INTERNATIONAL COLLABORATION
AND
INNOVATION IN CITIZEN ENGAGEMENT

Pablo Rivero:
✧ Senior Advisor, Health Innovation, Calgary Health Region
✧ Deputy Minister, Health Innovation, Andalusia (2004 – 2007)
“No one knows everything, everyone knows something, all knowledge resides in networks”

Lévy 1997
Andalusia, South Of Spain
Vancouver, British Columbia
The Health Perspective:

- Population is ageing.
- Current lifestyles present major risks to the future health of the population.
- Health inequalities continue to present a challenge.
- Disease profile is changing. More people are living with long term illness, and with multiple conditions.

There is evidence that health care organizations that are based on an integrated process approach, have better outcomes than those with a “silos” approach.
The Social Perspective:
- Higher level of demand of information.
- Higher level of expectations.
- Impressive rise of social-virtual networks.

The Technological Perspective:
- Convergence of technologies.
- Virtual networking as a way of sharing knowledge.
- People want, not only, high quality information via multi-channels, but also want to express opinions and expectations.
Technological Convergence

THE 21st CENTURY ENVIRONMENT

TECHNOLOGICAL CONVERGENCE
- Internet
- Mobile telephony
- Digital TV
- Web 2.0

INNOVATION STRATEGY

THE REGIONAL MINISTRY OF HEALTH

GENERATES QUALITY INFORMATION ON HEALTH

CITIZEN EXPECTATIONS

AVAILABILITY AND ACCESS TO MORE AND BETTER INFORMATION ON HEALTH
### Andalusian Health Service. Key Data

#### Budget (2008)
- **12.5 billion $**

#### Clinics
- **1,481 PC clinics**
- **41 hospitals**

#### Human Resources
- **90,629** people on the payroll
- **18,279** primary care
- **62,350** specialized care

#### Andalusian population
- **7,849,799** inhabitants
### Health Activity in Andalusia

<table>
<thead>
<tr>
<th>Service</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP and paediatricians consultations</td>
<td>54,470,699</td>
</tr>
<tr>
<td>Nurses home visits</td>
<td>2,938,877</td>
</tr>
<tr>
<td>Hospital Stays</td>
<td>4,349,050</td>
</tr>
<tr>
<td>Hospital specialist consultations</td>
<td>9,511,178</td>
</tr>
<tr>
<td>Urgencies (Primary care and hospital)</td>
<td>11,210,961</td>
</tr>
<tr>
<td>Total surgery interventions</td>
<td>491,160</td>
</tr>
<tr>
<td>Average waiting time for elective surgery</td>
<td>64 days</td>
</tr>
</tbody>
</table>

Patients waiting more than 180 days for surgery: 0

Spain: 4\textsuperscript{th} OECD country in avoidable deaths for amenable causes
The Basics of the Innovative Approach

- Engage the Citizen
- Professional Fulfillment
- FORESIGHT
- COOPERATION
- Sustainability

Key Points:
- Knowledge
- Modernization
- Organizational transformation
- Gains in productivity
- Quality of Life
- Sustainable Development

- A Health System which learns
- A Health System which cooperates in order to improve
- A Health System which invests in the future
Aaxes of the Andalusian Strategy

- Leadership and clear strategy.
- Redesign processes from an integrated perspective.
- Involve the health professionals in the planning and execution of the change.
- Focus on knowledge management (from organizational and individual perspectives).
- Introduce technology (EHR and multi-channel services). Only after clarifying the previous points.

- Quality services centered on the Citizen
- Continuity of Care, Care Processes
- Professional Development Management Skills
- Push for Clinical Management Clinical Management Skills

25 Projects
158 lines of action

Five strategic themes:

• Assuming the needs and expectations of citizens.
• Ensure quality management of health services.
• Ensure quality of public health policy.
• Managing knowledge.
• Stimulating innovation and modernization of the system.
ANDALUSIA PUBLIC HEALTH SYSTEM INNOVATION
(90,000 Health Professionals serve 8 Million people)

**LEADERSHIP & CLEAR STRATEGY**
- Modernization of Andalusia
  - Comprehensive strategy for the Government
- II Quality Plan (2005/2008)
  - Continuity of Care
  - Ensure Quality Management of Health Services
  - Assuming the needs and expectations of the citizen

**KNOWLEDGE MANAGEMENT**
- EHR (8 Million in a unified database)
- e-prescription (40 Million in 2007)
- Digital Library (1200 scientific journals available to all professionals)
- Bank of Innovative Practices
- OPIMEC (share best practices in CDM).

**REDESIGN CLINICAL PROCESSES**
- 100 processes redesigned
- Integrated plans (main health topics)
- Management by skills
- Clinical Integrated Units
- Accreditation of skills & units based on processes

**EMPOWER THE CITIZEN**
- Centralized Appointments (multi-channel)- 60 Million in 2007
- Multi-channel information
- Interactive (SMS/phones/internet)
- Transparency (quality indicators available on-line)
- Expectations of the citizen managed to improve the system

General Vision of the Andalusian Strategy
OBJECTIVE. Increase efficiency, reduce unnecessary costs, improve quality, reduce times. Reduce the variable produced in clinics and eliminate inefficiencies.
and management by processes implies reorganizing job streams in a manner that they contribute to directed added value to increase the satisfaction of the client and to facilitate the tasks of the professionals
Principles of Management by Integrated Processes

- Approach is centered in the user,
- Involve professionals,
- Sustenance in the best clinical practice through Guides of Practice and development of clinical routes,
- Development of an integrated information system,
- The continuity of the care.
Roadmap

- **Identify** priority diseases or conditions
- **Do** the re-engineering of each process given the clinical evidence
- **Draw up** an **implementing** strategy and allow it
- **Measure** outcomes and get **feedback** for ongoing improvement

**Prioritizing Criteria**

- High prevalence
- Existing Waiting list
- Social impact
- High cost of care
- Feasibility
- Potential Added-value for users
First Clinical Pathways Map

1. Stroke
2. Diabetes
3. Pluripathologic patient
4. Pregnancy, delivery and puerperium
5. Cervical & uterine cancer
6. Breast Cancer
7. COPD
8. Cataracts
9. Elderly hip fracture
10. Cardiac insufficiency
11. Prostate BH and prostate cancer
12. Palliative care
...

The diagram shows a colorful painting of a figure, possibly representing a patient or a medical context, as part of the clinical pathways map.
<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st visit after GP referral, average time</td>
<td>8.2 days</td>
<td>3.4 days</td>
</tr>
<tr>
<td>Mammogram delay after request, average time</td>
<td>37 days</td>
<td>8 days</td>
</tr>
<tr>
<td>Pathology diagnostic report after biopsy</td>
<td>5 days</td>
<td>Same day</td>
</tr>
<tr>
<td>Surgical average time after diagnosis</td>
<td>37 days</td>
<td>16 days</td>
</tr>
<tr>
<td>1st visit in less than 1 week after GP referral</td>
<td>60,6%</td>
<td>92,8%</td>
</tr>
<tr>
<td>Surgery in less than 1 month after pathology</td>
<td>63,44%</td>
<td>96,29%</td>
</tr>
<tr>
<td>Conservative surgery</td>
<td>30%</td>
<td>62%</td>
</tr>
<tr>
<td>Request for mammograms, percentage from 2003</td>
<td>---</td>
<td>-24%</td>
</tr>
<tr>
<td>Global Patient Satisfaction</td>
<td>85.01%</td>
<td>93.3%</td>
</tr>
</tbody>
</table>

Breast Cancer (results after redesigning processes)
La Gestión por Procesos Asistenciales Integrados constituye una estrategia central para la mejora de la calidad. El Proceso Asistencial es el nexo entre profesionales y ciudadanos. La correcta integración del conocimiento, el desarrollo de modelos organizativos flexibles y la gestión adecuada de los procesos son los tres elementos básicos para la innovación y mejora de servicios.

En el ámbito del Sistema Sanitario Público de Andalucía, la Gestión por Procesos Asistenciales Integrados está orientada a:

- Centrar nuestras actuaciones en el usuario.
- Implicar a los profesionales como principales protagonistas del cambio.
- Garantizar una práctica clínica acorde con el conocimiento científico disponible.
- Facilitar la continuidad asistencial.
- Evaluar los resultados obtenidos.

Este espacio pone a su disposición distintos productos en relación con la Gestión de Procesos Asistenciales, con la finalidad de resultar de utilidad para todos aquellos profesionales que desde sus
## Differences between G.P.P. and Traditional Management

<table>
<thead>
<tr>
<th>Traditional Management</th>
<th>Management by Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>♠ A vertical organization prevails.</td>
<td>♠ The vertical organization coexists with the horizontal.</td>
</tr>
<tr>
<td>♠ Improvements based on reactive and occasional character.</td>
<td>♠ Proactive improvements are of radical, gradual, and permanent character.</td>
</tr>
<tr>
<td>♠ Sporadic learning within the same organization.</td>
<td>♠ Systematic learning inside and outside the organization and sector.</td>
</tr>
<tr>
<td>♠ One only concentrates in processes of clinical practice.</td>
<td>♠ It incorporates clinical management based on the evidence.</td>
</tr>
<tr>
<td>♠ It does not contemplate management processes.</td>
<td>♠ It contemplates management processes: logistic and support.</td>
</tr>
<tr>
<td>♠ It does not contemplate the welfare continuity. The responsibility is shared by several professionals.</td>
<td>♠ It contemplates welfare integration between attention levels.</td>
</tr>
</tbody>
</table>
Electronic Health Record In Andalusia

◊ Quality and productivity in the APHS through intensive use of ICT’s

All the **health information** on each citizen

Citizen Information and Services Centre

Integrated and Available at any time or any place

... A centralized appointment system, an electronic prescription system ...

**continuity in the healthcare process**
Diraya. Andalusia’s Unique Health Record

MTI
Information Treatment Modules

SALUD RESPONDE
Contact Center

RECETA XXI
Electronic Prescription

CENTRALIZED APPOINTMENT

HEALTH RECORD

OCAM Professionals

UDB Users

STRUCTURE Resources
Diraya: Health Record

INTEGRATED

UNIQUE by paciente
INTEGRATED with BDU

DUAL ARCHITECTURE
Information
Centralized / Decentralized

ACCESSIBLE
through CARD
Residentes en BDU

millones

Residentes en BDU
Health Care Innovation Concept:

“To transform knowledge into new processes, services, and technologies in order to improve health care quality; to make the system more accessible and personalised for the citizen and also to create better opportunities for professional development for its employees.”
It is not about technologies – it is about **knowledge**.

It is not about knowledge – it is about **better organizations**.

It is, above all, about **leadership**.

It is about **collaboration** (internal and external organizations, and social networking).

Technology is not the answer but allows us to process information, transform it into knowledge, and share that knowledge.
Types of Health Care Innovation in Andalusia:

INNOVATION IN CITIZEN RELATIONS

INNOVATION IN PROFESSIONAL PERFORMANCE VIA THE USE OF ICTS

ORGANIZATIONAL INNOVATION
Innovation in Services and Citizen Relations:

- **PARTICIPATION RESOURCES**
  - Think and Decide
  - Citizen Expectations
  - Forums

- **MULTI CHANNEL: how and when it’s needed**
  - Internet
  - Hospital-TV
  - SMS
  - MMS
  - Phone
  - Cellular phones
  - CD-DVD
  - IP-TV
  - IP-RADIO
  - DTV
  - In-person
  - E-mail
  - Multidevices web site

- **INNOVATION IN GENERATION OF CONTENTS**
  - New formulas and formats
  - Comprehensible
  - Attractive
  - Adapted for the public

- **QUALITY INFORMATION**
  - Guaranteed by APHS professionals

- **NEW SERVICES**
  - BEST ACCESIBILITY
  - NEW SUPPORTS
8 Million People in a Unified Database

- **MTI**
  - Information Treatment Modules

- **SALUD RESPONDE**
  - Contact center

- **RECETA XXI**
  - Electronic prescription

- **CENTRALIZED APPOINTMENT**

- **HEALTH RECORD**

- **OCAM professionals**

- **UDB users**

- **STRUCTURE resources**
Andalusia’s Health System:

APPOINTMENT CENTRAL MODULE

for

- Primary Care
- Specialized Care
- Diagnostic Tests
60 Million Centralized Appointments in 2007
Evolución de la satisfacción con la comunicación telefónica, desde el exterior, con el centro de salud. Andalucía y Distrito Jaén. 1999 - 2004

Las pregunta que se formula es: "¿Cómo de fácil le resulta hablar por teléfono con su centro cuando lo necesita? Opciones de respuesta: Muy difícil / Difícil / Ni fácil ni difícil / Fácil / Muy fácil /NS/NC. Fuente: Encuestas de satisfacción a usuarios de atención primaria. SAS
Electronic Prescription

MTI
Information Treatment Modules

SALUD
RESPONDE
Contact center

CENTRALIZED
APPOINTMENT

RECETA XXI
Electronic prescription

HEALTH RECORD

OCAM
professionals

UDB
users

STRUCTURE
resources
Value Added For Patients and Health Professionals

- **BDU HSDC BDP FARMA**
- **SUN Enterprise 15000**
- **Intranet SAS/JJAA**
- **Intranet COF**
- **DIRAYA HSCD Medical Consultation (PC-SC)**
- **INFORMATIVE SHEET Prescription XXI**
- **Consejo Andaluz de Colegios Oficiales de Farmacéuticos**
- **Power Station of Incidences**
- **Prescription Consumption**
- **Incidence**
Provides users with access to pharmaceutical facilities thus making it unnecessary for patients in poor health to go in person. Simplifies and speeds up authorization of prescriptions.

Releases personnel from bureaucratic tasks. Increases time devoted to patients. Entire treatment prescribed by specialists. Possibility of better support for correct prescription.

Significant promotion of Pharmaceutical Assistance. Reduction of management expenses and billing of prescriptions.

Improved follow-up and control of rational use of drugs (RUD). Correct assignment of responsibility in RUD among levels. Greater control in alerts and pharmacovigilance programs.

40 Million Electronic Prescriptions in 2007
Salud Responde (Health Responds) Contact Center

Primary Care programmed appointments in APHS Health Centres
Free choice of hospital for surgical operations
Second medical opinion
24 Hour Health Advise

Community liaison nursing.
Monitoring of post-hospital discharge patients due to fragility or climatic conditions

APHSAIDSAIDS
Health card
Oral Hygiene Health Programme
Living Will Declaration

Much more than a Contact Center.
The citizen can now choose how to receive required information
SMS System On Health Topics

SMS Messages provide:

Active Services:

- POLLEN COUNT BY PROVINCE
- TOBACCO ADDICTION
- HEATWAVE PREVENTION PLAN
- ANTI-TETANUS ADULT VACCINATIONS
- ANTI-INFLUENZA ADULT VACCINATIONS
- PRIMARY CARE APPOINTMENTS

NEW ACCESS CHANNEL TO HEALTH RESPONSE

- METABOLOPATHY PROGRAMS
- HEMODONATION CAMPAIGNS
- REMINDER TO REVIEW APPOINTMENTS
Required Services By The Citizens

**INFORMATION**
- Institutional Directory
- Services Resources
- Legislation Outcomes
- Administrative Activity
- Press-Room
- Programs/Campaigns
- Rights/Duties
- Accessible Health Information for Citizens

**SERVICES**
- Electronic Administration
- Health Andalusia 24 H Virtual Reception
- Programmed Appointments
- Advanced Multimedia Services
- Interactive Services

**PARTICIPATION**
- Participation
- Opinion
- Decision
- Citizen Expectations
- Associations
- Correspondents
- Citizen Panels
- Participation Tools

**SCALABILITY** - **INTERRELATIONSHIP** - **CITIZEN ORIENTATION** - **MULTIMEDIA**
The Innovation strategy of the APHS .... to know the citizen’s expectations. It is an instrument in the service for citizens.
The Web Face of the Expectations and Participation Bank:

- ABOUT US
- TAKE PART
- FIND OUT MORE

What is the bank of expectations?
How can I participate?

THINKS AND DECIDES
THEMATIC FORUMS
CITIZEN PANELS

KNOW THE EXPECTATIONS
New Services for Professionals

- Virtual Desktop
- Observatory of Innovative Practices in Chronic Disease Management
- Protection of Intellectual Property
- APHS knowledge management
- Innovation and Europe
- Lines of Excellence
- Equality and Gender
- Virtual Reality
- Voice Recognition
- Telemedicine
- Expectations Bank
- APHS knowledge management
- Banco de Prácticas Innovadoras
Virtual Library

DIGITAL COMPONENT

IN-PERSON COMPONENT

Library network

Coordination Center

- Coordinator
- IT Specialist
- Documentalist
- Advisory Board: Comprised of librarians, health professionals, Ministry of Health, AHS, Citizens
Virtual Library: Web Site

Biblioteca Virtual
del Sistema Sanitario Público de Andalucía

Noticias y novedades
10.12.2006 | Acceso temporal a Gideon:
Sistema de Información para la toma de
decisiones en enfermedades infecciosas,
epidemiología y microbiología

10.12.2006 | DynaMed: Referencia clínica
en el punto de atención al paciente

20.11.2006 | Publicaciones Periódicas:
Nueva Interface de búsqueda C17
Andalucía

20.11.2006 | Nueva suscripción al libro
electronico Clinical Evidence (en esp)

Inicio
Presentación de la biblioteca
Consulta de catálogos
Recursos electrónicos
Servicios

Presentación de la biblioteca
La Biblioteca Virtual del Sistema Sanitario Público de Andalucía está integrada en la Consejería de
Salud de la Junta de Andalucía. La constituyen la Red de Bibliotecas del Sistema Sanitario Público de
Andalucía y el Centro de Información y Documentación Científica, y trabaja en el desarrollo de una
Biblioteca Digital para los profesionales y usuarios de los servicios públicos de salud.

Objetivos y misión, Personal, Bibliotecas de Centros

Consulta de catálogos
Catálogo de revistas electrónicas de la Biblioteca Virtual del Sistema Sanitario Público de Andalucía,
C17 Andalucía, Evidencia Clínica, REBIUN.

Catálogo de la bv-tsga, C17 Andalucía, Evidencia Clínica, REBIUN

Recursos electrónicos
A través de nuestro Meta buscador, usted puede desde una única pantalla acceder a una amplia
selección de recursos electrónicos contratados por la Biblioteca (revistas, bases de datos, etc).

Meta buscador
Innovative Practices Bank

Information system that identifies and promotes innovating initiatives and good practices in health...

Banco de prácticas INNOVADORAS
Integrated System for information, dissemination, and thrust for innovative actions in the sector, particularly stemming from public sector dynamics:

- Identify innovators and innovations; dissemination throughout the system.
- Dissemination of own as an external aid for project implementation.
- Facilitate access to aid
- Encourage exchanges between working groups.
Innovative Practices Bank

What is being done?
Who is doing it?
Why is it being done?
How is it being done?

What reasons are there?
What are the outcomes?
What is the corporate impact?
What trends are set?

CONDITIONS OF THE INNOVATION

CONDITIONS IN SETTING

Identify
promote
implement

structure
stages

framework

• objective
• sections
• innovate
• stages
• …
The platform itself is a pivotal component for communication of the IPB

- Subscription-based access
- Management tools

• Search engine.
• Collaborative work.
• Personal pages.
Innovative Practices Bank

- **objective**
- **function**
- **product**
- **identity**
- **promote**
- **implement**
- **structure**
- **stages**
- **framework**

• **objective**
• **innovate**
• **stages**
• …

**News**
By category
Subscription option

**Information sections**
General information
How it works

**Searches**
Structured and unstructured
Fully indexed portal
Results linked to projects

**Directory**
Personal and contact data
Photographs

**Impact**
Asset & measure impact
Professionals, managers & citizens

**Idea Bank**
Anonymous reader access
Log of professional participation

**Expectations Bank**
Anonymous reader access
Participation Log

**Working Groups**
Collaborative tools
Private
Public generic data

**Innovative Practices**
Published results from
Working Groups
Different criteria for order
Bienvenid@ al Banco de Prácticas Innovadoras

Este proyecto pretende la creación de una "Red de Buenas Prácticas" alrededor de un Portal Web que sirva de:

- Información a ciudadanos, profesionales y gestores sobre las prácticas innovadoras que se están desarrollando en el.
- Información de ayuda a los profesionales sobre el desarrollo de proyectos de investigación e innovación, fuentes de financiación, etc.
- Facilitador de la comunicación entre diferentes grupos trabajando en temas similares.
- Foro de debate con el ciudadano a nivel de expertos sobre el SGPA.
- Foro de debate entre los profesionales sobre nuevas ideas innovadoras.
- Creación de una herramienta de trabajo colaborativo para los equipos trabajando en "Buenas Prácticas" con herramientas coordinadas.
- Base de datos de personas, proyectos y documentación.
- Foro para la valoración del impacto de cada proyecto y actuación por parte de los ciudadanos, profesionales y gestores, incluyendo el establecimiento de pases.
- Herramienta de publicación Web de la interacción, personas implicadas y resultados de los proyectos, interno y exteriormente.
- Multilingüe y personalizable por el usuario.
In August 2006, the Calgary Health Region and Andalusia, signed a MOU to jointly develop Innovation Projects on Health and Wellness.

Three main topics:
- Collaboration on Citizen Engagement.
- Sharing Best Practices.
- Collaborate in Chronic Disease Management approach.
OPIMEC: Global Observatory Innovation In CDM

Observatory of Innovative Practices in Chronic Disease Management

Welcome to our WEB Site

This observatory, initiative of the General "Direction" Health Innovation, Systems and Technology, is a magnificent virtual site aimed at the interchange of knowledge and information about organizations and their practices in the management of chronic diseases in regional, national and worldwide scope.

Objetives

1. Identify, analyze and mobilize, on an ongoing manner, the most effective tools, knowledge and experiences emanating from leading organizations in Spain and the rest of the world in relation to CDM.

2. Promote collaborative efforts, from the local to the global level, that enable the Andalusian Ministry of Health to accelerate the transformation of its chronic disease management efforts towards optimal levels of innovation, effectiveness and efficiency.

3. Develop and implement a strategic and tactical plan to position Andalusia as a global leader in CDM, particularly around areas identified as priority in the strategic plan of the Andalusian Ministry of Health.
Virtual Networking To Share Knowledge

Project Components

The project includes the following phases:

**Phase A: Competitive intelligence (completion date: September 2006)**
This phase includes:
- A worldwide search for leading organizations that are innovating in relation to the management of chronic diseases
- Identification of leaders of these organizations that would be willing to join forces to tackle areas of common interest (Strategic Advisory Group)
- Selection of priority projects around which joint efforts could be developed

**Phase B: Organizational and functional elements of the Observatory (October 2007 to March 2007)**
This phase includes the development of a plan for:
- The initial repository of information gathered by the project (mid-November 2006)
- The functional infrastructure for the Observatory (e.g., physical area, online knowledge management resources, virtual tools to support communities of practice and learning) (mid-January 2007)
- The organizational structure of the Observatory, including responsibilities and accountability lines for SAG, Management team, reporting and accountability lines, funding and political support (mid-March 2007)

**Phase C: Strategic alliances and international/global activities**
This phase will include ad hoc meetings with leaders from different regions of the world, to start developing a joint agenda for innovation on chronic disease management:
- A meeting with the key international leaders in Andalusia (Granada), to discuss findings of previous phases and identify areas of common interest that could lead to joint international efforts (November 2006)
- Preparation of a program for presentations/panels at the Annual Meeting of the Society of General Internal Medicine in Toronto that contribute to strengthening international collaborative efforts (April 2007)
- Launch of a joint strategy for innovation at the International Conference on CDM in Calgary (October 2007)
The Opportunity

integrated framework for citizen relations

Innovating in Multichannel Health

The Future:
Convergence
of
Technologies

rigour  quality  trust  life  information
training  accessibility

es salud
New Model In Communication In The Health Sector

new information and communication technology (ICT)...

promote the proposal for a new model based on...

the cost-effectiveness of communication in the health sector.
Convergence of Technologies as an Opportunity

THE 21st CENTURY ENVIRONMENT

TECHNOLOGICAL CONVERGENCE

Internet
Mobile telephony
Digital TV
Web 2.0

GENERATES

QUALITY INFORMATION ON HEALTH

AVAILABILITY AND ACCESS TO MORE AND BETTER INFORMATION ON HEALTH

THE REGIONAL MINISTRY OF HEALTH

CITIZEN EXPECTATIONS
A new model of Health communication based on Innovation...
Health Information Available through Different Channels

- **WEB portal**
  - Sports and Health
  - Healthy eating
  - To grow we have to eat
  - Seeing is donating
  - Dientín
  - Born smoke-free
  - Pita flash
  - Physical activity spot
  - Did you know...?
  - Health quiz
  - Healthy recipes
  - Tonsillectomy
  - Relaxation
  - Interviews
  - Ask your doctor

- **Mobile telephony**
  - Sports and Health
  - Healthy eating
  - To grow we have to eat
  - Seeing is donating
  - Dientín
  - Born smoke-free
  - Pita flash
  - Physical activity spot
  - Did you know...?
  - Health quiz
  - Healthy recipes
  - Tonsillectomy
  - Relaxation
  - Interviews
  - Ask your doctor

- **Screens in health centres**
  - Sports and Health
  - Healthy eating
  - To grow we have to eat
  - Seeing is donating
  - Dientín
  - Born smoke-free
  - Pita flash
  - Physical activity spot
  - Did you know...?
  - Health quiz
  - Healthy recipes
  - Tonsillectomy
  - Relaxation
  - Interviews
  - Ask your doctor

- **Digital TV**
  - Vaccine information
    - (pilot application with local interaction)
    - (Planned portfolio of Interactive services)

Now... You can choose!
Web Site Channel
300 Videos On The Different Topics
Informarse.es Salud:

Usage Statistics

Búsquedas de Tema

- Nutrition: 275
- Relaxation: 175
- Physical Exercise: 150
- Obesity: 125
- Baby Care: 100
- Pregnancy: 75
- Healthy Life: 50
- Emergencies: 25
- Tobacco: 25
- Diabetes: 25
- Oral Health: 25
- VIH: 25
- Vaccine: 25
- Corporeal Art: 25
- Donation: 25

NBusquedas
Overall Conclusion:

- Leadership and strategy in front at tactical or pragmatic perspectives.
- Integrated approach to the issues versus the “silos” approach (Processes and integrated plans).
- Share knowledge with citizens and health professionals.
- The Deputy Minister of Innovation did not innovate anything, it was the goal of the health professionals and the organization.
- Integration of the information (EHR and CRM) is essential.
Large healthcare organization in Canada

- $2.3 Billion annual Budget (2005/2006)
- Employs over 24,000 staff
- 2,150 Physicians
- Multi-site with over 100 locations
- 12 acute care sites
- 40 care centres (long term care)
- 3 administrative sites

Healthcare system (2004/05)

- 7,836 beds/spaces
- 354,109 emergency visits
- 112,445 hospital visits
- 62,229 surgeries

Affiliated teaching institute with the University of Calgary
Calgary Health Region Innovation Strategy

The innovation Strategy aligned with the Strategic Plan (2006 – 2010) ...

**Strategic Service Plan Goals**
- a. Redesigned processes-focus on workflow
- b. Focus on Wellness
- c. Participatory model-consumers & self-responsibility
- d. Novel Approaches to retention & recruitment
- e. Customized care for geographic/cultural/demographic groups

**Innovation Strategy Goals**
- a. + Health Information to empower the citizen
- b. Promoting Wellness via innovation tools
- c. Involving the Community
- d. Accessible anytime/anywhere
- e. Promoting a key role of the health professional
- f. Innovation-improve Continuum Care
- g. Sharing Best Practices
EHR Starting Point

Case Study: Elderly Diabetic

Legend:
1. Annual flu shot
2. Call HealthLink for advice
3. HealthLink refers to GP
4. Referral to Diabetes Education Centre
5. Referral to specialist
6. Referral to Ophthalmologist
7. Orders for diagnostics
8. Admission to acute care
9. Discharge medications
10. Home dialysis
11. Discharge care to GP
12. In-Home Care

Client/Patient

Public Health (flu)

HealthLink

Family Phys

Diabetes Education Centre

Internist/Endocrinologist

Diagnostic Services

Pharmacy

Home Dialysis

Home Care
1st Step: My e-record – linking Hospitals

- Peter Lougheed Centre – 500 beds
  - Activated November 2006
- Rockyview General Hospital
  - 500 beds
  - Activated September 2006
- Foothills Medical Centre – 1000 beds
  - Activated January 2007
- Alberta Children’s Hospital
  - Activation Planned for Fall 2008

Best Practice Acute Care
CPOE
Real Time Charting
Clinical Decision Support
Improved Patient Outcomes
Current State: 2008

Case Study: Elderly Diabetic

Best Practice Primary Care Diabetes Management

Best Practice Acute Care Diabetes Management

Public Health & Information Services

Acute Care

Internist/Endocrinologist

Inpatient Pharmacy

Inpatient Diagnostics

Home Dialysis

Community Diagnostics

Outpatient Pharmacy

Ophthalmologist

Diabetes Education Centre

Family Phys

HealthLink

Public Health (flu)
My e-record 2010 Vision

Wellness & Self Care

Authorized Family Access

Shared Patient & Provider Content, Care Plans & Communication

Self e_record Management

Phone & Online Interaction

Emergency & Urgent Care Services

Family MD

Patient Information & Access Centre

Online Social Networks
Credible Health Info

Shared Plans of Care

Medication Record
Diagnostic Results
Self Test & Monitoring
Appointment Schedules

Medication Repository

Home Dialysis

Public Health (flu)

Home and Continuing Care

Diabetes Education Centre

Internist/Endocrinologist

Rural Health Centre

Acute Care

Authorized Family Access

Ophthalmologist & Other Professionals

My e_record 2010 Vision
Integrated Approach To Citizen Engagement

WHAT IS THE AD VALUE FOR CITIZENS?

MORE MULTIMEDIA INFORMATION
MORE PERSONALIZED INFORMATION
MORE POSSIBILITIES OF SHARING EXPECTATIONS
MORE WELLNESS RESOURCES
MORE EQUALITY OF INFORMATION (ANY PLACE/ANY WHERE)
MORE REMOTE MONITORING TOOLS
MORE SELF-ASSESSMENT TOOLS

CHR WEBSITE  PERSONAL ATTN  CELLS / NEW DEVICES

CITIZENS

HEALTH LINK  eMAIL / MAIL

CUSTOMER RELATIONS MANAGEMENT SYSTEM

HEALTH LINK DATABASE

e-RECORD AMBULATORY SYSTEM

PATIENT TRAFFIC CARE CONTROL

HEALTH POPULATION KNOWLEDGE

WELLNESS KNOWLEDGE

OTHER DATABASES

BANK OF INNOVATIVE PRACTICES
CITIZEN ENGAGEMENT
PROFESS FULFILLMT

e-RECORD 2010

Databases

OTHER DATABASES

COORDINATES BACK OFFICE 
& USABILITY LIVING LABORATORY 
& COORDINATES REMOTE MONITORING

e-RECORD 2010

OTHER DATABASES
## Demonstrative Project On Diabetes

### Objective
- Deliver more AD value information
- Create participation, gather expectations & self-management
- Provide self-assessment tools
- Create more interactive resources

### Channels
- **CHR Website**
- **Health Link**
- **Personal Attn**
- **eMail / Mail**
- **Cells/New Devices**
- **Virtual Collaboration Spaces**
  - Facebook

### Current Capabilities
1. Survey focus groups: Diabetes, general population, staff and multi-cultural population
2. What we have: Inventory of our current resources regarding different channels
3. What the technologies allow us: Analyze the possibilities of e-record 2010 and CRM
4. What the citizen wants from our interactive channels (usability approach)
5. What new capabilities can be offered and what should we redesign
6. Action plan (new capabilities, more information, more participation & more interaction)

### New Liabilities
- **Usability Approach**
  - Allows us to know exactly what information people need, how they need it, & their suggestions to improve our channels.
- **CRM**
  - Allows us to have the same information available in a multi-channel way, as well as to have continuous personalized responses and information.
- **e-Record**
  - Allows us to have the right information, in the right place due to an integrated knowledge management system.
- **CDM Strategy**
  - Provides us with a state-of-the-art knowledge on diabetes, and a comprehensive action plan to improve health outcomes
- **CDM Strategy**
  - Allows us to share our knowledge with worldwide best practices – OPIMEC.ORG
It is a customer-centric business strategy with the goal of maximizing information, interaction, and citizen satisfaction. Technologies that support this business purpose include the capture, storage, and analysis of citizen and internal process information. Technology to support CRM initiatives must be integrated as part of an overall customer-centric strategy.

**WHAT IS THE CRM?**

- Supports a Customer/Patient centric approach (through data analytics allows anticipation of customer needs).
- Allows for differentiated service levels per segment and channel.
- Supports rapid adoption of new channels.
- Supports self-assessment.
- Supports content management.

**FROM**

The citizen has to find the right information in one of the multi-channels or services.

**TO**

Citizen is the center of a coordinate effort approach in creating customized ad value information and services.

**BENEFITS OF THE CRM?**

- Improves health outcomes through targeted activities.
- Unified view of the citizen.
- Creating innovation in citizen engagement.
We can share knowledge

Andalusian and Calgarian Executives
The Spiral of Improvement through Knowledge Management

**REDESIGN CLINICAL PROCESSES**
(care pathways): From an integrated perspective:
- Identify processes with major impact on (access, health outcomes)
- Redesign processes involving multi-disciplinary teams of health professionals

**EMPOWER THE CITIZEN THROUGH CUSTOMIZED INFORMATION AND GATHERING EXPECTATIONS:**
Integrated and customized approach to the citizen delivering value added information in a multi-channel way

**CREATE & SHARE KNOWLEDGE WITH HEALTH PROFESSIONALS:**
- Share knowledge (digital libraries, on-line tools)
- Share best practices (specially in CDM and Citizen Engagement)
- Management by skills of each professional

**COMPREHENSIVE EHR:**
- Develop an integrated strategy in EHR
- Unified database and EHR of each citizen
- Available information at any place/any time

**HEALTH INNOVATION STRATEGY**
- The input of the citizens helps us improve processes
- EHR gives us information to empower health professionals
- Processes are the basis of the EHR
- Share best practices