172nd SESSION OF THE EXECUTIVE COMMITTEE

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PLAN OF ACTION FOR THE STRENGTHENING OF VITAL STATISTICS 2017-2022: FINAL REPORT

Background

1.   In 2017, the 29th Pan American Sanitary Conference, following the recommendations adopted in 2016 by the 55th Directing Council of the Pan American Health Organization (PAHO) *(1)*, approved the Plan of Action for the Strengthening of Vital Statistics 2017–2022 (Document CSP29/9 and Resolution CSP29.R4) *(2, 3)*. The purpose of this final report is to inform PAHO's Governing Bodies on the achievement of the objectives set out in the plan of action and to highlight the challenges that need to be overcome in the coming years to continue strengthening information systems, registries, and vital statistics.

Analysis of Progress Achieved

2.   The COVID-19 pandemic was a particularly difficult period in Latin America, where a combination of social disparities and vulnerabilities led to unprecedented health and economic crises. The official number of COVID-19-related deaths has been significantly underestimated, and it is the excess mortality rate that probably best reflects the total number of direct and indirect deaths during the pandemic. As of the end of February 2023, more than 2.9 million people had died from COVID-19 in the Region of the Americas according to official records.

3.   Prior to the COVID-19 pandemic, the Region had made progress, albeit unevenly, toward the targets for the objectives established under the plan of action. By 2022, 30% of the indicators had already been met or exceeded, while measurable progress had been made (to a greater or lesser extent) on 13 other indicators. While the pandemic affected the implementation of the plan of action, it also accelerated the development of digital and innovative solutions, such as the COVID-19 death certification guide and coding rules with new COVID-19 codes.

4.   This report is organized along the four strategic lines of action set out in the plan of action and breaks down the progress made on each of the indicators by objective, noting any limitations observed. The indicators are assessed according to the criteria for rating outcome and output indicators presented in Annex B of Addendum I to the Report of the End-of-Biennium Assessment of the PAHO Program and Budget 2018–2019/Final Report on the Implementation of the PAHO Strategic Plan 2014–2019 (Document CD58/5, Add. I) *(4)*.

Strategic Line of Action 1: Strengthening vital statistics systems

5.   This line of action comprises 16 of the plan of action's 27 indicators. Achievements by Member States include *a)* updates to legislation to facilitate the reporting and registration of births and deaths, *b)* an increase in the number of countries that assign a personal identification number to their citizens at birth, *c)* progress in dissemination of and increased access to vital statistics data under open government and e-government initiatives, and *d)* a significant decrease in the number of deaths attributed to ill-defined causes.

Objective 1.1: Update action plans for strengthening vital statistics within the framework of health information systems	
Indicator, baseline, and target	**Status**
1.1.1 Number of Member States that are updating their legislation and incorporating the reporting and use of birth and death registries Baseline (2017): 10 Target (2022): 20	*Partially achieved.* A total of 16 Member States updated their legislation. Active work is ongoing with committees of parliamentarians in the Region to accelerate this process.
1.1.2 Number of Member States that assign a personal identification number (PIN) to each newborn and each adult that does not have one Baseline (2017): 5 Target (2022): 10	*Exceeded.* A total of 13 Member States assign a PIN.
1.1.3 Number of Member States that implement nationally budgeted plans of action to strengthen vital statistics based on the updated assessment of their health information systems Baseline (2017): 10 Target (2022): 25	*Not achieved.* The number of Member States remains at the baseline. However, under the new Plan of Action for Strengthening Information Systems for Health 2019–2023 *(5)*, the target is expected to be exceeded in 2023.
1.1.4 Number of Member States that provide access to vital statistics databases in accordance with open data policies Baseline (2017): 4 Target (2022): 10	*Exceeded.* A total of 14 Member States provide access to open data on vital statistics. It is noteworthy that most countries in the Region are moving towards the dissemination and opening of health data under open government and e-government initiatives.

Objective 1.2: Improve the coverage and quality of birth registration (disaggregated by sex, ethnic group, place of residence, and administrative subdivision).	
Indicator, baseline, and target	**Situation**
1.2.1 Number of Member States with birth registration coverage at 90% or higher, and that reduce by at least 20% the gap in total coverage (data disaggregated by sex, ethnic group, place of residence, and administrative subdivision) Baseline (2017): 20 Target (2022): 25	*Not achieved.* The number of Member States remains at the baseline.
1.2.2 Number of Member States with birth registration coverage below 90%, and that reduce by at least 30% the gap in total coverage (data disaggregated by sex, ethnic group, place of residence, and administrative subdivision) Baseline (2017): 5 Target (2022): 10	*Exceeded.* A total of 12 Member States with birth registration coverage below 90% reduced the gap in total coverage by at least 30%.
1.2.3 Number of Member States that record birthweight for 100% of live births Baseline (2017): 7 Target (2022): 20	*Exceeded.* A total of 33 Member States and nine territories report low birthweight for the Core Indicators.

Objective 1.3: Increase the coverage and quality of death registration (disaggregated by age, sex, ethnic group, place of residence, and administrative subdivision)	
Indicator, baseline, and target	**Situation**
1.3.1 Number of Member States with death registration coverage at 90% or higher and that reduce by at least 20% the gap in total coverage (data disaggregated by age, sex, ethnic group, place of residence, and administrative subdivision) Baseline (2017): 14 Target (2022): 17	*Not achieved.* The number of Member States remains at the baseline.
1.3.2 Number of Member States with death registration coverage below 90% and that reduce the gap in total coverage by at least 30% (data disaggregated by age, sex, ethnicity, place of residence, and administrative subdivision) Baseline (2017): 11 Target (2022): 18	*Achieved.* A total of 17 Member States with death registration coverage below 90% reduced the gap in total coverage by at least 30%.

Objective 1.3: Increase coverage and quality of death registration (disaggregated by age, sex, ethnic group, place of residence, and administrative subdivision)	
Indicator, baseline, and target	**Situation**
1.3.3 Number of Member States that reduce the proportion of ill-defined causes of death by at least 30% of the 2015 baseline Baseline (2014):[1] 0 Target (2022): 12	*Partially achieved.* Four Member States have achieved a reduction of at least 30% in the proportion of deaths attributed to ill-defined causes *(6)*.
1.3.4 Number of Member States and territories that reduce the proportion of garbage codes used to classify causes of death by at least 30% of the 2015 baseline Baseline (2014):[2] 0 Target (2022): 25	*Partially achieved.* According to the Core Indicators 2019 *(6)*, one country has reduced by at least 30% the proportion of garbage-coded deaths. Eight other countries and territories are steadily making progress towards meeting the target.
1.3.5 Number of Member States that publish their mortality data within two years of the closing of mortality statistics Baseline (2017): 26 Target (2022): 35	*Partially achieved.* A total of 29 Member States publish their mortality data within two years of the closing of mortality statistics.
Objective 1.4: Have health information systems that provide mortality indicators	
Indicator, baseline, and target	**Situation**
1.4.1 Number of Member States that conduct active searches for maternal deaths, to reduce the under-registration and misclassification of these deaths Baseline (2017): 8 Target (2022): 15	*Achieved.* A total of 14 Members States reached the target for conducting active searches for maternal deaths.
1.4.2 Number of Member States that increase the capture, registration, and analysis of deaths in children under 5 (disaggregated by age, sex, and place of residence) and cause of death Baseline (2017): 0 Target (2022): 15	*Partially achieved.* Nine Member States have a specific section on their death certificate forms to capture data relating specifically to the deaths of children under 1, which should enable progress in the analysis of these deaths in the coming years.

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[1] As stipulated in the Plan of Action for the Strengthening of Vital Statistics 2017-2022, the baseline for this indicator will be "the one published in the Core Indicators 2016"; in the Core Indicators 2016, the data are listed as being from "circa 2014" *(7)*.

[2] Idem.

Objective 1.5: Establish mechanisms for the integration of vital statistics, civil registries, and other health information systems through governance, the development of standards, and interoperability	
Indicator, baseline, and target	**Situation**
1.5.1 Number of Member States with functional interinstitutional national committees for civil registration and vital statistics systems Baseline (2017): 7 Target (2022): 15	*Exceeded.* A total of 18 Member States have an interinstitutional committee for civil registration and vital statistics systems.
1.5.2 Number of Member States that capture personal identification numbers (PINs) during registration of vital statistics and through other health information systems, thus helping create links between systems Baseline (2017): 4 Target (2022): 15	*Exceeded.* A total of 18 Member States capture one or more PINs on their death certificates. The capture of PIN data in live birth registration systems and in other health information systems is being addressed in the context of the Plan of Action for Strengthening Information Systems for Health 2019–2023 *(4)*.

Strategic Line of Action 2: Modernizing vital statistics processes with the support of information and communications technologies

6.   This line of action includes six of the plan of action's 27 indicators. Member States' main achievements include, on the one hand, progress towards the digital transformation of the sector through the electronic sharing of vital statistics data and mortality records and, on the other, the incorporation of automated coding (according to the International Classification of Diseases [ICD]) as part of routine processes for integrating official information on mortality. Progress has also been made on open access to vital statistics data and standardization of databases. In addition, the Region has made progress in training, with approximately 150,000 health workers having learned to correctly fill out death certificates.

Objective 2.1: Increase the use of information and communications technology and *eHealth* initiatives for the capture, management, and dissemination of information related to vital statistics	
Indicator, baseline, and target	**Situation**
2.1.1 Number of Member States that link their birth registry offices with the national level through internet-based systems Baseline (2017): 7 Target (2022): 10	*Exceeded.* A total of 15 Member States share vital statistics data electronically at different administrative levels.

Objective 2.1: Increase the use of information and communications technology and *eHealth* initiatives for the capture, management, and dissemination of information related to vital statistics	
Indicator, baseline, and target	**Situation**
2.1.2 Number of Member States that electronically link their death registry offices with the national level through internet-based systems Baseline (2017): 4 Target (2022): 10	*Exceeded.* A total of 15 Member States share mortality records electronically among offices at different administrative levels.
2.1.3 Number of Member States that use automated coding of deaths, and ensure that this is linked to other systems, such as the birth registry Baseline (2017): 7 Target (2022): 20	*Not achieved.* The number of Member States remains at the baseline.
2.1.4 Number of Member States with mechanisms that offer physicians and other professionals in-person or virtual training to fill out a death certificate Baseline (2017): 7 Target (2022): 15	*Exceeded.* A total of 35 Member States offer physicians the online course developed by the Latin American and the Caribbean Network for Strengthening Health Information Systems (RELACSIS)[3] (both web-based and in an app-based version for mobile devices) to provide training in how to properly fill out a death certificate. Over 150,000 people have taken the course.
Objective 2.2: Facilitate access to and dissemination of vital statistics through Member States' electronic portals	
Indicator, baseline, and target	**Situation**
2.2.1 Number of Member States that have open access to vital statistics data (for example: electronic portal or other means of dissemination) Baseline (2017): 16 Target (2022): 25	*Achieved.* A total of 25 Member States have open access to vital statistics data and are moving towards standardization of databases, in accordance with technical principles established under their governments' open-government initiatives.

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[3] This course was included in the RELACSIS work program based on a best practice shared by Uruguay. For its development, PAHO received support from the WHO Collaborating Centers for the Family of International Classifications in Argentina and Mexico (the Argentine Center for the Classification of Diseases and Mexican Center for the Classification of Diseases, respectively). The course is currently available in English, French, and Spanish.

Objective 2.3: Develop governance and data management strategies for vital statistics, within the framework of health information systems	
Indicator, baseline, and target	**Situation**
2.3.1 Number of Member States that have a vital statistics governance and data management strategy within the framework of health information systems, based on a legal framework Baseline (2017): 16 Target (2022): 25	*Not achieved.* The number of Member States remains at the baseline.

Strategic Line of Action 3: Strengthening the capacity for management and analysis of vital statistics data

7.   This line of action includes three of the plan of action's 27 indicators. One of the Region's achievements is that more countries have strengthened their analytical capacity by incorporating disaggregated vital statistics and health data into their situation analyses. This progress has been complemented through workshops on the subject, which have strengthened analytical capacity in the Region.

Objective 3.1: Strengthen vital statistics data analysis	
Indicator, baseline, and target	**Situation**
3.1.1 Number of Member States that are strengthening technical capacity in vital statistics data analysis at the national and subnational level Baseline (2017): 25 Target (2022): 35	*Achieved.* A total of 33 Member States held workshops to strengthen analytical capacity, specifically for the analysis of inequalities and excess mortality from COVID-19.
Objective 3.2: Develop, disseminate, and use tools to automate data generation in order to facilitate vital statistics data analysis, with emphasis on geographical and demographic disaggregation	
Indicator, baseline, and target	**Situation**
3.2.1 Number of Member States that have automated data generation tools for vital statistics analysis Baseline (2017): 9 Target (2022): 15	*Not achieved.* The number of Member States remains at the baseline.

Objective 3.2: Develop, disseminate, and use tools to automate data generation in order to facilitate vital statistics data analysis, with emphasis on geographical and demographic disaggregation	
Indicator, baseline, and target	**Situation**
3.2.2 Number of Member States that conduct a comprehensive health situation analysis at least every two years to include vital statistics and health data disaggregated at the geographical and demographic level, as appropriate to the national context Baseline (2017): 10 Target (2022): 25	*Partially achieved.* A total of 13 Member States conducted a comprehensive health situation analysis that includes vital statistics data disaggregated at the geographical level and by sex and cause of death.

Strategic Line of Action 4: Strengthening and sharing of best practices related to vital statistics

8. Of note in relation to the two objectives under this line of action and their respective indicators is the participation of PAHO Member States in RELACSIS activities. Projects financed by PAHO's strategic partners have also been carried out.

Objective 4.1: Identify, promote, and disseminate best practices developed by the Member States so that they can be used to strengthen priority areas	
Indicator, baseline, and target	**Situation**
4.1.1 Number of Member States that participate in networks that support the strengthening of vital statistics and allow the dissemination of best practices in the Region Baseline (2017): 15 Target (2022): 30	*Partially achieved.* A total of 20 Member States and seven territories participated in at least one RELACSIS practice.
Objective 4.2: Establish partnerships with other international agencies and partners to strengthen vital statistics, with a view to harmonizing technical cooperation projects and programs and financing	
Indicator, baseline, and target	**Situation**
4.2.1 Number of countries carrying out at least two synergized projects with international agencies to strengthen vital statistics Baseline (2017): 10 Target (2022): 20	*Exceeded.* A total of 22 Member States conducted at least two projects with the Pan American Sanitary Bureau (PASB) to strengthen vital statistics. Of these, eight carried out a project with the World Bank and eight received financing from Vital Strategies Inc.

Lessons Learned

9.   The following are lessons learned and best practices:

a)   Coordination needs to be strengthened between the health sector, civil registries, and national statistics and census offices.

b)   The digitalization of processes accelerates improvements to online reporting of vital events and their registration and certification, particularly improvements in data quality, which continues to be a challenge for many countries.

c)   A full understanding of the pandemic's impact on relevant population subgroups (classified by age, sex, socioeconomic status, and place of residence) is important to determine the impact of public health initiatives and to better plan responses to future needs and emergencies.

d)   The areas of work under the initiative on information systems for health (known as IS4H), in the framework of RELACSIS, need to be reviewed based on the lessons learned during the pandemic and in the context of digital transformation processes in the health sector.

e)   Interprogrammatic work by various PASB technical units and interinstitutional work with the World Health Organization (WHO), other international organizations,[4] PAHO/WHO collaborating centers, institutions, and networks has been and will continue to be essential for achieving the targets and for strengthening information systems with an emphasis on vital statistics and civil registration.

Actions Needed to Improve the Situation

10.   The actions needed to improve the situation in the Region include, but are not limited to, the following:

a)   Involve the various key actors in civil registry and vital statistics information systems in countries.[5]

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[4] The Economic Commission for Latin America and the Caribbean (ECLAC), the Latin American and Caribbean Demographic Center (ECLAC Population Division), the World Bank, the Inter-American Development Bank, the Organization of American States, the United Nations Children's Fund, the United Nations Population Fund, the United States Agency for International Development, MEASURE-Evaluation and Management Sciences for Health, the Canadian International Development Agency, the United Nations Statistics Division, and the Statistical Conference of the Americas, among other international entities.

[5] Primarily the ministry of health, the civil registry office, the national statistics office, and the agency responsible for forensic medicine services, or their equivalents. The involvement of an entity hierarchically superior to all of these entities is also required.

b) Form interinstitutional committees to implement health information systems with an emphasis on the national vital statistics system, as well as multi-institutional technical commissions at the national level to adopt version 11 of the International Classification of Diseases (ICD-11)[6] and other standards.

c) Continue technical cooperation on vital statistics and civil registration in the context of the Plan of Action for Strengthening Information Systems for Health 2019–2023 (Document CD57/9, Rev. 1) *(5)*.

d) Continue to build the technical capacity of human resources by developing and disseminating tools to support central and subnational teams in managing and analyzing vital statistics, as well as by developing training on *i)* the WHO Family of International Classifications; *ii)* correct identification of causes of death on death certificates; *iii)* data processing, processes, and management; *iv)* digitization; and *v)* generation and analysis of information, among other areas.

e) Accelerate the digital transformation of vital statistics and civil registry systems to foster progress in the following areas: *i)* legal, technical, and semantic interoperability between different databases belonging to various ministries and agencies to enable, inter alia, understanding of coverage gaps in death and birth registration systems, with special attention to vulnerable groups, and to facilitate the development of innovative policies to move towards universal coverage; *ii)* civil registry data management (collecting, transmitting, storing, protecting, and retrieving data) through the incorporation of information and communication technologies; and *iii)* the integration of plans for the modernization of vital statistics and civil registry systems, and the adoption of ICD-11 with the digital transformation agenda and as part of digital maturity assessments.

Action by the Executive Committee

11. The Executive Committee is invited to take note of this report and provide any comments it deems pertinent.

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[6] Additional information is available at: https://icd.who.int/en/docs/icd11factsheet_en.pdf

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