



**Organización
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**STRATEGY FOR STRENGTHENING VITAL AND HEALTH STATISTICS IN
THE COUNTRY OF THE AMERICAS (SSVHS)**

**SITUATION OF VITAL, MORBIDITY, AND HEALTH RESOURCES AND
SERVICES STATISTICS IN THE AMERICAS**

ARGENTINA

Situation of the vital and health statistics in the country, around 2005
Preliminary, subject to being reviewed

November 2007

This document presents some results reached through the analysis of the information from a Guide developed by PAHO in 2005 and completed by the countries during the Meeting of Directors of Statistics (RD-2005) carried out in Buenos Aires in November of this year.

The information is qualitative and quantitative in nature and provides a view of the situation of the vital, morbidity, and health resources and services statistics of every country in the Americas in terms of coverage and quality. It also provides information on the possible determining factors for health data problems, taking into account that they can occur at different moments in the production process, from the time of the event, occurrence or practice, up to the dissemination of the products of the health statistics system.

The information about the production of data, which emanates from the statistical offices of each country, constitutes a basic baseline for the strengthening of health statistics in each country, and will allow the Organization to orient its technical assistance and collaborate with the countries in the design, follow-up, and maintenance of activities to improve the coverage, quality and opportunity of the statistics that are useful to governments in the definition of health policies and monitoring of results, as in the case of the Millennium Goals, a commitment of the national states.

The countries of the Americas show great heterogeneity in terms of health statistics, reflected in varying coverage and quality, with enormous differences at the subnational level as well. In addition, the results confirm that there exists a great accumulation of experience and knowledge in the Region that has allowed for the development of good practices to resolve problems linked to validity, quality, reliability and timeliness of the information that is produced.

It is demonstrated that the countries realize the importance of improving these information issues and they show notable solidarity and disposition to share those practices and to spread them in the whole Region.

Encouraged by the countries, the Organization has defined a regional strategy for the strengthening of vital, morbidity, resources and health services statistics. In the short term, this strategy will be expressed in an Action Plan that will contemplate the realities of the countries, while taking advantage of the numerous resources available for the development and implementation of regional activities, and promoting horizontal cooperation and the coordination with other international agencies with similar goals of quality for the health information that they use.

Hopefully, the analysis presented here will soon be updated to include every country, since there have been important progresses in some of them in terms of coverage and quality, as a result of changes in the information production processes. On the other hand, given the complexity of the information analyzed, there may be some imprecision in the description of the production processes, which requires a review by the producers of information in the countries.

Firstly, the report contains a description of the background that led to the analysis of the situation of the statistics in the countries. This part is followed by a summary of the regional report that shows a classification that will also be reviewed with the countries.

Finally, a brief description of the situation of the countries is presented, including the production processes and the results of the statistics' coverage and quality evaluation.

1. Introduction

The importance of counting with quality information by topic and at the maximum level of geographical disaggregation for the formulation, monitoring and evaluation of public policies in the field of population health is greater every day.

The countries recognize that they do not always meet the requirements for the production of statistics that reflect, one way or the other, the quality of the data available; as well as their difficulty to design on their own, implement, and sustain strengthening programs for vital and health statistics.

These limitations become more evident, and their resolution more pressing and dramatic, when there exists a general consensus in the countries about the need for indicators of better quality at the subnational, national and regional levels in order to monitor the international commitments such as those established by the International Conference on Population and Development (ICPD, Cairo, 1994), The Women's Conference (Beijing, 1995), the Declaration of the countries on the Millennium Goals (2000), The Meeting against Racism, Racial Discrimination, Xenophobia and all connected forms of Intolerance (Durban, 2001), and other specific meetings linked to a Human Rights approach in the access to information and evidence for the formulation of policies.

Very few countries escape this situation and it could almost be said that all of them have some sort of issue to resolve in the area of coverage and quality of their vital and health statistics. As such, besides the political decision to monitor the evolution of targets, there is the need to improve the quality of the health data that is produced, either through the health statistics offices (particularly the registry information), or the central statistics offices, through the census and surveys (in this last case, sometimes in association with the health offices).

The incorporation of vital and health statistics strengthening programs in the countries (particularly for vital, morbidity, and health resources and services statistics) is becoming a necessity almost as important as the development of policies favorable to the improvement of population health. And this matter is not guaranteed only by the decision of the political authorities of the technical offices, but also by those responsible for the completion of those targets. Support on the part of the international agencies to the maintenance of these programs is also fundamental and the Pan American Health Organization (PAHO) has incorporated the topic in its strategic objectives.

This document is part of a series that includes the analysis of the situation of other countries of the Region and the development of a Regional Report that analyzes the situation of the vital and health statistics of the countries of the Americas until the end of 2005. The above mentioned documents constitute one of the inputs for the development of a strategy to improve these statistics, and to provide a more effective assistance to the countries; to promote horizontal cooperation; to establish a mechanism of collaboration between areas of PAHO; and to coordinate actions with other

international agencies and actors who are working towards strengthening those statistics in the countries of the Region.

The analysis presented in this document is therefore based on data provided by the countries in 2005, is preliminary in nature, and will be updated in a second stage. This will allow for the necessary adjustments to be made in the document and its updating and review in light of possible modifications in the situation of the countries.

During 2005, the countries answered a series of questionnaires, through the responsible statistics offices and under the orientation of the PAHO focal point in each representation¹. Without their invaluable input, it would not have been possible to develop a first stage, which was initiated with the Meeting of Directors of Statistics in November 2005 in Buenos Aires (RD-2005), nor design a work that culminated in October 2007, with the approbation by PAHO's Directing Bodies of the Strategy for Strengthening Vital and Health Statistics in the countries of the Americas (SSVHS), the second stage of the joint work with the countries.

2. Background

During its last meeting that took place in September 2003, the Regional Advisory Committee on Health Statistics (CRAES for its Spanish name), PAHO's advisory committee on the topic, recommended the design of a sustainable mechanism to facilitate the development of plans to strengthen the countries' vital and health statistics².

From 2004 and during 2005, PAHO carried out an initial analysis of the situation of vital and health statistics based on a Guide especially designed for that purpose³. The information was gathered with the collaboration of two institutions responsible for the production of health statistics in the countries (the central statistics office and the national health statistics office) and under the orientation and follow-up of the PAHO focal point for this topic in each country. This activity allowed for the construction of a database of 28 countries and the elaboration of a preliminary diagnosis⁴ from the coverage and quality indicators.

This preliminary diagnosis was presented during the Regional Meeting of National Directors of Statistics and National Directors of Health Statistics in the countries of the Americas (RD-2005), which took place in November 2005 in Buenos Aires, Argentina. The main result of RD-2005 was the recommendation to develop a regional strategy that, on the one hand, stimulates the design of national vital and health statistics

¹ We are thankful for the participation of those responsible for the health statistics and the national statistics offices, as well as the PAHO focal points in the countries in the completion of the Guides.

² For more details, see PAHO (2004). Informe de la Segunda Reunión del Comité Regional Asesor en Estadísticas de Salud de la OPS/OMS. Washington, 10 to 12 September 2003. Washington, D.C.

³ Guía para el análisis de las Estadísticas Vitales, de Morbilidad y Recursos de Salud. Documento General. The Guide looks at the situation of data production from a qualitative perspective (through six questionnaires) and from a quantitative perspective (through two applications), both complementary for the analysis of the situation of each of the statistics.

⁴ PAHO/WHO (2005a). *“Diagnóstico para el análisis de la situación de las estadísticas vitales y de salud de los países de las Américas”*. AIS/PAHO. Buenos Aires, Chile, november 2005.

strengthening program, and on the other, their harmonization in the regional context⁵, with PAHO as the Secretariat.

In order to facilitate the harmonization and coordination of the development of these statistics, the Secretariat adopted the targets, objectives and principles of the Health Metrics Network, a world alliance that promotes the development and better performance of health information systems worldwide⁶.

In 2006, the database was consolidated and a Regional Report was prepared. It provides information to identify the weaknesses and strengths in the production of health statistics in the countries. Further, it establishes relative differences between them with the purpose of designing an action plan of national and regional reach that, while respecting the national differences and needs, will strengthen the management, operational and maintenance capacity of the health information systems, including vital, morbidity, and Resources and Services statistics.

At the same time, the conceptual and operational aspects to be considered in the design of the SSVHS were explored and defined with other technical areas of PAHO and WHO, as well as international organizations (United Nations Statistics Division – UNSD-, United Nations Children’s Fund – UNICEF -, FNUAP, World Bank, The Caribbean Community – CARICOM -).⁷

Likewise, within the agreement signed in 2006 between PAHO and the Economic Commission for Latin America and the Caribbean (ECLAC), and through a joint activity with the Latin American and Caribbean Center for Demography (CELADE), ECLAC’s Population Division, the said conceptual and operational contents were discussed during 2005 and 2006 with country representatives and international

⁵ For more details, see: OPS/OMS (2006a). “*Reunión de Directores Nacionales de Estadística y Directores de Estadísticas de Salud de los países de las Américas (RD-2005)*”. Buenos Aires, 21-22 de noviembre de 2005. *Trabajo en Grupos. Relatoria*. Washington; OPS/OMS (2006b). *Reunión de Directores Nacionales de Estadística y Directores de Estadísticas de Salud de los países de las Américas (RD-2005)*. Buenos Aires, 21-22 de Noviembre de 2005. *Informe preliminar*. Washington y OPS/OMS (2005b). *Reunión de Directores (RD-2005). Guía para la discusión del trabajo de grupos. Varios documentos*. Washington.

⁶ In that sense, it adheres and makes its own the target, objectives and principles of the Health Metrics Network (HMN)-World Health Organization (WHO) (2006). “A Framework and Standards for Country Health Information System Development”. Geneva. 2006. This document also shows that the Target of the HMN is to “.... increase the availability, quality, value and use of timely and accurate health information by catalyzing the joint funding and development of country health information systems.” On another hand, the Objectives of the network are: Developing a Framework for country health information systems; Supporting developing countries in adapting and applying the HMN Framework; offering incentives to enhance the dissemination and use of quality data”; and finally, its Principles include “empowerment, leadership and ownership; a focus on the needs of individual states; building upon what already exists; broad-based consensus-building; and an incremental approach to health information system development.” Just like the HMN, the SSVHS promotes relations between countries and stimulated the exchange of good practices between countries and regions on the development of health information systems. You may also consult www.healthmetricsnetwork.org.

⁷ The Strategy for Strengthening Vital and Health Statistics was presented and approved during the 140th Session of PAHO’s Executive Committee (EC), which took place in Washington, DC between the 25th and 29th of June, and the Directing Bodies (DB) of the organization, during the Panamerican Sanitary Conference, in October 2007 in the same city. The document and resolution on this topic can be found at <http://www.paho.org/spanish/gov/ce/ce140-15-s.pdf> y <http://www.paho.org/spanish/gov/ce/ce140.r16-s.pdf>. See also PAHO/WHO (2006c). *Plan de Fortalecimiento de las Estadísticas Vitales y de Salud de los países de las Américas (PFEVS). Aspectos conceptuales de su diseño*. Santiago. Chile. 2006.

organizations, within the United Nations Statistics Division and the Statistical Conference of the Americas (SCA).

3. The statistics that are analyzed

It is important to keep in mind some considerations in relation to the EEVV, MORBI and RECUR of the countries in general. Why talk about strengthening these statistics in the countries? How can PAHO collaborate with the countries in the design and monitoring of a strategy sustained in time? It is suitable to make at least three initial observations.

Firstly, these statistics are part of the HIS of a country, which is the set of authorities or agencies that, as part of the health system or not, contribute information about health to society and the States⁸. This information not only covers aspects associated with health, disease and the death of individuals, but also corresponding institutions, resources (materials, human and financials). A large part of the health policies, and their monitoring, uses these statistics, which are produced almost exclusively by the sectorial statistical offices of the health departments, which need to be strengthened as part of a national statistical system more centered on the sources based on census and sampling⁹.

Secondly, the extent of the topics and dimensions of each HIS are such that the diagnoses almost always show them as fragmented, uncoordinated, disorganized and, consequently, producing the same thing in different ways and, as problematically, not producing what the country needs or producing it badly. It is not surprising that the system is seen in such a way, as the State itself fragments the production of health statistics throughout different offices or agencies.

This leads us to the third aspect to consider. How can PAHO collaborate in a complete manner so the countries are able to improve the performance of these sectorial offices to produce these basic statistics (vital, morbidity, resources and services), through mechanisms sustainable in time? This means developing a strategy on the short,

⁸ In that sense, the country HIS tend to be an expression of the so-called National Statistical Systems (NSS), which in the majority of countries have legal frameworks that give the National Statistical offices (NSO) the coordination role for all statistics in the country, particularly those by sector, which are considered as subsidiary to the NSS. That way, the development of a permanent strategy cannot be done by PAHO in each country and on the short-term, since it requires taking into account topics that are already being developed by the ministries of the treasure or planification, whose structure includes the NSOs in the majority of countries. In that sense, PAHO participates actively in the nature environments for those topics, the United Nations Statistics Division and the Statistical Conference of the Americas (SCA) of the Economic Conference for Latin America and the Caribbean (ECLAC). Both institutions nucleate the Directors of the NSOs, which have a different name in each country.

⁹ Of all the other components of the HIS a subsystem that does not depend on the areas of health of the countries (except for some exceptions) is taken tangentially. We refer to the population census and household surveys (generally under the responsibility of the central statistical offices), which may provide valued information for the health sector. In many occasions, both statistical offices (health and central) are associated by design and even by the collection of health statistics through censuses and surveys, which provide very important information to complement that coming from registries and even to evaluate them. This is one of the reasons why a SS cannot be viable without the active and coordinated participation of both institutions. The other components of the HIS, which are important for the development of a health system, are not considered in the SS for strategic reasons that will be explained in another document.

medium and long term which, starting with a diagnosis of the situation in every country, includes an action plan to improve the coverage and quality of the mentioned statistics, with an emphasis on sharing good practices designed by the countries themselves; canalizing in an organized way the organization's demands for statistical information to the countries; and leading the work coordinated with other international agencies.

Now, of the four categories considered, the vital statistics (EEVV) are maybe the most problematic, because of the multiple factors that could affect their quality and quality control. This is due to the fact that it is the only area whose productive system¹⁰ does not depend exclusively on the health system but on a great variety of institutional actors. They are almost never mentioned separately from the civil record, to such a point that it is common to mention the vital statistics and civil record as unique or univocal subsystems¹¹.

Both subsystems constitute a magnificent machinery of the national states that deals with at least two essential questions: one of the rights (to have a first and last name, to exercise one's right to vote, to inherit, to be enrolled in school, to have the benefits of social security, to move inside and out of a national territory, to have access to health and other social benefits); the other of the statistics, which constitute the fundamental base for understanding the natural growth of the population and the evidence on its state of health and its epidemiological profile, on which a large part of the health policy of states is based.

Unfortunately for the quality of vital statistics, the cost of mobilizing all the actors involved is sometimes higher than the national health budgets. In the productive process itself of identifying a person, using the electoral system, facilitating the exercise of certain duties and rights of the persons and producing statistics, the following elements are involved one way or another: civil registries, electoral committees, national population registries (those three are almost always dependent on planning or interior ministries and sometimes have their own independent entity), the central statistical offices of the ministries of the economy or planning, and ministries of health themselves, through their sectorial statistics offices.

Treating a problem in one part of the subsystem should be done by all the offices involved, which does not always occur or happens erroneously and too late. Different administrative cultures are put on top of the other, with different and sometimes even contradictory objectives and norms, and varying and not always coincident budgets and priorities. At this level, joint coordination and action is even more necessary, and should

¹⁰ The denomination of system or subsystem for each component of the HIS sometimes leads to confusion. It is our understanding that this is not an issue, except when it is taken as the main discussion point, which is not what is intended in this document. In practice, they will be called either from now on, depending on the situation.

¹¹ This is not to be taken lightly and is well linked to the history of statistics in the Region (a situation similar to different other regions of the world). As they are conceived now, vital statistics have been implemented in the Americas as real institutions since the Spanish and even the English colonization. In the most remote colonized territories, there was a registrar and later, the institution even had its own buildings or spaces in the municipal buildings, the center of the colonial power. That is to say that the current structure of the civil registries in the Americas is hundreds of years old. In some places it is intact and in others it exists but does not function well or is weak. Further, it is an institution that is installed as such in the whole population.

be defined at high political levels as a matter of State. Paradoxically, since it is the oldest, most well-known and analyzed subsystem in terms of the agents involved in the production processes, it is the most difficult to deal with when developing a strategy that overcomes the obstacles associated with this multiplicity of functions that affect the quality of information. Therefore, dealing with this subject is not simple and requires tact. This is reflected by the complexity of the solutions, which range from merely technical solutions to political and strategic proposals seeking to support a democratic state.

On the other hand, it is important to emphasize that the start of the statistical information productive process itself is very complex and crucial, and as mentioned before, something that is defined statistically in the place where it occurs is difficult to change (except maybe through indirect methods). That is why, during the intimate processes of birth and death, particularly during the former and often during the latter, the individuals are subject to some of the most critical times in their lives and often require reserve, anonymity, and restraint. At the same time, society needs to be involved in the event, to know how it occurred, why, what were the determinants, and to try and correct them. These are needs that are often incompatible, regardless of how cautious the approach.

And to complicate things even further, the statistical events of birth and death are unlike any other: the child who is born cannot answer for herself, and neither can the person who passed away. A third party needs to provide information on their characteristics. It is a complicated triad (Vieira Pinto¹²) that is made up of: the person that experiences the event, who is not in a position to declare it; the person who declares it, who does not always know (or is not always able to think about) the characteristics of the event (his own and that of his family environment, which are so important when defining the determinants of the event); and the person that records the event, who at best enters it on the record based on the statements made by persons who did not experience the event.

Another factor that is noteworthy is the role of the civil registrar, whose main function is the legal registration of the event, since he may not even consider the statistical function. Both functions, and consequently the contradictory matters of legal certification and statistical registry, are performed by a single civil servant. In the first case, reliable proof is required. The entry cannot be made without proof of identity by the competent authority. On the other hand, the statistical function is based on the statements made by the speaker. In this case, evidence is not required in order to report a characteristic (e.g., residence or occupation) or a phenomenon. And this contradiction is often reflected by problems of non-response or erroneous response without previous consultation.

Unlike the vital statistics subsystem (EEVV), both the morbidity (MORBI) and resources and services (RECUR) subsystems depend exclusively on the national health system. Consequently, the problems are related to their statistical system and the solutions to such problems only can be found at that level. This is an advantage since the health statistics offices only have to deal with their own limitations.

In most countries, the MORBI and RECUR statistics are much newer subsystems than the EEVV subsystem. They are introduced when the development of the health systems

¹² Vieira Pinto, Alvaro. El pensamiento crítico en demografía. Santiago de Chile. CELADE, 1973.

requires increasingly extensive information in order to determine policies and gain knowledge of the health status of the population, which was initially affected by epidemics that decimated entire populations and then by other more modern phenomena that have occurred and been analyzed in the context of the epidemiological changes in societies, particularly since the mid-19th century. For example, the definitions of some of the events and the processes behind this type of phenomena are presently not clear. In addition, there is even less clarity about how the morbidity and resources and services statistics should be acquired.

They are affected by problems associated primarily with the processes spearheaded by health sector reforms. For example, whether the epidemiological surveillance subsystem is part of this subsystem is an issue that is often discussed. Strictly speaking, it is, if the system works well. The event, which must be declared immediately in order to implement surveillance mechanisms, should also be recorded by the information subsystem in MORBI and RECUR.

The MORBI statistics cover hospital discharges, consultations to external offices and emergency rooms and the daily movement of patients. In turn, the RECUR statistics include human resources, establishments, equipment, beds, and services.

In that regard, the results of these subsystems should allow, on the one hand, to describe the epidemiological profile of the population, how it becomes ill and resolves its health problems. The information provided should also consider the determinants of the health of the population and describe the health system offered to the population in terms of quantity, quality, timeliness, and access to different levels of services. Secondarily, such statistics also reflect the efficiency and effectiveness of the health system.

The countries are still discussing which indicators are the most appropriate in order to study some aspects related to services and resources, including the definition of these. It is indeed difficult to find appropriate statistics in many of them. In general, there is no monitoring of the productive systems that generate a certain indicator. There is too much superposition between what the statistical system produces and what the specific programs that make up the health policies produce. There is a lot to organize and to find out, even if a single interlocutor manages it all. This is reflected in the way the countries report on the situation of the statistics in the MORBI and RECUR subsystems.

In the cases by country, some of the characteristics of the EEVV, MORBI and RECUR subsystems will be emphasized, which may generate invalidating factors when obtaining data with the expected coverage and quality¹³. The mention and comments about the modality of a subsystem or the characteristics of a process refer exclusively to the identification of environments that should be kept in mind when formulating a SS for the health statistics production process of a country¹⁴. Those environments do not necessarily generate problems in the validity and reliability of the data they produce, but they sometimes do.

¹³ The description of the productive system of both statistics can lead to some imprecisions given that the work was carried out only based on the information provided by the countries. Those problems will be corrected in the second stage of the work with the persons responsible for statistics in the countries. For that main reason, this document must be considered as preliminary and will be reviewed by the same interlocutors.

¹⁴ Those aspects will be discussed with each country when defining a national SS.

1. The regional situation

It is usual to deal with the countries independently, or through regional groups that really constitute commercial agreements such as MERCOSUR, the Andean Community of Nations (CAN), the Centroamerican Integration System (SICA), the Caribbean Community (CARICOM), the North American Free Trade Agreement (NAFTA). However, such geographic and commercial groupings are problematic at the time of harmonizing their statistics, particularly in the social field, because the production systems show important differences that are reflected in the coverage and quality of data.

It is not true for all the groups, but one of the reasons for the delay and even failure in the implementation of common programs and plans arises from the relative differences of the members of a same group. Those that show the best conditions have a dynamic that leads to a situation where the actions taken as a group do not always contribute to reducing the gaps in a particular statistic.

Take for example the coexistence in the same group of countries with a quasi-universal coverage of the EEVV and others that barely reach 50,0 percent of the vital events. The needs are clearly different. The latter plan for the improvement in the quality of data, even the incorporation of computer media to the coding process, whereas the former still need to increase the coverage of registration offices or develop very strict campaigns to increase the awareness of collectors and of the population.

During the RD-2005, the importance was recognized of grouping the countries by the situation of their statistics, which was analyzed during the meeting. In the one hand, it gave the members of each group the opportunity to speak from similar levels, of similar problems. Likewise, when the solutions were proposed, they were based on similarities. Some general principles were presented by everybody, but for example, the increase in vital statistics coverage was not a priority in the group with quasi-universal coverage. On the contrary, it was the main objective of the groups of countries in which every estimate is biased by these problems. The countries in the middle group, oddly, proposed solutions that went beyond the other more extreme positions.

This was a motive to recommend a mechanism to take advantage of these similarities and develop activities of a different nature that promotes a joint plan in some of the areas.¹⁵ On the other hand, the idea to use the experience acquired by the best placed countries, and even from the worst placed, was reinforced to promote horizontal exchanges, not only of the good practices but also of the failures.

Therefore, the regional strategy has a set of consecutive objectives that start with the need to promote the analysis at the national level and the choice of realistic activities to develop and sustain a plan of action for national statistics. A strategy to reconcile the national plans in a regional plan follows, looking for common factors and differences that permit, on the one hand the development of adequate activities for a particular country (due to their characteristics, they are difficult to share with others). On the other

¹⁵ For more details, see PAHO/WHO (2006a and d). op.cit.

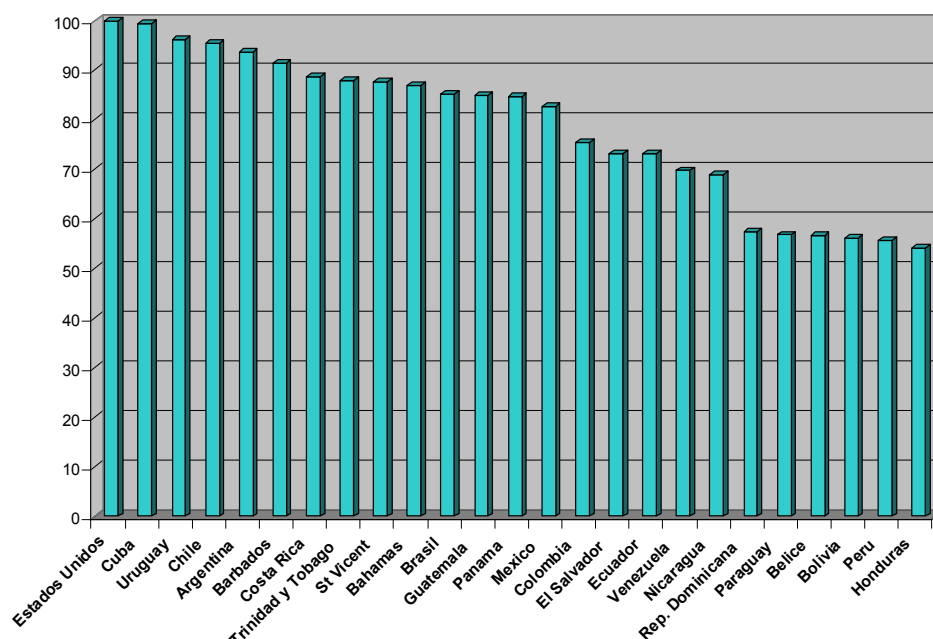
hand, it should propose activities to be shared by a group of countries or groups of countries, respecting their own idiosyncrasies to frame common and standardized activities for multiple purposes.

Graph 2 is therefore based on those general principles and presents the order of countries that resulted from the combination of a series of indicators that were considered relevant for a type of ranking: the coverage of their most important vital statistics (births and deaths); the qualitative vision of the data producers on the situation of their vital, morbidity, and resources and services statistics (opinion on the importance of administrative, technical, and personnel factors that define the capacity of the system); and the vision of external actors on the vital statistics system of the country (opinion on the importance of set factors that influence the system)¹⁶.

Graph 1
Situation of EEVV and health statistics in the countries

¹⁶ Based on the information provided by the countries through the “Guide for the analysis of vital, morbidity and health resources statistics, General Document” (AD/AIS. Washington. 2005).

Gráfico 1
Situación de las EEVV y de salud los países



This ranking was the starting point to try different typologies for the countries, such as the one presented below. It will show the field of vital statistics is much more advanced, in the diagnosis itself and in strategies to overcome the problems. Later, it will be possible to see how the issues related with the other statistics go beyond the mentioned ordering.¹⁷

Following is a preliminary summary of the situation, which will be reviewed and adjusted with the countries in the framework of the design of action plans at the national and regional levels, since as mentioned before, the information used for the classification is from 2005. The summary pretends to contribute to the elaboration of more detailed country reports, based on national plans that the Meeting of Directors (RD-2005) happened to harmonize in the Regional Action Plan for Strengthening Vital and Health Statistics in the countries of the Americas (SSVHS)¹⁸ that was approved by the 140th Session of PAHO's of Executive Committee .

¹⁷ Two general questions that deserve to be emphasized before a more detailed analysis: firstly, various statistics producers who answered the questionnaire have a spontaneous opinion that it more negative or positive than shown in the classification. It is very important and coherent in the majority of cases. When the countries in question are better positioned, the statistical authorities themselves ask for improvement, sometimes considerable, in their statistical systems. Aspirations of better qualifications for their human resources, better coordination between productive offices, widening of the sectorial coverage of some statistics, are all valid in the context of countries with good statistics. In other cases, the same countries that have coverage or quality problems quite serious, see the statistical system in better conditions compared to other spheres of the state and therefore have a positive and benevolent attitude about the reliability of the system in question, even though the empirical evidence demands important changes in some aspects. Secondly, given that the order of the countries is defined by four indicators, one of them a composite indicator, an important coverage of vital facts may have modified the place of the country given an opinion less favorable of the producers and users on the respective systems and vice versa. This is obvious given the nature of the classification, but it is worth explaining.

¹⁸ For more details see OPS/OMS (2006a) op.cit.

From the grouping and those common factors, it will be possible to delineate their differences and to go on defining strategies to tackle their problems in the three types of statistics¹⁹. In general, it can be said that:

- ✓ The state of advancement, of the diagnosis itself and of the knowledge of strategies to solve the problems is much more developed in the area of EEVV, independently of the country or the group. It is a subsystem that exists and has a presence in all the countries since the origins of the national states themselves.
- ✓ This is not the case for MORBI and RECUR, which are newer areas of statistics and arise when the development of the health systems start requiring more information to focus the policies on the right issues and have a knowledge of the health of the population. Today for example, there is no clarity as to the definitions of events and processes behind this type of phenomenon and there is even less clarity around what the morbidity and resource and services statistics must capture.
- ✓ The producers of information have a more positive view of the EEVV subsystems than the other subsystems. In the countries relatively better off, there is great reliance on these statistics, even though some mention the need for improvement and even considerable changes in at least one of the subsystems considered. The better the relative development of the rest of the countries, the higher the perception of the improvement needed, whatever the statistic considered.
- ✓ The centralization or decentralization of the health systems does not necessarily determine the quality of the statistics. It is more related to the level of economic and social development reached by the country. When there is omission, for different reasons, the most affected are the least protected groups (indigenous people, rural populations, etc.) and the subsectors of social security and the private sector, which tend not to provide information or, more problematically, maintain parallel statistical systems.
- ✓ The scarce communication between health statistics offices and central statistical offices, the misuse of available resources, the superposition of activities at different administrative and geographic levels of the same office or between offices, the lack of standardization of norms at different levels and the lack of training of human resources are determining factors for coverage and quality.
- ✓ The interinstitutional committees are scarce and when they exist, they need to be revitalized. When some evaluation action is carried out and corrective measures are taken, the results have been favorable to the statistics, even if it has been in a circumstantial manner. This shows the importance of evaluation and monitoring mechanisms that are more stable in time.
- ✓ The evaluation of coverage and quality is not an activity that is routinely incorporated in a large part of the countries, particularly in the countries with a lower relative level of statistical development. It is more evident for the morbidity and resources statistics.
- ✓ The positive experience of some countries could be transferred to other countries of the region. The advances in the evaluation techniques, standardization of norms and procedures, and the design of education and training courses, identified in the countries in the best situation, could be used by others in the context of horizontal cooperation.

¹⁹ The order could give way to the definition of groups of countries for specific objectives. The pertinence of a group or another could not be exact when looking at complete homogeneity within and heterogeneity between them, but would contribute to the design of a strengthening strategy within and between groups, which would be more viable.

5. The particular case of Argentina

Following is a brief description of the situation in Argentina, based on the information provided by the country during the RD-2005, through questionnaires and applications cited above. The purpose is to report on the responses provided by the statistical offices through those instruments. This report goes from the general health statistics to the vital, morbidity and resources and services statistics. The goal is to present the sequence followed by the information during the productive process, from the moment it is produced until the data is disseminated under the format of an indicator or a statistical table. And within this sequence,²⁰ if the countries were able to answer all or part of the questionnaires and applications²⁰, the intention is to highlight some determining factors that may contribute to the larger or smaller level of data coverage and quality.

Table 1 presents basic information produced within PAHO's Regional Core Health Data Initiative (RCHDI). Some sociodemographic data have been selected that provide a context for the situation in which the vital and health statistics analyzed in this document are produced.

Table 1
ARGENTINA. Selected demographic and health indicators.
(2005)

Total population (thousands)	38,747
Urban population (%)	90.6
Dependency ratio (100 pop.)	57.8
Annual births average (thousands)	690.4
Annual deaths average (thousands)	299.0
Crude birth rate (1000 pop.)	17.7
Crude death rate (1000 pop.)	7.7
Annual population growth (%)	1.0
Total fertility rate (children/woman)	2.3
Maternal mortality rate (per 100 000 live births)	16,5
Infant mortality rate (per 1000 births)	16,7
Life expectancy at birth (men)	74.9
Life expectancy at birth (women)	71.2
Life expectancy at birth (total)	78.7
Calories availability (kcal/day per capita) (2002)	2,992
Gross National Income (Current value) (US\$ per capita)	3,810
Gross National Income (ppp value) (US\$ per capita)	11,410
Annual GDP growth rate % (2003)	8.8
National health spending (public as a proportion of the GDP) (%) (2002)	5.0
National health spending (private as a proportion of the GDP) (%) (2002)	3.9

²⁰ It is important to take into account that a lack of response or the existence of incomplete questionnaires or applications is not a synonym for the lack of commitment or disinterest of the offices to provide information. In general, those problems are indicators of the development of statistics in those countries and of the problems to confront to adhere to a strengthening strategy and design and maintain a harmonious action plan that is viable and sustained in time.

Population under the international poverty line (%) (95-02)	3.3
Population using improved drinkable water sources (2002)	97.0
Population with access to sewage disposal services total (2002)	
Literate population (over 15 years) (%)	97.2
Physicians per 10 000 pop. (2001)	32.1
Hospital beds per 1000 pop. (2004)	4.1

a. The production subsystem for Morbidity, Resources and health Services (SSE)

Type of system

The SSE of Argentina is decentralized, as is the health system itself. The Health Statistics Office (HSO) is denominated Department of Statistics and Health information [Departamento de Estadísticas e Información sanitaria (DEIS)]. Since Argentina is a federal country, the existence of provinces with their own constitutions leads to the existence of a health statistics office at the level of each geographic unit, dependent on the provincial health authorities, and which usually, but not always, assume the national norms as their own.

As far as the statistical production is concerned, this can lead to the existence of different norms and levels of development that do not always correspond to the national average. The decisions at the national level are taken through negotiations and this process can take time and efforts that may create delays and sometimes setbacks in decision-making.

These aspects are associated to the fact that part of the productive process of the SSE is carried out at the level of the provinces. In the case of Argentina, the collection, coding and data entry tasks of all the health statistics are carried out by the HSO2. This decentralization can be positive but it requires good coordination between the national level and the other administrative levels. The lack of standardization, due to the use of different collection instruments, the existence and use of norms and procedures, different mechanisms of data transmission, may affect the productive process.

Argentina has other data sources that provide health information, the majority of which comes from population census and household surveys of the National Institute for Statistics and Census [Instituto Nacional de Estadística y Censos (INDEC)]. There is a formal alliance between this institution and the DEIS, which is why joint consultations occur in the majority of cases and occasionally, the former finances operations based on specific surveys. This means that at the central level, good communication can contribute to the development and maintenance of a SS on the short, medium and long term.

Training and technical cooperation

The DEIS has a **training area** where the personnel is trained on issues related to the coding of diseases and death, as well as the certification of causes of death and registration of diagnosis. However, there is no mechanism for the personnel at the central level to participate in courses of other institutions. There are no special technical cooperation programs either.

b. Vital statistics (EEVV)

General characteristics in Argentina

Central level

The DEIS is the **only institution** in charge of the production of EEVV in Argentina, by delegation of the INDEC. In this framework, the health institution established a sequence for the **production of information** through agreements with the provinces. They capture the information, code it and enter it in electronic media under standardized formats and with consistency guidelines that guarantee to some extent the quality and integrity of the databases that are sent to the central level to continue with the production process. At this level, the reconciling of a national database is done, as well as the rest of the processes leading to the dissemination of data.

There is a **unique form** with questions agreed upon in yearly national meetings, so that except for some provinces that add one or two additional questions, there is no possibility to generate inconsistencies in the information that is sent to the central level.

There is a **legal and regulatory framework** for the production, as in the majority of countries, and a unique official form to provide statistical information on both events. This guarantees that the information is standardized when it arrives from the provinces to the central level.

The ample coverage for births and deaths in this country is reflected in the fact that, besides the high level of institutionalization, all that may have an effect on health is tightly linked with the civil registry, which in a large number of cases, has its own offices in health centers, from the public, private, or social security sectors, the former being amply represented in the country.

It is at this level that resides the greater potential to support the demands of other areas of the system. Part of the tasks of the productive process are carried out at the second administrative level, as will be seen below. The central level concentrates the tasks of consolidation and consistency of the electronic databases sent by the provinces. A specific software is used for these tasks as well as for processing the data. The data are filed in a central server of the Ministry of Health, with wide and low cost access for the users of the information.

There is a standardized annual dissemination plan and other thematic publications with information from different data sources produced by the DEIS itself or jointly with other institutions (INDEC, universities). The country publishes information by date of occurrence and registration and by place of occurrence and residence. It also presents information by age and sex for the majority of its indicators.

The DEIS provides training to the provinces, particularly in the ICD-10, and distributes the manuals of norms and procedures to be used, besides the international nomenclature. There is a national committee for coding with representatives of different jurisdictions that collaborate in training when the provinces, or even other countries, require it.

The local level, where the event is produced

As mentioned above, it is at this level that the most substantive questions of the productive process are defined. In the first place the event occurs and an action is produced that steers the statistical report towards the civil registry, along with the medical certification that permits the legal inscription of the event. Given the high level of institutionalization of the events, it is probable that any birth or death will be registered at the health center even, and the process of transmission of the statistical report is normally initiated.

In any case, there is no unique modality to fill out the statistical form, since in some provinces it is done by the civil registry and in others by the health system (this is the modality most often used.) This represents a potential source of errors because of what was already mentioned about the different roles of a health agent and a civil registrar in the functions of completing statistical reports.

However, the quality of information on the events is practically defined at this level. If the statistical report is not filled out correctly and there are questions that are not answered or completed incorrectly, such as the place of residence, education or cause of death, it is probable that except in the case of a very fluid and frequent communication from the highest administrative levels (which is not simple), the human errors are corrected at those levels, many times with criteria that are not necessarily statistical criteria. That is finally reflected in the levels and structure of the phenomena that are analyzed with the data that reach the user of the information.

The majority of the statistical reports are retained at the local level in the civil registries since the usual procedure involves sending them from the hospital to the registries (directly when there is a civil registration office in the health center) or through some person responsible for that task, who registers them legally. The statistical reports **are filed for a month in the civil registry**, generally to be sent in a **package** to the **health statistics office of the second administrative level** by different means (public mail or mailing system of the institution). That way, the civil registries perform as dependences of the health statistical offices in an unregulated and almost customary framework. This topic should be reviewed within an SS.

That way, the transmission of statistical reports, since it is not standardized and depends on the modality available in the province, may generate problems of quality (deterioration in the transfer for different causes) or omission (loss of packages), that are hard to prevent except through a strict communication between the statistical offices of the second level and the civil registration offices at the local level.

As can be appreciated, the production process of the statistical report at this level, depends on the modalities and human, economic, and technological resources of the local civil registries, which are totally autonomous between the provinces, and therefore may be affected at whatever moment. It is therefore important to know the processes produced at this level in details, in order to control possible factors that may affect the coverage and quality of data that are being transmitted.

Second administrative level

In this country, a large part of the EEVV production is concentrated in the provinces, where the HSO2 (generally known as Biostatistics) are located. They depend on the Ministries of Health of this level and are independent from the central DEIS but maintain fluid communication with it, and agree on a common annual statistic plan.

Various important tasks of the productive process are carried out at this level, which to some extent model the data that is later sent to the central office. The information from the local level is received through packages with the original reports. After controlling the content of the questionnaires, the information is edited and cleaned through communication with the local levels. In general, there is a response from the local level. The information is coded for place of residence, occupation and cause of death and is entered in electronic media through a standardized spread sheet, which also includes norms for the data dumping and consistency post-input.

The majority of the provinces files the data (following modalities imposed by the provincial government, in some cases in central servers and in other in microcomputers) and processes them for the local use and dissemination. This information is not consolidated at the national level, i.e. they are facts that occur in the province that do not include the same facts produced in other provinces. This task is done only at the central level, and hopefully in the future, the provinces will receive copy of those consolidated files to allow for regional and local analyses.

Generally, the provinces have coding manuals for the causes of death (ICD-10) that are used at the national level. In the case of usual residence and occupation, the national norms, which are not available in the majority of the provinces, must be applied. When using local norms for those variables, it is possible to introduce inconsistencies or to complicate the comparison between jurisdictions.

This second administrative level is generally not as well equipped as the central level in terms of computers and access to human resources training, which depend on the authorities at that level. International cooperation is almost inexistent at this level. However, the DEIS guarantees education and training on the ICD-10.

Current state of EEVV coverage and quality

This country is part of Group 1 of the countries with the best statistics, since coverage is estimated at 98% for births and 97% for deaths. The institutionalization of vital facts, the extent of civil registries in the territory, the high level of urbanization (more than 90% of the population resides in urban areas), and the awareness of the population on the importance and advisability of registering vital facts are substantive enough to determine this important level of coverage, among other things.

The statistical authorities do focus their attention on quality issues. The country makes important efforts to evaluate the integrity of its registries and carries out a situation diagnosis that creates ideal conditions to elaborate focused actions that are rapidly reflected in the national averages of “non-response” or “not specified” (two of the most important quality indicators), for key variables in the diagnosis of the level and characteristics of the events and the population that they affect. Those averages are relatively low compared to other countries, but they are quite high in some provinces.

Some of the aspects that permit visualizing the situation of these statistics are mentioned below (Table 2 presents information on coverage and quality of the statistics in the country).

Table 2
ARGENTINA. Selected coverage and quality indicators
2005.

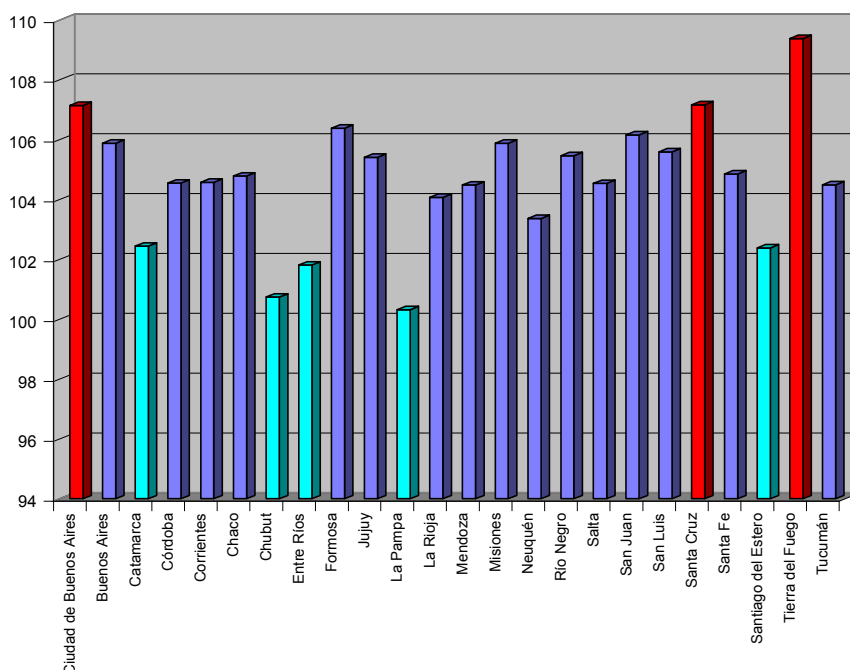
ARGENTINA	
COVERAGE INDICATORS	
	%*
Facts registered from a source compared to another, births	0.0
Facts registered from a source compared to another, deaths	0.0
Facts registered from a source compared to another, infant deaths	0.0
Facts registered from a source (continuous registration) compared to another, births	0.0
Coverage of male births (based on population projections)	98.3
Coverage of female births (based on population projections)	96.1
Coverage of births of both sexes (based on population projections)	97.3
Masculinity index at birth	105.1
Risk of death estimated by the continuous system (first 2 years of life)	26.6
Risk of death estimated by the Brass method (first 2 years of life)	23.0
QUALITY INDICATORS	
<u>Live births</u>	
Facts occurred in hospitals or health centers	98.7
Facts attended by physicians	98.5
Unspecified maternal age	1.2
Ill-specified birth weight	98.5
Deaths	
Facts occurred in hospitals or health centers	69.6
Facts occurred outside of assistance institutions	30.4
Facts attended by physicians	99.0
Causes of death certified by physicians	100.0
Unspecified maternal age (only for under one year of age)	26.5
Ill-specified birth weight (only for under one year of age)	15.6
Ill-defined causes	7.6
Omitted causes of death	0.0
Unspecified age of death	0.2
Quality of the information used to calculate the infant mortality rate	
Births with unknown sex	0.2
Infant deaths with unknown sex	0.1
Births with unknown place of residence of the mother	0.4
Infant deaths with unknown place of residence of the mother	0.3
Births with unknown maternal age	1.2
Infant deaths with unknown age	0.0
Masculinity relation among infant deaths	125.4

(*) Except the cases of masculinity indices (ratios)

- ✓ There is no evidence of differences between the provinces in coverage, a matter to consider in the future given the numerical differences in the events produced among them.
- ✓ An indirect indicator that would alert on some jurisdictions is the Masculinity Index at birth. When the values are lower than 103 or higher than 107, they are under or over the norm, respectively. Table 1 shows that the situation should be reviewed in eight of the 24 provinces: the City of Buenos Aires, Catamarca, Chubut, Entre Ríos, La Pampa, Santa Cruz, Santiago del Estero and Tierra del Fuego.

Argentina. Masculinity Index at birth by provinces. 2003

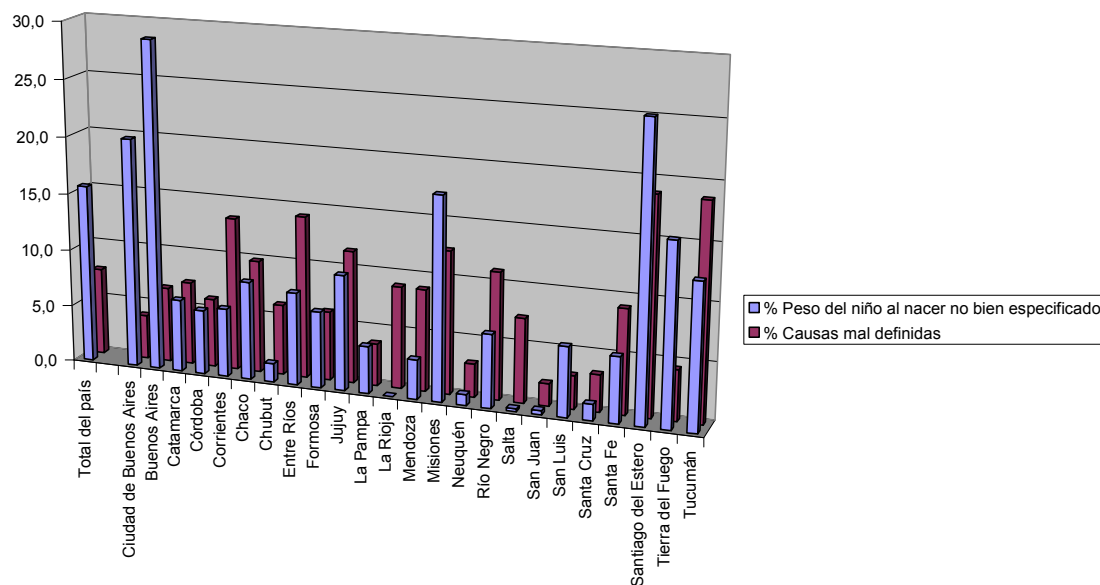
ARGENTINA. IM al nacimiento por provincias. 2003.



- ✓ Regarding the quality, the country estimates levels of no response or not specified in variables that are considered as key. There are variables such as “unspecified age of the deceased” or “unknown sex” (for infant births or deaths), with low levels barely above 1%. However, other variables such as “birth weight of the child” (15,6% of unspecified), “maternal age” (26,4% of unspecified), or “cause of death” (7,6% of ill-defined), have quality issues that affect the interpretation of the processes linked to the life, death and health of the population. However, the fact of evaluating the situation at these levels of disaggregation constitutes an advantage at the time of defining a SS.

Argentina. Ill-specified birth weight of the child and ill-defined causes, by province. 2005. %

ARGENTINA. Peso del niño al nacer no bien especificado y Causas mal definidas, por provincia. 2005. En %.



Strengthening strategies developed in the country

Regarding the links with other institutions involved in the production of vital statistics, there is an **Interinstitutional Committee for EEVV**, which currently **does not have an annual work plan**. This issue is reflected in the fact that the relations with the main interlocutor of the Committee, the INDEC, are not very good at the moment, and very few or no evaluation and training meetings are currently organized. There is no coordinated tabulation plan in development, and no association to develop publications or a joint research program. Nevertheless, the link is maintained through technical consultations and some meetings are organized for specific problems. The relative paralysis of the Committee can obviously complicate efforts to establish a SS, and it is therefore important to strengthen it.

A proof of the importance of a Committee of this type is the fact that while it existed, some activities were carried out with specific results that strengthened the system. Among them, it is worth mentioning:

- ✓ The organization of regional workshops between 1997 and 2003, with the participation of the Provincial Statistics Directions and the Provincial Health Statistics Offices.
- ✓ The redesign of forms and instructions for Vital Statistics, implemented starting in 2001.
- ✓ The collaboration in the impression of forms for the registration of vital facts.

The country has a series of **strategies to evaluate coverage** and quality at the central level. Regarding **coverage**, the following can be mentioned:

1. Studies of legal omission and birth and death statistics, through an audit or comparison of sources. It is applied to urban and rural areas with a focus on health establishments. No omission of the statistical registry was found. The omission of

the legal registry responds to factors that are external to the Statistical System and vary by area. The national indicators are considered to be complete.

2. Coverage estimation from chronological series of variables or related dimensions through the application of models and multivariate analysis. The environment of the application is the country and provinces.

Regarding quality, the application of samples of statistical reports is mentioned, in which the consistency of related variables is evaluated. It is applied at the level of provinces. Progress has been made in the specificity of responses.

Argentina has also included some actions that have contributed to a better position of the EEVV and Civil Registration system, even though many of them were not necessarily framed within a permanent and sustainable SS. In the design of an SS, the concrete results of these activities on coverage, quality and general strengthening should be reviewed anyway, not only to ratify or rectify their design or implementation in the future, but also to disseminate the most successful practices among other countries. The following stand out:

Related to Civil Registration

- ✓ Training of local registrars.
- ✓ Training of health personnel and related personnel assigned to civil registration.
- ✓ Preparation of technical norms related to civil registration to help registrars in their work.
- ✓ Creation of additional local registration offices to improve accessibility to the public.
- ✓ Provision of office equipment to some registration offices.
- ✓ Introduction of reforms of civil registration and statistical notification procedures.
- ✓ Establishment of mobile registration units.

Related to vital statistics

- ✓ Specific research to control the quality of the cause of death certification
- ✓ Sampling recoding of statistical reports to check their quality
- ✓ Strengthening of the management and technical capacity at the national office in charge of the vital statistics program.
- ✓ Preparation of technical manuals for each step of data processing for vital statistics.
- ✓ Organization of national and regional seminars for coders of the causes of death.
- ✓ Organization of seminars on legal medicine.
- ✓ Organization of training courses for medical and paramedical personnel.
- ✓ Introduction of computers in the vital statistics division in charge of the national vital statistics program
- ✓ Adaptation/installation of computer software for the entry, review, tabulation and analysis of vital statistics data.

For the public in general

- ✓ Increase in knowledge of the public on registration topics.

Evaluation of EEVV

The statistical authorities consider that the EEVV system is **VERY RELIABLE** since “the constant supervision of the Health Statistics System and the strengthening activities

have permitted to improve the registration of vital events and the dictation of presidential decrees to contribute to the exercise of personal rights”.

An aspect to keep in mind when formulating an SS is the varying importance that the producers assign to different factors (administrative, technical and public) when considering the operation of the civil registration and vital statistics subsystem.

For **civil registration**, the following are VERY IMPORTANT:

1. Lack of a national office to manage and guide the Civil Registration system.
2. Lack of technical orientation and supervision of the civil registrars.
3. Civil registrars are honorary servants and do not receive a salary, thus their lack of interest
4. Prevalence of low salaries for local registrars.
5. Local registrars are named for the short-term and are frequently changed.

The following are IMPORTANT:

1. Financial limits that lead to inadequate resources for the local Civil Registration Office
2. Hours of work of local civil registration offices are inappropriate or not convenient for a large portion of the population.
3. Local registrars carry out their functions alongside their other main responsibilities.
4. Absence of periodic publicity campaigns to educate and inform the population.
5. Local civil registrars are not well trained.
6. In the Civil Registry there is no regular training of medical and paramedical personnel. Therefore, there is poor collaboration on behalf of these personnel.
7. No periodic supervision of the work of the civil registrar by superior authorities of the system.
8. The lack of public awareness on procedures/legal requirements for the inscription of vital events leads to late inscriptions and omissions.

For **vital statistics**, the following are IMPORTANT:

1. Insufficient personnel in the local registration offices to carry out the period statistical notification of vital events.
2. Insufficient personnel for processing the data in the compilation agency
3. Limited printing services of the compilation agency lead to late publication of the vital statistics.

The external users have a similar attitude towards EEVV as the data producers.

c. Morbidity (MORBI) and Resources and Services (RECUR) statistics

General characteristics in Argentina

Central level

In Argentina, the subsystem denominated Health Services Statistics includes the production, performance, bed usage, morbidity and resources statistics. It is of recent application (early 2005). The DEIS is the only institution in charge of the production of MORBI and RECUR in Argentina. As a decentralized system, it carries the same characteristics as those of EEVV, i.e. a central office at the level of the Nation's Ministry of Health that is in charge of receiving the information sent by the offices at the second administrative level, which depend on the provincial governments.

There is a **unique form** for each of the statistics included in MORBI and RECUR and a **legal and regulatory framework** for the production of these statistics, which is the same as the one ruling the EEVV.

The events, practices, processes, characteristics and profiles of available services, human resources, and materials involved in this type of statistics are registered in the health centers and sent to the office at the second administrative level. In this office, the activities that in some cases cover the whole production sequence are carried out. However, it is at the central level that the consistency and consolidation processes for a national database are carried out. A special software is applied for those tasks as well as for data processing. The data are filed in a central server of the Ministry of Health and the users enjoy wide and low-cost access to the information.

The **coverage** of the subsystem is not complete in the case of MORBI statistics, since the information generally corresponds to the public sector, as the information produced by the private sector and social security is not consolidated. The information available in the country is therefore partial, although at the level of the provinces there are some initiatives to incorporate those sectors to the official statistics. The RECUR statistics include the private sector and social security.

The DEIS provides training to the provinces, particularly in the ICD-10, and distributes the norms and procedures manuals, as well as the international nomenclature. There is a national coding committee with representatives from different jurisdictions that collaborate in the training when the provinces, or even other countries, require it.

The local level, where the event is produced

It is the environment where the information is completed and derived to the next administrative level. At this level, some procedures of control of the questionnaires and congruency between forms are carried out. Also, corrections to diagnoses are made in consultation with the medical personnel in the case of MORBI instruments.

In general, there are no copies of the data collection instruments in the health center, which does not facilitate the use of the information for management purposes, except when looking at the health care provided by local governments.

The information produced by the health centers is sent once a month to the health statistical office at the second administrative level.

Second administrative level

In this country, a large part of the MORBI and RECUR production is concentrated in the provinces, where the HSO2 are located. Various important **tasks** of the productive process are carried out at this level, which to some extent shape the data that is later sent to the central office. The information from the local level is received through packages with the original reports. After controlling the content of the questionnaires, the information is edited and cleaned through communication with the local levels. In general, there is a response from the local level. The information is coded for place of residence and disease in the case of MORBI and the whole information is entered in electronic media through a spread sheet standardized by the central level, which also includes norms for data dumping and post-input consistency.

The majority of the provinces file the data (following modalities imposed by the provincial government, in some cases in central servers and in others in microcomputers) and some of them process them for local use and dissemination. Just as in the case of EEVV, this information is not consolidated at the national level, but at the central level.

Generally, the provinces have **coding manuals** for the causes of death (ICD-10) that are used at the national level. In the case of usual residence and occupation, the national norms, which are not available in the majority of the provinces, must be applied. Using local norms for those variables may introduce inconsistencies or complicate the comparison between jurisdictions.

Current state of coverage and quality of the MORBI and RECUR statistics

As in the majority of the countries of the Group and the other groups, it can be said that the level of development of these statistics is incipient. There is no coverage analysis, since contrary to the case of EEVV, there are no indirect techniques or external sources to evaluate them. The health centers are supposed to control and register events and the characteristics of the resources and services that must be captured statistically by this subsystem. The results of these controls should be monitored in a future SS for the benefit of the country and to share good practices. It is clear however, that it has not been possible to consolidate a MORBI database that includes information from the private sector.

The routine evaluation of the quality of statistics produced is also incipient, given that it has only been implemented as such since January 2005. Hopefully, a future SS will seek improvement and widening of the information captured by the subsystem.

Strengthening strategy developed in the country

There is no Interinstitutional Committee for health statistics in general in the country, or contacts with the national statistics office to agree on more appropriate definitions and indicators to disseminate at the national level, even though some strategies are being developed at the central level to **evaluate the quality**. For the MORBI statistics, those strategies relate to sample studies of consistency and congruence of selected variables in some provinces.

Argentina has also worked towards improving the operation of the MORBI and RECUR statistical subsystem. In the design of an SS, the concrete results of these activities on coverage, quality and general strengthening should be reviewed anyway, not only to ratify or rectify their design or implementation in the future, but also to disseminate the most successful practices among other countries. The following stand out:

- ✓ Training of local employees.
- ✓ Training of health and related personnel.
- ✓ Preparation of technical norms related to the hospitalization report and other instruments for data collection.
- ✓ Preparation of technical manuals for each step of morbidity, resources, and services statistical data processing.
- ✓ Introduction of procedures reforms
- ✓ Provision of office equipment to some of the local offices.
- ✓ Introduction of computers in the vital statistics division responsible for the national health, resources and services statistics program.
- ✓ Adaptation/installation of computer software for the entry, review, tabulation and analysis of health, resources and services statistics data.
- ✓ National and regional training seminars are carried out.
- ✓ Training courses for medical and paramedical personnel are carried out.
- ✓ Training seminars for coders of morbidity are carried out.
- ✓ Specific research to control the quality of disease certification is carried out.
- ✓ Sample recoding of hospital reports is done to check for quality.

Evaluation of the MORBI and RECUR statistics subsystem

The statistical authorities consider that the MORBI system is **GOOD BUT NEEDS IMPROVEMENTS** since “coverage of the private system and the complete application of the Minimum Group of Core Data - Conjunto Mínimo de Datos Básicos (CMDDB)- are still to be reached”. The RECUR system cannot be evaluated given its recent implementation.

An aspect to keep in mind when formulating an SS is the varying importance that the producers assign to different factors (administrative, technical and public) when considering the operation of the MORBI subsystem.

The following are IMPORTANT

- ✓ Insufficient personnel in the local registration offices to carry out the period statistical notification of morbidity.
- ✓ Insufficient personnel for processing the data in the compilation office.
- ✓ Limited printing services of the compilation office lead to late publication of the vital statistics.

Acronyms

SS. Strengthening Strategy

SSE. Subsystem for the production of Vital, Morbidity, Resources and Services Statistics.

HS. Health Statistics. Used to include Vital, Morbidity, Resources and Services Statistics

CSO. Central Statistical Office at the National Level (usually denominated in Spanish INE, INEC, ONE, INDEC, INEGI, IBGE, DGE, etc.).

HSO. Health Statistics Office at the central level (usually denominated in Spanish DEIS, SNIS, etc.).

HSO2. Health Statistics Office at the second administrative level (usually denominated in Spanish Bioestadística, DES, etc.).

Productive Process. The group of activities developed within or outside of the SSE, from the time of the event, fact, practice and procedure to the dissemination of the data by different means.

EEVV. Vital Statistics.

MORBI. Morbidity Statistics.

RECUR. Resources Statistics.

SERVI. Services Statistics.