INFORMATION PAPER
on
Main eHealth activities outside of the EU

Annex 1
Main Argentina eHealth policies and activities

LIST OF ABBREVIATIONS

ACRONYM	DEFINITION
EHR	Electronic Health Record
MS	Member State
MSAL	Ministerio de Salud - Ministry of Health
PAHO	Pan American Health Organization
SICAP	Sistema (Centros) de Atencion Primaria - Primary Care (Centres) System
SISA	Sistema Integrado de Información Sanitaria Argentina - Argentina Integrated System for Sanitary Information

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Preamble

Object

The present document is an Annex to Joint Action to support of the eHealth Network (JAseHN) Deliverable 8.1.4 in WP8 "Report on main eHealth activities outside of the EU". It has been prepared by Norbert Paquel (external, director of Canope cabinet – France) under the control of Michèle Thonnet (Work Package leader-FRNA), then corrected and approved by the sPSC.

The objective of D8.1.4 is to observe the situation in various countries in order to better understand the development factors and main trends in the worldwide movement towards a tighter integration of ICT tools in healthcare but also to be able to initiate cooperation when advisable and possible. To that end, concrete projects have been identified as potentially interesting for eHN Member States (MS) exchanges or cooperation. These opportunities would need deeper analysis, through direct contact with experts, notably local representatives of the concerned MS or participants in EU projects.

Methodology

As explained in the main D8.1.4 document, the research was based on a desk study carried out between 2017/02 and 2017/08. It is important to note that time runs often very fast in the eHealth and mHealth domains. Accordingly, contrary to healthcare organizations and fundamental policies trends, concrete programmes and projects can change rapidly. However, if they correspond to clear needs and sustainable methods, they should not disappear. Moreover, when possible, some of the main important developments that have occurred since August 2018 have been taken into account.

Argentina: basic information on the country

These are the characteristics and events that should be kept in mind as they have a decisive influence on rhythm and policies for eHealth development.

Argentina is a very large country (2,8 M km^2, 8th largest on the planet) with a very low population density - population is 43,6 M (2016), mean density is 14 ha/km2. Argentina has important natural resources and is a powerful country in Latin America. The size of the country and the great diversity of territories – North vs. South, coastal Provinces vs. North-East and Centre, metropolitan areas like Greater Buenos Aires vs. rural areas – explains the past opposition between promoters of centralization and promoters of federalism.

Since the return to democracy in 1983, federalism has progressively been reinforced; it is now a strong structure that permeates all activities. There are 23 "provincias" and one autonomous municipality, the city of Buenos Aires.

Disparity is great between provinces. In 2010, the Buenos Aires area (including the autonomous City and the province) had 18.5 M inhabitants, representing 42% of the total population. Three other states totalized about 25% (Cordoba, Santa Fe and Mendoza). The rest – 19 states – had together 33% and often very low density.

The economy has known stark up and down variations in the last decades, which has weakened the public sector, financed by taxes, whereas the private sector has managed to remain strong throughout theses crises.

Argentina participates in Mercosur, a strong regional alliance with Brazil, Paraguay, Uruguay and Venezuela.

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Health and Healthcare background

1. Elements on health situation

WHO health indicators show a relatively good situation, though still lagging behind for some important problems, such as infant mortality (although progresses have been made since 2009), which reflect the existence of impoverished populations. The federal Ministry has launched a territorial strategy, enrolling more than 800 municipalities in the healthy municipalities initiative. National and provincial ministries work together in the Federal Health Council (COFESA) and the Regional Health Council (CORESAS).

2. Healthcare system

Argentina healthcare system providers are divided between private and public facilities, which reflects important social differences in the population. The private sector caters to only 5% of the population but 70% of health establishments are part of it.

Employees must participate in one of about 300 competing labor union-run health insurance schemes, offering differing levels of coverage, the "Obras sociales", "social works". Some social insurances pertaining to Obras Sociales can contract with private clinics. Globally, the Healthcare system includes three elements: public, Obras sociales, private insurance (which closely associated with all private providers).

The Ministry of Health (MSAL) oversees the three components of the system, and is responsible for regulation and evaluation setting. Health of the population and management of regional and local public structures are under responsibility of provinces.

In 2002, according to PAHO, the principal problems affecting the health situation or health services delivery were the poor articulation of the sectors, inequality in the levels of financing and quality of care, and barriers to access (mainly economic) by some population groups to the services. The MSAL, in recent years, has addressed these difficulties and eHealth at national level is closely integrated to its efforts.

Economic situation (see Preamble) led to a modification in roles of private and public sectors and to a reduction of Health expenditure from 9.13% of GDP in 1995 to 7,3 % in 2016: the GDP has grown but public sector development has been hampered.

3. Motivations for selecting Argentina for eHealth study

- A very large country, with a federal organization between very diverse States ("Provinces").

- A pioneer in Latin America through many individual eHealth initiatives which have been a basis for developments in other countries. A national policy has been defined for universal health coverage, eHealth, Healthcare Information System, Telehealth.

- Strong engagement in multilateral health cooperation; principal partners are the United Nations (under the 2011-2015 United Nations Development Assistance Framework), the World Bank, the Inter-American Development Bank, the European Union1 and the Global Fund. Argentina participates in WHO and PAHO programmes.

- Strong and ancient population and cultural links with Europe (Spanish, Italians)

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[1] https://ec.europa.eu/europeaid/countries/argentina_en

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Telemedicine and eHealth development

4. National strategies

By the end of the 2000s, barriers to eHealth implementation for public administrators and health structures were not lack of knowledge of applications, or lack of policy framework, cost too high or lack of technical expertise but lack of information on cost effectiveness, lack of demand, lack of legal framework. Before the 2010s however, the foundations for the current ICT integration in the health system were laid: development of communication infrastructure and tertiary education on ICT in medical sciences universities as well as continuous education for healthcare professionals. The legal basis for eHealth was starting to be addressed, including health data in the general protection of privacy and safety in Information Systems and the Internet and in particular for institutions building electronic health record (HER).

The need to adopt a more focused telemedicine policy, taking into account conditions for professionals and structures appropriation led in 2010 to two main initiatives in the 2010s.

The launch by the Ministry of Health of the **Sistema Integrado de Información Sanitaria Argentina** - Argentina Integrated System for Sanitary Information (SISA). SISA aimed at organizing a set of repositories in order to be able to manage and follow health system and health policies for all national, regional and local actors.

Success story: SISA

Launched in 2010, SISA is designed to resolve the fragmentation of healthcare information.

It aims at using information from multiple sources, in this case the three components of the national health system (public, Obras Sociales, private insurance) and making them interoperable and associated in a coordinated system; it is also a mean to improve the collection and management of information as well as information access. SISA has first created federal registers of health establishments and health professionals and has defined the Minimum Group of Basic Data (CMDB) that will allow unifying and centralizing basic information for each citizen.

"SISA will help to facilitate work, so that one isn't always filling in hundreds of forms, so that we're always using the same language, codes and criteria to make everyone's job easier" [interview of Mario Sorrati, Head of SISA] [6]

The respect of federalism is paramount to SISA: conventions are negotiated and signed with every concerned authority.

SISA paves the way towards national EHR, notably through publishing data dictionaries and compatible codes for different types of records and specialties, but "we know that there's a long way to go"

A minimum data matrix was provided by agreement with other countries in Mercosur.

In **2011, Argentina launched an eHealth Plan** with the assistance of WHO-PAHO. In 2012, a cooperation agreement was signed between the Ministry of Health and the Federal Ministry of Plan to develop a National Cyberhealth Plan. Main objectives were:

- Foster implementation of equipment and software and training programmes;
- Interconnect all national, provincial and municipal public care centres;

- Teleconsultations between professionals in the whole country and possibility for rural areas residents to request specialist's opinion without moving;

- Create a repository to archive and distribute eHealth resources.

In the federal fiber network, the National Cyberhealth plan deploys a unique platform for all public units. Connecting to the network is a decision of public and private hospitals and care centres. The network disseminates Ministry's information and documents – standards, care protocols etc. The Plan concerns all specialties but special networks are set in place (mental health, oncology…). National and provincial reference hospitals sign a convention with Ministries of Health and Ministry of Planification. A National Operation Centre for eHealth was set in place to manage and follow the Plan.

The lack of legal framework usually limits the diffusion to pioneers or special experiments. A strong policy in this area has led to most eHealth activities being carried within a legal framework. The development and management of EHRs is strictly constrained; it conforms to international agreements and the citizen/patient should be in control. Legislation governs also identification management systems. The federal constitution and the role of municipalities do not allow easily for national applications; this is why no national EHR exists or is envisioned in the medium term.

5. Dynamism of regional and local authorities

In recent years, it is at the local level that eHealth has been developed and many initiatives are taken by three kind of actors: Provinces, autonomous Municipalities and the Private sector. The existence of a national policy and a precise legal framework has greatly stimulated initiatives. Typical actors are Provinces, for public healthcare units, and Private groups. Moreover, implementation of national public health programmes such as Plan Nacer (birth) or drugs traceability stimulates development of eHealth. Such plans provide data resources, contribute to Health Professionals IT capacity and lead to integration of new tools, such as mobile ones.

Many projects concern Regional EHRs; national regulation requires municipalities to have healthcare providers under their administration that are capable of following the regulation, which implies modernization of systems to conform to standards and security, safety and privacy constraints. Provinces approach may concern first hospitals but also very often ambulatory care. For example, the Ministry of Health of Santa Fe developed the **"Primary Care System" (Sistema de Atencion Primaria - SICAP)**. The system offered a new dimension to the situation, which previously had been fragmented but is now integrated. Such programmes are centered not only on use by professionals but on patients, who are able to access and/or create their records. They are regarded as an essential requirement for integrating the provincial healthcare systems and democratizing them.

> **From fragmentation to integration – a successful Province approach**
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> The Ministry of Health of Santa Fe (3rd province by population, 3.2M) developed the "Sistema de Atención Primaria" (Primary Care System) (SICAP). A family health record is created for every patient, scheduled appointments are made and records are taken of facilities, vaccinations and laboratories, in addition to other administrative and care activities. Instead of hospitals, the Ministry started with ambulatory care centres, considering this Family EHR as an essential requirement for integrating the entire provincial healthcare system and democratizing it.

Telemedicine is also starting to be used for distant access to second advice and specialized centres. Developments are especially useful and used for areas very distant from the province capital. Municipalities may support telemedicine in order to counter specific diseases.

6. Synergy and discrepancies between public and private health providers

Private hospitals have to follow regulations and legal constraints but are not included in the government or provinces administrations financing programmes. They are often technically more advanced that their public counterparts.

However, their role is important in the national plans. Given the resources they can gather, they are for instance often expertise resources for telemedicine services to distant territories. Some of their applications and works are used for general national proposals.

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Main conclusions

7. Reorganizing roles at all levels from local to federal and prioritizing data coherence and interoperability

7.1 Integrating eHealth in Health and Social protection

In 2016 Decree 908/2016 for Health Universal Coverage reorganized health insurance system for more equity and created the "Fondo Solidario de Redistribución" which allows for financing numerous new actions, including those that will contribute to eHealth diffusion (Ex in Annex to the decree: identification of beneficiaries, actions in favor of primary care, development and optimization of the "Integral Networks of Services" that link care actors in territories, financial assistance for acquisition of technological equipment, institutional reinforcement in the IT domain).

7.2 Fragmentation: standards and data

Interoperability remains a challenge. The dynamism of local authorities, the difference between public and private, could eventually lead to stronger but also strongly fragmented systems. For Argentina – and the Federal Ministry assumes this -, the answer is the diffusion of more and more common registers and standardization of data; the strategic tool here is SISA. There is a growing number of nominal records. The citizen record registers actions from isolated files (vaccination, Nacer etc.). This will progressively facilitate the interconnection of still fragmented medical records, towards a national platform.

To attain in the long term this objective, there is no unique model today, no minimum common data set (there is a SISA model but not mandatory). Models are already worked on at the Ministry of Planning and also in Provinces. Of course, to attain any national system, legal regulation will need to be defined.

8. Good practices: Rules and roles

(with extracts of WHO-PAHO profile 2015) [3][4]

Federalism: Respect differences and autonomy whilst removing all types of barriers. Collaborate in strengthening the institutional capacities of the national and provincial ministries of health to enable them to carry out a directing role.

Autonomy: Help, not impose.

Essential role of local authorities: At all levels: Provinces for provincial reference structures, municipalities for Care centres and local hospitals for local networks.

Public health intersectoral requirements: Support the establishment and strengthening of strategic intersectoral partnerships to strengthen public health capacities. Support the development of initiatives and technical tools to facilitate intra and intersectoral partnership between national, provincial and municipal levels, with emphasis on bridging gaps. Develop partnership mechanisms between health and education authorities in order to adapt health worker training to the demands of a changed health system. Promote the design of professional education systems, training in public health and learning networks.

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Potential for cooperation

9. Main domains and axes for exchanges and cooperation

There are already exchanges and cooperation between EU MS and Argentina and numerous contacts, partly due to common culture because of recent European immigration – notably Spanish and Italian. Argentina is also a partner in H2020.

Exchanges with Argentina and common local development experiments should be source of common enrichment on following two axes:

- Exchanges on how to coordinate progressively the different levels of governance, from local to federal and identifying roles at every level (on concrete points) – such exchanges will be very useful as they can be compared to countries exchange as viewed by the eHN.

- Common projects, or participation of Argentina in European Union (EU) programmes.

Conforming to Argentina federal organization and health governance, many actions monitored and studied by eHN should be concretely built as cooperation on selected local/regional projects or pilot provinces. Sometimes, it could be cooperation between European municipality and an Argentinian one.

10. Programmes and projects

The following paragraphs use basic elements of the provisional grid described in the D8.1.4 main document (II – 12.3). There are four categories:

- Learn: the project is a rich source of information for a country confronted to similar problems or working in a similar international action

- Mutual enrichment: development of exchanges between project actors and concerned parties among eHN MS, active in similar projects in their country or abroad.

- Help and support: which can be technical, promotion, financing.

- Participation: co-construction of the project and similar ones.

10.1 Universal Access

Integration of ICT in plan Nacer (birth)

Action against maternal and infant death launched in response to the dramatic surge in infant death due to the economic crisis in 2001.

Objective for following
Mutual enrichment: innovative mHealth tools, possible exchanges for responses to similar emergencies in developing countries or in poor suburbs everywhere.

Remediar+Redes (Reparation+Networks)

Aims at sending pharmaceutical and medical products to remote territories and managing distribution inside local networks of actors

Objective for following

> Learn: for cooperation with developing countries which encounter similar problems

10.2   Education and training

Professional training

A key element to ensure eHealth deployment and sustainability. Indeed, in the previous period of cooperation (until 2013), *"Among the sectors targeted, significant progress has been achieved in the sector of professional training. Following the result of the project "Educacion y formacion al trabajo para jovenes" (Education and formation to work for young" I and II, the complementarity between education and professional training was significantly improved in Argentina"* [8]

Objective for following

> Mutual enrichment: provide input and results in professional training in similar circumstances in any country, with relation between education and training

Digital Alphabetization Programme (a PAHOs programme)

Training health workers to access new information and communication technologies. They will learn about the use of virtual collaboration platforms, social networks, sources of information and more. [WHO-PAHO]

Objective for following

> Mutual enrichment: provide input and results in professional training for ICT capabilities in similar circumstances in any country

10.3   Patient empowerment

Buenos Aires citizen emergency information

Abstract filled by the citizen and QR^2 Code readable for Emergency

Objective for following

> Participation (if possible): there are many innovative solutions for acquiring information in emergency situations, could trigger cooperation

10.4   Standards, interoperability

SISA

A central approach to building a more and more coherent system through a data definition and management strategy, with general objectives and legal rules but developed bottom-up, taking into account local developments *(see above II4)*

Objective for following

> Mutual enrichment: fundamental approach for preparing and insuring interoperability in any context

Mendoza's Care Administration System

Towards connection of all HcPs, EHR

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² Two dimensional bar-code

Objective for following

> Mutual enrichment or if possible Participation: Developing a network with many possibilities of exchanges between professionals and institutions of diverse levels of a territory is a long term work that eHN MS could share

Santa Fe's Ministry of Health "Primary Care System" (SICAP)

A family health record is created for every patient and shared by the primary care centres. *(see II5)*

Objective for following

> Much to Learn and possible Participation: the approach from peripheral to centre and the empowerment of the citizen are to be interesting for many

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Main sources

(Beware: official sites are in reorganization – msal sites before were Ministry of Health ones, but the new organization is "argentina.gob.ar/salud")

[1] Ministry of Health (MSAL)
https://www.argentina.gob.ar/salud

[2] Official bulletin of the Republic
https://www.boletinoficial.gob.ar/pdf/linkQR/cnFmUDFkcUIrTWcrdTVReEh2ZkU0dz09

[3] WHO countries studies

[4] PAHO
http://www.paho.org/ict4health/projects/?page_id=190&ps=Argentina&id=60&lang=es

[5] SISA Portal
https://sisa.msal.gov.ar/sisa/sisadoc/docs/sisadoc_home.jsp

[6] Press for all Latin America: eHealth reporter - *http://ehealthreporter.com*
http://ehealthreporter.com/en/noticia/verNoticia/1953/working-towards-a-single-health-record-for-every-citizen-/
http://ehealthreporter.com/web/en/noticia/legacy-3797/

[7] EU External Action Service site
https://eeas.europa.eu/headquarters/headquarters-homepage/area/geo_en

[8] EU International Cooperation and Development site
https://ec.europa.eu/europeaid/countries/argentina_en