Uruguay

The way towards to a digital society

Digital

Country perspective on
Digital Health

Ec. Arturo Echevarría
President of the National Health Board
Public Health Ministry (MoH)

© Sebast732

Population	3.4 millions
Area	176.215 km
Capital	Montevideo
Language	Spanish
GDP(PPP)	
Per capita	$21.300

Uruguay Digital

SOME INDICATORS

in the last 10 years (2006-2016) the Internet access in the poorest households increased

from 1% to 77%

93% has a device and has internet access

99% Of the uruguayan schools and hospital has internet access

85% Of the population uses internet daily
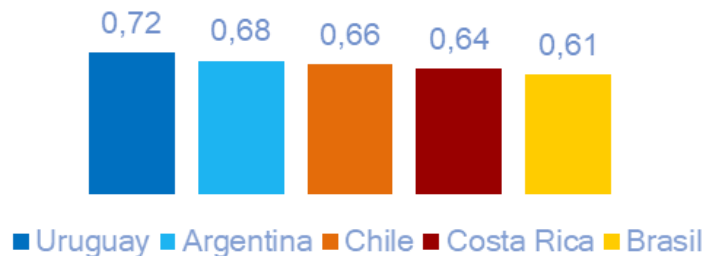
fixed-broadband
world's most affordable

* ITU 2018

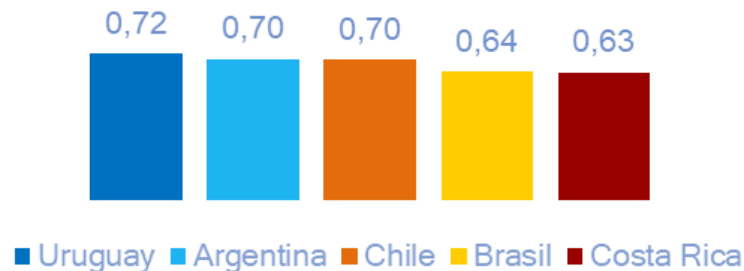**100%** Of the uruguayan government services can be iniciated online

Uruguay Digital

URUGUAY TODAY

Digital Development, ITU 2017

0,72   0,68   0,66   0,64   0,61

■ Uruguay ■ Argentina ■ Chile ■ Costa Rica ■ Brasil

Digital Government, UN DESA 2016

0,72   0,70   0,70   0,64   0,63

■ Uruguay ■ Argentina ■ Chile ■ Brasil ■ Costa Rica

In the world

D9

**United Kingdom – Israel – Estonia – South Corea New Zealand – Uruguay – Canadá – México - Portugal**

The most advanced digital governments

Uruguay Digital

TRANSFORMING WITH EQUITY

- All households with optic fibre

- One computer per children

- Retirees with a tablet

- All agro - livestock activities traceable

- **Electronic Health Record (EHR) for all users**

- Digital Identification

- All government services online
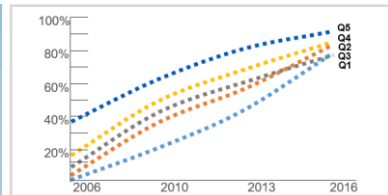
HEALTH REFORM

More than 10 years of process

| Financial Model Changes | Management model Changes | Health Provision Model Change |

**Medical Technology and Informatics infrastructure
salud.uy**

Uruguay Digital

HEALTH CARE MODEL CHANGES

The Health Care Integral Plan (Spanish acronym PIAS)

- Law 18.211 art. 45. All health SNIS providers must supply it

- Explicit guarantee of health care rights

- PIAS content: Explicit catalog of benefits articulated around health programs:
  - Modalities of health attention according to complexity
  - Medical specialties and techniques for health control and recovery
  - Diagnostic procedures
  - Therapeutic and recovery procedures
  - Oral health
  - Therapeutic and vaccine certificate
  - Sanitary Transportation
  - Medications (FTM)
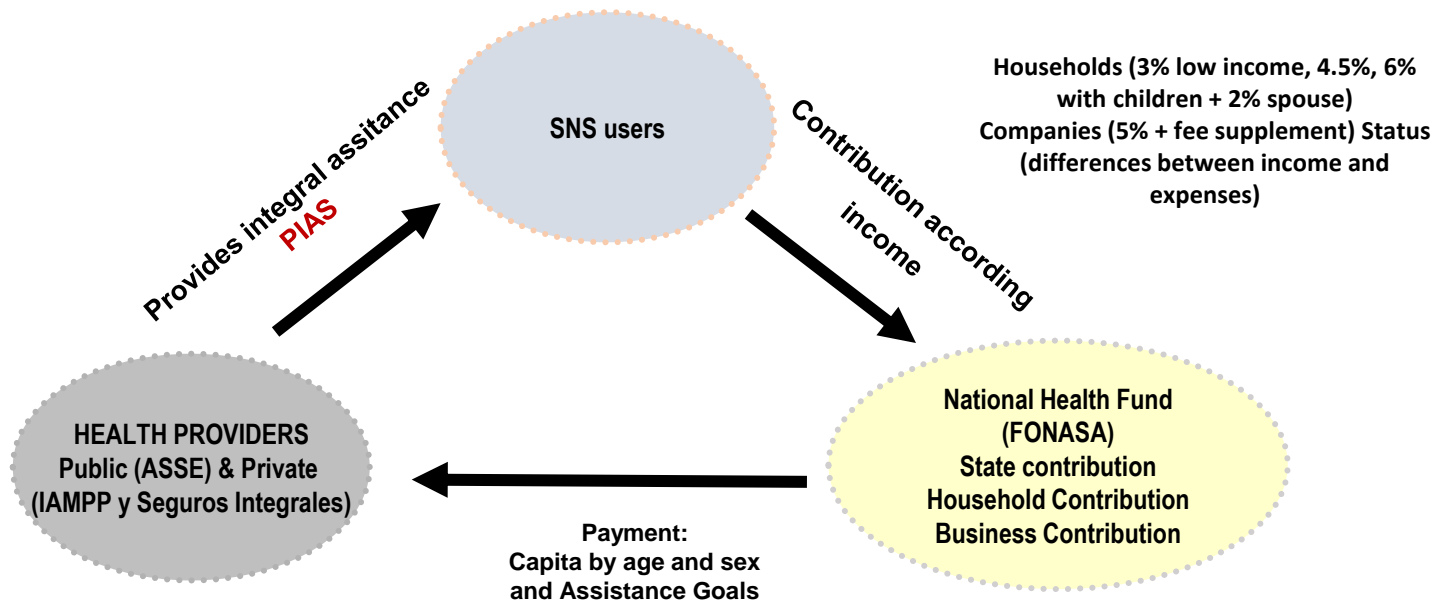
National Health Board (JUNASA)

- Health Ministry desentralized organ

- Directory with 7 members: 4 designated by the Executive Branch (2 at the proposal of the National Health Ministry, one of which presides; 1 at the proposal of the Financial and Economics Ministry and another from the BPS), 1 representative of the health service providers that integrate the SNIS, 1 representative of the workers and 1 representative of the users.

JUNASA Competences (Law 18.211):

- ✓ Administer the National Health Insurance (SNS). Provide the payment of health fees to the providers that integrate the SNS, after verifying compliance with the obligations under their charge.
- ✓ Ensure compliance with the guiding principles and objectives of the National Integrated Health System (SNIS)
- ✓ The purchase of the Comprehensive Health Care Plan (PIAS) for the health coverage of the population benefiting from the SNS is done through the signing of the Management Contracts that will then be controlled and monitored by the MSP and JUNASA

CHANGES IN THE FINANCING MODEL

National Health Insurance Conformation (acronym in Spanish SNS)

SNS users

Provides integral assitance
PIAS

Contribution according income

Households (3% low income, 4.5%, 6% with children + 2% spouse) Companies (5% + fee supplement) Status (differences between income and expenses)

HEALTH PROVIDERS
Public (ASSE) & Private
(IAMPP y Seguros Integrales)

National Health Fund
(FONASA)
State contribution
Household Contribution
Business Contribution

Payment:
Capita by age and sex
and Assistance Goals

SALUD.UY PROGRAM

GOVERNANCE

- Define interoperability standards and rules

- Implement pilot applications and proof of concept

- Generate and maintain the central infrastructure

- Support providers in the adoption of initiatives

- Change management

FOCUS ON THE ENTIRE ECOSYSTEM

- Health services providers (public and private)

- Pharmacies and laboratories

- National Health Ministry and other public and state agencies

- Universities and tertiary education institutions

- IT services providers

- International organizations

Uruguay Digital

ELECTRONIC HEALTH RECORD

Comprehensive set of clinical, social and economic data, referring to the person information health, from birth to death, processed through electronic means, equivalent of the paper medical history
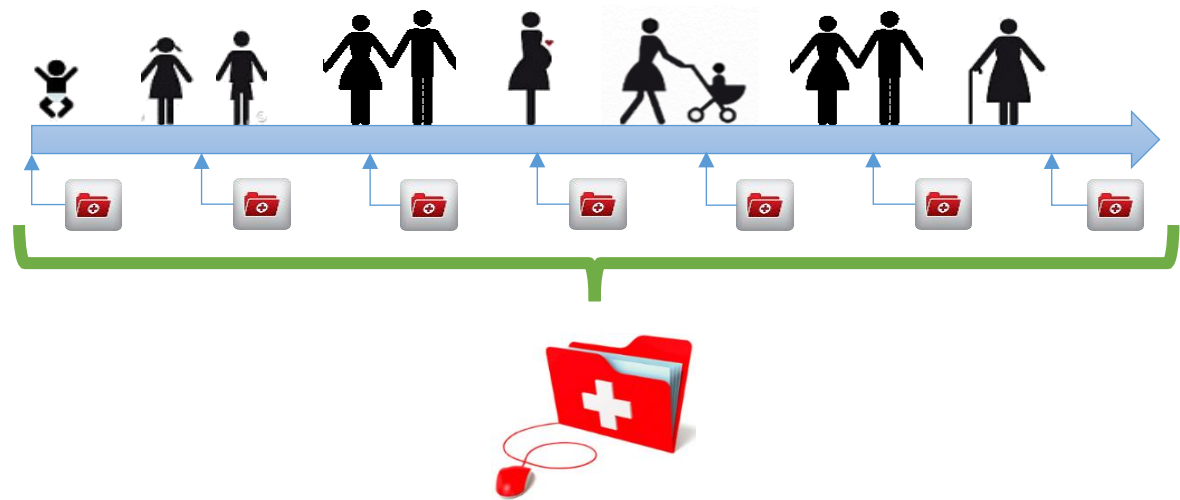
HCEN ELECTRONIC NATIONAL HEALTH RECORD

Guarantees that the citizen's clinical information is available and accessible to the health team in a timely, secure and real-time manner
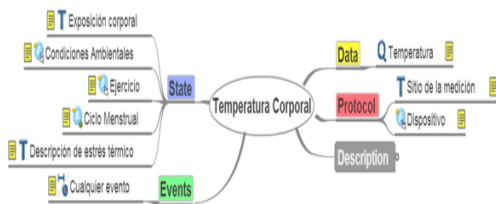
Clinical Information model

Harmonized, consolidable and extensible
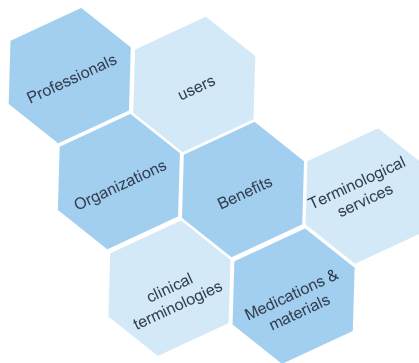
↑

Standarized Clinical Content

↑

Minimum data Set

Based CDA standard of HL7

Data Architecture

Enable semantic interoperability
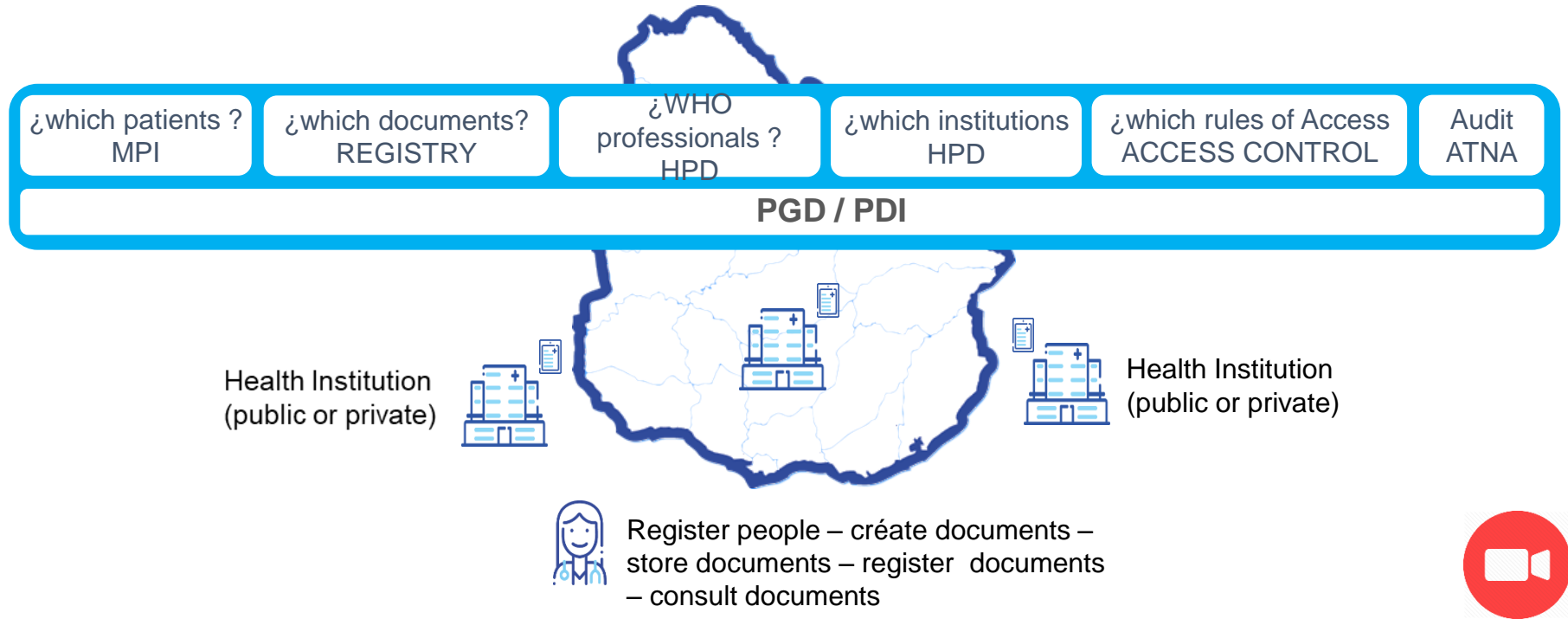

Professionals
users
Organizations
Benefits
Terminological services
clinical terminologies
Medications & materials

Exchange model

Data Protection Policy

Standards

Interoperability Platform

Federated

Uruguay Digital
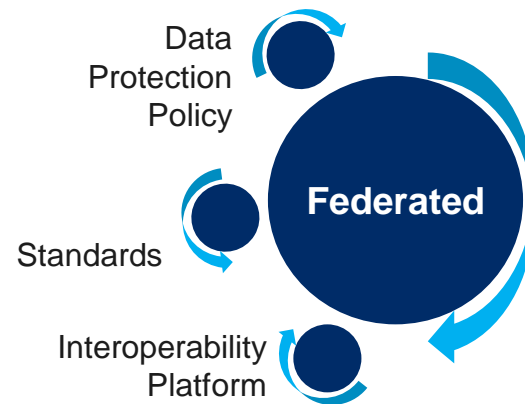
MOST RELEVANT ASPECTS

- The rules for **syntactic and semantic interoperability are defined**

- The **standards** to be used are defined

- Architecture with **federated repositories and centralized registry**

- Each institution maintains its own systems. **HCEN is not a software**

- Each institution is the **legal custodian** of the medical record, and **stores** the clinical documents of each user

- The HCEN health platform contains **records of people and clinical events** (does not store clinical information)

- Integrated by a sustainable infrastructure over time (health network, HCEN platform, Digital Government Platform)

Uruguay Digital

HCEN - SALUD.UY PLATFORM

| ¿which patients ? MPI | ¿which documents? REGISTRY | ¿WHO professionals ? HPD | ¿which institutions HPD | ¿which rules of Access ACCESS CONTROL | Audit ATNA |

PGD / PDI

Health Institution (public or private)

Health Institution (public or private)

Register people – créate documents – store documents – register documents – consult documents

Uruguay Digital

ADOPTION PLAN

Phase 1
Identification

- Connection to Health network
- send people information

Phase 2
Standarization

- Standarization
- Generate CDA
- XDS

Phase 3
Publication

salud.uy

- RECORDS Clinical data recording on Platform
- Use of terminology services

Phase 4
Unified model

- access
- Obtain registry of clinical events
- Obtain Ckinical data

Phase 5
Analysis

- Use of clinical terminology
- Publication of information based on Snomed CT

Cibersecurity

Change Management

GOALS ADOPTION PLAN

HCEN Goals 2017 - 2020

% HCEN users in the health system

- 30% — 2017
- 60% — 2018
- 90% — 2019
- 100% — 2020

% health events in HCEN

- 40% — 2018
- 60% — 2019
- 90% — 2020

Uruguay Digital

SALUD.UY TIMELINE

Continuos and sustained process

Adoption Plan

Regulations HCEN

Phase 5 HCEN - Minimum data set

national release center

SNOMED CT venue

Standards

| 2005 - 2007 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |

agenda digital URUGUAY

RIDI

HCEO

CONECTATÓN

CONECTATE

plataform HCEN v1

salud.uy

HCEN
A reality

MY DIGITAL HEALTH RECORD
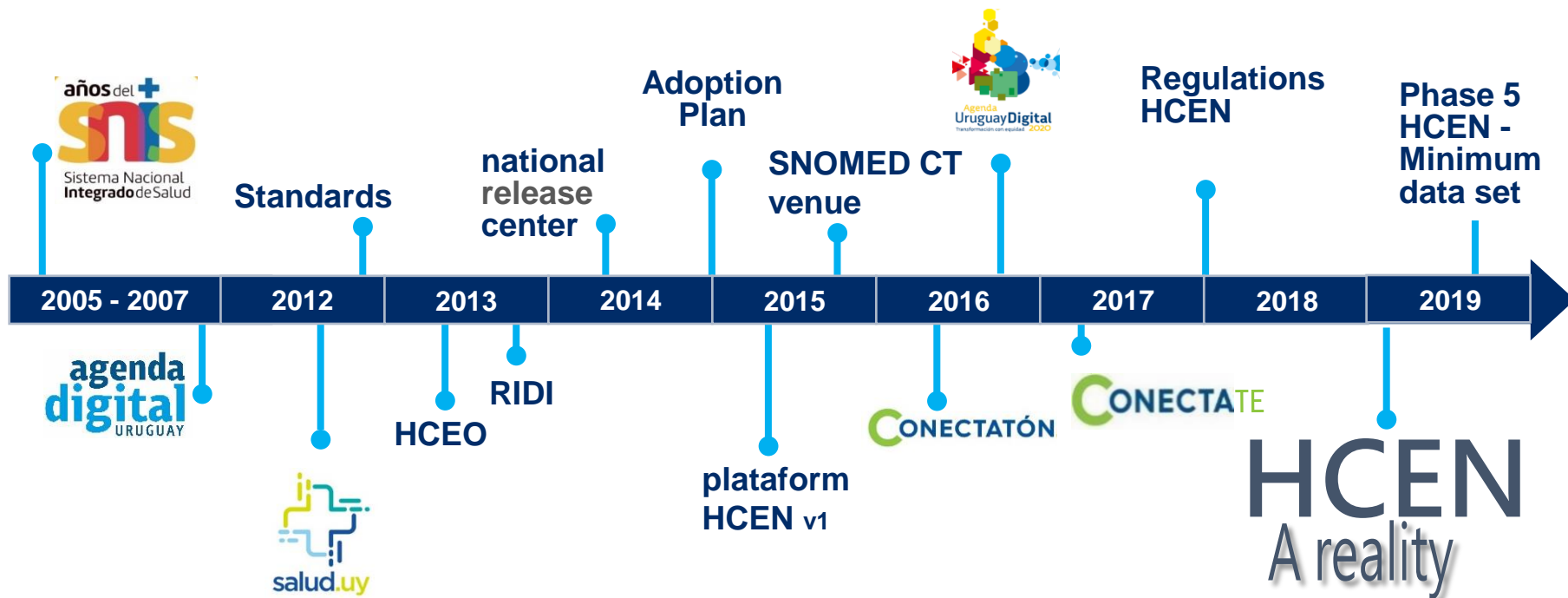
The HCEN: Summing up (National EHR)

- **This is NOT** an EHR software is a Health Platform

- The Health Platform provides the framework for a common need, in line with the country's health strategy

- It is **supported** on the electronic **government platform** (authentication, reliable, and security)

- It shall consist of the sum of the successive electronic clinical pages generated in the various patient care sites of the SNIS (Integrated National Health System)

- It shall initially contain indispensable information **to ensure the continuity of patient care**

- Each institution may have its own EHR system and **generate "sharable" clinical pages**

- Stakeholder inclusion and adoption plan, in a scalable manner and according to their technological maturity

- Based on international standards model but adjusted to the country's local reality

Uruguay Digital

NEXT STEPS

- Adoption plan for cybersecurity

- e-Prescribing national wide

- Structured clinical information

- Monitor and evaluation population system

Uruguay Digital

THANKS FOR YOUR ATTENTION

Uruguay
Digital