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The way towards large scale deployment of eHealth: where do patients stand?

The **SUSTAINS** project

Basque Country pilot

EPF e-health seminar

January 23rd 2013

Hotel Bloom, Brussels

Josu Xabier Llano Hernaiz

Sustains Project

Basque Country

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SUSTAINS

Support USers To Access INformation and Services

- Three-year european project
- Partially funded by the Competitiveness and Innovation framework Programme - ICT strand- Policy Support Programme (PSP)
- Participants: 16 partners from 11 European regions committed to give patients' access to Electronic Health Records (EHR) and other related web services
- http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=297206
- http://sustainsproject.eu/

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The Sustains Consortium includes

- 2 national bodies from Estonia and Slovenia
- 1 local-level body from Asolo – Veneto Region (IT).
- 4 European-level organisations, including EPF.
- 8 regional-level bodies from the following regions:
  - Uppsala County, (SE project leader)
  - Region of South Denmark (DK)
  - Aragón (ES)
  - Scotland (UK)
  - Thessaly and Central Greece (GR)
  - South Karelia (FI)
  - Norrbotten (SE)
  - Basque Country (ES)

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Main objectives

- SUSTAINS aims to measure the impact of a wide range of administrative and clinical services for patients based on patients' access to EHR on the three areas below:
  - **Empowerment of patients**: There is a growing tendency by patients and the public to question information from the health system, ask for a second opinion, demand respect and dignity in their treatment, expect convenience, etc.
  - **Medical results**: Progress in treatment especially of chronic diseases need efficient and continuous contact between the patient and the professionals in order to achieve optimal medical result.
  - **Efficiency and economy**: With the new treatments available, and the growing demand from patients/public, there is a need for improved efficiency and economy.

Expected impact on patients

- Empower of patients to act as more active players in the management of their health as opposed to passive receivers of healthcare services.
- Better informed patients, and users in genral, about their health and therefore they will be able to make more conscious decisions about treatment and lifestyles in collaboration with the healthcare professionals looking after them.

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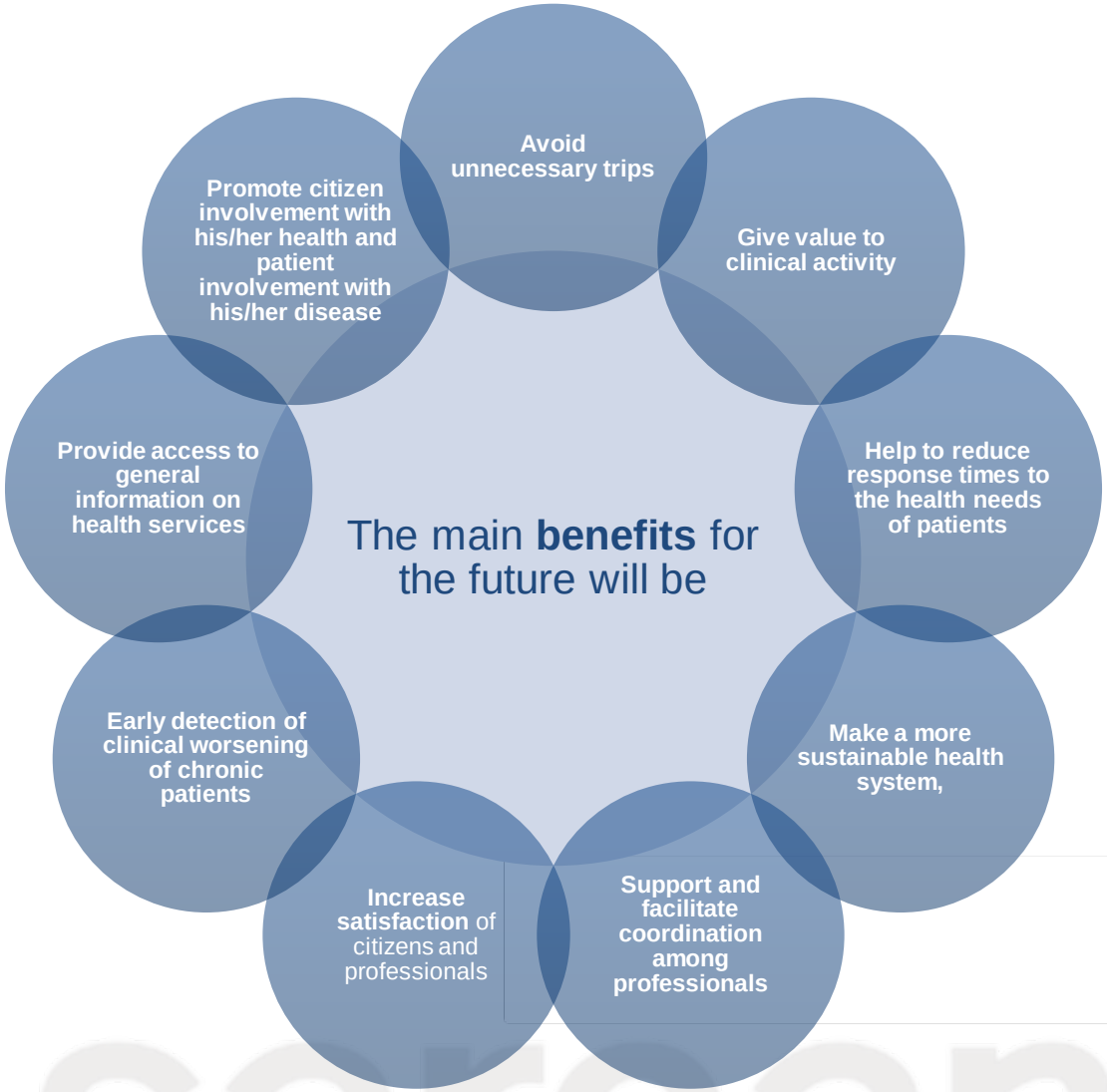

The main **benefits** for the future will be
Avoid unnecessary trips
Give value to clinical activity
Help to reduce response times to the health needs of patients
Make a more sustainable health system,
Support and facilitate coordination among professionals
Increase satisfaction of citizens and professionals
Early detection of clinical worsening of chronic patients
Provide access to general information on health services
Promote citizen involvement with his/her health and patient involvement with his/her disease

Basket of Services

Administrative services

- Book or rebook a consultation/diagnostic exam
- Pay a service fee
- Change GP (when moving or similar)
- Update phone number and name of close relative
- Consult audit trail
- Access to health insurance data
- Access to the data of health services costs
- Delegation of access to family or carer
- Mask sensitive data
- Track referrals to specialist or diagniosticexamination
- Notification services (reminders, sms…)
- Consent for export of EHR data to epSOS Patient Summary

Clinical services

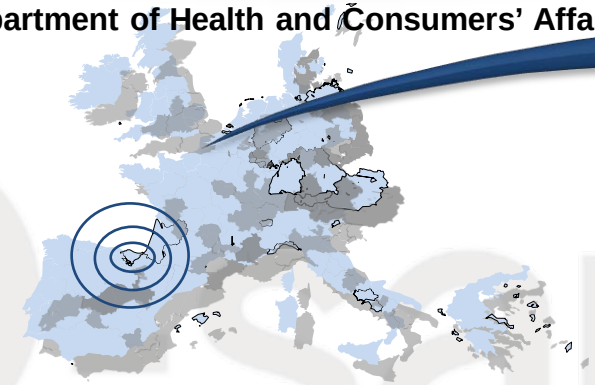
- Examine the EHR
- Ask a question to a physician/nurse
- Fill out a Health Declaration Form
- Print out drug and lab list before traveling
- Patient's input into EHR
- Integration of data relating to patient's self-monitoring
- Decision support

Facing new Challenges: who and where are we?

Some figures...

- **Population (2011): 2.183.615 inhabitants**
  ≥65 years: 17.81%
- **Life expectancy at birth (2009) 78,6 for men and 85,7 for women.** The Basque Country's position is one of the highest in the world, after Japan and Hong Kong.
- **Infant Mortality Rate (2009): 3,1 ‰**

Source: Registry of Mortality.
Department of Health and Consumers' Affairs

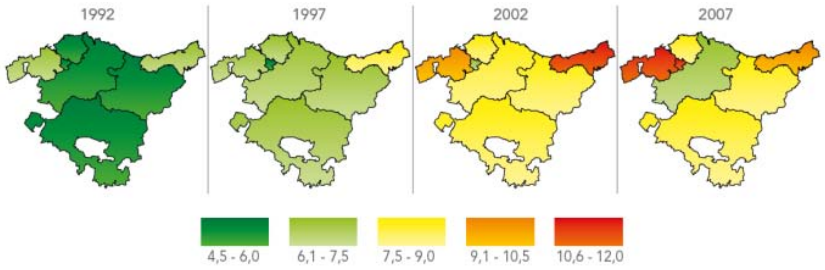


Basque Country

Facing new Challenges: It is time to do more with less

The total health expenditure has increased while chronic disease prevalence and complexity is growing as population ages.

% of patients by age and number of chronic illnesses



Public health expenditure(million euros)

New challenges undertake…

- **To contain the growth of public health expenditures** under strict fiscal consolidation policies while servicing an ever increasing demand.
- **To address quality, safety and adequacy** gaps in health services.
- **Basque Country is one of European regions with the highest proportion of elderly,** it also addresses an **increasing incidence of chronic pathologies:**
  - ✓ **80% of patient interactions** with the public health system are related to **chronic diseases**
  - ✓ Chronic patients **drive around 77% of the total Health expenditure**
  - ✓ Health expenditure on current trends **is expected to double by 2020.**

14 Strategic projects to tackle Chronicity in the Basque Country

Vision

The Strategy for chronic illnesses aspires to substantially improve the lives of patients and carers, health professionals and citizens

Policies

The Health Department of the Basque Country has defined five strategic policies:

Projects

These policies have been materialized through 14 strategic projects:

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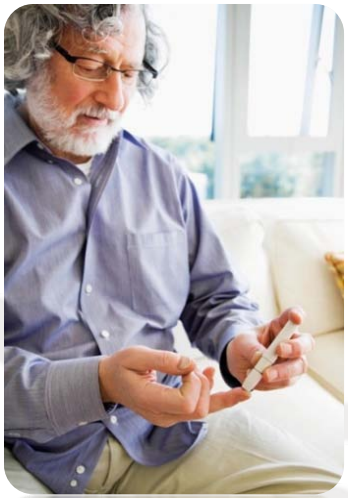
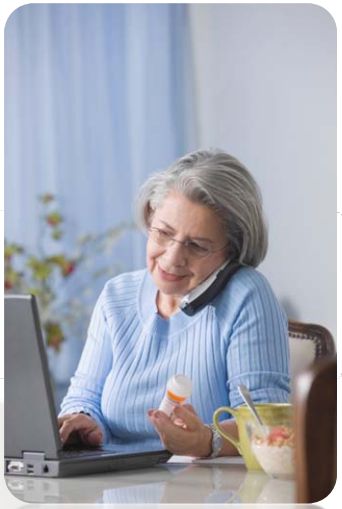
Multichannel Health Service Centre





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Multichannel Health Service Centre

Actors in the Basque Country

- **Department of health and consumers' affairs of the Basque country:** it's the local health authority with responsibilities over policy and regulation, public health, health planning, insurance and financing of the public health system.

- **Osakidetza** is the public health service provider in the Basque Country, entirely financed by the Basque Government. Osakidetza runs:
  - 320 Primary Health Centers
  - 12 Acute Hospitals (4,278 beds) and 4 Chronic Care Hospitals (524 beds)
  - Mental Health: Three regional networks with 4 psychiatric hospitals, (777 beds) and 2 Contracted Long term Mental hospitals

- **Osatek:** is a public corporation of the Department of Health and Consumers' Affairs, created in 1992 with the aim of becoming a reference in the field of diagnostic imaging. Nowadays the main activities of Osatek are: Management, administration and operation of diagnostic imaging services to cutting-edge technology, research and teaching, development and implementation of new services based on ICTs.

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Mission

*To **set up a technological platform, based on ICTs,** which allows **multi-channel interaction** for all the citizens of the Basque Country with the health system, **enabling procedures, simplifying the life of the citizens and adding more value to the clinical work of the health professionals.***

Vision

*This model includes a **new vision of the roles of health professionals, citizens and patients** which consists of the **co-responsibility**, **and thus**, **the active patient** concept is inherent to the health system transformation process, where patients have **virtual spaces and social networks** of knowledge and interaction.*

Objectives

1. To improve **quality of life** of the whole populations on the whole and of the patient particularly
2. To turn **citizens into active agents** of the Basque public health system
3. To improve the **quality** of health care delivered and to **motivate health professionals**
4. To improve the **efficiency** of the Basque Public Health System
5. To contribute to the **equity** in the Basque Public Health System

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Service portfolio for the Multi-channel Health Service Center

Technical support for **non face to face consultations and tele assistance.**

Support for the other 13 strategic projects related to chronicity

Personal Health Record for every citizen, which will access to information contained in the EHR

Extend for the whole population, the **new appointment model to GP, Paediatricians, nurses and midwives**, through the telephone channel (IVR and call center).

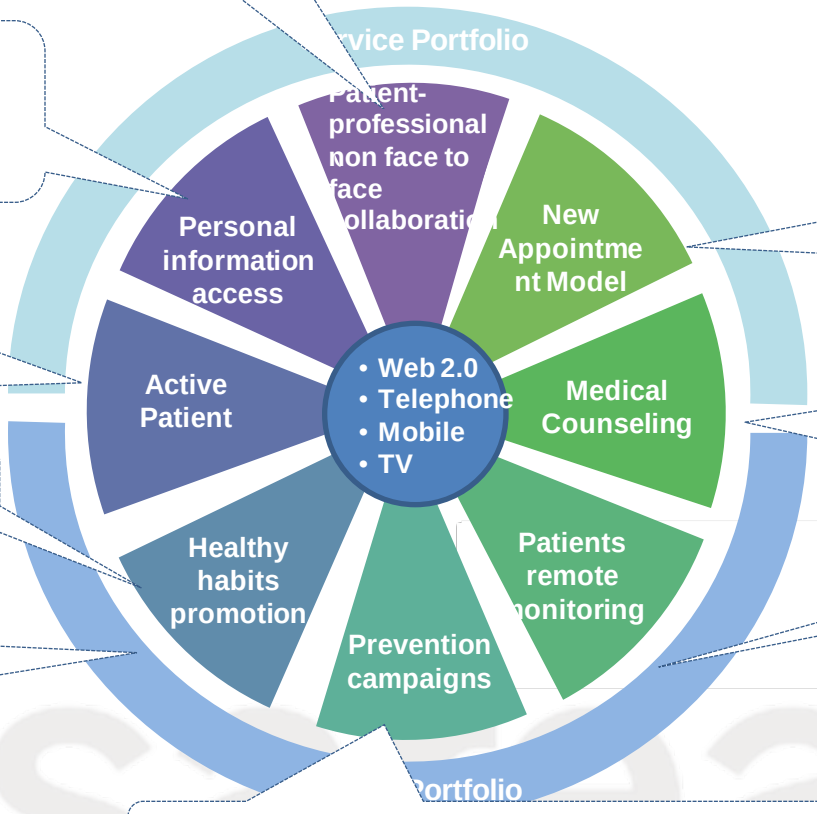
Health School for patients: validated information by Osakidetza's Health professionals and Patient Forums

Health advice over the phone and on the net, managed by Osakidetza nurses.

Management of the **New Portal 2.0. Administrative procedures** online

Create a **tele-medicine solution for chronic patients** through mobile platforms

Healthy Lifestyles promotion application implementation in primary care



Public Health Campaigns through different channels.
Surveys for citizens to improve knowledge of Health System

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Osakidetza

euskadi.net

eu | es

Contacto | Ayuda | Mapa Web | Accesibilidad | Profesionales Osakidetza | Introduce texto a buscar | Búsqueda avanzada

Soy un ciudadano | Soy un profesional | Para empresas | Quiénes somos

Trámites electrónicos | Temas de salud | Prevención y autocuidados | Centros de salud | Hospitales | Consejo sanitario

Tu oficina virtual de salud

- Cita previa
- Consejo Sanitario
- Paciente Activo
- Centros y farmacias
- Trámites administrativos

TEMAS DE SALUD

Salud | Enfermedad | Adicciones

- Dieta sana
- Hábitos saludables
- Plan vasco de actividad física
- Práctica vida saludable
- Vacunas
- Salud en la infancia
- Embarazo, parto y post parto
- Salud y alimentos
- Salud poblacional
- Salud en los viajes
- Salud y estética

acceder a Mi Osakidetza

MI CARPETA DE SALUD

Desde aquí podrás consultar de forma segura y confidencial tu información sanitaria: informes, medicación, próximas citas... y acceder a contenidos de interés para tu salud.

acceder a mi carpeta de salud

CAMPAÑAS Y PROGRAMAS

¡Cuidate! En esta sección encontrarás información sobre las campañas y programas que se están llevando a cabo en Osakidetza. Con ellas se pretende contribuir a la mejora de la salud.

ver todas las campañas

El consejo de la semana

Realizar 30 minutos de actividad física todos los días, seguir una dieta de tipo mediterraneo y no fumar, es la mejor manera de asegurarte beneficios para tu salud.

leer todo el consejo

Información destacada

- Blog de la cronicidad
- Programa ViH SIDA
- Donaciones
- Donacionación de Sangre

acceder a más destacados

Preguntas frecuentes

- Consultas de mi salud y mi familia
- Sobre mi historia de salud
- Cómo pedir cita previa

ver mas preguntas frecuentes

BUEN GOBIERNO

Osakidetza en *redes sociales:* Síguenos en Facebook | Síguenos en Twitter

Todos los servicios de Osakidetza en Internet

- Cita Previa
- Tu Correo TSE
- Solicitud tarjeta individual sanitaria
- Modificación datos tarjeta
- Cambio de Médico
- Segunda Opinión Médica
- Datos de bajas
- Expedientes asistenciales
- Quejas y reclamaciones
- Receta electrónica
- Registro de voluntades anticipadas

Acerca del Sistema Sanitario Público Vasco

- Sistema Sanitario Público Vasco
- Osakidetza
- Estrategia reto de la cronicidad
- Departamento de sanidad y consumo

Conforme:
XHTML 1.0 CSS 3 WCAG 2.0

EUSKO JAURLARITZA GOBIERNO VASCO
OSASUN ETA KONTSUMO SAILA
DEPARTAMENTO DE SANIDAD Y CONSUMO

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Temas de salud

- Vida saludable
- Salud y mujer
- Cuidados para la diabetes
- Salud sexual
- Cáncer de mama
- Dieta sana
- Ejercicio y deporte
- Dejar de fumar

Lo más consultado

- Programa del cáncer de mama
- Cuidado bucodental
- Consulta de informes médicos
- Administración electrónica
- Información sociosanitaria
- Drogodependencias
- Cribado neonatal
- Cirujía y estética

Temas de interés

- Calendario de vacunas
- Plan de actividad física
- Programa de VIH
- Listado de vacunaciones
- Salud poblacional
- Primeros auxilios

Enlaces de interés

- Asociación de diabetes de Euskadi
- Estrategia de cronicidad
- Colegios profesionales de farmacia
- Asociación contra el tabaco

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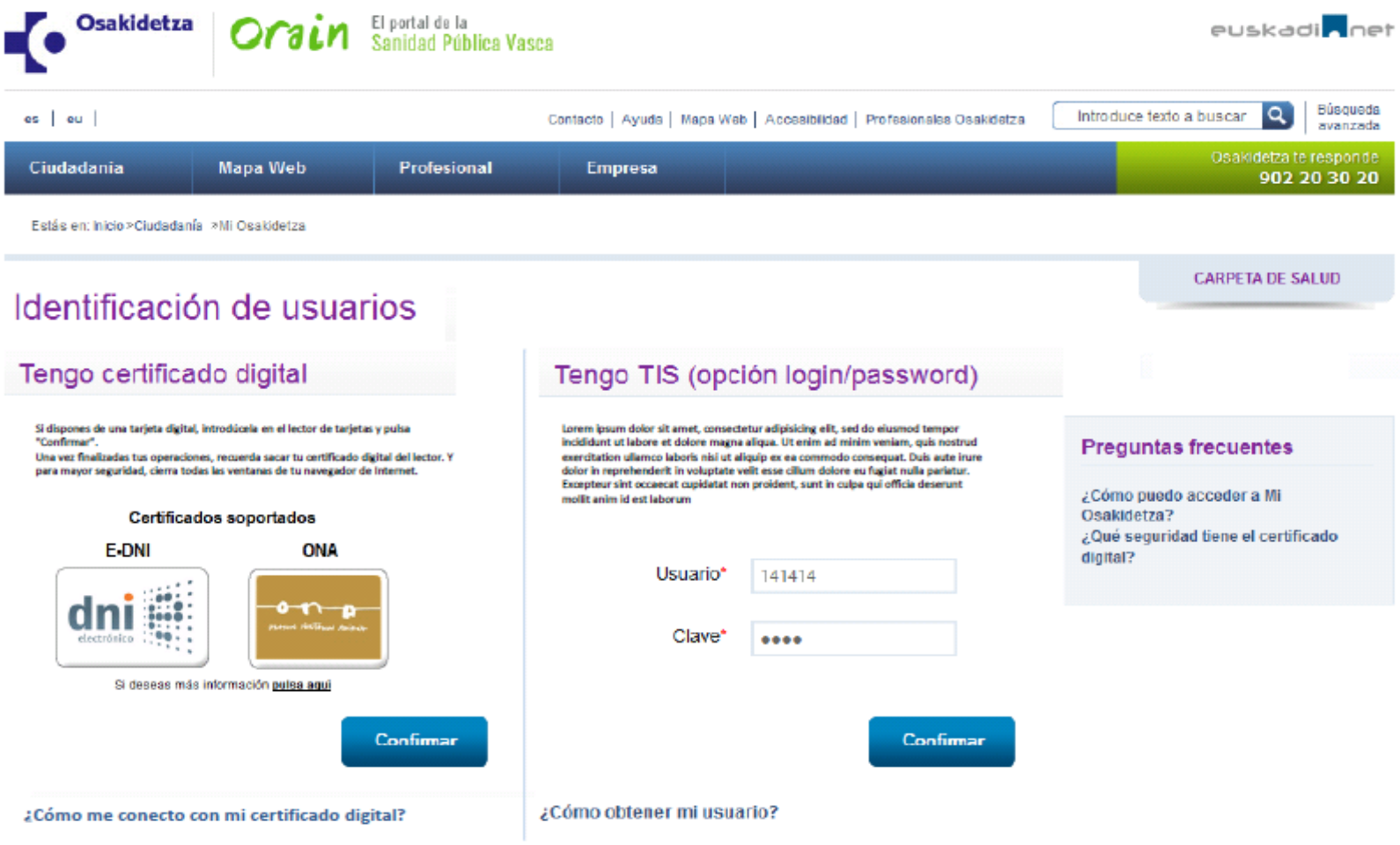
Accessing to my Personal health folder



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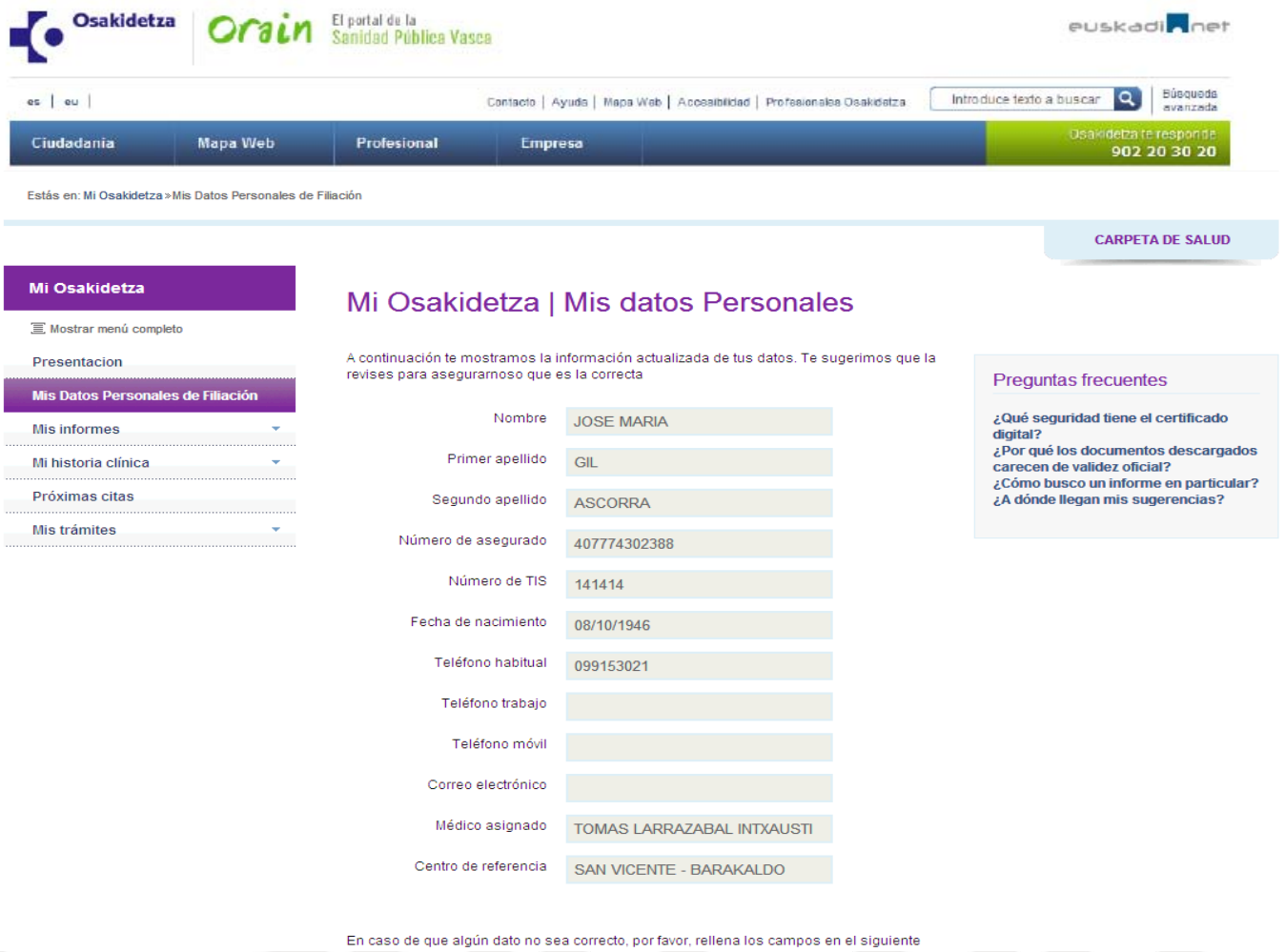
Checking my personal data



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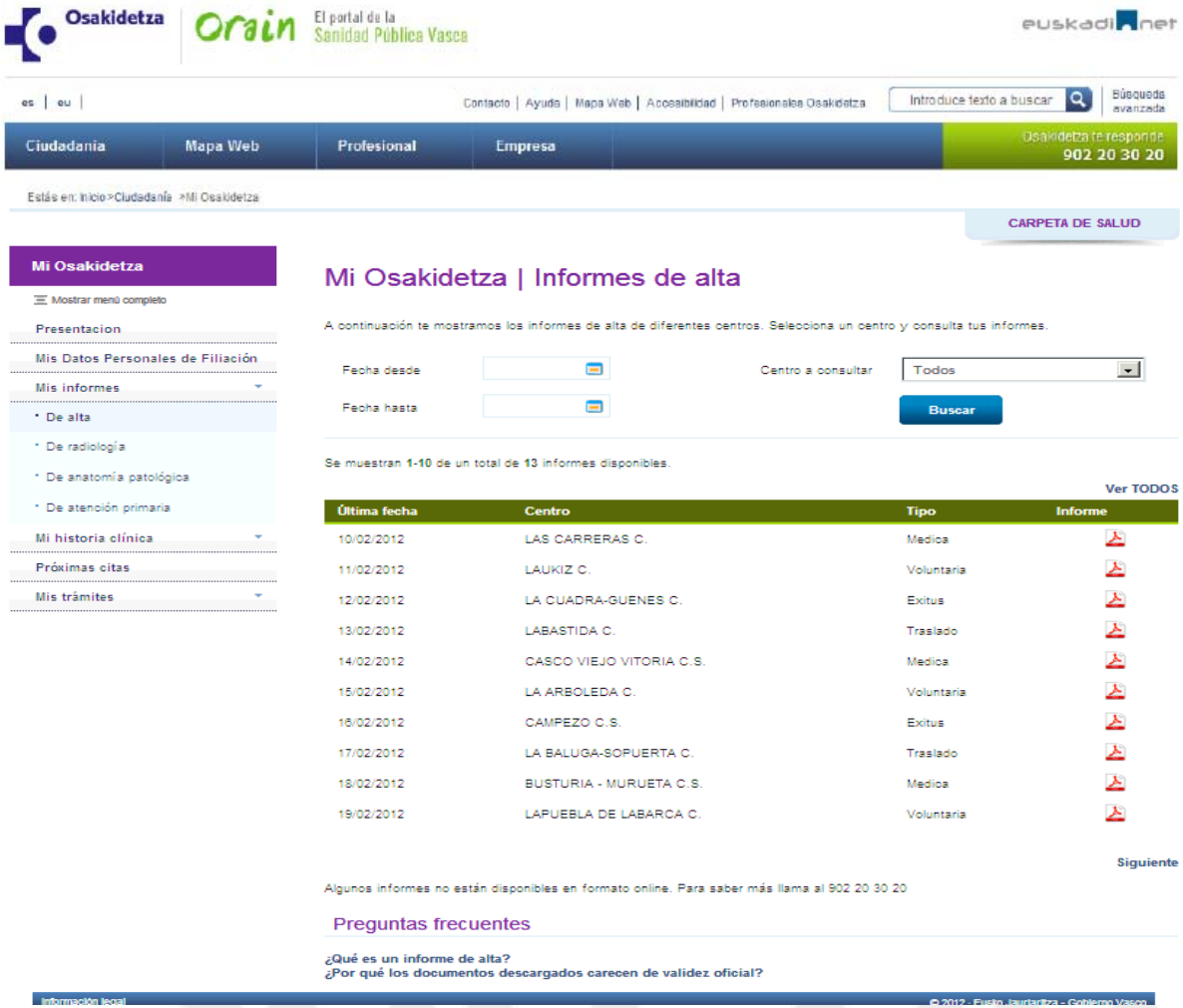
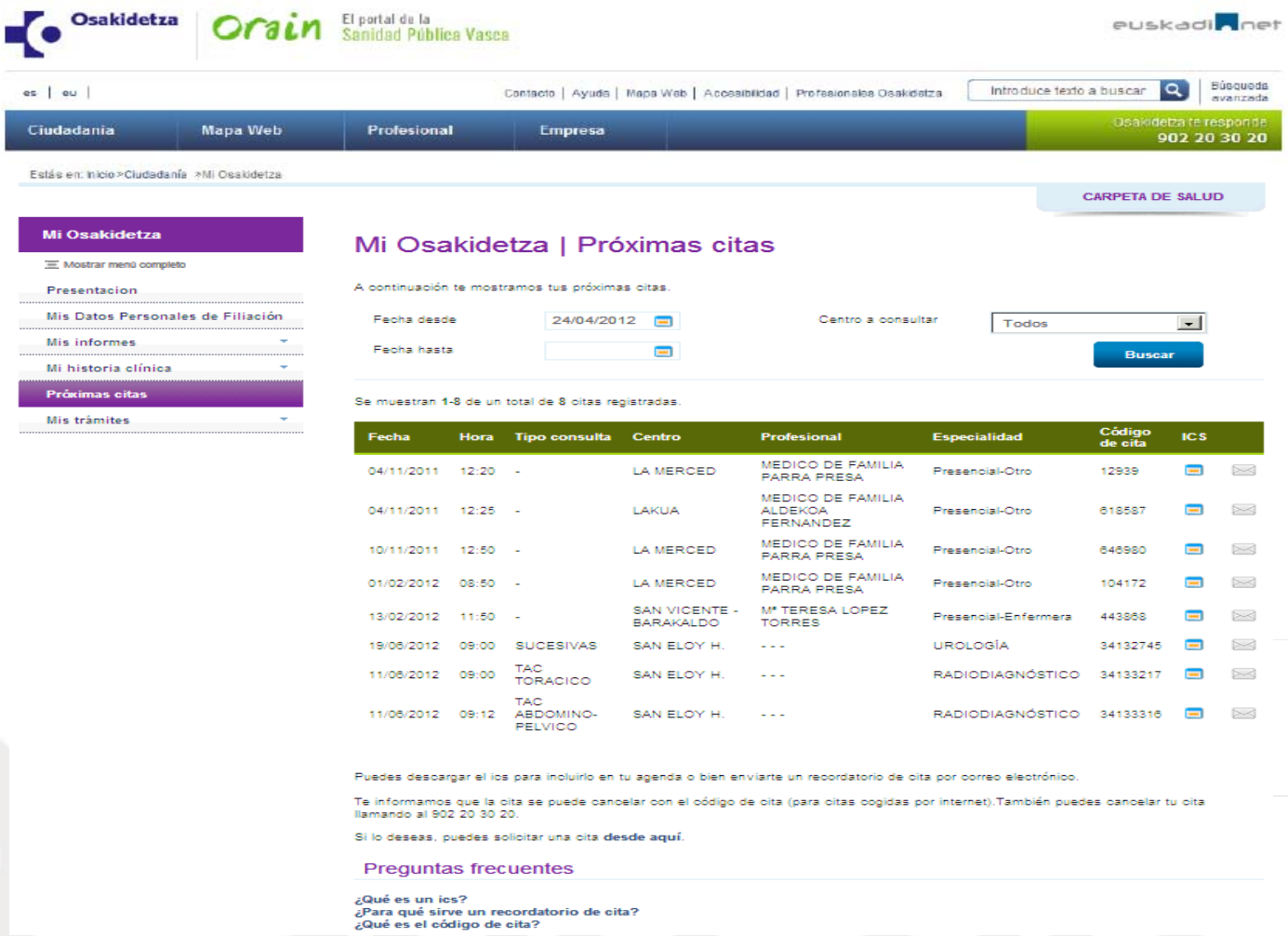
Taking a look at my Hospital Discharge Clinical Reports



Browsing into My Personal Health Folder

Reviewing my next appointments



Osakidetza | Orain El portal de la Sanidad Pública Vasca | euskadi.net

es | eu | Contacto | Ayuda | Mapa Web | Accesibilidad | Profesionales Osakidetza | Introduce texto a buscar | Búsqueda avanzada

Ciudadanía | Mapa Web | Profesional | Empresa | Osakidetza te responde 902 20 30 20

Estás en: Inicio > Ciudadanía > Mi Osakidetza

CARPETA DE SALUD

Mi Osakidetza
- Mostrar menú completo
- Presentacion
- Mis Datos Personales de Filiación
- Mis informes
- Mi historia clínica
- Próximas citas
- Mis trámites

Mi Osakidetza | Próximas citas

A continuación te mostramos tus próximas citas.

Fecha desde 24/04/2012 — Centro a consultar: Todos

Fecha hasta — Buscar

Se muestran 1-8 de un total de 8 citas registradas.

Fecha	Hora	Tipo consulta	Centro	Profesional	Especialidad	Código de cita	ICS	
04/11/2011	12:20	-	LA MERCED	MEDICO DE FAMILIA PARRA PRESA	Presencial-Otro	12939		
04/11/2011	12:25	-	LAKUA	MEDICO DE FAMILIA ALDEKOA FERNANDEZ	Presencial-Otro	618587		
10/11/2011	12:50	-	LA MERCED	MEDICO DE FAMILIA PARRA PRESA	Presencial-Otro	646980		
01/02/2012	08:50	-	LA MERCED	MEDICO DE FAMILIA PARRA PRESA	Presencial-Otro	104172		
13/02/2012	11:50	-	SAN VICENTE - BARAKALDO	Mª TERESA LOPEZ TORRES	Presencial-Enfermera	443868		
19/06/2012	09:00	SUCESIVAS	SAN ELOY H.	- - -	UROLOGÍA	34132745		
11/06/2012	09:00	TAC TORACICO	SAN ELOY H.	- - -	RADIODIAGNÓSTICO	34133217		
11/06/2012	09:12	TAC ABDOMINO-PELVICO	SAN ELOY H.	- - -	RADIODIAGNÓSTICO	34133316		

Puedes descargar el ics para incluirlo en tu agenda o bien enviarte un recordatorio de cita por correo electrónico.

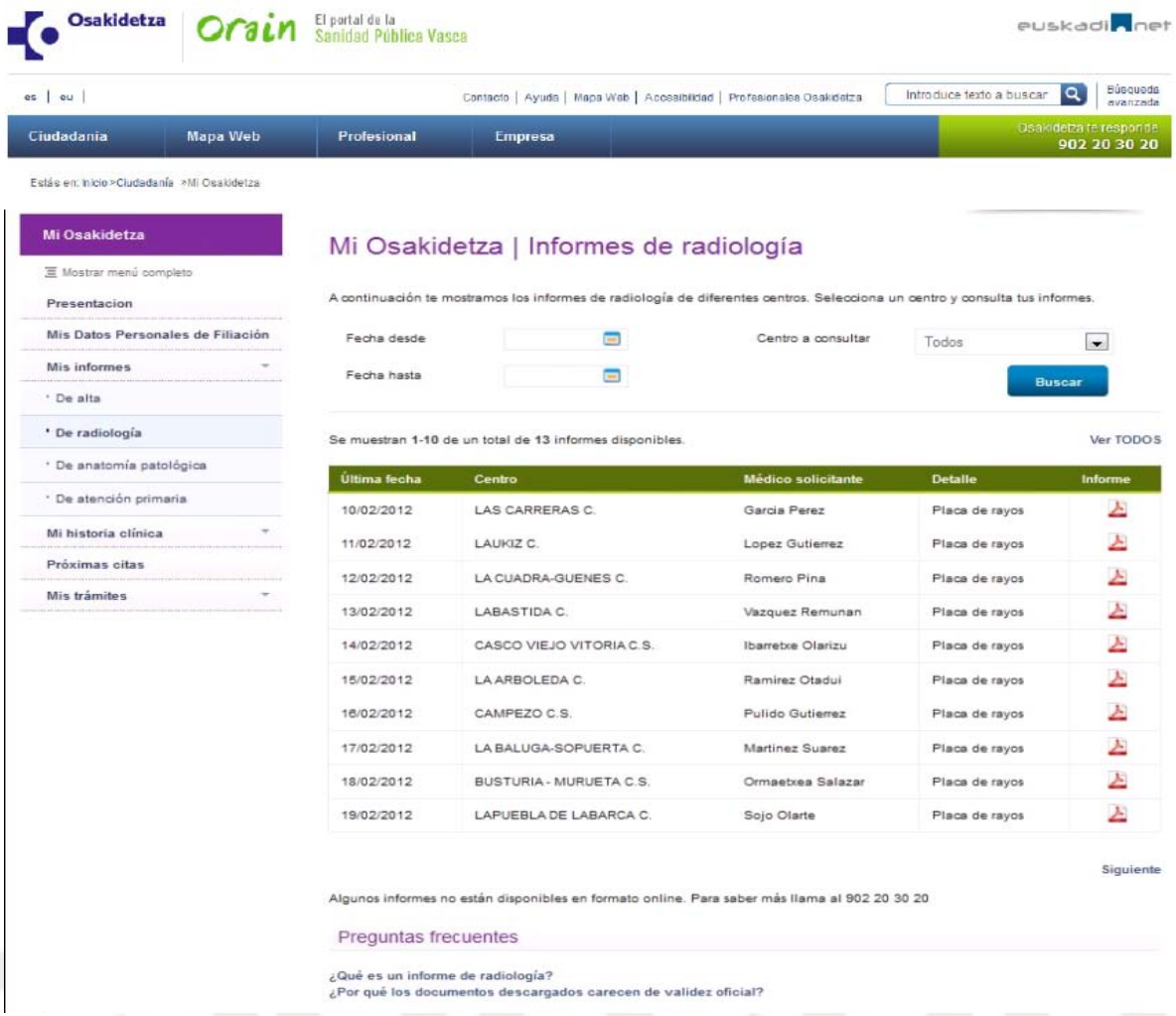
Te informamos que la cita se puede cancelar con el código de cita (para citas cogidas por internet).También puedes cancelar tu cita llamando al 902 20 30 20.

Si lo deseas, puedes solicitar una cita **desde aquí**.

Preguntas frecuentes

¿Qué es un ics?
¿Para qué sirve un recordatorio de cita?
¿Qué es el código de cita?

Looking and Downloading a RX report



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euskadi.net

es | eu | 362ED21C69F16B8DCA6865EB3014392F | Bienvenido EUGENIA MONASTERIO OMAETXEBARRIA | Inicio | Ayuda | Accesibilidad | Cerrar sesión

Estás en: Inicio » Mis Datos Personales de Filiación

Mi Osakidetza

Mostrar menú completo

Presentacion

- Mis Datos Personales de Filiación
- Mis informes
- Mi historial clínica
- Próximas citas
- Gestión de Crónicos
  - Registro de Parámetros y cuestionarios
  - Histórico de parámetros
- Próximas citas
- Mis trámites
- Medir mis parámetros

CARPETA DE SALUD

Mi Carpeta de Salud | Gestión de Crónicos

*En la Hora de Medición debes añadir la hora **exacta** a la que te realizaste la medición. Si tienes cualquier duda, por favor, contacta con tu enfermero/a*

Parámetro	Unidad	Valor	Intervalo Medición	Hora Medición	?
Insulina	mg	5,45	[Hora Desde] – [Hora limite]	15:30	Enviar>>
Temperatura	°C	37,5	[Hora Desde] – [Hora limite]	17:45	Enviar>>
Sat. de Oxígeno	mmHg	200	[Hora Desde] – [Hora limite]	20:00	Enviar>>

Envía los datos al gestor .

Atrás

En el caso de enviar por error datos incorrectos, ya sean parámetros o cuestionarios, no podrá modificarlos a través del aplicativo de registro ,deberá ponerse en contacto telefónico con su enfermero/a para modificar los valores erróneos

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Mi Osakidetza

Mostrar menú completo

Presentacion

Mis Datos Personales de Filiación

Mis informes

Mi historial clínica

Próximas citas

Gestión de Crónicos

Registro de Parámetros y cuestionarios

Histórico de parámetros

Próximas citas

Mis trámites

Medir mis parámetros

Mi Carpeta de Salud | Gestión de Crónicos

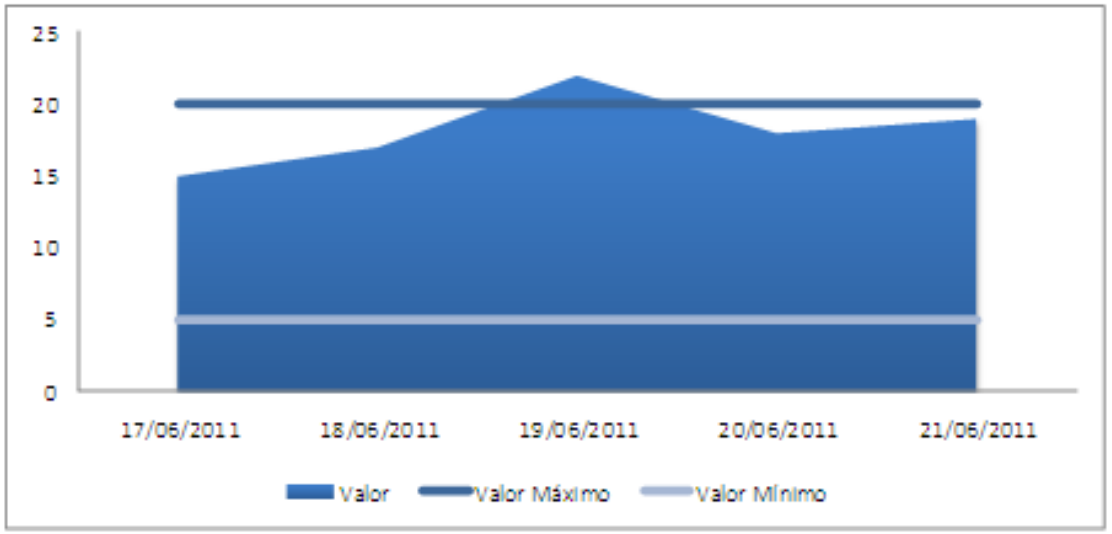
CARPETA DE SALUD

Selección de parámetro: Insulina

Unidad mg

Selección de fecha: Desde 17/06/2011 Hasta 30/06/2011 Buscar

Tabla Histórico | Gráfica Evolución



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Main user involvement actions carried out

- Social Research: FARAPI (2010)
- Focus Group: SUSTAINS (2011)
- Stakeholders meetings, actors maps and user usability tests: ERGOLAB (2012)
- On-line Courses for users
- Disemination actions

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Social Research: FARAPI 2010

MAIN OBJECTIVE

- Identify the needs of potential web users and the and specify web contents

Specific objectives

- Identify the issues that are the subject of doubts and questions by both, the user- and health professionals of the region of Bilbao
- Provide a classification of possible demands to give criteria for web design.
- Identify the functions that must contain the web (inform, assist, advise,
- etc ...)
- Identify obstacles and constraints to implementation and use of the website.

- **Individual interviews:**

> Caregiver (Basic use of ICT)

> Blind and health professional (no use of ICT)

> Professional (active 2.0 user)

> Professionals (Basic use of ICT)

> Chronic patient (Discouraged about ICT)

➢ Elderly man and woman (not active user of ICT)

➢ Seniors Couple

➢ Cancer patient's husband

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Group Discussions:

- Group 01: patients and family associations. Neighborhood associations.
- GROUP 02: citizenship. Carers, people with chronic diseases
- GROUP 03: Osakidetza professionals with different profiles

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Observational studies (onsite observation +interview)**:**

Primary care centers in Bilbao

- > Basurto / Altamira
- > Indautxu
- > Old Town

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Barriers and constraints found in the study

Mistrust

- Chronic patient: “Just want to get rid of us, as they lack infrastructure take you where they want”

Fear of dehumanization, loss of personal contact

- Representative of the association neighborhood of Altamira, group associations: “I see the web page complicated. What people demand is personal attention, not through a computer. Might be good for appointment, for general information for existing services…There are many pages… but for the time of care…the treatment must be personal

Lack of interest

- Individual interview: “I like it a lot but for me it has come too late… I'm lazy… I have no patience, has come late. Neither course or anything, I step, I step
- Man 84 years old “All new technologies are a breakthrough for me, for my age ... I have no interest… but it would not cost for me, isn’t it?
- Personal interview :”I do not need it…”
- Elderly person: “All that is better is great but we do not use, just know exist but ... We use the mobile and it's not too complicated. The elderly do not have way to do that”

Insecurity

- Individual interview, outsider: “But the doctor would receive the mail? Does she have time? … I do not know. A doctor who wants to answer by email I see he has no time. In addition, I have it very close and I prefer to approach

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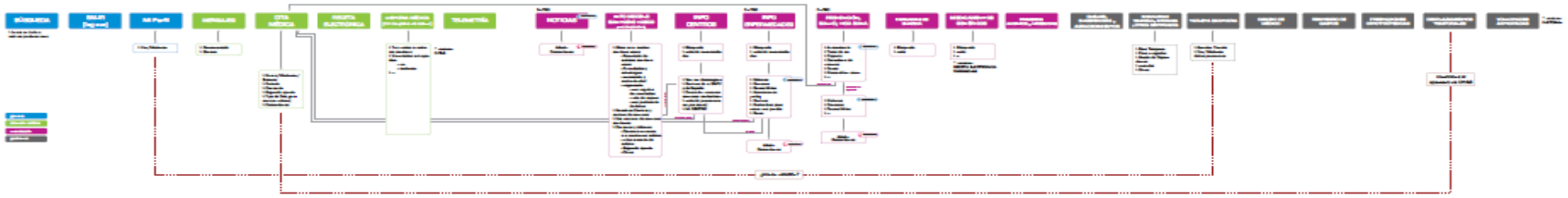
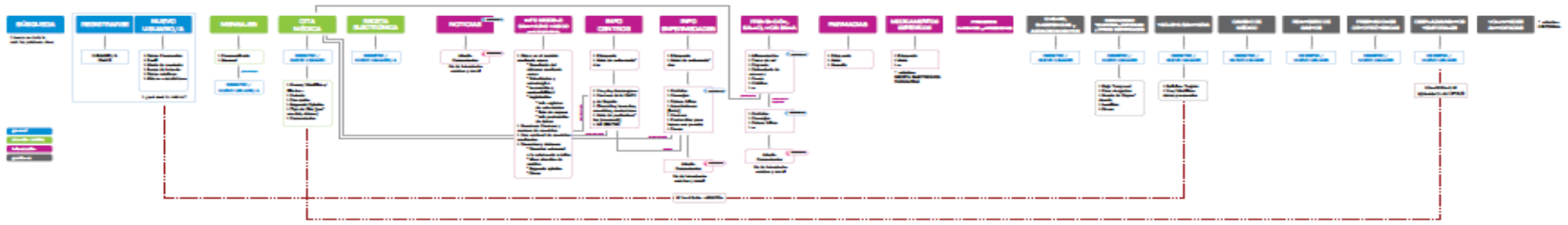
CON REGISTRO
perfil: CIUDADANO



SIN REGISTRO



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Focus Group Basque Country

General information

Date of the focus group: 2nd May 2012

Place of the focus group: Bilbao, Basque Country

Moderators: 2 researchers of Tecnalia with experience in the application of user involvement techniques (focus group, brainstorming, interviews…)

Recruitment methodology: contacts per e-mail and personal interviews, starting point were members of Bioef and contact network

Total number of participants: 14

Patients/citizens focus group: 7

- Patients: 4
- Citizens:2
- Informal carers:1

Health professionals focus group: 7

- Doctors:4
- Nurses:2
- Pharmacists:1

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Focus Group Basque Country

General Conclusions

- Services considered **useful/very useful** (ease of accessing “your” personal data, also when you are not at your region)
- **Efficiency of health professionals** will increase (they will be discharged from administrative tasks with no added value)
- Regarding **accessibility**, perception is that a high percentage of elderly people won’t benefit directly from this services
- Regarding **usability**, must be improved (too many letters on the screen, many access points to the same place and several services are difficult to find
- EHR **should not include** subjective assessment of health profesionals and information on all acute diseases (cold, flu…)
- Reports and information containing **bad news** should be available at the EHR once the patient has been informed by the health professional, in any case before

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Expectations, perceived benefits and risks

- **Main foreseen risks:** Lack of security and confidentiality
- **Relationship between patients and professionals**
  - (patients) **will be better**, even though there is a risk to lose the face-to-face consultations
  - (health professionals) relationship won't change so much (not at least in the next few years and in the case of chronic patients)
- Accessibility to health professionals will increase, as a consequence, **quality of healthcare will be increased**
- Availability of these services will make possible the **patient empowerment** and to **take shared decisions** between patients and health professionals.

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Usability assesment in ICT projects

Objective:

- Design systems that can understand the expectations and needs of users and technologists .
- Transfer some personalized and useful information to business and system developers agents, so it can help to make the right decisions for functional improvement and information system usability.
- Promote the information society by developing actions which can promote citizen participation to co-create, define, design, develop joint solutions.

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- **Stakeholders meetings**
- **Actors Maps**
- **Focus Groups**

- Number of Focus Groups conducted: 15
- Number of people attending the focus groups: 162 (102 women, 60 men)
- Questionnaires filled out: 162
- **User tests:** This is a test conducted in 'laboratory', trying to reproduce as faithfully as the context of a user's actual use. Besides individual interviews were conducted with each of the users as well as type Test SUS (System Usability Scale) for each of the users in order to measure the user experience of the Personal Health Folder both qualitatively and quantitatively.
- Number of user tests conducted: 13
- Number of interviews: 13
- Number of Test SUS (System Usability Scale) made: 13

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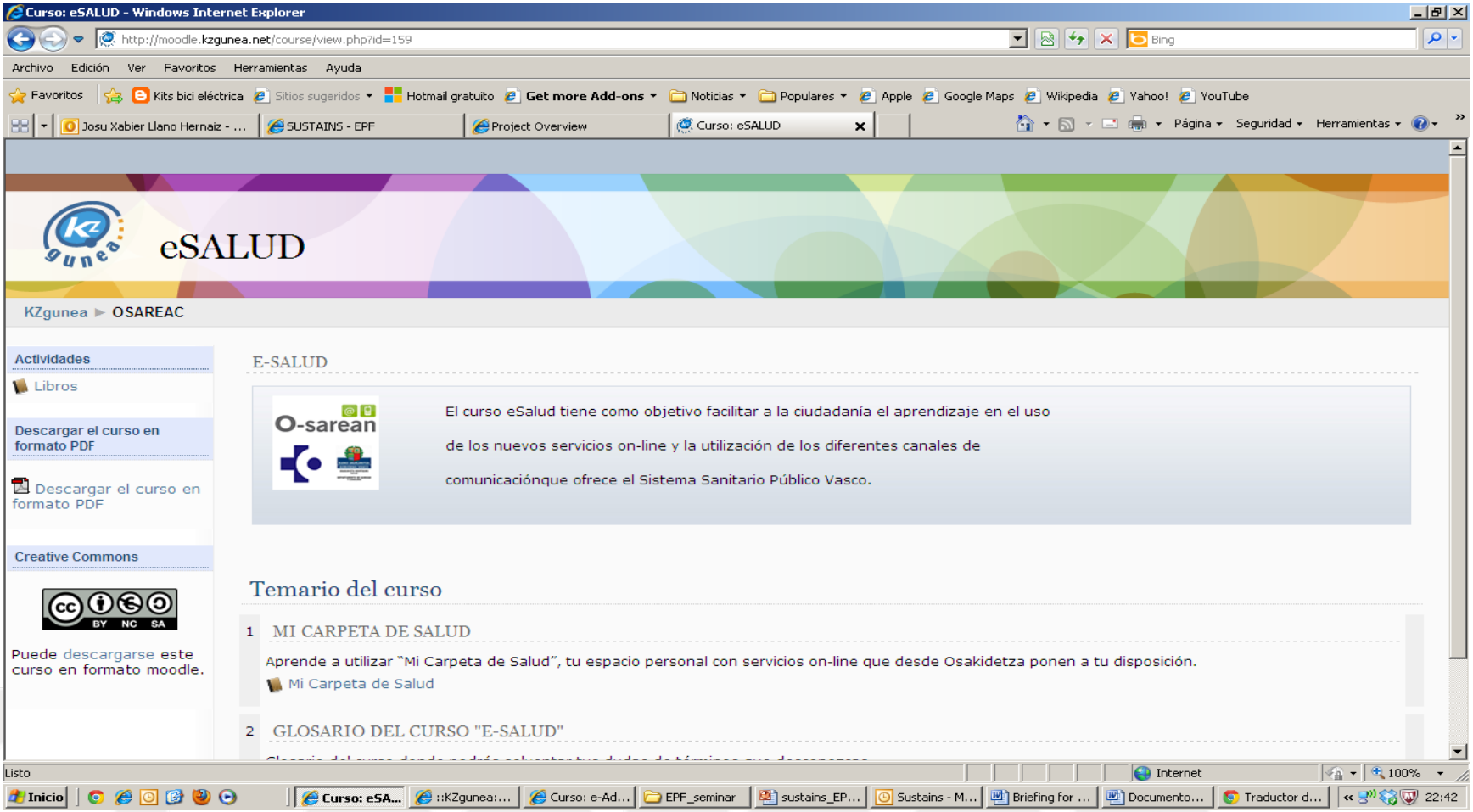


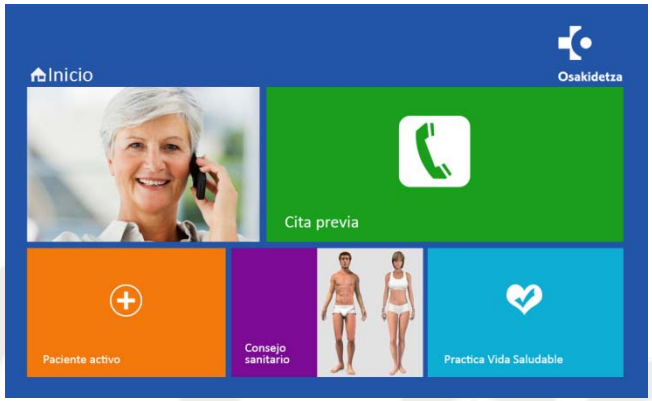
Communication Actions

Acciones de comunicación realizadas

Leaflets

Posters

Kiosks



Others

- Press releases
- Social media
- Videos
- Portal
- Emails
- Prescriptors

Bottlenecks and barriers

- **REGARDING USERS**

  - Insufficient extension of health promotion and prevention
  - Present obligations, future benefits!
  - Reluctance to loose face to face contact
  - Lack of digital skills
  - Little power in decision making
  - Slow growth of Active Patients numbers

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