2012. *Rev Panam Salud Publica*. 2013 Jul;34(1):1-13. 2. Reveiz L, Villanueva E, Iko C, Simera I. Compliance with clinical trial registration and reporting guidelines by Latin American and Caribbean journals. *Cad Saude Publica*. 2013 Jun;29(6):1095-100 3. Reveiz L, Sangalang S, Glujovsky D, Pinzon CE, Asenjo Lobos C, Cortes M, Cañón M, Bardach A, Bonfill X. Characteristics of randomized trials published in Latin America and the Caribbean according to funding source. *PLoS One*. 2013;8(2):e56410. doi: 10.1371/journal.pone. 4. United States, Department of Health and Human Services. International Compilation of Human Research Standards. Available from: http://www.hhs.gov/ohrp/international/intlcompilation/intlcompilation.html 5. Pan American Health Organization. Report: Evaluation of the Evidence Informed Policy Networks (EVIPNet), August 2010-July 2012. Washington, DC:PAHO [Internet]. Available from: http://www.paho.org/hq/index.php?option=com_content&view=article&id=8382%3Areport-evaluation-evidence-informed-policy-networks-evipnet-august-2010-july-2012-&catid=3422%3Ahss-03-15-what-s-new-evipnet&Itemid=40301&lang=en&Itemid=3970

CATEGORY 4. HEALTH SYSTEMS

4.5 Human Resources for Health

Code and title of the indicator	OCM 4.5.1 HEALTH WORKFORCE AVAILABILITY
Name of the indicator	Number of countries and territories with at least 25 health workers (doctors, nurses, and midwives) per 10,000 population
Definition of the indicator	This indicator is based on the density of health workers. The parameter was established by WHO (The World Health Report 2006), with a ratio of 25 physicians, nurses, and midwifes per 10,000 population, which is considered the minimum availability of human resources required to achieve 80% coverage of essential public health interventions (such as measles immunization and deliveries by skilled birth attendants). Baseline 2013: 25 Target 2019: 31
Purpose of the indicator	Monitor progress of all countries and territories of the Region to achieve a human resources density ratio of 25 per 10,000.
Technical note	The ratio in each country is calculated by using the total number of health personnel in the country (physicians, nurses, and midwifes), divided by the total population, and multiplied by 10,000. Once the calculations for each country are carried out, the countries that have achieved the minimum human resources for health (HRH) density will be added up and reported for monitoring purposes. This indicator is part of HRH regional goals. Data collection varies from country to country, depending on the national planning cycle. PAHO (Department of Health Systems and Services) has assisted in conducting two assessments of the regional goals for human resources for health Development in 24 countries in four years. The final measurement is scheduled for 2015. For the purpose of this indicator: • The category "professional nurse" includes health professionals with (1) a bachelor's degree in nursing and/or (2) a certificate or technical qualification of at least three years duration in nursing. • The occupational category "midwives" includes health professionals with (1) a bachelor's degree in nursing and midwifery and/or (2) a certificate or technical qualification of at least three years duration in midwifery.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Three-to-four years (depending on countries' reporting via the HRH observatory)
PASB unit responsible for monitoring the indicator	Health Systems and Services, Human Resources for Health (HSS/HR)

Data source	Ministries of health or national health authorities, and population censuses in each country.
Limitations	• Many countries do not have current, reliable, and complete baseline data on available health workforce, nor systematic mechanisms for collecting and analyzing information; • In some cases, the data is limited to physicians, nurses, and midwives working in the public sector. •There are differences between countries on the categories of nursing personnel and staff to attend births (midwives).
References	1. Pan American Health Organization, Health Canada, and Ontario Ministry of Health. Toronto Call to Action: 2006-2015, Towards a decade of Human Resources in Health for the Americas. Toronto, Canada, October 2005. 2. Pan American Health Organization. Regional Goals for Human Resources for Health 2007-2015. Washington, DC:PAHO; 2007. (Document CSP27/10.) 3. World Health Organization. 3rd Global Forum on Human Resources for Health. The Recife Political Declaration on Human Resources for Health: renewed commitments towards universal health coverage. Recife, Brazil. 2013 4. The President and Fellows of Harvard College. Human Resources for Health: Overcoming the Crisis. Joint Learning Initiative. 2004. 5. World Health Organization. World Health Report 2006: Working together for health. Geneva: WHO; 2006. 6. Regional Observatory for Human Resources for Health. Available from: http://www.observatoriorh.org/

Code and title of the indicator	OCM 4.5.2 PUBLIC HEALTH COMPETENCIES
Name of the indicator	Number of countries and territories with national training programs on public health and intercultural competencies for primary health care workers
Definition of the indicator	The indicator measures the number of countries and territories that have established, ongoing national programs to train primary health care workers in the competencies for public health and intercultural competencies, as defined in the Core Competency for Public Health: a Regional Framework for the Americas (see PAHO, 2013 in the reference section below). Baseline 2013: 8 Target 2019: 23
Purpose of the indicator	This indicator will be a proxy measure of an adequate level of competencies in public health and intercultural competencies, particularly for primary health care workers (first level health care workers). The public health competencies are essential to the provision of comprehensive health services that include aspects of disease prevention and health promotion and protection, as well as the implementation of priority public health programs with population approach. Intercultural competencies are complementary and correspond to the cultural and linguistic diversity of our populations. Cultural competence contributes to reducing health inequities among vulnerable or minority communities and barriers to effective access to health services. Both domains of competence are relevant to all health care staff; however, the indicator assesses the commitment of national health authorities to support ongoing learning systems for workers in the first level of care. The indicator is aligned with Resolution CD50.R7 "Strategy for Health Personnel Competency Development in Primary Health Care-based Health Systems," adopted by Member States in 2010 (see PAHO, 2010 in the reference section below).
Technical note	PAHO's Regional Framework on Core Competencies in Public Health, based on the essential public health functions, identifies 65 generic competencies organized into 6 domains, which include intercultural competencies; unless a country has developed its own set of public health competencies, it is suggested that this regional framework be used as a reference indicator. In order to achieve the indicator, a country or territory must meet the following criteria: 1. Have training programs available to workers in primary health care for all health districts of the country or territory; 2. Have training programs that address a concern or national public health priority and are part of a plan to strengthen the core functions of public health; 3. Have clearly established learning objectives, content, and evaluation for the training programs; 4. Have the training program skills identified in the Regional Framework on Core Competencies in Public Health or other public health competency framework at national level;

	5. Have implemented training programs and an ongoing monitoring system.
Type of indicator	Absolute.
Measurement units	Number of countries and territories
Frequency of measurement	Every two years. (Countries will need to report via the PAHO Strategic Plan 2014-2019 monitoring system at the end of each biennium.
PASB unit responsible for monitoring the indicator	Health Systems and Services, Human Resources for Health (HSS/HR)
Data source	Data collection (assessments) in every country is under the responsibility of the human resources units in the ministries of health and academic institutions; facilitated by the network of the Virtual Campus on Public Health.
Limitations	A lack of a standard mechanism to assess current programs in countries and territories.
References	1. Pan American Health Organization. Strategy for Health Personnel Competency Development in Primary Health Care-based Health Systems. Washington, DC:PAHO; 2010. (Document CD50.R7) 2. Pan American Health Organization. Public Health Education: trends, challenges, learning resources. Report from meeting in Lima, Peru. November 2012. (Spanish only.) 3. Pan American Health Organization. Core Competency for Public Health: a Regional Framework for the Americas. Washington, DC:PAHO; 2013. Available from: http://www.paho.org/HQ/index.php?option=com_content&view=article&id=9267%3Acompetencias-esenciales-salud-publica-un-marco-regional-america&catid=3316%3Apublishing&Itemid=&lang=en 4. Pan American Health Organization.. Health of the Indigenous Peoples in the Americas. Washington, DC:2006. (Document CD47.R18).

Code and title of the indicator	OCM 4.5.3 DISTRIBUTION OF HEALTH PERSONNEL
Name of the indicator	Number of countries and territories that have reduced by half (50%) the gap in the density of health workers (doctors, nurses, and midwives) between subnational jurisdictions (province, state, department, territory, district, etc.) that have a lower density of health workers than the national density
Definition of the indicator	This indicator measures the reduction of at least 50% in the number of health workers (physicians, nurses, and midwifes) between subnational jurisdictions having a lower density of health workers than the national density. Baseline 2012: 11 Target 2019: 19
Purpose of the indicator	Monitor progress in the distribution of health personnel, with emphasis on the first level of care. Universal health coverage requires an adequate distribution of the health workforce, especially in the first level of care, to ensure proper access according to need. Difficulties in recruiting and retaining first level of care personnel are often geographic (rural areas, dispersed populations, distance from metropolitan centers) and cultural (i.e., native populations). For example, in some countries the physician per population ratio is eight times higher in urban areas, compared to rural (or non-metropolitan) areas.
Technical note	To measure this indicator, countries need to determine and monitor the density of health workers (doctors, nurses, and midwives) nationally and in each subnational jurisdiction. For the purpose of the indicator, jurisdictions are grouped with a density of workers below the national health density, and the resulting density is used to determine the 50% reduction in the gap with the national density. The indicator will identify the number of countries and territories that have reduced by 50% the gap by the end of the period, compared to the baseline. Example of calculation: **National:** Total number of doctors, nurses, and midwives in the country in a given year, divided by the total population in the same year, and multiplied by 10,000. **Jurisdiction:** Total number of doctors, nurses, and midwives in the jurisdiction in a given year, divided by the total population of the jurisdiction in the same year, and multiplied by 10,000. **Grouping of jurisdictions:** Total number of doctors, nurses, and midwives in jurisdictions with densities lower than the national density in a given year, divided by the total population of these jurisdictions in the same year, and multiplied by 10,000. Example for a country with ten states. The density of health workers (doctors, nurses, and midwives) nationwide is 80/10,000. The density of health

	personnel is measured in each of the 10 states to identify 3 states with a density under 80/10,000. The number of doctors, nurses, and midwives in the three states is added, and a new health workforce density is determined using the total population of the three states as the denominator, multiplied by 10,000. For example, assume that the three states have the same population of 10,000, and that one state has 20 health workers (physicians, nurses, and midwives), the other 40, and the third 60. The resulting density for the three states is 120/30,000 population, for an average of 40/10,000, which leaves a gap of 40/10,000 compared to the national density (80-40). Reducing this gap by 50% involves increasing the density of health workers in the three grouped states to 60/10,000 by the end of the period. For the purpose of this indicator: The category "professional nurse" includes health professionals with (1) a bachelor's degree in nursing and/or (2) a certificate or technical qualification of at least three years duration in nursing. The occupational category of "midwives" includes health professionals with (1) a bachelor's degree in nursing and midwifery and/or (2) a certificate or technical qualification of at least three years duration in midwifery.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years. Countries report to PAHO SP 14-19 monitoring system at the end of each biennium.
PASB unit responsible for monitoring the indicator	Health Systems and Services, Human Resources for Health (HSS/HR)
Data source	Health resource national information systems, health professionals records, population and national census data, and household surveys.
Limitations	The main limitation of this indicator is the availability of reliable and valid data for the number of medical doctors, nurses, and midwives nationally and in each subnational jurisdiction.
References	1. Pan American Health Organization. Human Resources for Health: Increasing Access to Qualified Health Workers in Primary Health Care-based Health Systems. Washington, DC:PAHO; 52nd Directing Council. 65th Session of the Regional Committee. (CD52.R13) 2. PAHO/WHO. Regional Goals for Human Resources for Health 2007-2015. Washington, DC:PAHO; 19 July 2007. (Document CSP27/10). 3. Nunez Vergara M. Second assessment of the regional goals for human resources for health. Washington, D.C.: PAHO; 2014 4. World Health Organization. Follow-up of the Recife Political Declaration on Human Resources for Health: renewed commitments towards universal health coverage. Geneva: WHO; 2014. (Document A67/34, Provisional agenda item 15.8) 5. Global Health Workforce Alliance/World Health Organization: A Universal Truth: No health without a Workforce, 2013.

CATEGORY 5. PREPAREDNESS, SURVEILLANCE AND RESPONSE

5.1 Alert and Response Capacities

Code and title of the indicator	OCM 5.1.1 IHR IMPLEMENTATION
Name of the indicator	Number of States Parties[a] meeting and sustaining International Health Regulations (IHR) requirements for core capacities.
Definition of the indicator	Number of States Parties reporting to WHO as having met and sustain the core capacities as described under articles 5 and 13 of the IHR. Baseline 2013: 6/35 Target 2019: 35/35
Purpose of the indicator	PAHO's 35 Member States (defined as States Parties in the IHR) are bound by the IHR (through Resolution WHA58.3) to have or develop minimum core capacities, as described in articles 5 and 13 of the Regulations. The purpose and scope of these Regulations are to prevent, protect against, control, and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade. This indicator aims to show the progress of States Parties in the Region towards the implementation of IHR.
Technical note	The indicator is fully aligned with WHO's global measurement and is calculated using the annual report of the States Parties to the World Health Assembly (WHA). The WHO Secretariat sends a questionnaire to States Parties, which is designed to facilitate their reporting of International Health Regulations (IHR) implementation to the World Health Assembly. The principal aim of this monitoring tool is to give countries technical guidance in assessing their IHR implementation and the development of IHR core capacities. The IHR monitoring process involves assessing, based on a checklist of 20 indicators designed for monitoring each core capacity, the following: • status of implementation of eight core capacities, • development of capacities at points of entry; and • – development of capacities for four IHR-relevant hazards (zoonotic, food safety, chemical, radiological, and nuclear events).
Type of indicator	Absolute
Measurement units	Number of States Parties in the Region of the Americas
Frequency of measurement	Annual, with the deadline coinciding with the WHA
PASB unit responsible for monitoring the indicator	IHR, Epidemic Alert and Response, and Water Borne Diseases (CHA/IR)
Data source	The State Parties report on their IHR implementation status, submitted to WHA and systematically summarized in the IHR progress report to the WHA

[a] Thirty-five Member States of PAHO are States Parties to the International Health Regulations.

	(updated yearly and available at the WHO and PAHO websites: http://apps.who.int/gb/; and http://www.paho.org/hq/index.php?option=com_content&view=article&id=42&Itemid=189&lang=en).
Limitations	Differences in States Parties' intrinsic capacity of States Parties, governance mechanisms, organizational structures, level of awareness about the scope and purpose of the IHR, and technical expertise present challenges for the implementation of the IHR at the national level by 15 June 2014 (deadline established by the IHR to implement core capacities, with an option to request a second extension until 15 June 2016). Similarly, at the regional level there is work to be done to enhance intra- and intersectoral collaboration, optimize the use of resources already available to accelerate the establishment of IHR, and to ensure the sustainability of attained core capacities attained.
References	1. World Health Organization. International Health Regulations (2005), Second edition. Geneva:WHO; 2008. Available from: http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf

CATEGORY 5 –PREPAREDNESS, SURVEILLANCE, AND RESPONSE

5.2 Epidemic and pandemic-prone diseases

Code and title of the indicator	OCM 5.2.1 EPIDEMIC AND PANDEMIC RESPONSE
Name of the indicator	Number of countries with installed capacity to effectively respond to major epidemics and pandemics.
Definition of the indicator	Installed capacity to effectively respond to epidemics and pandemics is defined as having strong national public health systems that can maintain active surveillance of diseases and public health events, rapidly investigate detected events, report and assess public health risk, share information, and implement public health control measures. Baseline 2013: 6 Target 2019: 35
Purpose of the indicator	This indicator aims to measure and track the capacity of countries and territories to respond to major epidemics and pandemics and to ensure a rapid exchange of information about impending public health threats and, as a result, to increase the confidence and trust among all parties.
Technical note	The indicator is calculated using the annual report of the States Parties to the International Health Regulations to the World Health Assembly (WHA). The WHO Secretariat sends a questionnaire to States Parties, designed to facilitate their reporting of International Health Regulations (IHR) implementation to the World Health Assembly. The principal aim of this monitoring tool is to give countries technical guidance in assessing their IHR implementation and the development of IHR core capacities. The IHR monitoring process involves assessing, based on a checklist of 20 indicators designed for monitoring each core capacity. The achievement of this indicator will be evaluated based upon the report certifying the attainment of core capacities by each individual State Party.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual with deadline during the WHA
PASB unit responsible for monitoring the indicator	IHR, Epidemic Alert and Response, and Water Borne Diseases (CHA/IR)
Data source	The State Parties report on their IHR implementation status to the WHA, summarized in the IHR progress report to the WHA (updated yearly and available at PAHO's Governing Bodies website: http://www.paho.org/hq/index.php?option=com_content&view=article&id=42&Itemid=189&lang=en
Limitations	The diverse nature of each epidemic and pandemic presents new challenges for countries and territories and, thus, there is an ongoing need to strengthen sensitive surveillance systems and to train human resource in outlying/emerging public health threats. Each county's or territory's intrinsic

	characteristics and funding for achieving and maintaining installed capacity also could constitute limitations on the attainment of this indicator.
References	1. World Health Organization. International Health Regulations (2005), Second edition. Geneva: WHO; 2008. Available from: http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf

CATEGORY 5 –PREPAREDNESS, SURVEILLANCE, AND RESPONSE

5.3 Emergency Risk and Crisis Management

Code and title of the indicator	OCM 5.3.1 DISASTER PREPAREDNESS AND RESPONSE CAPACITY
Name of the indicator	Number of countries and territories that meet or exceed minimum capacities to manage public health risks associated with emergencies
Definition of the indicator	This is the number of countries and territories reporting to PAHO as having a health disaster program in place with full time staff and a specific budget to implement disaster preparedness and response plans. Emergency preparedness and response plans should be based on a hazard and vulnerability assessment, be gender sensitive, and consider vulnerable groups and communities. Baseline 2012: 19 Target 2019: 36
Purpose of the indicator	Shows the progress of the Region's countries towards self-sufficiency and nationally led all-hazard disaster preparedness and response.
Technical note	The indicator is calculated from data collected with a PAHO-endorsed all-hazard disaster preparedness and response capacity assessment tool. Among the tools already available or in the pipeline is a regional Emergency Risk and Crisis Management (ERCM) survey, adapted from the global ERCM survey, and the Health Sector Self-assessment Tool for Disaster Risk Reduction (DRR). These seek to determine the status of key benchmarks for disaster risk reduction and response in the health sector. The health disaster coordinator meetings, held every two years, can also provide valuable information for this indicator. The ERCM survey is implemented every two years, while the Health Sector Self-assessment Tool for DRR is completed every three to five years.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Every two years, by the end of the year
PAHO responsible unit for the indicator	Department of Emergency Preparedness and Disaster Relief (PED)
Data source	The Survey Report from Countries and Territories, Self-Assessment tools and Health Disaster Coordinator Meeting.
Limitations	1 Although the regional ERCM survey instrument has been finalized, it is awaiting consensus at a global level. The quality of data depends on the selection of stakeholders to be surveyed. 2 Although the Health Sector Self-assessment Tool for DRR is available, it is only available in English at this point. 3 Assessment fatigue in many countries may impact process to collect data including response rate.

	4 No globally- or regionally-agreed template for disaster preparedness and response plans is available
References	1. Pan American Health Organization. 2006 Progress Report on Health - Disasters: Preparedness and Response. Washington, DC:PAHO; 2006. Available from: www.paho.org/disasters/index.php?option=com_docman&task=doc_download&gid=1958&Itemid 2. Pan American Health Organization. Health Sector Self-assessment Tool for DRR. Washington, DC:PAHO; 2010. Available from: http://www.paho.org/disasters/index.php?option=com_content&view=article&id=1375&Itemid=1

Code and title of the indicator	OCM 5.3.2 DISASTER RISK REDUCTION
Name of the indicator	Number of countries and territories implementing disaster risk reduction interventions for health facilities.
Definition of the indicator	This indicator represents the number of countries that have achieved at least four out of six of the goals included in the Plan of Action on Safe Hospitals. Resolution CD50/10, Plan of Action on Safe Hospitals 2010–2015, adopted by the PAHO Directing Council in October 2010, seeks to facilitate Member States' adoption of "Hospitals Safe from Disasters" as a national risk reduction policy and their setting a goal for all new hospitals to be built with a level of protection that better guarantees that they will remain functioning in disaster situations. It also seeks the implementation of adequate mitigation measures to improve the safety of existing health facilities. Making health care facilities safe is an important way of managing and reducing disaster risk. Different elements must be integrated, as reflected by the six goals in the Plan of Action: policies, codes, a range of actors, a network approach to health services, proposals for different interventions that should be funded when new investments are made, proposals for existing facilities, and monitoring of progress. Baseline 2012: 11 Target 2019: 35
Purpose of the indicator	Shows the progress of the countries towards the Plan of Action on Safe Hospitals 2010-2015.
Technical note	At least four out of six of the goals, including goal 4, in the Plan of Action on Safe Hospitals must be achieved (see the list below): 1. countries will have established a national safe hospitals program; 2. countries will have an information system on the construction of new hospitals or the improvement of existing hospitals; 3. countries will have established mechanisms for the supervision of hospital construction work and other investments in health facilities; 4. countries will have included measures that guarantee the operation of health facilities in the event of a disaster in all new health investment projects; 5. countries will have up-to-date standards for the design, construction, and operation of new, safe health facilities; 6. Countries will have improved the safety of existing health facilities in disasters. Measurement of each goal is the self-assessment by countries in accordance with the indicator and specific actions for each goal, set out in the Plan of Action on Safe Hospitals.
Type of indicator	Absolute
Measurement units	Number of countries and territories

Frequency of measurement	Every two years, by year's end.
PAHO responsible unit for the indicator	Department of Emergency Preparedness and Disaster Relief (PED)
Data source	Countries Reports, Hospital Safety Index Online Database, Health Disaster Coordinator Meeting and technical cooperation missions.
Limitations	• Even though many countries are assigning important funds to implement corrective measures to improve health facilities' safety, a challenge remains for conveying these priorities to the financial sector and higher political/decision levels. • Despite progress made, ensuring that all new health facilities are safe from disasters and improving the safety of existing ones, remains a major challenge (goal number 4). Technical cooperation is, therefore, essential to achieve this indicator.
References	1. Pan American Health Organization. Plan of Action on Sfe Hospitals. Washington, D.C.: PAHO; 9 August 2010. (Document Resolution CD50/10). Available from: http://www2.paho.org/hq/dmdocuments/2010/CD50-10-e.pdf

CATEGORY 5 –PREPAREDNESS, SURVEILLANCE, AND RESPONSE

5.4 Food Safety

Code and title of the indicator	OCM 5.4.1 FOOD SAFETY
Name of the indicator	Number of countries and territories that have adequate mechanisms in place for preventing or mitigating risks to food safety and for responding to outbreaks, including among marginalized populations.
Definition of the indicator	Countries and territories with food safety risk-based management, including risk-based inspection services, recall procedures, and food monitoring and foodborne surveillance to avoid chemical, microbiological, or physical contamination of food, and any other practice that may incorrectly guide consumers. Baseline 2012: 4 Target 2015: 20
Purpose of the indicator	Shows progress in the implementation of food safety risk-based approach to ensuring the safety of food in a country or territory.
Technical note	This is calculated by counting the countries and territories that have a mandatory regulatory mechanism, such as good manufacturing practices, hygiene standard operational procedures, hazard analysis and critical control point, recall systems, food monitoring and foodborne surveillance enforced by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, nutritious, and suitable for human consumption, and that are accurately labeled as prescribed by law.
Type of indicator	Absolute
Measurement units	Number of countries and territories
Frequency of measurement	Annual. The reported data correspond to the end of the preceding year and are received in March of the following year.
PASB unit responsible for monitoring the indicator	Pan American Foot-and-Mouth Disease Center – PANAFTOSA (CHA/AFT)
Data source	Data are obtained from annual reports submitted by countries to the PAHO Pan American Center in Veterinary Public Health (PANAFTOSA) via the Performance Vision Strategy tool for measuring of the level of performance or from other sources such as surveys, legislation databases, etc.
Limitations	The data reflect self-assessment reports of qualitative measurements. They need to be complemented with other performance measures, including the number of food-borne illness reported and consumer surveys on food safety issues.
References	1. PAHO/WHO and IICA. Desempeño, Visión y Estrategia (DVE) para los Sistemas y Servicios Nacionales de Control de Inocuidad de Alimentos, 3era Edición, 2012; PAHO/WHO and IICA, 2012 (Spanish only). Available from: http://bvs1.panaftosa.org.br/local/file/textoc/DVE-inocuidad-2012.pdf

CATEGORY 5 –PREPAREDNESS, SURVEILLANCE, AND RESPONSE

5.5 Outbreak and Crisis Response

Code and title of the indicator	OCM 5.5.1 OUTBREAK AND CRISIS RESPONSE
Name of the indicator	Percentage of countries that demonstrated adequate response to an emergency from any hazard with a coordinated initial assessment and a health sector response plan within 72 hours of onset.
Definition of the indicator	Percentage of countries and territories that have: 1) done an initial assessment with participation of relevant health sector actors and 2) prepared a health sector response plan within 72 hours of onset of ALL Grade 2 and/or 3 emergencies (per WHO's Emergency Response Framework). **Grade 2 emergency** is a single or multiple country event with moderate public health consequences that requires a moderate PAHO/WHO Country Office response and/or moderate international WHO response. **Grade 3 emergency** is a single or multiple country event with substantial public health consequences that requires a substantial PAHO/WHO Country Office response and/or substantial international WHO response. Baseline 2012: N/A[a] Target 2019: 100%
Purpose of the indicator	Shows the capacity of countries to adequately respond to outbreaks, identified needs, and crises from any hazard, natural or anthropogenic, that has an impact on health.
Technical note	This is calculated by counting the number of countries and territories that conducted a coordinated initial assessment and prepared a plan of action for health sector response within 72 hours of onset of ALL Grade 2 and/or 3 emergency (per WHO's Emergency Response Framework). **Numerator**: Total number of countries and territories that conducted a coordinated initial assessment and prepared a health sector response plan within 72 hours of onset of ALL Grade 2 and 3 emergency that impacting them. **Denominator**: Total number of countries and territories impacted by one or more emergencies or disasters during the year.
Type of indicator	Relative
Measurement units	Percentage of countries and territories
Frequency of	Annually, by year's end

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

measurement	
PAHO responsible unit for the indicator	Department of Emergency Preparedness and Disaster Relief (PED)
Data source	Post disaster reports from: ministries of health, national emergency management agencies, United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) reports, and PAHO/WHO.
Limitations	There is currently no agreed upon template for the health sector response plan
References	1. Pan American Health Organization. Knowledge Center on Public Health and Disasters. www.saludydesastres.info/index.php?option=com_content&view=category&layout=blog&id=142&Itemid=1042&lang=en

CATEGORY 6. CORPORATE SERVICES/ ENABLING FUNCTIONS

6.1 Leadership and Governance

Code and title of the indicator	OCM 6.1.1 PAHO/WHO LEADERSHIP IN HEALTH
Name of the indicator	Level of satisfaction of stakeholders with PAHO/WHO's leading role on global and regional health issues
Definition of the indicator	This indicator measures the perception of stakeholders about the work of the Organization and its role in placing the regional public health agenda at the highest level (politically, strategically and technically). Baseline 2013: High (based on composite rating from the stakeholders' survey, November 2012) Target 2019: High (based on the stakeholders' survey, 2019)
Purpose of the indicator	To assess stakeholders' satisfaction level with the way the Organization is performing in terms of its leading role in health issues.
Technical note	The level of satisfaction is calculated using a composite rating from the stakeholders' survey conducted by WHO in all Regions. This survey is a global perception exercise which aims at conducting a world wide-representative, time-sensitive, quantitative and credible assessment of WHO's perceived value to key stakeholders. Key stakeholders include: 1. external stakeholders (ministries of health, governmental development agencies, UN agencies, NGOs, health partnerships, foundations, the media and WHO collaborating centers); and 2. internal stakeholders (WHO staff). The survey is carried out over a period of six weeks through two online questionnaires, one for external stakeholders and one for WHO staff. The indicator will report on the level of satisfaction of external stakeholders only.
Type of indicator	Relative (Level)
Measurement units	Scale (low to high)
Frequency of measurement	Every two to three years
PASB unit responsible for monitoring the indicator	Office of the Director (DIR), and Department of Planning and Budget (PBU)
Data source	Data are obtained from a survey conducted by the Belgium office of Grayling Public Relations, an independent agency global communications, on behalf of WHO.
Limitations	The quality of data depends on the selection of stakeholders to be surveyed and the actual number of respondents to the survey. The survey is conducted in all WHO regions and may have limited disaggregation of data per region. A limited number of countries participate in each Region. The overall perception regarding WHO may not reflect the views about PAHO.

	Recognizing the limitations of this survey, as per recommendation of the Countries Working Group, PAHO will initiate a dialogue with WHO to address the key concerns raised by AMRO region: • The responses of the ministers of health should be weighted higher than those of other stakeholders. • The survey should include criteria and strategies to improve the response rate. • The survey should allow for sub-analysis and comparison of responses by category of stakeholder (Member States, NGOs, etc.) and by country/region. • Expand the list of stakeholders surveyed to include medical schools and professional medical associations.
References	1. World Health Organization. Stakeholder Perception Survey, Global Communication Strategy Review. Prepared by Grayling for the World Health Organization. WHO, 2013. Available from: http://www.who.int/about/who_perception_survey_2012.pdf

Code and title of the indicator	OCM 6.1.2 ALIGNMENT OF NATIONAL AND REGIONAL PRIORITIES
Name of the indicator	Number of countries that reflect in their national health and/or development strategies or plans the regional health priorities defined in the PAHO Strategic Plan 2014-2019
Definition of the indicator	This indicator measures the number program areas of the PAHO Strategic Plan (SP) 2014-2019 included as priorities in the national health and/or development strategies, plans, or equivalent planning instruments of the individual PAHO Member States, according to their national context. Baseline 2013: N/A[a] Target 2019: 20/35
Purpose of the indicator	This indicator seeks to monitor how the PASB collaborates with Member States in the definition of national health priorities in order to jointly contribute to the achievement of the collective priorities defined in the PAHO Strategic Plan for the Region, as approved by the Member States.
Technical note	The degree of incorporation of the PAHO Strategic Plan priorities will be determined based on the number of national health strategies or plans newly developed or revised which include at least 13 of the 25 program areas of the PAHO Strategic Plan. This simple majority reflects the minimum number of program areas that are relevant across all countries. The PASB will conduct a review with the national health authorities to determine the program areas identified in the national health strategies, plans, or equivalent health planning instrument. A standard methodology will be applied across Member States to ensure consistency in the review and analysis of the available information. The baseline is defined at zero following approval of the PAHO SP with the new priorities for 2014-2019. The target reflects the countries with plans requiring update or development during the six-year period of the PAHO Strategic Plan (as per mid-term evaluations of the Health Agenda for the Americas, 2012).
Type of indicator	Absolute
Measurement units	Number of countries
Frequency of measurement	Every two years (as part of the end-of-biennium program and budget assessment)
PASB unit responsible for monitoring the indicator	Planning and Budget (PBU) in collaboration with all PAHO/WHO Representations
Data source	National health strategies, plans, or equivalent health planning instruments
Limitations	• Limited uniformity in content

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

	• Variation in life cycle of national planning processes
References	1. Strategic Plan of the Pan American Health Organization, 2014-2019 (Amended), PAHO 2014. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=27015 2. Mid-term Evaluation of the Health Agenda for the Americas, 2012. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=20125&Itemid=270&lang=en 3. Country Cooperation Strategies

Code and title of the indicator	OCM 6.1.3 ADVANCING THE HEALTH PRIORITIES IN THE REGION
Name of the indicator	Number of regional initiatives or action plans of the Inter-American and United Nations systems dealing with health and development designed or implemented with PAHO support to advance the health priorities of the Region
Definition of the indicator	This indicator measures PAHO's ability to work in a multisectoral fashion and engage with different stakeholders of the Inter-American and United Nations systems to position the Region's health priorities. The health priorities are those defined in the PAHO Strategic Plan 2014-2019 and the Health Agenda for the Americas, 2008-2017, and which support the implementation of relevant initiatives and action plans with a focus on health and development. Baseline 2013: N/A[a] Target 2019: 8
Purpose of the indicator	This indicator intends to measure the leadership role of the Organization through the inclusion of regional health priorities in initiatives or action plans.
Technical note	To measure this indicator PAHO will conduct a desk review of regional initiatives and action plans, as defined above, to identify those in which the Organization is recognized as having: a) a leading role in its design and/or implementation, or b) a supporting role in its design and/or implementation For purposes of this indicator, regional initiatives and action plans are those that include a group of countries, but not necessarily all countries, in the Region. As such, subregional initiatives and action plans are included. Initiatives associated with regional and/or subregional integration mechanisms will be accounted for.
Type of indicator	Absolute
Measurement units	Number
Frequency of measurement	Every two years
PASB unit responsible for monitoring the indicator	External Relations, Partnerships and Resource Mobilization (ERP)
Data source	Data are obtained from a review of regional action plans and initiatives of the Inter-American, UN System, and regional and/or subregional integration mechanisms.
Limitations	• Assessment based primarily on qualitative analysis. • Absence of baseline information.
References	1. Strategic Plan of the Pan American Health Organization, 2014-2019 (Amended), PAHO 2014. Available from

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

	http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=27015 2. PAHO's Biennial Work Plans 3. PAHO Subregional Cooperation Strategies 4. Inter-American System o Organization of American States (OAS)'s Summits action plans www.oas.org o Ibero-American Summit's action plans 5. United Nations System: www.un.org o UNDG LAC initiatives and work plans o UNGA initiatives and action plans o UN Joint Programing initiatives o UN Development Assistance Framework (UNDAF) o The Unified Budget, Results and Accountability Framework (UBRAF) 6. Subregional coordinating mechanisms for health and development plans/meeting agendas: o Caribbean Common Market: www.caricom.org o Council for Human and Social Development (COHSOD) http://www.caricom.org/jsp/community_organs/cohsod.jsp?menu=cob o Central American Integration System (SICA) o Union of South American Nations (UNASUR): www.unasursg.org 7. Summit of the Americas: http://www.summit-americas.org/default_en.htm

CATEGORY 6. CORPORATE SERVICES/ENABLING FUNCTIONS

6.2 Transparency, Accountability and Risk Management

Code and title of the indicator	OCM 6.2.1 CORPORATE RISK MANAGEMENT
Name of the indicator	Proportion of corporate risks with approved response plans implemented.
Definition of the indicator	Corporate risk assessments identified and prioritized and response plans implemented to mitigate those risks. Baseline 2012: 0% Target 2019: 100%
Purpose of the indicator	To identify the steps that the Organization is taking to assess and mitigate the impact of programmatic and operational corporate risks in order to ensure an effective and efficient implementation of PAHO's technical cooperation. This will contribute to the achievement of the results set in the PAHO Program and Budget and Strategic Plan.
Technical note	Annual review of actions implemented in accordance with the corporate risk mitigation plans to assess the degree of their implementation. This will be done following PAHO's Enterprise Risk Management (ERM) Policy.
Type of indicator	Relative
Measurement units	Proportion
Frequency of measurement	Annual
PASB unit responsible for monitoring the indicator	Office of the Director of Administration (AM)
Data source	Corporate Risk Committee Reports
Limitations	Acceptance by managers of Enterprise Risk Management as a useful tool that should be maintained and updated.
References	1. PAHO's Enterprise Risk Management Policy

CATEGORY 6. CORPORATE SERVICES/ENABLING FUNCTIONS

6.3 Strategic Planning, Resource Coordination and Reporting

Code and title of the indicator	OCM 6.3.1 PB FUNDING
Name of the indicator	Percentage of approved PAHO budget funded
Definition of the indicator	Measures the availability of financial resources to fund the PAHO program budget. It includes Regular Budget and Other Sources from both PAHO and WHO Baseline 2013: 90% (based on PB 2012-2013 assessment) Target 2019: 100%
Purpose of the indicator	Shows progress in the funding of PAHO's approved budget.
Technical note	This is calculated as the ratio of available funds to the approved budget for the biennium. The level of funding by program areas/priorities will be conducted as part of the ongoing monitoring and assessment of the corresponding output in the current program and budget documents for each biennium.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Annual
PASB unit responsible for monitoring the indicator	Department of Planning and Budget (PBU)
Data source	End of Biennium Assessments of the Program and Budgets using information extracted from the PASB Management Information System.
Limitations	The global financial recession has had a negative impact on funding health programs by individual Member States and donors. The fluctuations in the flow of voluntary contributions to PAHO may hinder the achievement of this target. Nonetheless, PAHO will continue its efforts towards the achievement of fully funded program budgets.
References	1. Approved Program and Budget documents.

Code and title of the indicator	OCM 6.3.2 STRATEGIC PLAN MONITORING
Name of the indicator	Percentage of outcome indicator targets achieved
Definition of the indicator	This indicator seeks to measure the progress towards the achievement of the Strategic Plan 2014-19 outcomes. Baseline 2013: 91%[a] (234/256 Regional Expected Results Indicator Targets achieved in the PAHO Strategic Plan 2008-2013) Target 2019: At least 90%[b] (72/80 Outcome Indicator Targets of the PAHO Strategic Plan 2014-2019)
Purpose of the indicator	Shows progress in the achievement of the Organization's approved outcomes, as detailed in the Strategic Plan 2014-2019.
Technical note	The outcome indicator targets achievement rate is calculated by dividing the total number of outcome indicator targets achieved at the end of the biennium by the total number of outcome indicators approved in the PAHO Strategic Plan. The assessment of indicator targets requires joint monitoring and reporting by Member States and PASB. The monitoring and assessment of the outcome indicators will be done through the PAHO Strategic Plan Monitoring System. The following criteria will be used for the rating performance of the outcome indicators: • On track: 90%-100% indicator targets achievement rate—no impediments or major risks expected to affect progress; • At risk: 75%-89% indicator targets achievement rate—progress is in jeopardy and action is required to overcome delays, impediments and risks; and • In trouble: below 75% indicator targets achievement rate—progress is in serious jeopardy due to impediments or risk that could preclude the achievements of anticipated targets. At the end of the biennium, the outcome indicator targets will be assessed as achieved or not.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Biennial
PASB unit responsible for monitoring the	Department of Planning and Budget (PBU)

[a] The baseline was determined using the final assessment of the Strategic Plan 2008-2013 as a proxy.
[b] The universe of 80 Indicator targets assumes that both indicators defined for Tobacco and Obesity are being measured. In all other indicator targets there is a single measurement.

indicator	
Data source	Data is obtained from the assessment of outcome indicators conducted for the interim biennium reports. Final biennium data will be obtained from the core indicator data base, populated by Member States, or from information derived from the PASB.
Limitations	The interim data is limited by the potential subjectivity of assessment summaries, and the final data will be limited to the information provided by Member States.
References	1. Final Report of the PAHO Strategic Plan 2008-2013 and End-of-Biennium Assessment of the Program and Budget 2012-2013. Available from: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=26887

CATEGORY 6. CORPORATE SERVICES/ENABLING FUNCTIONS

6.4 Management and Administration

Code and title of the indicator	OCM 6.4.1 MANAGEMENT AND ADMINISTRATION
Name of the indicator	Proportion of management and administration metrics, as developed in Service Level Agreements, achieved.
Definition of the indicator	The Organization will establish and maintain a Management and Administration Service Level Agreement (SLA) in line with best practices and industry standards. The Management and Administration SLA is comprised of specific SLAs for the areas of financial and human resources management, information technology services, procurement and supply services, as well as general services operations. For each of these areas Key Performance Indicators (KPIs) have been established at the output level in the PAHO Program and Budget (PB). Baseline 2013: N/A[a] Target 2019: 95%
Purpose of the indicator	To ensure that the Organization is in line with industry standards and best practices in all aspects of management and administration.
Technical note	Key Performance Indicators defined at the output level are weighted according to their importance and rolled up to the Management and Administration SLA, which is at the outcome level. Examples of areas measured in the KPIs include: support to Member States through the financial management of Procurement Funds to maximize equitable access to vaccines for all people; measuring overall ITS response to mainstream service requests received from the user community; requisition cycle time (from the time the Purchase Requisition is received until the Purchase Order (PO) is issued); and consumption of electricity per square meter (Main PAHO/HQ Building).
Type of indicator	Relative
Measurement units	Proportional
Frequency of measurement	Where possible data is collected in real time and reported every six months.
PASB unit responsible for monitoring the indicator	Office of the Director of Administration (AM)
Data source	Multiple sources of data: • Currently FAMIS - FRM, ePPES , PAS & HRT – HRM, ADPICS - PRO, AMPES/OMIS - GSO, SRS –ITS, etc. • PASB Management Information System (PMIS) upon implementation.
Limitations	The Organization is currently implementing an Enterprise Resource Planning (ERP) solution, labeled internally as the PMIS, which will replace core legacy systems. PMIS implementation will help the Organization to generate

[a] This indicator baseline is not applicable because it is a new indicator. New indicators are those being measured for the first time in the Strategic Plan and without current baseline data.

	automated reports for the majority of SLAs, included KPIs. PMIS implementation is scheduled for completion by 1 January 2016. Until such time, the data which will be gathered from available legacy systems is limited and, therefore, the SLAs that can be measured will also be limited.
References	1. Service Level Agreement documents

CATEGORY 6. CORPORATE SERVICES/ENABLING FUNCTIONS

6.5 Strategic Communnications

Code and title of the indicator	OCM 6.5.1 EVALUATION OF PAHO/WHO PERFORMANCE
Name of the indicator	Percentage of Member States and other stakeholder representatives evaluating WHO/PAHO performance as excellent or good.
Definition of the indicator	This indicator measures PAHO/WHO's performance through a Stakeholder Perception Survey. The survey will also help to identify the effectiveness and direction of PAHO/WHO's communication. Baseline 2013: 77% Target 2019: 100%
Purpose of the indicator	Shows the PAHO/WHO performance evaluation
Technical note	The evaluation of PAHO/WHO performance in done using a stakeholders' perception survey conducted by WHO in all Regions. This survey is a global perception exercise which aims at conducting a world wide-representative, time-sensitive, quantitative and credible assessment of WHO's perceived value to key external stakeholders. It also surveys WHO staff but disaggregates the results of the two groups (staff and external stakeholders). The survey is carried out over six weeks, through two online questionnaires, one for external stakeholders and one for WHO staff. The external stakeholders' survey includes representatives of ministries of health, government development agencies, UN agencies, NGOs, health partnerships, foundations, the media, and WHO collaborating centers.
Type of indicator	Relative
Measurement units	Percentage
Frequency of measurement	Biennial
PASB unit responsible for monitoring the indicator	Corporate Communications Unit (CMU)
Data source	Data are obtained from a survey conducted by the Belgium office of Grayling Public Relations, an independent global communications agency, on behalf of WHO
Limitations	The data available so far reflect only a sample of the Region of the Americas.
References	1. World Health Organization. Stakeholder Perception Survey, Global Communication Strategy Review. Prepared by Graylong for the World Health Organization. WHO, 2013. Available from: http://www.who.int/about/who_perception_survey_2012.pdf

ANNEX A. MEASURING IMPACT OF THE PAHO STRATEGIC PLAN 2014 – 2019

The PAHO Strategic Plan 2014-2019 proposes nine impact goals:

1. Improve health and well-being with equity
2. Ensure a healthy start for newborns and infants
3. Ensure safe motherhood
4. Reduce mortality due to poor quality of health care
5. Improve the health of the adult population with an emphasis on NCDs and risk factors
6. Reduce mortality due to communicable diseases
7. Curb premature mortality due to violence, suicides, and accidents among adolescents and young adults (15-24 years of age)
8. Eliminate priority communicable diseases in the Region
9. Prevent death, illness, and disability arising from emergencies

To measure the impact of the Strategic Plan (SP) 2014-2019 at the regional level, a set of 26 indicators with their corresponding targets for 2019 are proposed (pending indicators and targets for goal 1).
There are two types of impact indicators:

1. Indicators measuring regional average mortality or morbidity rates, and
2. Indicators measuring the regional mortality equity gap (for goals 1 to 5)

Measuring regional average mortality rates
Data gathered from the Regional Core Health Data and Country Profiles Initiative has been used to:

- model country mortality trends for the period preceding the Strategic Plan
- model *predicted rates* or ratios by country (2014-2019)
- calculate the regional average rate for each indicator (weighted)

Exploratory data analysis provided information on variable distributions and behavior through time, as well as guidance for possible data transformation. Some models were tested and those based on log transformation were selected. Log transformed rates were used as a dependent variable and time (in years) as the independent variable; 95% confidence intervals were also calculated.

Example: Infant Mortality Rate

Proposed target: ***A 15% reduction in the regional infant mortality rate (IMR) by 2019, compared to 2014.***

Analysis was conducted considering data from 352 country-years (32 countries and 11 years of complete data). Infant mortality predicted regional rates were modeled from 1990 to 2019 by five-year periods (including 95% confidence intervals). The infant mortality regional rate for 2014 was estimated at 12.3 infant deaths per 1,000 live births and that for 2019 was 10.5. The percentage variation for this change is −14.6%, which is the target proposed.

Measuring equity-oriented targets
To assess equity gaps the use of two indicators are proposed: a relative gap and an absolute gap or gradient indicators.

The *relative gap* indicator compares how many times more (or how many times less) a risk of death exists in the stratum of countries with the highest Health Needs Index (HNI) with respect to the stratum of countries with the lowest HNI. The HNI strata are defined in the PAHO Budget Policy approved by the 28th Pan American Sanitary Conference in 2012 (shown in table below).

The absolute gap or gradient indicator expresses the total change in the regional mortality rate attributable to the social inequality (as defined by the HNI) existing across the whole population. In other words, the absolute gap expresses excess mortality at the regional level explained by the socioeconomic inequality between countries. This excess mortality represents the mortality burden to be averted if all countries in the Region had the social standing of the currently best positioned country.

Proposed targets for the relative and absolute gaps for 2019 will be defined by applying the magnitude of change (relative and absolute, respectively) observed for the previous planning cycle (i.e., 2008-2012), and projecting this change for the six year period of the Strategic Plan (2014-2019).

Relative gap targets are expressed as change percentage between the 2010 and 2019 relative gap indicators; that is, (2019 relative gap – 2010 relative gap) / 2010 relative gap. Absolute gap targets are expressed as the difference between the 2010 and 2019 absolute gap indicators; that is, 2010 absolute gap – 2019 absolute gap.

Following the same example, in 2005 the IMR in the highest HNI stratum of countries was 38.1 infant deaths per 1000 live births and 6.8 in the lowest HNI stratum; therefore the relative gap was 5.6. In 2010, the IMR in the highest HNI stratum of countries was 33.1 infant deaths per 1000 live births and 6.5 in the lowest HNI stratum; therefore the relative gap was 5.1. The rate of change in the relative gap between 2005 and 2010 was 10%, that is the proposed target for 2019.

A relative gap reduction of at least 10% in the IMR ratio between extreme strata of countries according to their HNI by 2019 from the 2010 baseline.

Similarly, the absolute gap in 2005 was -23.8 infant deaths per 1000 live births and in 2010 it was -20.6. The difference is close to 3 infant deaths per 1000 live births, which is the proposed target for 2019.

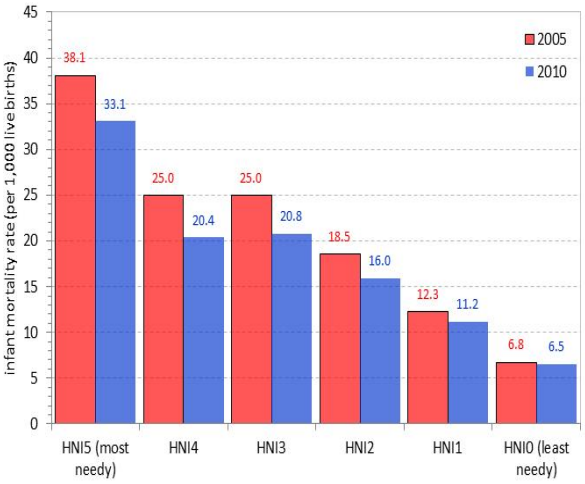
An absolute inequality reduction of at least 3 infant deaths in excess (averted) per 1,000 live births between 2010 and 2019 across the HNI country gradient.

The data needed to assess these goals and their indicators are available from the PAHO Core Health Data, for example:

country	code	HNI		live birth population		infant mortality rate		relative weight	
		value	stratum	2005	2010	2005	2010	2005	2010
Haiti	HAI	0.000	5	265,937	265,965	65.7	60.2	0.1637	0.1608
Bolivia	BOL	0.335	5	262,515	264,214	49.6	42.7	0.1616	0.1598
Honduras	HON	0.428	5	198,963	203,842	29.5	25.4	0.1225	0.1233
Guyana	GUY	0.432	5	14,395	13,583	44.5	38.8	0.0089	0.0082
Nicaragua	NIC	0.433	5	138,521	137,678	23.5	19.6	0.0853	0.0832
Guatemala	GUT	0.485	5	441,748	470,491	33.5	27.8	0.2720	0.2845
Ecuador	ECU	0.527	5	302,080	298,059	22.6	19.9	0.1860	0.1802
Cuba	CUB	0.539	4	126,528	111,743	5.5	5.0	0.1017	0.0921
Suriname	SUR	0.545	4	9,933	9,635	22.6	20.5	0.0080	0.0079
Grenada	GRE	0.563	4	1,967	2,021	15.4	13.7	0.0016	0.0017
Dominican Republic	DOR	0.585	4	217,204	215,404	31.8	24.8	0.1746	0.1774
Peru	PER	0.594	4	607,177	592,043	24.8	19.4	0.4881	0.4877
Paraguay	PAR	0.606	4	152,547	157,106	33.4	29.2	0.1226	0.1294
El Salvador	ELS	0.608	4	128,682	125,938	23.5	20.0	0.1034	0.1037
Jamaica	JAM	0.637	3	53,201	50,482	25.4	23.0	0.0158	0.0163
Belize	BLZ	0.642	3	7,448	7,702	18.4	16.6	0.0022	0.0025
St. Lucia	SAL	0.647	3	3,013	3,037	13.7	12.6	0.0009	0.0010
Brazil	BRA	0.660	3	3,294,700	3,032,648	25.0	20.8	0.9805	0.9796
St. Vincent & Grenadines	SAV	0.683	3	1,965	1,846	24.9	22.0	0.0006	0.0006
Colombia	COL	0.689	2	915,809	909,631	19.6	17.6	0.2360	0.2396
Venezuela	VEN	0.691	2	590,978	596,931	17.7	16.0	0.1523	0.1572
Panama	PAN	0.729	2	70,296	69,853	19.2	17.0	0.0181	0.0184
Trinidad and Tobago	TRT	0.743	2	19,447	19,511	27.5	25.3	0.0050	0.0051
Mexico	MEX	0.789	2	2,284,457	2,201,202	18.2	15.1	0.5886	0.5797
Bahamas	BAH	0.804	1	5,042	5,286	16.8	14.9	0.0047	0.0049
Uruguay	URU	0.807	1	51,484	49,718	13.6	12.3	0.0482	0.0465
Chile	CHI	0.848	1	247,245	245,453	7.5	7.0	0.2314	0.2297
Argentina	ARG	0.850	1	686,819	691,822	14.1	12.8	0.6428	0.6473
Costa Rica	COR	0.864	1	74,890	73,514	10.1	9.5	0.0701	0.0688
Barbados	BAR	0.970	1	2,959	2,972	14.0	12.8	0.0028	0.0028
Puerto Rico	PUR	0.975	0	51,949	49,409	7.8	7.4	0.0113	0.0104
Netherlands territories	NET	1.109	0	3,932	3,892	14.8	13.5	0.0009	0.0008
French territories	FRT	1.117	0	17,385	16,983	9.9	9.1	0.0038	0.0036
Canada	CAN	1.153	0	356,007	384,044	5.2	5.0	0.0773	0.0806
United States of America	USA	1.164	0	4,178,348	4,307,745	6.9	6.6	0.9068	0.9046

The following figures illustrate the relative and absolute gaps for infant mortality as outlined above. The same approach will be used for the other indicators.

Health equity relative gap



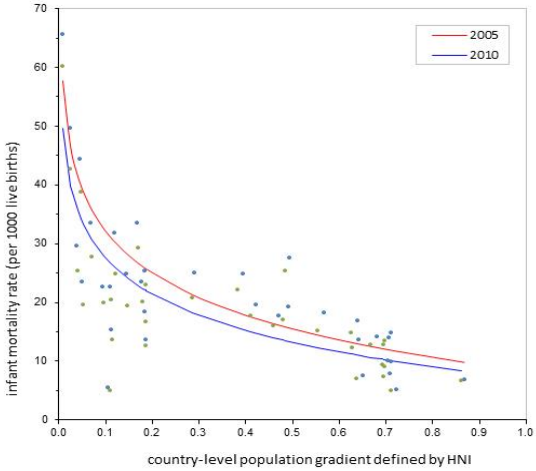
Kuznets relative ratio (inter extreme quantile ratio):

2005: 5.6 (most needy to least needy)

2010: 5.1 (most needy to least needy)

Rate of change: 10%

Health equity absolute gap



Slope Index of Inequality (SII):

2005: -23.8 per 1000 live births

2010: -20.6 per 1000 live births

Absolute change: -3 excess deaths

Core references:

- EpiDat 4.0 Medición de Desigualdades en Salud–Guía de Ayuda al Usuario. Xunta de Galicia & OPS; Washington DC, 2012.
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- Keppel K, Pamuk E, Lynch J et al. Methodological issues in measuring health disparities. National Center for Health Statistics. Vital Health Stat 2005;2(141).
- Mackenbach JP, Kunst AE. Measuring the magnitude of socioeconomic inequalities in health. *Soc Sci Med* 1997;44(6):757-71
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- Wagstaff A, Paci P, Van Doorslaer E. On the measurement of inequalities in health. *Soc Sci Med* 1991;33(5):545-57

The following lists the PAHO Strategic Plan 2014-2019 impact goals and their indicators, with corresponding targets,[a] as approved by the 52nd Directing Council (underlined text represents changes to the original version). It is noted that indicators for impact goals 1 through 5 are the ones that incorporate the equity gap measurement.

1. Improve health and well-being with equity

1.1. At least a 1.0% increase in Healthy Life Expectancy (HALE) for the Americas achieved by 2019 (65.3 years), as compared to the baseline rate in 2014 (64.6 years). *(This information will be updated once the most recent data from the Institute for Health Metrics and Evaluation is received*.)

2. Ensure a healthy start for newborns and infants

2.1. At least a 15% reduction in the regional Infant Mortality Rate (IMR) achieved by 2019 (10.5 per 1,000 live births) compared to 2014 (12.3 per 1,000 live births).

2.2. A relative gap reduction of at least 10% in the IMR between the top and bottom country groups of the Health Needs Index (HNI) by 2019 compared to 2014.

2.3. An absolute reduction of at least 3 excess infant deaths per 1,000 live births between 2014 and 2019 across the HNI country gradient.

3. Ensure safe motherhood

3.1. At least an 11% reduction in the regional Maternal Mortality Ratio (MMR) achieved by 2019 (43.6 per 100,000 live births) compared to 2014 (48.7 per 100,000 live births).

3.2. A relative gap reduction of at least 25% in the MMR between the top and bottom country groups of the HNI by 2019 compared to 2014.

3.3. An absolute reduction of at least 18 excess maternal deaths per 100,000 live births between 2014 and 2019 across the HNI country gradient.

4. Reduce mortality due to poor quality of health care

4.1. At least a 9% reduction in the regional rate of Mortality Amenable to Health Care (MAHR)** achieved by 2019 (77.2 per 100,000 population) compared to 2014 (84.7 per 100,000 population).

4.2. A relative gap of no more than 6% increase in the MAHR between the top and bottom country groups of the HNI by 2019 compared to 2014.

4.3. An absolute reduction of at least 8 excess preventable deaths per 100,000 population between 2014 and 2019 across the HNI country gradient.

5. Improve the health of the adult population with an emphasis on NCDs and risk factors

5.1. At least a 9% reduction in the regional Premature NCD Mortality Rate (PNMR) achieved by 2019 (239.6 per 100,000 population) compared to 2014 (260.8 per 100,000 population).

5.2. A relative gap of no more than 6% increase in the PNMR ratio between the top and bottom country groups of the HNI by 2019 compared to 2014.

5.3. An absolute reduction of at least 18 excess premature deaths due to NCDs per 100,000 population between 2014 and 2019 across the HNI country gradient.

6. Reduce mortality due to communicable diseases

6.1. At least a 15% reduction in the mortality rate due to HIV/AIDS by 2019 compared to 2014.

6.2. At least a 30% reduction in the case-fatality rate due to dengue achieved by 2019 (0.05%) compared to 2012 (0.07%).

6.3. At least a 24% reduction in tuberculosis mortality rate achieved by 2019 (0.8 per 100,000 population) compared to 2014 (1.1 per 100,000 population).

6.4. At least a 75% reduction in the number of deaths due to malaria by 2019 (28 deaths) compared to 2011 (112 deaths).

7. Curb mortality due to violence, suicides, and accidents among adolescents and young adults (15-24 years of age)

7.1. At least a 6% reduction in the homicide rate achieved by 2019 (25.7 per 100,000 youth 15-24 years of

age) compared to 2014 (27.3 per 100,000 youth 15-24 years of age).

7.2. No increase in the suicide rate achieved by 2019 compared to 2014 (7.8 per 100,000 youth 15-24 years of age).

7.3. No increase in the mortality rate due to road traffic injuries by 2019 compared to 2014 (20.5 per 100,000 youth 15-24 years of age).

8. Eliminate priority communicable diseases in the Region

8.1. Elimination of mother-to-child transmission of HIV and congenital syphilis in 16 countries and territories.

8.2. Elimination of onchocerciasis in four countries.

8.3. Elimination of Chagas transmission in 21 endemic countries.

8.4. Elimination of malaria in at least three of seven endemic countries in the pre-elimination phase.

8.5. Zero human cases of dog-transmitted rabies in 35 Member States.

9. Prevent death, illness, and disability arising from emergencies

9.1. At least 70% of emergencies in which the crude mortality rate returns to accepted baseline (pre-disaster levels) within three months.

* These targets represent the collective regional commitment. The definitions, including technical specifications for the impact indicators, are provided in the PAHO SP 2014-2019 compendium of indicators, available on the PAHO website.

** Mortality Amenable to Health Care refers to deaths that potentially could have been prevented with appropriate medical care. These are "premature deaths that should not occur in the presence of timely and effective health care," given that they arise from "conditions for which effective clinical interventions exist."

ANNEX B. MEMBERS OF THE COUNTRIES WORKING GROUP (CWG)

Country	Name	Position
Bahamas	Keva Thompson	Deputy Director of Policy and Planning, Public Hospitals Authority
Brazil	Alberto Kleiman	Senior Advisor, International Relations Office, Ministry of Health
	Juliana Vallini	Alternate Head of the International Advisory Office, Ministry of Health
Canada	Bernard Choi	Senior Research Scientist, Public Health Agency of Canada (PHAC)
Chile	Odette Urrutia	Technical Officer, National Health Strategy Department, Ministry of Health
Costa Rica	Rosibel Vargas Gamboa	Director a.i., Strategic Institutional Department, Ministry of Health
Ecuador	Cristina Luna Rivadeneira	Analyst, International Cooperation and Relations, Ministry of Public Health
El Salvador	Nadia Patricia Rodríguez Villalta	Director, Metropolitan Health Region, Ministry of Health
	Matías Villatoro	Coordinator, Health Services Management, Ministry of Health
Jamaica	Michele Roofe	Director, Health Informatics, Ministry of Health
Mexico	Laura Elena Gloria Hernández	Director General, Performance Evaluation, Ministry of Health
	Martha Caballero	Director of Bilateral and Regional Cooperation, Department of International Relations, Ministry of Health
Paraguay	Patricia Giménez León	Director General, Planning and Evaluation, Ministry of Health
	Juan Carlos Coronel	Technical Officer, Department of International Relations, Ministry of Health
USA	Jay McAuliffe	Advisor, Strategic and Regional Coordination, Office of the Associate Director for Policy, Center for Global Health