Introduction

1. Vital and health statistics are essential components of health information systems. Immediate birth registration is a human right, provides identity, and facilitates access to such essential services as health, education, and social benefits (1, 2). Registration of deaths ensures inheritance rights for the population, allows voter rolls to be purged, reveals a society’s true epidemiological profile, and allows the health systems to adjust their public policies to help reduce avoidable deaths. This registration process yields vital statistics\(^1\), which are essential for decision-making, distribution of resources, policy-making, and interventions on behalf of the different populations of the countries and territories of the Region (1, 2). These data are an important component of health statistics. They are essential for the planning and implementation of public health programs, including measuring and monitoring progress toward achieving the Sustainable Development Goals (SDGs). For example, birth data by locality can help improve vaccination campaigns, while birthweight data can help identify high-risk areas. Similarly, electronic clinical files can facilitate the recording of causes of mortality, and therefore enhance the responses of the health authorities to emerging situations.

2. Recognizing the importance of the above, in 2007 the countries of the Region adopted Resolution CSP27.R12 (3) to improve the coverage and quality of data on vital and health statistics, formally adopting the Strategy for Strengthening Vital and Health Statistics in the Countries of the Americas (4). This Strategy became operational in 2008

\(^1\) Vital statistics compile information about essential events during the course of someone’s life, as well as relevant characteristics both of the events and the person. For statistical purposes, vital events are those related to the life and death of individuals and their families. They also include marital status (information about births, marriages, divorces, separations, and deaths, for example, obtained through the recording of these events) (United Nations Department of Economic and Social Affairs, Statistics Division; adapted from the document Principles and Recommendations for a Vital Statistics System, [revision 3]; available from: https://unstats.un.org/unsd/demographic/standmeth/principles)
through approval of the Regional Plan of Action for Strengthening Vital and Health Statistics 2008-2013 (5, 6).

3. Pursuant to the recommendations adopted by the Directing Council of PAHO in 2016 (7, 8), and considering such global strategies as the Global Civilian Registration and Vital Statistics: Scaling up Investment Plan 2015-2024 (prepared by the World Bank and the World Health Organization [WHO]) (2) and the Measurement and Accountability for Results in Health initiative (led by the World Bank, the U.S. Agency for International Development [USAID], and WHO) (9), the following is a proposal for a new action plan with targets and commitments for the period 2017-2022 that provides continuity and relevance for the regional process of strengthening vital statistics within the framework of health information systems (10).

4. This plan responds to the need for information and analysis indicated in various regional and global commitments such as the 2030 Agenda for Sustainable Development (11), the PAHO Strategy for Universal Access to Health and Universal Health Coverage (12), the Sustainable Health Agenda for the Americas 2018-2030 (13), and the Strategic Plan of the Pan American Health Organization 2014-2019 (14). It considers the challenges posed by the massive production of health-related data and data from other sectors, such as open access to data and the assignment of unique identifiers (or personal identification numbers [PINs]) so that data can be linked while people’s privacy and confidentiality is respected. It also recognizes that the subsystems of health information systems² should be interconnectable and interoperable and should tap into structured and unstructured data in order to establish patterns, trends, and forecasts of health events. This will also make it possible to understand and address health-related challenges, improve the quality and coverage of statistics, and continue to promote South-South cooperation.

Background

5. Taking the PAHO Constitution into account, in 1953 the 7th Directing Council recommended that the Member States prepare individual reports on health conditions for a four-year period, preferably with a statistical approach, for presentation at the 14th Pan American Sanitary Conference (held in Santiago, Chile, in October 1954) (15, 16). This conference marked the start of formal information-gathering on health conditions, trends, patterns, and challenges in the Region of the Americas.

6. In 1995, PAHO launched the Regional Core Health Data and Country Health Profile Initiative (17) with the object of monitoring the achievement of health targets and ensuring the availability of an up-to-date series of core data each year. This initiative, which was formalized in 1997 with the approval of the document Collection and Use of

² PAHO defines a health information system as an integrated effort to bring together interconnected and interoperable systems, data, information, knowledge, processes, standards, people, and institutions, supported by information and communications technology that interacts (or helps) to produce, identify, compile, process, store, and provide quality data and strategic information, that is free and open to the public, in order to improve policymaking and decision-making in public health systems.
Core Health Data (CD40/19) (18), would facilitate efforts to characterize the health situation and trends in the countries of the Region of the Americas.

7. Later, the 2008 Regional Plan of Action for Strengthening Vital and Health Statistics included four components: country, intercountry, corporate, and global. The country component included specific actions and solutions defined in each country’s national strategic plan. The intercountry component was addressed by forming the Latin American and Caribbean Network to Strengthen Health Information Systems (RELACSIS). The corporate component refers to the inter-programmatic work carried out among several technical units of PAHO. Finally, in the global component, partnerships were forged with several international agencies, which has also facilitated fulfillment of the United Nations Secretary General’s mandate on interagency collaboration for the implementation of national and regional projects.

8. The technical cooperation provided by PAHO, as well as the activities that have been implemented and those proposed in this plan for the period 2017-2022, are framed by the PAHO Strategic Plan 2014-2019 (14). They also respond to the commitments to meet the different global, regional, subregional, and national targets, including those linked to the Sustainable Development Goals (11) and the United Nations Global Strategy for Women’s, Children’s, and Adolescents’ Health (19); the Montevideo Consensus on Population and Development of the Economic Commission for Latin America and the Caribbean (ECLAC) (20); the PAHO Health Agenda for the Americas 2008-2017 (21) and the new Sustainable Health Agenda for the Americas 2018-2030 (13).

9. In response to the request from the Member States of the Caribbean subregion, in 2016 the Organization proposed a new framework for the implementation of health information systems (10). Aimed at producing strategic information to benefit public health, this framework is defined as a mechanism for managing interoperable systems3 that administer data from different sources. This mechanism would promote access to open data where appropriate; foster the ethical use of that information while safeguarding the principles of privacy and confidentiality; and make efficient use of information and communications technologies (10). Recognizing the importance of the new framework related to health information systems and following the recommendation of the 160th Session of the Executive Committee (2017), a new strategy and plan of action on health information systems will be drafted and submitted for consideration by the Member States in 2018. One of its components will focus on the production of data to strengthen health statistics. This general document will encompass the different subsystems that exist in the countries as part of health information systems, which will help strengthen health information in general.

---

3 Interoperability is defined as the exchange of data among systems, databases, and devices. In order for two systems to be interoperable, they must be able to exchange data and subsequently present them in a way that is understandable to the user [definition adapted from the one prepared by the Healthcare Information and Management Systems Society].
Situation analysis

10. It is estimated that there were 15 million births in the Region of the Americas in 2016 and that around 3.2 million newborns were not registered (22). It is also calculated that roughly 6.8 million deaths occurred that same year, with an underreporting level of 5.8% (or approximately 400,000 unreported deaths) (22). After approval of the Regional Plan of Action for Strengthening Vital and Health Statistics in 2008, progress reports were submitted in 2010 and 2013 (23, 24). In 2016, a final report was presented to the 55th Directing Council on the achievements made over the previous eight years thanks to the efforts and initiatives of the Member States and their partners in the Region. It indicated that 20 countries had established interinstitutional committees to strengthen their health information systems and 35 countries had conducted assessments of the state of their vital statistics, which helped increase coverage of birth and death registration and improve the quality of their statistics (7).

11. With regard to the coverage of birth registration, 21 of 25 baseline countries (84%) met the target established in the plan, though it was recognized that areas of low coverage persisted within some countries. In regard to the recording of birthweight, only three of the 16 baseline countries reached the established target of 100%.

12. According to the information from the countries that provided data, the estimated death registration coverage in the Region was 94.2% (with a range of 52.8% to 99.8%), and the proportion of deaths classified using “garbage codes” was 15.4% (circa 2014) (22). Considering the baseline of the previous plan and the achievement of the proposed target, 16 of the 25 countries (64%) met their respective targets and 12 improved beyond expectations. As regards the quality targets, 23 of 26 countries (88%) met them, and in six of them the proportion of ill-defined deaths had been reduced. Nevertheless, according to the plan’s latest report, greater efforts are needed to improve the quality of death certificates and the coding of causes of death, since these data enable countries to obtain robust epidemiological morbidity and mortality profiles, and to collect information on maternal mortality (7).

13. The rapid development of information and communications technologies can be taken advantage of to introduce automated coding of the underlying cause of death. However, it should be noted that access to accurate and sufficient information is critical to making headway in this area. Moreover, there are new opportunities for innovation with respect to the assignment of a unique personal identifier and its use in linking medical records with civil registries.

---

4 This refers to the proportion of deaths classified as deaths due to ill-defined causes (Chapter XVIII of the International Statistical Classification of Diseases and Related Health Problems 10th Revision [ICD-10]).
Main challenges

14. Experience to date indicates that countries face both opportunities and challenges as they strive to strengthen their health information systems, including vital statistics (9, 25). This plan focuses on strengthening administrative birth and death registries. Functional systems should produce analyses and data useful for decision-making and for the development of evidence-based health policies, and implement open health data policies that ensure privacy and confidentiality in accordance with the concepts of the data revolution (26) and “datification” (the transformation of information into new forms of data). This plan of action seeks to overcome the following challenges that hinder the availability of sound vital statistics:

a) Lack of coordination mechanisms and legal and regulatory frameworks, including those related to the assignment of a personal identification number (PIN), which help to link the reporting of life events at health units with civil registry offices and statistics institutes, bearing in mind the need for interconnected, interoperable systems, while fostering security and confidentiality.

b) Low coverage and quality of birth and death registration, particularly for populations in situations of vulnerability (23).

c) Need for evidence that can be used as a basis for policy-making and decision-making.

d) Insufficient national governance and data management policies and strategies that would help to improve the quality and timely notification of data gathering and information management processes.

e) Need to develop effective governance mechanisms for integrating the public health activities contained in e-governance initiatives, based on the needs of the sectors involved, in order to improve the effectiveness of information systems and the preparation and accessibility of vital and health statistics.

f) Need to strengthen the capacities of human resources in order to improve governance of data, data quality, and its subsequent analysis.

g) Need to develop strategies to strengthen the registration of births and deaths, regardless of where they occur, to improve the accuracy and completeness of information systems.

h) Need to raise awareness in the population about the importance of registering births and deaths in accordance with the corresponding regulatory framework, by requiring the registration and use of birth and death certificates throughout the life course. Personal identification numbers (PINs) must be assigned and used to capture all events, including individual interactions with the health care system throughout the life of each individual.

---

5 Coverage is part of the quality indicators, but for the purposes of this document, it is handled separately.
i) The automated and accurate coding of deaths and basic causes of death requires the availability of technology along with data from other subsystems, such as surveillance systems for cancer and noncommunicable diseases.

j) Insufficient financing and investment in the national budgets to ensure the sustainability of health information systems and vital statistics.

k) The development of health information systems requires national policies to allow convergence of the systems for interconnectivity and interoperability, as well as convergence of initiatives and investments.

l) Need to establish regional and subregional groups to develop lines of research on specific topics related to strengthening the quality of health statistics: mortality, demographics, (health services) coverage, socioeconomic aspects, morbidity, risk factors, and resources.

15. It is important to mention that the strengthening of vital statistics systems will require continuous political commitment, efficient administration, and sufficient investment to guarantee and optimize the necessary resources.

**Plan of Action (2017-2022)**

16. The purpose of this plan is to contribute to the strengthening of national vital statistics subsystems within the framework of health information systems, and to do so by achieving universal registration of births and deaths and improving the quality of registration of causes of death. This will provide information to improve the definition of public health policies and planning, which will foster better governance of data, and the production, analysis, and dissemination of vital statistics, as well as access to them. This proposal builds on the accomplishments of the earlier Regional Plan of Action for the Strengthening of Vital and Health Statistics (2008-2013) and will offer responses to the assessment that each country will make.

17. The plan includes four strategic lines:

a) Strategic line of action 1: Strengthening vital statistics systems;

b) Strategic line of action 2: Modernizing vital statistics processes with the support of information and communications technologies;

c) Strategic line of action 3: Strengthening the capacity for management and analysis of vital statistics data; and

d) Strategic line of action 4: Strengthening and sharing best practices related to vital statistics.

18. These strategic lines become operational at four levels: *country* (including the subnational level), *intercountry*, *institutional*, and *interagency*. Each strategic line has objectives associated both with process and outcome indicators, and their implementation is interrelated. The level of development of the countries of the Region was considered
when establishing the number of countries in the targets. A technical data sheet will be developed for each indicator.

**Strategic lines of action**

**Strategic line of action 1: Strengthening vital statistics systems**

19. The premise of this strategic line is to update situation assessments in each country, with a focus on subnational contexts, including the registration of deaths and births captured by the health sector to complement coverage and correct inaccuracies. These assessments may serve as a basis for developing national action plans to strengthen vital statistics within health information systems, and these plans should reflect the current status as well as the national targets for improved coverage and quality of statistics that are deemed as high priority, taking into account international quality standards and recommendations. Since the countries have socioeconomic differences, each will need to customize its approach to this strategic line. Furthermore, regional lines of work will be established that may be addressed through technical cooperation. It is proposed that countries begin by improving health data on vulnerable groups, particularly women and children, as this would be an opportunity to remedy deficiencies in the civil registration and vital statistics systems in order to improve the health of these groups (2, 27, 8).

20. Solidarity among countries (in the context of South-South cooperation) is a cross-cutting theme of the previous plan and is the model that should continue to be implemented using mechanisms such as the Latin American and Caribbean Network for Strengthening Health Information Systems (RELACSIS). RELACSIS will continue to be one of the main ways to address the intercountry component of this plan, including the strengthening of the Network’s operational mechanisms. It is recognized that some countries and territories have low levels of birth and death registration and that additional efforts must be made to meet the proposed targets.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Update action plans for strengthening vital statistics within the framework of health information systems.</td>
<td>1.1.1 Number of Member States that are updating their legislation and incorporating the reporting and use of birth and death registries.</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>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.</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

---

6 Once the assessment of vital statistics in the Region is completed, adjustments may be made to the baselines of the indicators.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1.3</strong> 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.</td>
<td>10</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>1.1.4</strong> Number of Member States that provide access to vital statistics databases in accordance with open data policies.</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>1.2 Improve the coverage and quality of birth registration (disaggregated by sex, ethnic group, place of residence, and administrative subdivision).</strong></td>
<td>20</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>1.2.1</strong> 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).</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>1.2.2</strong> 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).</td>
<td>7</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>1.3 Increase coverage and quality of death registration (disaggregated by age, sex, ethnic group, residence and administrative subdivision).</strong></td>
<td>14</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>1.3.1</strong> 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).</td>
<td>11</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>
### Objective

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>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.</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>1.3.5 Number of Member States that publish their mortality data within two years of the closing of mortality statistics.</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>1.4.1 Number of Member States that conduct active searches for maternal deaths, to reduce the under-registration and misclassification of these deaths.</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>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.</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>1.5.1 Number of Member States with functional interinstitutional national committees for civil registration and vital statistics systems.</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>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.</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

### Strategic line of action 2: Modernizing vital statistics processes with the support of information and communications technologies


---

7 The baseline for this indicator will be the one published in the Core Indicators 2016 (22).
8 The baseline for this indicator will be the one published in the Core Indicators 2016 (22). Ill-defined causes of death are those from intermediate causes, final events, unspecified complications or ill-defined causes assigned as the underlying cause of death. Available from: [https://pophealthmetrics.biomedcentral.com/articles/10.1186/1478-7954-8-9](https://pophealthmetrics.biomedcentral.com/articles/10.1186/1478-7954-8-9)
the use of information and communications technologies and eHealth\textsuperscript{9} initiatives offers enormous potential for increasing the effectiveness and efficiency of civil registration systems, vital statistics, and health information, including aspects such as the introduction of automated coding programs and the unique personal identifier, which facilitates information sharing and guarantees confidentiality and privacy. It is recognized that it is important for the personnel in charge of filling out death and birth certificates, as well as those coding them, to be trained in the proper completion of forms and code selection. The main trends in the Region show how the use of live birth registration is the gateway to electronic health systems that help various eHealth programs and initiatives function and allow their interoperability (28, 30).

22. Furthermore, information and communication technologies increase efficiency in resource use and coverage and offer new options for remote areas. Consideration should be given to the creation of infrastructure to allow connectivity with hard-to-reach areas, so that technology can be used to achieve the desired results. On-line registration and the use of electronic devices such as computers, mobile phones, and tablets have proven to be beneficial for the collection, maintenance, transfer, analysis, and dissemination of data from civil registration and vital statistics systems. Some countries have successfully used mobile phones for health services to report births and deaths to civil registry offices (31). With respect to mortality, one recognized way to improve data quality is the automated coding of the underlying cause of death.

23. Distance learning ensures that more people have access to programs and initiatives to strengthen their capacities. In order to allow interoperability\textsuperscript{10} and the integration of different data sources, it is essential to adopt a governance strategy at the national level to coordinate the development of standards, protocols, and infrastructure.

24. Countries will be encouraged to compile and disaggregate data on births and deaths by variables such as age, sex, level of schooling, ethnicity, migration status, and other characteristics relevant to the national context, assessing the quality of the data and promoting their use for public health analysis. It is recognized that some countries have not yet harmonized data procedures and standards in their different information subsystems.

\textsuperscript{9} PAHO uses the term eHealth as synonymous with cyberhealth. According to WHO, eHealth is “the safe and cost-effective use of information and communications technology for health and related areas, including health care services, health surveillance and documentation, as well as health education, knowledge, and research.” (29) The concept of eHealth is associated with “health within eGovernment”.

\textsuperscript{10} For the purposes of this plan, the term interoperability will be used to mean the ability of systems to exchange information and to use the information exchanged.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td><strong>2.1.1</strong> Number of Member States that link their birth registry offices with the national level through internet-based systems.</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>2.1.2</strong> Number of Member States that electronically link their death registry offices with the national level through internet-based systems.</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>2.1.3</strong> Number of Member States that use automated coding of deaths, and ensure that this is linked to other systems, such as the birth registry.</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>2.1.4</strong> Number of Member States with mechanisms that offer physicians and other professionals in-person or virtual training to fill out a death certificate.</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>2.2 Facilitate access to and dissemination of vital statistics through Member States’ electronic portals.</td>
<td><strong>2.2.1</strong> Number of Member States that have open access to vital statistics data (for example: electronic portal or other means of dissemination).</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>2.3 Develop governance and data management strategies for vital statistics, within the framework of health information systems.</td>
<td><strong>2.3.1</strong> 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.</td>
<td>16</td>
<td>25</td>
</tr>
</tbody>
</table>

**Strategic line of action 3: Strengthening the capacity for management and analysis of vital statistics**

25. The development and evolution of health information systems in the countries has made it necessary to strengthen the technical capacity of the personnel responsible for managing, producing, and analyzing the use of vital statistics data. This will enable them to extract and identify subnational and local patterns and trends in the burden of disease more efficiently to support evidence-based decision-making. Thus, interventions can be tailored to specific subpopulations, helping to turn health information systems into dynamic tools for health intelligence and for the planning and implementation of health programs and policies.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1 Strengthen vital statistics data analysis.</strong></td>
<td><strong>3.1.1 Number of Member States that are strengthening technical capacity in vital statistics data analysis at the national and subnational level.</strong></td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td><strong>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.</strong></td>
<td><strong>3.2.1 Number of Member States that have automated data generation tools for vital statistics analysis.</strong></td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>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.</strong></td>
<td>10</td>
<td>25</td>
</tr>
</tbody>
</table>

**Strategic line of action 4: Strengthening and sharing of best practices related to vital statistics**

26. The sharing of best practices has helped improve the production of vital statistics and the management of health data throughout the Region. Such sharing includes the assessment and selection of the best practices developed by countries to address the priorities set forth in this document, which can be adapted to specific national and subnational contexts. This helps identify current practices and gaps, which can be addressed by designing new initiatives and strategies. This plan proposes to continue promoting partnerships with various institutions and networks to facilitate technical cooperation, including training on related topics.

27. One such network, the Latin American and Caribbean Network for Strengthening Health Information Systems (RELACCSIS), has promoted coordination between PAHO and other networks such as the Routine Health Information Network (RHINO), the WHO-FIC Network, the Ibero-American Network of Collaborating Centers, and the Latin American Population Association (ALAP), among others. Other WHO regions have expressed interest in learning about this experience in building intercountry networks. RELACCSIS will continue to serve as a mechanism supporting this plan.

28. In order to identify and work on common needs, international agencies and other partners should continue to collaborate on vital statistics quality and analysis and on information and communications technologies, aligning their technical cooperation programs and financing in related areas (32). This will also help countries to establish interoperable and interconnected systems, minimizing the need for multiple versions of a single indicator. International agencies and other partners can help design standards and foster the exchange of best practices to strengthen vital statistics systems within the context of health information systems, promoting their interoperability.
### Objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline (2017)</th>
<th>Target (2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Identify, promote, and disseminate best practices developed by the Member States so that they can be used to strengthen priority areas.</td>
<td>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.</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>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.</td>
<td>4.2.1 Number of countries carrying out at least two synergized projects with international agencies to strengthen vital statistics.</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

### Monitoring and evaluation

29. Progress made through this plan can be measured by achievement of the targets established for the indicators, and by analyzing information on the specific vital and health statistics of each country. For the mortality indicators, data should be taken from the PAHO/WHO Regional Mortality System, furnished annually by the countries and territories of the Americas. For the other indicators, PAHO will compile data from the national health systems of the countries and territories. A mid-term report will be presented to the Governing Bodies in 2019 and the final evaluation report will be presented in 2022. The plan also operationalizes the commitments under the PAHO Strategic Plan 2014-2019, in particular outcome 4.4 (“All countries have functioning health information and health research systems”).

### Financial implications

30. In the period 2017-2022, more than US$ 7.5 million\(^\text{11}\) (an annual average of $1.5 million) must be invested in PAHO technical cooperation activities linked to strengthening vital statistics. The greatest challenges are the updating and modernization of registration processes and information systems, work at the subnational level, and the strengthening of health analysis capacity. Currently programmed activities encompass all the components of this plan, but there must be enough resources to strengthen them and scale them up as proposed.

31. Countries must invest in the implementation and improvement of information systems to generate vital statistics, given the need for the best possible coverage and timely, stratified, high-quality data, disaggregated at the national and subnational level.

\(^\text{11}\) Unless otherwise indicated, all monetary figures in this report are expressed in United States dollars.
Action by the Pan American Sanitary Conference

32. The Conference is asked to review this new plan of action, make any relevant comments and recommendations, and consider approving the corresponding proposed resolution that appears in Annex A.

Annexes

References


PROPOSED RESOLUTION

PLAN OF ACTION FOR THE STRENGTHENING OF VITAL STATISTICS 2017-2022

THE 29th PAN AMERICAN SANITARY CONFERENCE,

(PP1) Having reviewed the Plan of Action for the Strengthening of Vital Statistics 2017-2022 (Document CSP29/9);

(PP2) Recognizing the importance of improving the coverage and quality of vital statistics in order to have more reliable and valid information for the design, implementation, monitoring, and evaluation of health policies in countries, following international recommendations;

(PP3) Recognizing the need to have valid and timely data with the greatest degree of disaggregation possible at the subnational, national, subregional, and regional levels for the assessment and formulation of health policies and the monitoring of indicators such as those established for the Sustainable Development Goals, the Sustainable Health Agenda for the Americas, and the PAHO Strategic Plan;

(PP4) Aware of the efforts made and the achievements obtained thus far through the previous Plan of Action for Strengthening Vital and Health Statistics (2008-2012), and of the recommendations by the Member States to continue and expand it, emphasizing the subnational levels and statistical analytical capacity;

(PP5) Considering the importance of a new action plan that gives continuous and constant guidance to improve the coverage and quality of vital statistics in the countries of the Americas,
RESOLVES:

(OP)1. To approve the Plan of Action for the Strengthening of Vital Statistics 2017-2022 (Document CSP29/9) within the context of the specific conditions of each country.

(OP)2. To urge the Member States to:

a) promote participation and coordination with national and sectoral statistics and civil registry offices, health information and epidemiology departments, priority programs and finance units of ministries of health, PAHO/WHO collaborating centers, and other public and private actors involved in analyzing the situation and preparing or strengthening national plans of action;

b) consider mobilizing human, technological, and financial resources for the implementation of this new plan of action to strengthen vital statistics;

c) coordinate with other countries of the Region in the implementation of their own plans of action and in the dissemination and use of tools to help strengthen the production of vital statistics, including information and communications technology;

d) increase the commitment to and participation in networks created to strengthen health information systems such as the Latin American and Caribbean Network for the Strengthening of Health Information Systems (RELACSIS) and the WHO Family of International Classifications Network (WHO-FIC Network), in order to make use of the invested resources and take maximum advantage of the contributions made through South-South cooperation.

(OP)3. Request the Director to:

a) work with the Member States to evaluate and update their national action plans and to disseminate tools that favor the production and strengthening of vital statistics within a renewed approach to health information systems;

b) strengthen coordination of the plan of action with similar initiatives developed by other international technical and financial agencies and global initiatives to strengthen vital statistics in the countries;

c) work with the Member States in developing a strategy and plan of action for strengthening health information systems, to be submitted for consideration by the Governing Bodies in 2018;

d) report periodically to the Governing Bodies on the progress made and challenges faced in implementation of the plan of action.
1. **Agenda item:** 4.7 - Plan of Action for the Strengthening of Vital Statistics 2017-2022

2. **Linkage to PAHO Program and Budget 2016-2017:**
   a) **Categories:** 4. Health systems
   b) **Program areas and outcomes:** Program area 4.4 (“Health systems information and evidence”), outcome (OCM) 4.4 (“All countries have functioning health information and health research systems”)

3. **Financial implications:**
   a) **Total estimated cost for implementation over the lifecycle of the resolution (including staff and activities):**

<table>
<thead>
<tr>
<th>Areas</th>
<th>Estimated cost (US$)</th>
<th>Percentage of the total amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources</td>
<td>1,125,000</td>
<td>15%</td>
</tr>
<tr>
<td>Training</td>
<td>1,875,000</td>
<td>25%</td>
</tr>
<tr>
<td>Consultants/service contracts</td>
<td>750,000</td>
<td>10%</td>
</tr>
<tr>
<td>Travel and meetings</td>
<td>2,250,000</td>
<td>30%</td>
</tr>
<tr>
<td>Publications</td>
<td>375,000</td>
<td>5%</td>
</tr>
<tr>
<td>Supplies and other expenses</td>
<td>1,125,000</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total (*)</strong></td>
<td><strong>7,500,000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

   (*) Of this total, 40% is assigned at the regional level and 60% for implementation at the country level.

   b) **Estimated cost for the 2018-2019 biennium (including staff and activities):** For the 2018-2019 budget, and according to the documented experience of the previous Plan of Action for Strengthening Vital and Health Statistics (2008-2012), implementation of this plan requires $3 million for the biennium. Seed funds have been allocated by PAHO. Additionally, financial resources are available from the United States Agency for International Development (USAID) to strengthen the plan of action and, in particular, to strengthen the Latin American and Caribbean Network for the Strengthening of Health Information Systems (RELACSYS). Efforts are also continuously made to mobilize resources from technical and financial agencies to cover the part that is still unfunded. Work will be coordinated with funds established in the country offices for projects related to strengthening of the health information systems in funded health programs.
c) Of the estimated cost noted in b), what can be subsumed under existing programmed activities?

Currently programmed activities include all the established strategic lines, which will be made operational through the four components of the plan. A minimum of $600,000 would be expected for the first biennium.

4. Administrative implications:

a) Indicate the levels of the Organization at which the work will be undertaken:

- Country component: prioritize countries according to the results of assessment of the previous plan to strengthen vital statistics and subnational levels.
- Intercountry (and subregional) component: prioritize the activities and best practices that can be designed subregionally or within a group of countries with similar limitations and allow room for specificity at the subnational level.
- Institutional component (PAHO): prioritize inter-programmatic work for achievement of the Sustainable Development Goals (SDGs) and the targets of PAHO’s Strategic Plan.
- Interagency and regional component: carry out activities in coordination with other agencies (UNFA, UNDP, UNICEF, UNESCO, FAO), financing organizations (World Bank, Inter-American Development Bank), and subregional organizations (CAN, MERCOSUR, SICA, RESSCAD, COMISCA, etc.).

b) Additional staffing requirements (indicate additional required staff in full-time equivalents, noting necessary skills profile):

**Monitoring activities**: Four posts (P2/Demographer and P3/Specialist in health information systems with emphasis on vital statistics; P1/Support for maintenance and updating of the RELACSIS platforms; G4/Administrative support).

**At the country level**: Coordinate with the PAHO/WHO representative offices in order to have a focal point designated to coordinate and support consolidation of the plan in the country, especially at the subnational level.

Specific contracts for consultants to promote the plan in the countries in accordance with the country’s prioritization of the issue. Countries with greater need for strengthening vital statistics will be prioritized.

**Headquarters**: A P4/consultant to coordinate the plan with the involvement of at least two professionals from the Health Information and Analysis unit for its implementation.

**English-speaking Caribbean**: One position as focal point for the subregion (P3 or P4).

**Time frames (indicate broad time frames for the implementation and evaluation)**:

- Updating stage: 2017-2018.
## ANALYTICAL FORM TO LINK AGENDA ITEM WITH ORGANIZATIONAL MANDATES

1. **Agenda item:** 4.7 - Plan of Action for the Strengthening of Vital Statistics 2017-2022

2. **Responsible unit:** Communicable Diseases and Analysis of Health/Health Information and Analysis (CHA/HAS)

3. **Preparing officer:** Dr. Gerardo de Cosio, Chief, Health Information and Analysis Unit

4. **Link between Agenda item and Health Agenda for the Americas 2008-2017:** The component related to “Strengthening the National Health Authority”

5. **Link between Agenda item and the PAHO Strategic Plan 2014-2019:**
   Category 4 (“Health Systems”), program area 4.4 (“Health systems information and evidence”), outcome (OCM) 4.4 (“All countries have functioning health information and health research systems”). The Plan of Action for the Strengthening of Vital Statistics 2017-2022 helps achieve nine impact goals, since having reliable, timely, quality data with optimal coverage is essential for decision-making and for the monitoring and evaluation of these goals. Furthermore, activities undertaken for the strengthening of vital statistics are strongly linked with categories 1, 2, 3, 5, and 6.

6. **List of collaborating centers and national institutions linked to this Agenda item:**
   - For the countries of the Region: health statistics offices at the ministries of health, civil registry offices, national statistics institutes, collaborating centers of the WHO Family of International Classifications Network (WHO-FIC Network) of PAHO/WHO of Argentina (Centro Argentino de Clasificación de Enfermedades, CACE), Cuba (Centro Cubano para la Clasificación de Enfermedades, CECUCE), North America (for the United States and Canada, National Center for Health Statistics, NCHS), Mexico (Centro Estatal de Vigilancia Epidemiológica y Control de Enfermedades, CEVECE), Venezuela (Centro Venezolano de Clasificación de Enfermedades, CEVECE) and the National Reference Center (NRC) of Chile; universities, schools of medicine, schools and institutes of public health. Other national governmental offices linked to the production and analysis of health and related data.
   - Subregional initiatives: Southern Common Market (MERCOSUR), Andean Health Agency-Hipólito Unanue Agreement (ORAS-CONHU), Union of South American Nations (UNASUR), Meeting of Ministers of Health of Central America (COMISCA), Special Meeting of the Health Sector of Central America and the Dominican Republic (RESSCAD), and the countries of the Caribbean through the Caribbean Public Health Agency (CARPHA), among others.
- Multilateral and development partners: United States Agency for International Development (USAID), Global Affairs Canada, and the Mexican Agency of International Development Cooperation (AMEXID), among others.
- Academic and research community: National Institute of Public Health of Mexico (INSP), Center for Health Research and Studies of Nicaragua (CIES), Institute of Public Health of the University of Lanús of Argentina (ISCo), Latin American Population Association (ALAP), and Latin American Demography Association (ALADE), among others.
- Other PAHO units: Family, Gender, and Life Course (FGL); Health systems and services (HSS); Gender and Diversity (GD); Latin American Center for Perinatology (CLAP); Department of Communications (CMU); Knowledge Management, Bioethics, and Research (KBR); Sustainable Development and Equity in Health (SDE), among others.

7. **Best practices in this area and examples from countries within the Region of the Americas:**
   - Virtual course on properly completing and filing death certificates, available in three languages (Spanish, English, and French) ([www.relacsis.org](http://www.relacsis.org)).
   - Intercountry component of the plan of action to strengthen vital statistics within the framework of South-South cooperation.
   - Development of human resources training methodologies and updating of classification systems for the PAHO/WHO Family of International Classifications.
   - Development of practices for data production at different levels and sectors.
   - Networking with other United Nations agencies for work on vital statistics.

8. **Financial implications of this Agenda item:**
   It is estimated that additional investments of approximately $7.5 million, or an average of $1.5 million per year, are necessary to strengthen health information systems in the 2017-2022 period. Investment in health information systems is essential to monitor and evaluate all the targets set in the PAHO Strategic Plan and measure their impact. It is particularly noted that this work plan stresses the strengthening of vital statistics at the subnational levels and in countries’ priority sectors, as well as in the Pan American Sanitary Bureau.