

COUNTRY SNAPSHOT

of Diabetes Prevention
and Control in the Americas





Introduction

Diabetes is a major public health problem in the Americas, with an estimated 62 million adults living with this disease in the Region, who require access to continuous care and essential medicines and technologies. Diabetes is among the leading causes of death in many countries in the Region. Its prevalence is rising in many countries, principally driven by increased risk factors that include physical inactivity, overweight, and obesity (1, 2).

This tool shows the prevalence of diabetes, related risk factors, mortality, and disability-adjusted life years (DALYs) due to diabetes, at the country level and for the Region of the Americas. The prevalence and mortality data correspond to the latest year available with comparable data between countries. The indicators are accompanied by their relative change since 2010.

This tool also includes a summary of the country's health system response to diabetes, including national plans, targets, surveillance, guidelines, and access to essential drugs and technologies.

Because this scorecard provides rapid visualization of the status of diabetes and the response capacity of the countries, its purpose is to serve as a basis for strengthening strategies and interventions that address the challenge that diabetes implies.

		POLICIES, STRATEGIES AND ACTION PLANS		TARGETS	SURVEILLANCE	GUIDELINES		AVAILABILITY OF ESSENTIAL MEDICINES FOR DIABETES IN 50% OR MORE OF PHARMACIES IN THE PRIMARY HEALTHCARE FACILITIES OF THE PUBLIC SECTOR	AVAILABILITY OF BASIC TECHNOLOGIES FOR DIABETES IN 50% OR MORE OF PRIMARY HEALTHCARE FACILITIES OF THE PUBLIC HEALTH SECTOR					
		Integrated NCDs	Specific on diabetes	NCD – GMF target halt or decrease Diabetes	Population Surveys: glucose measured (GM) or self reported (SR), year of survey	Guidelines/protocols/standards for diabetes management	Guidelines/protocols/standards for diabetes management utilized in at least 50% of healthcare facilities	Insulin (I), metformin (M), sulfonylurea (S)	Blood glucose measurement equipment	Oral glucose tolerance test	HbA1c test	Fundus examination	Tuning fork test for diabetic foot	Urine test strips for glucose and ketone measurement
North America	Canada	Operational	Yes	Halt	GM, 2019	Yes	DK	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	United States of America	Operational	Yes	No	GM, 2017	Yes	DK	I, M, S	Yes	Yes	Yes	DK	DK	DK
Central America, Mexico and Latin Caribbean	Costa Rica	Operational	No	Decrease	GM, 2014	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Cuba	In development	Yes	Halt	GM 2010	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Dominican Republic	Operational	No	Halt	GM, 2017	Yes	Yes	I, M, S	Yes	Yes	No	No	No	No
	El Salvador	Operational	No	Decrease	GM, 2014	Yes	Yes	M, S	Yes	No	No	No	No	No
	Guatemala	Operational	No	Decrease	GM, 2015	Yes	Yes	M, S	No	No	No	No	No	No
	Haiti	No plan	DK	No		Yes	No	I, M	Yes	No	No	No	No	No
	Honduras	In development	No	Halt	GM, 2004	Yes	Yes		Yes	No	No	No	No	No
	Mexico	Not in effect	Yes	No	GM, 2016	Yes	Yes	I, M, S	Yes	No	Yes	No	Yes	Yes
	Nicaragua	DK	DK	No	GM, 2010	Yes	Yes	I, M, S	Yes	Yes	Yes	No	Yes	Yes
Panama	Operational	No	No	GM, 2010	Yes	Yes	M,S	Yes	No	No	No	No	Yes	
Andean Area	Bolivia (Plurinational State of)	No plan	DK	No	SR, 2019	Yes	Yes		No	No	No	No	No	No
	Colombia	Operational	No	No	GM, 2007	Yes	DK	I, M, S	Yes	Yes	No	No	No	Yes
	Ecuador	Not in effect	No	No	GM, 2018	Yes	Yes	I, M, S	Yes	Yes	No	No	No	Yes
	Peru	Includes at least 2 x 2 NCD/RF	No	No	SR 2017	Yes	Yes	M, S	Yes	No	No	No	No	Yes
	Venezuela (Bolivarian Republic of)	Does not include at least 2 x 2 NCD/RF	No	No	GM, 2007	Yes	DK	I, M, S	Yes	Yes	No	No	Yes	No
Southern Cone	Argentina	Includes at least 2 x 2 NCD/RF	Yes	No	GM, 2018	Yes	DK	I, M,S	Yes	No	No	No	No	No
	Brazil	Operational	Yes	No	GM, 2014	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	No
	Chile	Operational	Yes	No	GM, 2017	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	No	No
	Paraguay	Operational	No	Halt	SR, 2011	Yes	Yes	I, M, S	Yes	No	No	No	No	No
	Uruguay	Operational	No	No	GM, 2013	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
Non-Latin Caribbean	Antigua and Barbuda	Operational	No	Decrease		No	NA	I, M, S	Yes	DK	DK	DK	Yes	No
	Bahamas	Includes at least 2 x 2 NCD/RF	No	Decrease	GM, 2019	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Barbados	Operational	No	Halt	GM, 2012	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Belize	Operational	No	Halt	GM, 2007	Yes	No	I, M, S	Yes	Yes	No	No	No	Yes
	Dominica	In development	No	No	GM, 2008	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Grenada	Not in effect	No	Decrease	SR, 2010	Yes	No	I, M, S	Yes	No	No	No	No	Yes
	Guyana	Operational	No	No	GM, 2016	Yes	Yes	I, M, S	Yes	No	No	No	Yes	Yes
	Jamaica	Not in effect	No	No	GM, 2016	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Saint Kitts and Nevis	In development	No	No	SR,2008	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	No	Yes
	Saint Lucia	Operational	No	No	GM, 2019	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	Yes	Yes
	Saint Vincent and the Grenadines	Operational	No	Decrease	GM, 2013	Yes	Yes	I, M, S	Yes	Yes	Yes	Yes	No	Yes
	Suriname	Operational	No	Halt	GM, 2013	Yes	Yes	I, M, S	Yes	Yes	Yes	No	No	Yes
	Trinidad and Tobago	Includes at least 2 x 2 NCD/RF	No	Decrease	GM, 2011	Yes	Yes	I, M, S	Yes	Yes	Yes	No	No	Yes
The Americas: Total		19/35 (54.3%) countries have operational integrated NCD policy, strategy, or national action plan	7/35 (20%) countries with specific diabetes policy, strategy, or national action plan	16/35 (45.7%) countries with GMF target halt or decrease diabetes	11/35 (31.4%) countries implemented PBS with GM in the last 5 years (2019)	34/35 (97.1%) countries have guidelines/protocols/standards for diabetes. 26 of 34 (74.3%) are used in more than 50% of the public healthcare facilities		28/35 (80%) countries have all essential diabetes medicines > 50% PHC	33/35 (94.3%) countries have blood glucose measurement generally available in > 50% PHC	22/35 (62.9%) countries have oral glucose tolerance test generally available in > 50% PHC	18/35 (51.4%) countries have HbA1c test generally available in > 50% PHC	13/35 (37.1%) countries have fundus examination generally available in > 50% PHC	15/35 (42.9%) countries have tuning fork test for diabetic foot generally available in > 50% PHC	22/35 (62.9%) countries have urine test strips for glucose and ketone measurement generally available in > 50% PHC

Definitions and Data Sources

Prevalence of Diabetes and Related Risk Factors

This tool includes the age-standardized prevalence of raised fasting blood glucose/diabetes, overweight/obesity in adults, physical inactivity in adults, and raised blood pressure. It also includes crude estimates prevalence of overweight/obesity in adolescents. The data are from the estimates of the World Health Organization (WHO) (3), according to the following definitions (4–6):

- **Raised blood glucose in adults (2014):** the percentage of the population aged 18 years and older who have a fasting blood glucose of 7.0 mmol/L or higher, or a history of a diagnosis of diabetes, or use of insulin or oral hypoglycemic drugs;
- **Overweight in adults (2016):** the percentage of the population aged 18 years and older having a body mass index ≥ 25 kg/m²;
- **Obesity in adults (2016):** the percentage of the population aged 18 years and older having a body mass index ≥ 30 kg/m²;
- **Overweight in adolescents (2016):** the percentage of the population aged 10–19 years who are more than one standard deviation above the median of the WHO growth reference for school-aged children and adolescents (7);
- **Obesity in adolescents (2016):** the percentage of the population aged 10–19 years who are more than two standard deviations above the median of the WHO growth reference for school-aged children and adolescents (7);
- **Insufficient physical activity in adults (2016):** the percentage of the population aged 18 years and older who not meet any of the WHO recommendations on physical activity for health of 150 minutes of moderate-intensity physical activity per week, or 75 minutes of vigorous-intensity physical activity per week, or an equivalent combination of moderate- and vigorous-intensity physical activity;
- **Raised blood pressure in adults (2015):** the percentage of the population aged 18 years and older having systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg.

Mortality Data

Estimates of death and DALYs are presented in age-standardized rates with the direct method using the WHO World Standard Population (8–10).

Health System Data

The information presented on the national capacity for diabetes prevention and control are based on the 2019 PAHO/WHO Noncommunicable Diseases Country Capacity Survey (11, 12).

The questions and the response categories for each area consulted are as follows:




- **Policies and national plans:** do not know, no plan for diabetes, no in effect, under development, at least 2 × 2 noncommunicable diseases (NCDs) / risk factors, and operational;
- **Plan specific for diabetes and its risk factors:** yes, no, do not know;

- **Population-based surveys, method of measuring blood glucose levels, and implementation year:** self-reported (SR), glucose measurement (GM), the survey does not include glucose levels (no glucose survey);
- **Availability of evidence-based national guidelines/standards/protocols for management of diabetes** used in 50% or more of healthcare facilities;
- **Availability of essential medicines for diabetes** in 50% or more in the primary healthcare facilities of the public sector: insulin (I), metformin (M), and sulfonylureas (S);
- **Availability of basic technologies for the management of diabetes** in 50% or more in the primary healthcare facilities of the public sector: GM, glucose tolerance test, glycated hemoglobin (HbA1c) test, dilated fundus examination, foot vibration perception by tuning fork, and urine strips for glucose and ketone measurement.

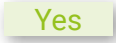



Legends

To facilitate visual interpretation, the scorecard shows the results with different colors:




Raised fasting blood glucose, diabetes risk factors, and diabetes mortality:

-  The 10 countries with the highest values for the prevalence of raised fasting blood glucose/diabetes, overweight/obesity, physical inactivity, raised blood pressure, and age-standardized mortality and DALYs rates from diabetes.
-  **RED** The country has shown a relative increase in the prevalence of diabetes and risk factors between 2010 and the latest year available for comparable estimates (except for raised blood pressure; the country shows increased or no changes in prevalence because the Global Monitoring Framework [GMF] target is to decrease the prevalence).
-  **GREEN** The country has shown a relative decrease in the prevalence of diabetes and risk factors between 2010 and the latest year available for comparable estimates.




Policies, targets, surveillance, guidelines, and availability of essentials medicines and technologies for diabetes:

-  **Yes** The country reports having the resource.
-  **No** The country reports not having the resource.
-  **DK** The country reports “do not know”.
-  **NA** Not applicable.




Noncommunicable diseases policy, strategy, or national action plan:

-  The country reports having an integrated operational plan that includes the four main NCDs (cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases) and the four major risk factors (tobacco use, physical inactivity, harmful use of alcohol, and unhealthy diets).
-  The country reports having integrated plans that include at least two of the four major NCDs and two main risk factors.
-  The country reports the resource is in development or that it does not have a policy/strategy/action plan, or the policy/strategy/action plan does not include at least 2 × 2 NCDs/risk factors.

Diabetes surveillance in population-based surveys section:

-  The population-based survey is nationally representative, with glucose measured and recently implemented (between 2015 and 2019).
-  The population-based survey is subnationally representative, or the glucose data are self-reported, and/or not recently implemented (2014 and before).
-  No survey data on glucose/diabetes.

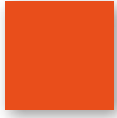
Essentials medicines for diabetes care section:

-  The country reports that the three essential medicines for diabetes management (I, M, and S) are generally available in 50% or more of pharmacies in the primary healthcare facilities of the public sector. The acronyms of the available medicines are shown in the box.
-  The country reports that at least two of the three essential medicines for diabetes management (I, M, or S) are generally available in 50% or more of pharmacies in the primary healthcare facilities of the public sector. The acronyms of the available medicines are shown in the box.
-  The country reports only one or none of the three essential medicines for diabetes management (I, M, and S) is generally available in 50% or more of pharmacies in the primary healthcare facilities of the public sector.

Basic technologies for early detection, diagnosis/monitoring diabetes care section:



The country reports having the basic technology for diabetes early detection, diagnosis/monitoring (GM equipment, oral glucose tolerance test, glycosylated hemoglobin [HbA1C] test, fundus examination, tuning fork test for diabetic root, or urine test strips for glucose and ketone measurement) as generally available in 50% or more of primary healthcare facilities of the public health sector.



The country reports having the basic technology for diabetes early detection, diagnosis/monitoring (GM equipment, oral glucose tolerance test, glycosylated hemoglobin [HbA1C] test, fundus examination, tuning fork test for diabetic root, or urine test strips for glucose and ketone measurement) as generally available in less than 50% of primary healthcare facilities of the public health sector.

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