‘ANDALUSIAN PUBLIC HEALTH AND SOCIAL SERVICES SYSTEM AND ITS DIGITAL STRATEGY’

Ana Carriazo

Senior Advisor. General Secretary for Quality and Innovation. Regional Ministry of Health and Social Welfare of Andalusia
Andalusia

87,597 Km$^2$
8,449,985 habitants (526,942 foreigners)
21,8 M tourists yearly
Andalusia: Political context

- Political Autonomy since 1981
- Regional Institutions
  - Parliament
  - Government (“Junta de Andalucía”)
  - Court of Justice (TSJA)

Jose A Grínán. President of Government

Manuel Gracia. Speaker of the Parliament
Andalusia:
Social and Economic trends before financial crisis

% of GDP (PPP) growth
1986-2007

69 110 127

EU 15 Spain Andalusia

Source: Eurostat

Gini Index in Andalusia
1970-2005

0.35
0.34
0.33
0.32
0.31

Source: Centro de Estudios Andalucés
Regions whose GDP per inhabitant, in PPS, moved upwards or downwards over the 75% threshold of the average EU-27, by NUTS 2 regions, average 2004–06 compared with average 1999–2001.

Source: Eurostat regional yearbook 2009
Financial crisis: impact on GDP and unemployment rate
Andalusia
Population 2009-2039

Población = 8,287,134
Población = 9,251,974
Regional Ministry of Health and Social Welfare: Organigram
Public Health and Social System in Andalusia

Main Principles

• The guarantee of rights on health and social welfare

• Progress on efficiency and sustainability as an essential perspective of public health services and social protection

• Promoting the professional development of all those who are directly or indirectly related to the services provided within the Ministry

• Promoting of research, to consolidate a model of innovation and a production model different, more sustainable and solidary

• Enhancement of transparency, the access to information and the public participation in the context of an open government
Spain: National Health System

- 100 % Public Funding
- Universal coverage*
- Free of charge
- Integrated care
- 2 levels:
  - Primary Care
  - Specialized Care

Spanish Healthcare General Law 1986
National Health System Cohesion and Quality Law 2003
RDL 16/2012 NHS sustainability*
Andalusian Public Healthcare System

Legal Framework Principles

• Full Autonomy for Health Policy since 1984
• Healthcare Management at regional level
• Same Principles as national law
• Some specific driving principles:
  • Public provision of the services
  • Based on cooperation & coordination
  • Stress on:
    • Equity
    • Guarantee of rights
    • Territorial homogeneity
    • Accessibility
    • Transparency
    • Participation

Andalusian Health Law 1998
Andalusian Public Health Law 2011
### Andalusian Public Healthcare System

<table>
<thead>
<tr>
<th>Count</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,506</td>
<td>Primary health centres</td>
</tr>
<tr>
<td>47</td>
<td>Public Hospitals (16,821 beds)</td>
</tr>
<tr>
<td>102,000</td>
<td>Healthcare professionals</td>
</tr>
<tr>
<td>9,330 M €</td>
<td>Budget 2012 (6.72% PIB; 1,108 €/habitant)</td>
</tr>
</tbody>
</table>

In 1984 transfer of the political competencies on health and public healthcare system management.
<table>
<thead>
<tr>
<th>Año</th>
<th>Trayectoria</th>
<th>Institución</th>
<th>Actividades</th>
<th>Proyectos</th>
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<tbody>
<tr>
<td>1985</td>
<td>Escuela Andaluza de Salud Pública</td>
<td></td>
<td></td>
<td>Centro colaborador de OMS &amp; OPS</td>
</tr>
<tr>
<td>1996</td>
<td>Agencia de Evaluación de Tecnologías Sanitarias de Andalucía</td>
<td>Miembro de: INAHTA, AEETS, EUROSCAN, DETECTA</td>
<td>Asociada con: The Cochrane Collaboration</td>
<td>Registro de Cáncer OSE, CADIME, Escuela de Pacientes</td>
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<tr>
<td>2002</td>
<td>Agencia de Calidad Sanitaria de Andalucía</td>
<td>Acreditación de: Centros Sanitarios, Unidades, Profesionales, Formación, Páginas web</td>
<td></td>
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<tr>
<td>2003</td>
<td>Fundación IAVANTE</td>
<td>Entrenamiento Profesional: Simulación Robótica, Simulación virtual, e-training, Role-playing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Fundación Progreso y Salud</td>
<td>Soporte y Gestión de la I+D+i en Salud</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gestión ayudas I+D, Transferencia, Formación, Recursos, Gestión Centros, Programas, Oficina Proyectos.
Primary Care in Andalusia: Main features

GP as a **Gatekeeper**

**Capitation:** 1 GP/1,400 inhabitants

Team of professionals working in a **PC Centre**

Homogeneous **territorial distribution**

Aggregation of PC Centres in “**Districts**”

**Supportive teams** at Districts for Public Health purposes: Epidemiologists, Vets, Pharmacists…

Professionals are **civil servants**

Focus on **health promotion** and prevention
Hospital Care in Andalusia: Main features

Hospitals

- 5 Level I (>1,000 beds)
- 9 Level II (500-1,000 beds)
- 20 Level III (<500 beds)
- 13 CHARE (proximity hosp)

Total: 47 Hospitals

Hospital Network. Patient referral by levels of complexity
Financing based on capitation + level of complexity
Professionals are civil servants
Multidisciplinary teams working by objectives
Close relationship between hospitals and primary care districts
Calls received at **coordination centers** (061 line)

**Evaluation** of each emergency in call centre

**Assignation** of the appropriate **resource**:
- Mobile ICU*, emergency team* or helicopter*
- Basic life support team*
- Referral to other services
- Resolved by phone information or advice

Emergency care provided by **healthcare professionals** (physicians and/or nurses)

Specific **programs** for some **chronic diseases** such as asthma/COPD, hearth insufficiency, coronary disease: delivering faster and better care identifying high-risk patients by a database
3er Plan Andaluz de Salud 2003 - 2008

Andalucía en Salud: construyendo nuestro futuro juntos
Comprehensive Health Plans
Identification main health problem
Analysis of the situation and causes
Definition of recommended interventions
Development of activities in prevention, health education and promotion; health care delivery organization, training, research, etc
Evaluation
Un espacio compartido

Plan de Calidad
Sistema Sanitario Público de Andalucía
New rights for patients

Right to a guaranteed maximum waiting period for:

**Surgery**
120 days

**Diagnostic Tests**
30 days

**Specialised consultations**
60 days

Other rights:

- Right to a second medical opinion
- Law on Living Wills and death with dignity
- Preimplantatory Genetic Diagnosis
Redesign clinical systems across primary care, secondary care, acute care and community care allowing for integration & management of care closer to the patient. In essence, provide the right care at the right time to with the right provider, first time and every time
A tool for Organisational Redesign based on EFQM model

Objective: Improve quality, equity, effectiveness and efficiency of healthcare

How: Shifting management responsibility to the professionals

Where: In the Clinical Management Units: flexible multidisciplinary teams

Key elements:
- Professional autonomy of clinical teams. Transference of responsibility.
- Outcome oriented. Objectives and incentives by common agreement
- Working using Clinical Pathways. Evaluation and benchmark. Information system
Quality Certification
Competency-based management

Recruitment and selection

Continuous development

Performance Evaluation

Professional career

Quality Certification
Clinical Management Units in Andalusia

More than 65,000 professionals working on UGC (Clinical Management Units)
Biomedical Research
Users Satisfaction Surveys (IESA)
% Satisfied + Very satisfied

Evolución de la satisfacción de los usuarios con los servicios
ATENCION PRIMARIA - HOSPITALES - C.EXTERNAS 1999 - 2010
SaludResponde
Centro de Información y Servicios
Información
Cita telefónica
Voluntad vital
Segunda Opinión Médica
Cita centralizada
Listas de espera
Cita por Internet
Prescripción Electrónica
Tarjeta sanitaria
Oficina Virtual (InterS@S)
Social Welfare Services in Andalusia

Social Welfare services include a wide range of types of centres and benefits.

More than 3,500 social centres are under the regulatory framework of the Regional Ministry, including:

- child care,
- drug addiction,
- people with disabilities,
- elderly people and
- community social services (roma people, migrants, immigrants).
Social services are provided in coordination with local authorities, and close collaboration with the third sector.

1,978 centres are devoted to the elderly (day-care centres, active participation centres and others).
Dependency: a new right (2006)
**Specific Social Programs**

**TAJ65** Datos a 01/09/13

- **1.014.069 titulares, 79% mayores**
  - 818.800 titulares taj65 verde, 81%
  - 424.300 hombres, 52%
  - 394.500 mujeres, 48%
- **195.269 titulares taj65 oro, 19%**
  - 15.405 hombres, 8%
  - 179.864 mujeres, 92%

Se han alcanzado los 61.500.000 de viajes realizados desde el inicio del programa en 2001 y más de 72 mill. de euros bonificados a través del programa 850 (50% bonificación ambas modalidades).

Se superan las 220.000 compras en productos ópticos desde la puesta en marcha del programa en 2001 (30% modalidad verde/55% oro).

Más de 877.000 compras bonificadas a titulares de Tarjeta Andalucía Junta sesenta y cinco (2,42€ como máximo, 50% bonificación).

Existen 117 empresas adheridas con más de 500 establecimientos colaboradores.

**TELEASISTENCIA** Datos a 31/05/13

- **177.761 pers. usuarias**
  - 43.798 hombres, 25%
  - 133.963 mujeres, 75%
- **117.984 personas mayores de 65**
  - 820 personas con discapacidad
  - 58.957 personas en sit. de dependencia

**LLAMADAS ENTRANTES**

- **63%** Conversación
- **18%** Emergencia
- **19%** Información

**LLAMADAS SALIENTES**

- **92%** Seguimiento
- **5%** Movilización de recursos
- **3%** Información
Andalusia – Reference Site
The Digital Strategy of the Public Healthcare System of Andalusia

- A long-term Strategy: From 1999
- A single health record number for all citizens of Andalusia
- A single electronic Health Record for every person
- A individual smart card for each person as a key for access
- Unified access to all services and levels of care
- Structured information
- A regional eHR shared among:
  - Primary care
  - Pharmacies
  - Hospitals
  - Emergencies
Much more than an eHR: A corporate information system

- 95 Million appointments/year
- 121 Million e-prescriptions/year
- 8.1 Million individual eHR
- 3.5 Million Rx images/year

Appointment Prescription Referrals
Waiting lists Pathology Lab tests
Hospital admission Functional tests Radiology
Data warehouse Inpatient care
Emergency care Primary care Outpatient care
An integrated information system supporting the modernization strategy

Patient centred care
Continuity
Accessibility
Quality and efficiency improvement
Variability reduction
Patient safety
Patient Autonomy
Alternatives to inpatient care
Users Data Base
Emergencies: 3.4 Million
280,000 per month

Outpatients: 1.5 Million
125,000 per month

551,716 e-Prescrip
96.8 M XRay Images

19 hospitals
3.5 M inhabitants
(43%)
Primary Healthcare

3,5 Million consultation sheets per month
41 Million in 2011

118.6 Million e-prescription in 2011

142,000 lab request/month
4.2 Millions results

3 Million XRay reports
All PC centres
Digital Services for citizens

Transparencia

Información sobre Calidad de Centros Sanitarios y del Servicio de Salud
Consulta lista de espera

Acciones proactivas

Seguimiento al alta frágiles
Apoyo enfermería enlace
Seguimiento 061 domicilio
Ola de calor

Informarse es salud

Educación Web
Información TV/TDT
entretenimiento Móvil

e-Administración

Voluntad vital
Tarjeta individual

SaludResponde

Consulta telefónica
Segunda opinión médica
Voluntad vital
Tarjeta individual
Listas de espera
Cita Telefónica
Información sanitaria
Traducción lingüística
Quit-line tabaco
Encuesta al alta telefónica
SIDA, Tabaco, gripe...

servicios SMS

Información sanitaria
Consejo sanitario

salud andalucía

Valoración individual e información sobre salud
Accessibility:
Appointment systems in PHC (datos 2011)

14.934.625
10.484.090
1.770
5.045
e-Lab Tests Module

- Based on Corporate Catalogue. Compatible with any LIS
- All analytical parameters are integrated in the eHR
- Homogeneous and comparable
- Linked to the clinical context
- Support to the preanalytical process
- Regional Traceability regardless ordering and extraction point

Clinical Catalogue

<table>
<thead>
<tr>
<th>CLC00006 (Pla—Colesterol de HDL; c.sust)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab A</td>
</tr>
<tr>
<td>Lab B</td>
</tr>
<tr>
<td>Lab C</td>
</tr>
<tr>
<td>Lab D</td>
</tr>
</tbody>
</table>

Unidades, decimales, FC, especimen, sinonimos

General Catalogue

- GNC00006-01 Srm—Colesterol de HDL; c.sust(calculated)
- GNC00006-02 Srm—Colesterol de HDL; c.sust(measured)
- GNC00006-03 Srm—Colesterol de HDL; c.masa(calculated)
- GNC00006-04 Srm—Colesterol de HDL; c.masa(measured)

Implantado en 678 centros de atención primaria, atendidos por los laboratorios de 27 hospitales. 142 mil peticiones/mes (4,2 millones de resultados)
Safety and Quality:
Lab test errors (pre/post) and response time (p70) after Lab Test Module (MPA) introduction

Data from 27 PHC Districts, 5.2 Million inhabitants
Quality and Safety:
Prescription DSS: dosage, allergies, interactions,...
Safety and Continuity of Care: ePrescription module “receta XXI” and alerts

El farmacéutico puede enviar una alerta a la eHR del paciente y bloquear una prescripción hasta que el médico la verifique y la confirme o no.

11,182 casos en 2010

- 93% Confirmados
- 7% Reactivados

El mensaje aparece en la eHR del paciente. Su médico puede valorar el criterio del farmacéutico y confirmar ese criterio o reactivar el tratamiento.
Quality and Efficiency:

e-Prescription module usage, % prescriptions by active principle and PHC visits reduction

> 1 Billion € savings since 2001
136 Million € saved /year

Electronic Prescriptions

- % PPA

Aditional savings:
3.1 Million €: printed prescriptions
3.2 Million €: data management

PHC visits (million)
Continuity of care, quality and efficiency:
Digital retinography, teledermatology, telecare...

156 retinógrafos
215,000 patients
20,000 retinopathy cases detected

83 PHC centres with teledermatology services
Citizens’ autonomy: new ICT services

Citizens’ access to eHR

Current Health Problems
Current Allergies and Contraindications
Current Medication
Primary and Specialized care Appointments
Clinical reports
Hospital Admissions

Health apps
Satisfaction:
% de users’ satisfaction (phone access)

Institute for Social Studies of Andalusia
Spanish Scientific Research Council (CSIC)
Cumulative economic performance
“Facilitate the design and development of innovative projects focused on real solutions for detected needs”

Andalusian Public Health System
Living Lab Salud Andalucía

- Framework Agreement (noviembre 2008)
- User oriented projects
- Developed in collaboration
- Replicability and sustainables
- Baseline for new and better projects
LLSA Scenarios

Real healthcare settings

Common use technology platforms

Telemedicina
Safe access to medical data abroad: The epSOS Services

CommonWell
Common Platform Services for Ageing Well in Europe

PALANTE
PAatient Leading and mANaging their healthcare through EHealth

Independent COORDINATED eCARE
Thanks
for your
Attention.