

Sanità digitale in Portogallo

COUNTRY PERSPECTIVE ON DIGITAL HEALTH

Bergamo, 15th June 2023

Henrique Martins, MD, Mphil, PhD - www.henriquemartins.eu Past - President of the Board of Shared Services of the Ministry of Health (SPMS) (Portuguese Digital Health Agency) – Ministry of Health Portugal





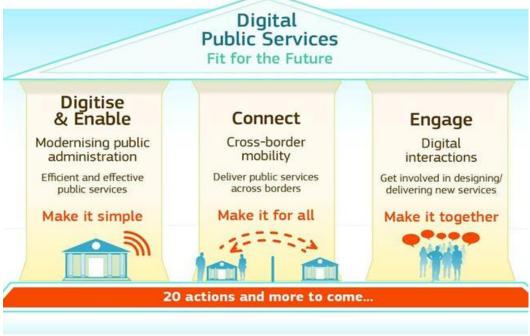
European Context

Digital Single Market Strategy & eGov Action Plan 2016-2020



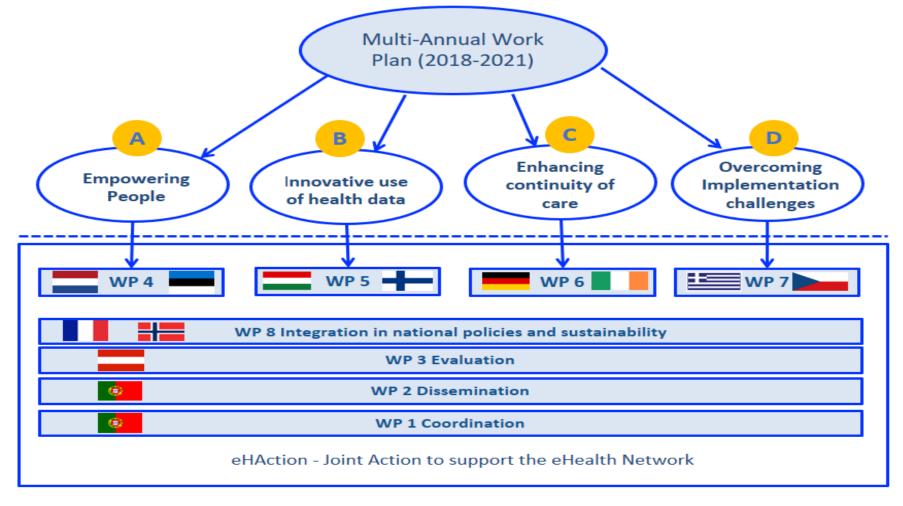
eGovernment Action Plan 2016-2020

Accelerating the digital transformation of Government





Multi Annual Work Plan 2018-2021 and eHAction



XpanDH Project

Coordinated by me at ISCTE, public university in Lisbon with over 25+ partners:

OPEN to

- advisory board members
- affiliated partners until end June



XpanDH's vision comes to live through 4 main scopes



Establishing a scalable public infrastructure for digital health innovation



Demonstrating real-life interoperable digital solutions for individuals, researchers, health services, and the workforce across borders



Establishing a Pan-European ecosystem of digital health



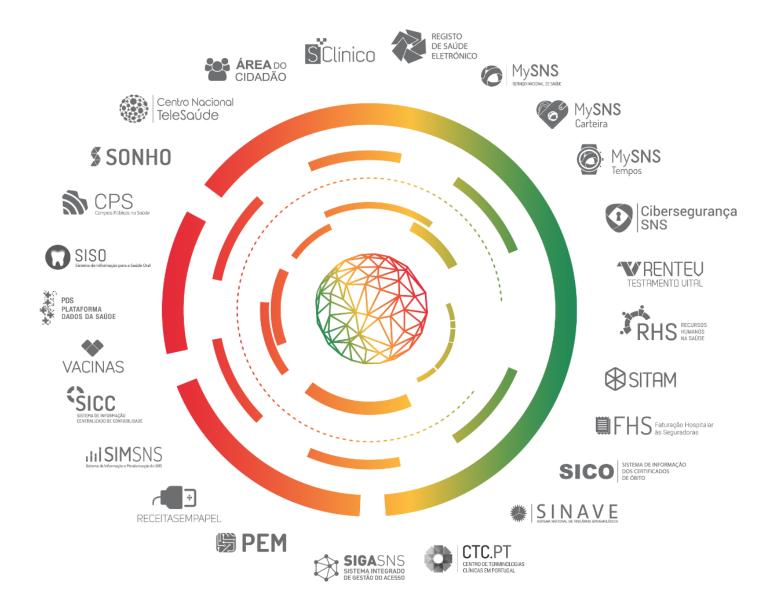
Creating and validating a framework for further exploitation of the public infrastructure for digital health innovation.

https://xpandh-project.iscte-iul.pt/



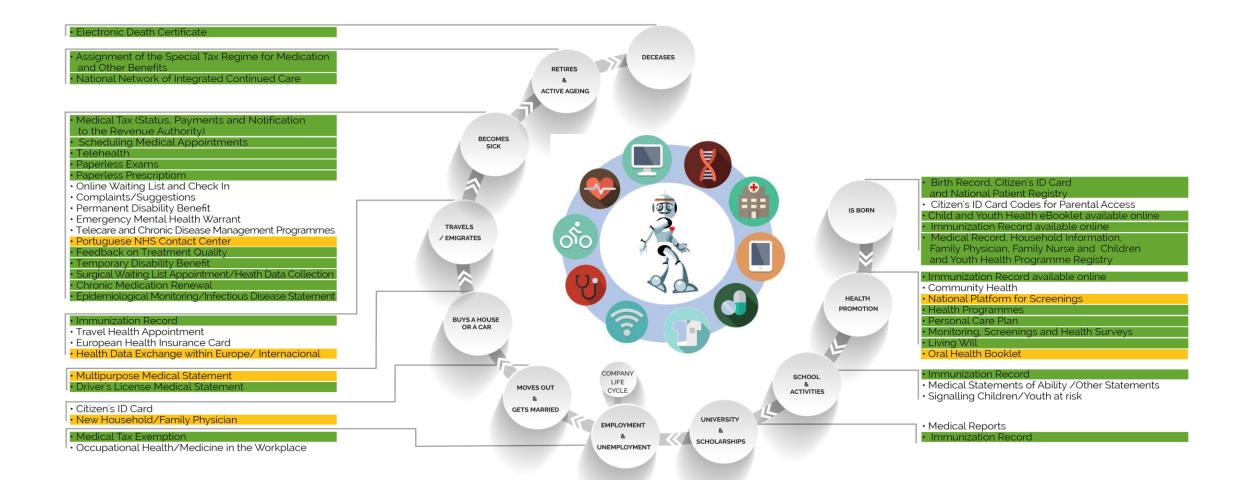


ICT Solutions – SPMS Portfolio (some examplars)



CITIZEN'S LIFE CYCLE IT Health Events Accomplished Under Development

Citizen Life Cycle

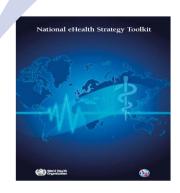


Alignment vector 1: Healthcare Defining Portuguese eHealth Strategy 2020



STAKEHOLDERS ENGAGEMENT Set15-July16 RESULOTION
Council of Minister
15Set2016



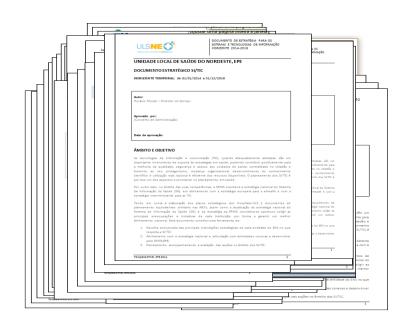






Alignment vector: NHS network Exemple: Manage Strategy

Definine a set of objectives and metrics to guide the SIS strategy and to be considered by the NHS entities in defining their own strategies.





SCOPE

The ENESIS $_{20}^{22}$ is a proposal from SPMS, E.P.E to the Ministry of Health, regarding the Information Systems of the Health System, with a particular emphasis on the NHS areas.



Ecossistema de Informação de Saúde (eSIS)

Conjunto de tecnologias, pessoas e processos que intervêm no ciclo de vida da informação relacionada com todas as dimensões da saúde do cidadão e outra relacionada, independentemente do local de prestação de cuidados e/ou das barreiras organizacionais.





INNOVATION **GOVERNANCE & INVESTMENT LEGISLATION CIBERSECURITY TELEHEALTH** Support health at a distance through the use of ICTs in care delivery, service organization and training of health professionals and citizens. Overcoming geographical and temporal barriers to access to health.



Executive Summary

PENTS is a proposal from the Shared Services of the Ministry of Health, E.P.E. (SPMS) under the coordinating scope of the Portuguese National Centre of Telehealth (CNTS) as defined in the Resolution of the Council of Ministers No. 67/2016 of October 26. Being the first strategic plan for telehealth carried out in Portugal and one of the first in the world, its vision is to create a broad strategy that reflects the role of telehealth in the National Health Service (SNS) in harmony not only with the National Health Plan Revision and Extension to 2020, but also with the Programme of the 21st Constitutional Government and the Health 2020: the European policy framework and strategy for the 21st century (WHO).

EHealth, telehealth and telemedicine are currently areas of growing importance in the context of a health sector highly pressured by external factors such as economic, financial, political-legal, demographic, technological, educational, socio-cultural and organisational.

The objective of PENTS is to define a strategy to leverage the telehealth, taking advantage of Information and Communication Technologies (ICT), as valid means in the management of health and its services. Consequently, the use of telehealth will have to boost the development of the health sector in Portugal in terms of health gains and quality of life, as well as operational efficiency. Telehealth offers new answers to major challenges, namely those of accessibility and proximity to health care, integration of care, training of citizens, patients and caregivers in the SNS, among others, remaining an important catalyst of digital transformation in healthcare.

PENTS should be seen as an instrument that integrates the strategy for the development of telehealth and whose main objectives are:

 Elaboration of a current vision of telehealth in Portugal, by listening to experts and key institutional stakeholders on the subject, as well as by analysing relevant documentation.

- Characterization of valuable proposals with distinctive and innovative characteristics for the sustainable growth of Telehealth in Portugal, by analysing and structuring the key components of the experience of stakeholders in the provision of Telehealth services.
- Definition of the Telehealth strategic axes for the period 2019/2022, and elaboration and characterization of a set of practical and concrete actions that leverage its development.
- Draw up a roadmap to operationalize the proposed plan, as well as recommendations for future implementation.

As a result, this document is organized in 4 chapters. The first chapter is a contextualisation of the health sector, in particular of the SNS, describing some of the challenges it faces. Telehealth presents in this context a summary of the state of the art at a national level and it explains the premises that justify the elaboration of PENTS.

The second chapter identifies and describes the major challenges of telehealth, which were later grouped into 7 blocks of challenge. Throughout the analysis, some of the main advantages and opportunities of telehealth are also identified.

In the third chapter, integrating innovation and new health technologies as a fundamental part, identifies the most promising trends in the area of telehealth, as well as the main steps for a successful implementation of the digital transformation.

Chapter four defines the 6 major Strategic Lines for the Development of Telehealth (LEDTS):

- Good governance and development of human capital;
- II. Ensuring interoperability and Security;
- III. Building infrastructure capacity and information systems improvement in a collaborative and citizen-centre SNS;
- IV. Integration, continuity and proximity of the health care;

- V. Evaluation and sharing of the good practices that promote the innovation and ensure access, quality and efficiency of health care;
- VI. Continuous commitment to innovation, research and development in order to generate, test and implement new ideas and solutions.

Consequently, 12 specific measures are materialised and are complemented by a set of activities.

The 12 measures identified are:

- 1. Ensure a sustainable model for telehealth;
- 2. Make telehealth a means to create synergies;
- 3. Create a "Living Lab";

- Simplify the Governance Model for the telehealth activity;
- Ensure information security and the interoperability of the information systems:
- Guarantee the operational conditions needed for the exercise of telehealth;
- Evaluate and control the quality of the telehealth services in the SNS;
- 8. Map and plan the telehealth initiatives;
- 9. Develop new telehealth offers;
- 10. Promote and disseminate the concept of eHealth to citizens and professionals and raise their awareness of its added value:
- Ensure that PENTS has synergies with other strategic initiatives;
- Train, develop and qualify the Human Capital.

Some Flagship National Projects







Software

Paperless Prescription





eDeath Certification



National Epidemiological Surveillance
System

A single patient record supporting clinical decision making



H Martins 2017

Professional Portal (since 2012)









491 Primary Care





Professional Access

46% 54%

Medics



Nurses



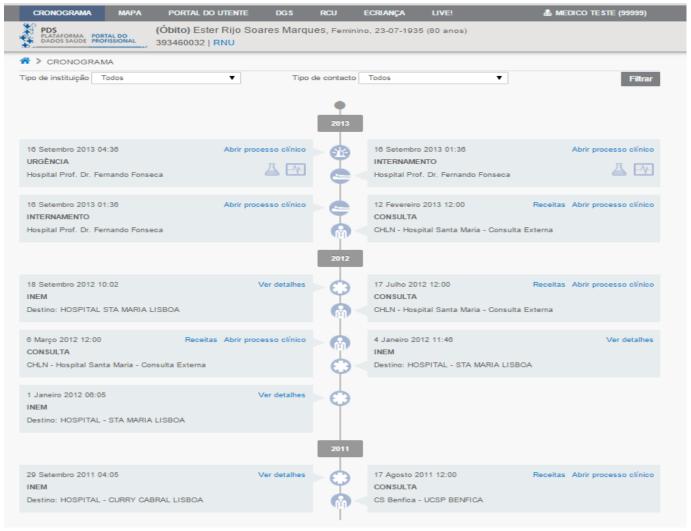
76 Hospitals







Professional Portal - Clinical Episodes Timeline

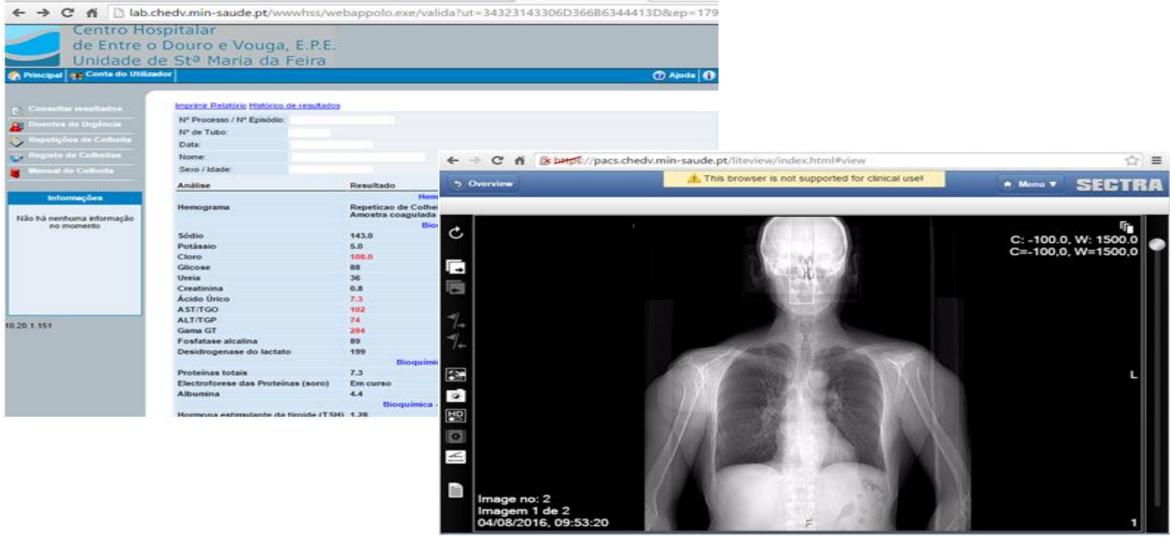




The Professional area has been visualized by more than 50.000 professionals, integrates around 600 databases and accounts for an average of 110.000 daily views.

SPMS - Serviços Partilhados do Ministério da Saúde, E.P.E. www.spms.min-saude.pt

Professional Portal - Labs Results & Images



Citizen Portal



Diabetes









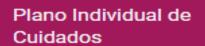
Dados Pessoais



Resumo Saúde



Planos de Cuidados



Questionário de Saúde

Calculadora de Risco

Medições

Boletim Infantil e Juvenil Boletim de Vacinas



SIGA e RSP



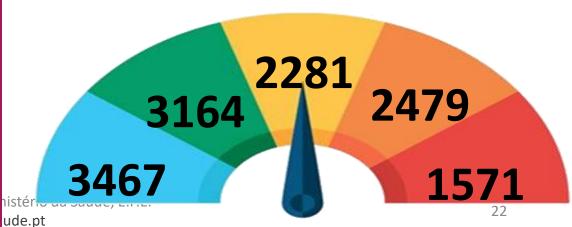
Bem-vindo(a)



Benefícios SNS

47 228 total of diabetes questionnaire 11 018 referred to Primary Care

Data 01.01.2018 until 27.09.2018



SClínico

SClínico – Primary Care Centres



Developed and maintained by SPMS

SClínico - Hospitals



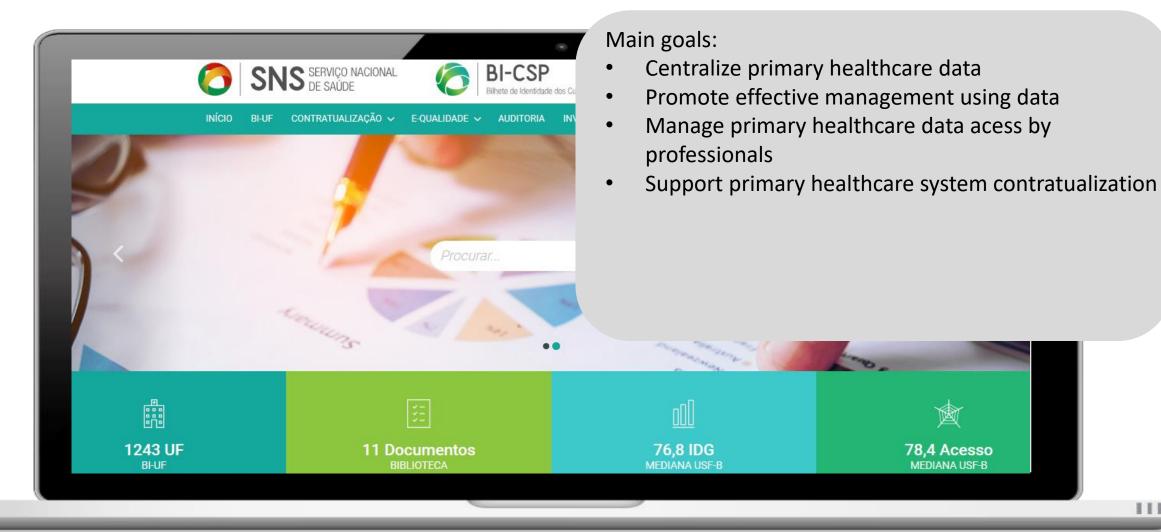




- 1 common EHR solution with local implementation
- Developed and maintained by SPMS
- Portuguese hospital doctors and nurses spend around **30 million hours/year using** SClínico Hospitalar

Primary Care Systems – Identity Card





III

Paperless Prescription (PEM)

To promote the complete dematerialization of the prescription of medicines throughout the national territory through authenticated electronic accesses to:



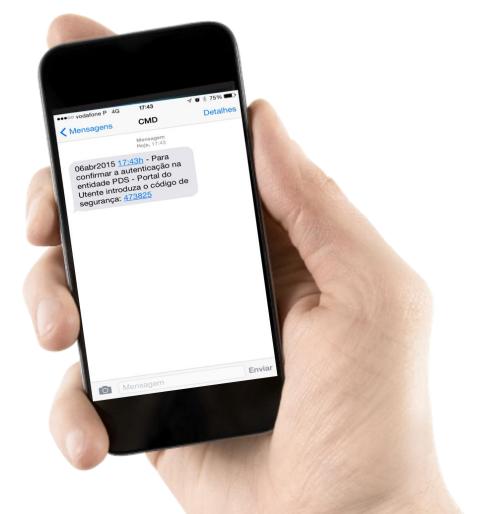
Healthcare Profissionals



Citizen as a Patient



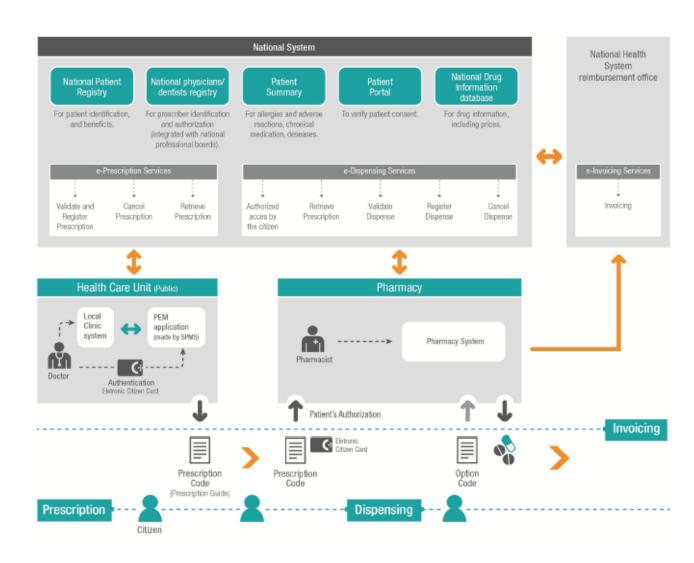




Paperless Prescription (PEM)

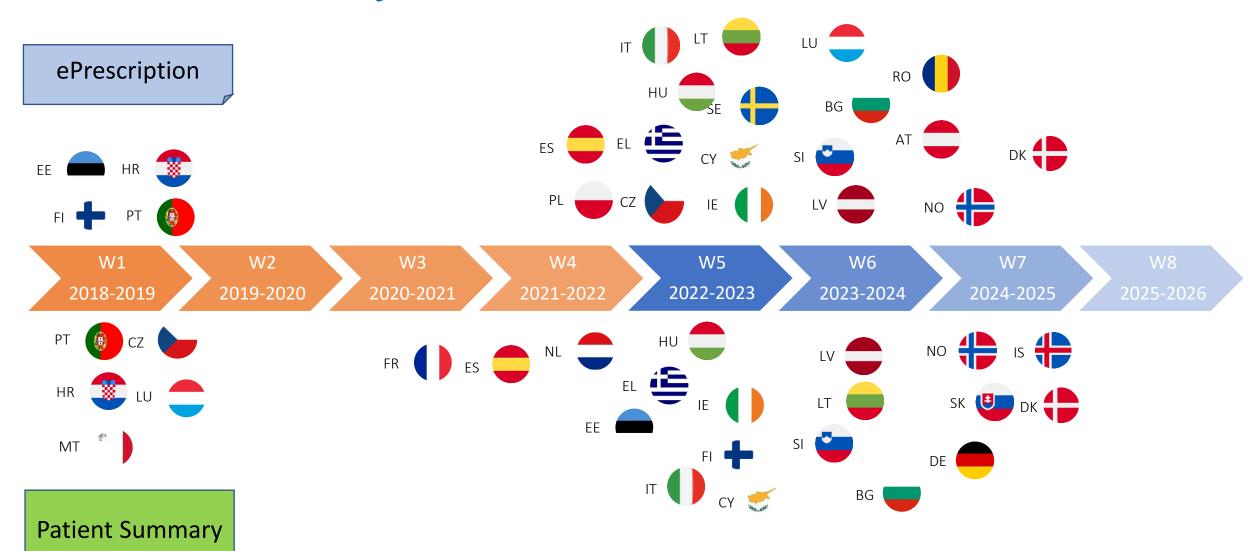
Digital Mobile Key solution!

- Oral Health Foreign Professionals that forgot the Citizen Card;
- Forgetfulness of the Citizen Card;
- Emergency Contexts;
- Home medical treatment and mobility;





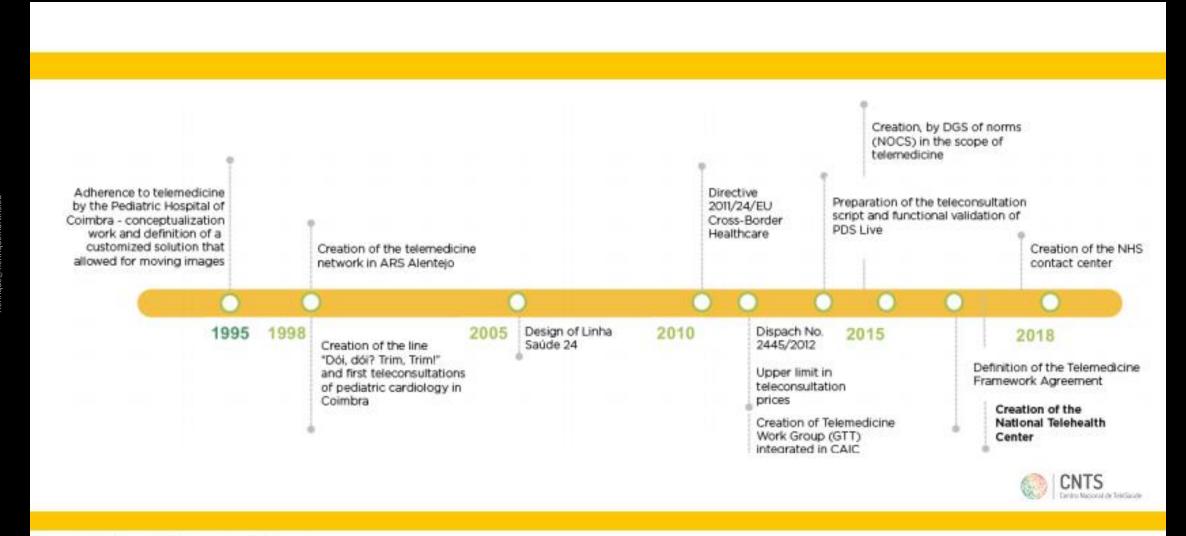
MyHealth@EU timeline



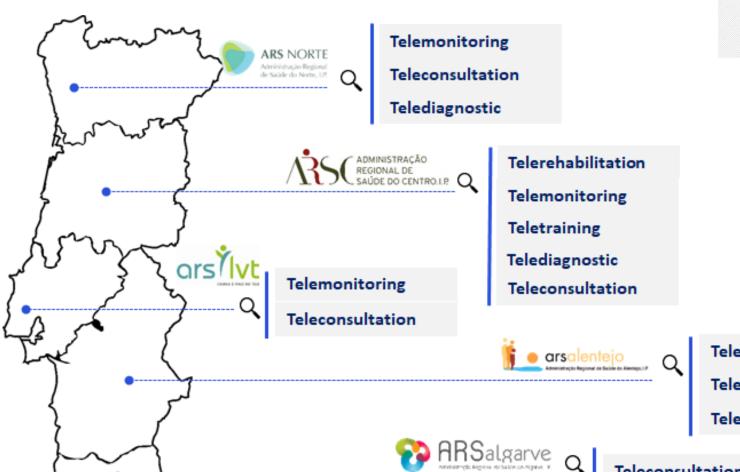
Timelines are approximate and subject to change



Portuguese Telehealth "history"....



Telehealth ad-hoc initiatives **Promote Services in NHS**





Telemonitoring Teleconsultation Teletraining

Teleconsultation

Telehealth "institutionalization" – MoH orders, guidelines, procurement rules, reimbursement rules The "basis for a quality perspective on telehealth"

- A <u>Diretiva 2011/24/UE</u> do Parlamento Europeu e do Conselho de 9 de Março de 2011 é relativa ao exercício dos direitos dos
 doentes em matéria de cuidados de saúde transfronteiriços. Esta diretiva estabelece regras para facilitar o acesso a cuidados de
 saúde transfronteiriços seguros e de elevada qualidade e promove a cooperação em matéria de cuidados de saúde entre os
 Estados-Membros, no pleno respeito das competências nacionais em matéria de organização e prestação de cuidados de saúde.
- Despacho 3571/2013 reforça utilidade desta forma de tecnologias de Saúde em linha (e -Saúde), como uma ferramenta inovadora
 que permite a política de proximidade entre profissionais de saúde que prestam cuidados de saúde e utentes que os recebem.
- Despacho nº8445/2014 reforça a implementação da estratégia para uma Rede de Telemedicina no Serviço Nacional de Saúde.
- Resolução do Conselho de Ministros n 67/2016 de 26 de Outubro de 2016 -Criação do Centro Nacional de TeleSaúde através do
 qual pretende reforçar a estratégia nacional para a promoção da Telemedicina e promover a utilização das Tecnologias de
 Informação e Comunicação, como parte integrante de processos de reforma dos cuidados de saúde, com vista a alcançar um
 nível mais elevado de articulação, integração e melhoria da qualidade dos cuidados, em articulação com o Centro de Contacto do
 SNS.
- Resolução Conselho Ministros 62/2016, de 17 de outubro, aprova a Estratégia Nacional para o Ecossistema de Informação de Saúde 2020 – ENESIS 2020.

Normas de orientação Clínica

- Telerrastreio Dermatológico (NOC 5/2014)
- Telerradiologia (NOC nº 5/2015)
- Telepatologia/patologia digital (NOC 4/2015)
- · Modelo de Funcionamento da Teleconsulta (NOC 10/2015)

Código Deontológico da Ordem dos Médicos (2009)

Capítulo XII

Artigo 94º (relação médico-doente)

Artigo 95º (responsabilidade do médico) – segredo médico, consentimento informado

Artigo 96º (segurança)

Artigo 97º (história clínica) - registos

Clinical/Technical guidelines for telehealth services

Despacho n.º 3156/2017 modelo de funcionamento e coordenação operacional com vista à realização dos objetivos da ENESIS 2020.

Despacho 6280/2018

Determina que a referenciação para a primeira consulta de especialidade hospitalar de dermato-venereologia, realizada pelos cuidados de saúde primários do SNS, é efetuada obrigatoriamente através da utilização de telerrastreio dermatológico

Despacho 5314/2020

Determina que os órgãos dirigentes das entidades prestadoras de cuidados de saúde primários e hospitalares do Serviço Nacional de Saúde devem assegurar a identificação e reagendamento de toda a atividade assistencial programada não realizada por força da pandemia COVID-19.

"3 – Enquanto a situação epidemiológica do país o justificar, e em especial durante o estado de calamidade, os estabelecimentos e serviços do SNS garantem que a realização da atividade assistencial ocorre: a) Com recurso a meios não presenciais, utilizando mecanismos de telessaúde, designadamente programas de telerrastreio, teleconsulta, telemonitorização e teleconsultadoria, exceto quando tal não for clinicamente adequado ou tecnicamente possível;"

2020 Paradigm shift:

The NHS institutions garante health care (using telehealth) EXCEPT quen that is not clinical adequate or technically possible

The "Internal Telehealth Promotor" (ITP) and a Nationwide network for telehealth promotion

MINISTÉRIO DA SAÚDE

Gabinete do Secretário de Estado Adjunto do Ministro da Saúde

Despacho n.º 8445/2014

A Telemedicina, consubstanciada em Teleconsultas e Telemonitorização, permite a observação, o diagnóstico, o tratamento e a monitorização do utente o mais próximo possível da sua área de residência, trabalho ou mesmo em sua casa.

Nestes termos, a Telemedicina aumenta a acessibilidade, melhora a equidade e permite que um maior número de pessoas tenha acesso a melhores cuidados de saúde.

Considerando que através do Despacho nº 3571/2013, de 27 de fevereixo do Secretário de Estado Adjunto do Ministro da Saúde, publicado
no Diário da República, 2º Série, nº 46, de 6 de março, foram dados
passos importantes na generalização da Telemedicina a todo o país, e
na integração desta ferramenta na estratégia global de promoção do
acesso aos cuidados de saúde, importa, agora, reforçar a implementação
da estratégia para uma Rede de Telemedicina no Serviço Nacional de
Saúde.

Assim, determin

1. O acesso à Telemedicina deve ser generalizado, atendo as capacidades tecnológicas das instituições, sendo a sua referenciação de âmbito nacional, sem quaisquer limitações no âmbito do Serviço Nacional de Saúde (SNS), de forma a aumentar a acessibilidade aos cuidados de saúde e a rentabilizar a capacidade instalada nas instituições do SNS.

 As consultas de triagem/rastreio teledermatológico nas unidades de saúde, onde já se encontrem implementadas, devem ser sempre solicitadas no âmbito do Programa Consulta a Tempo e Horas (CTH), sendo inválido qualquer outro procedimento.

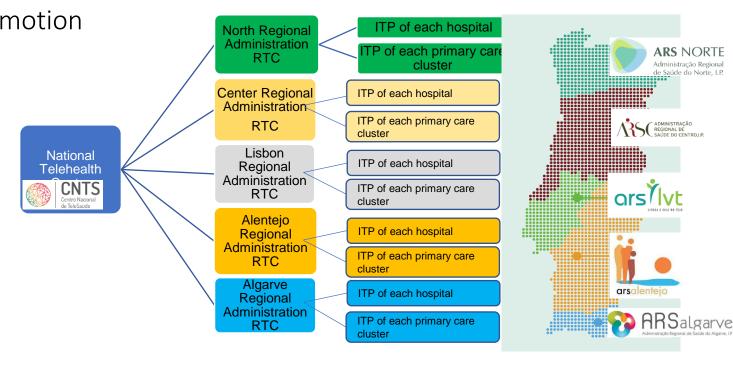
3. A Direção-Geral da Saúde emite, de forma gradual, normas de orientação para cada consulta de triagem/rastreio de cada especialidade médica, na prioridade decorrente do meu Despacho nº 3571/2013, de 27 de fevereiro.

4. As Administrações Regionais de Saúde, IP devem dotar, de forma progressiva e na medida das suas capacidades, as diferentes unidades de saúde, de equipamentos necessários à implementação das teleconsultas, privilegiando o uso da Plataforma de Dados em Saúde (PDS-Live), e das consultas de triagem/rastreio de diferentes especialidades médicas, através da PDS-CTH.

S. Os estabelecimentos hospitalares do SNS e dos Agrupamentos de Centros de Saúde devem nomear um Promotor Interno da Telemedicina (PIT), dando conhecimento do mesmo à Administração Central do Sistema de Saúde, IP e à SPMS—Serviços Partilhados do Ministério da Saúde, EF.

Dispach 8445/2014, 30th June defined that all hospitals from NHS and all Primary Care clusters should appoint an ITP





TeleHealth Promotion Network brings together Regional TeleHealth Coordinators (RTC) and Internal Telehealth Promotors (ITP)

Knowledge/practice of Telehealth activities;

Knowledge/skills in the management and organization of Health services;

Knowledge and good relationship with professionals from all clinical areas of the organization; Interest and motivation to implement innovation and change processes.

National Telehealth Center

National vision and strategy for Telehealth

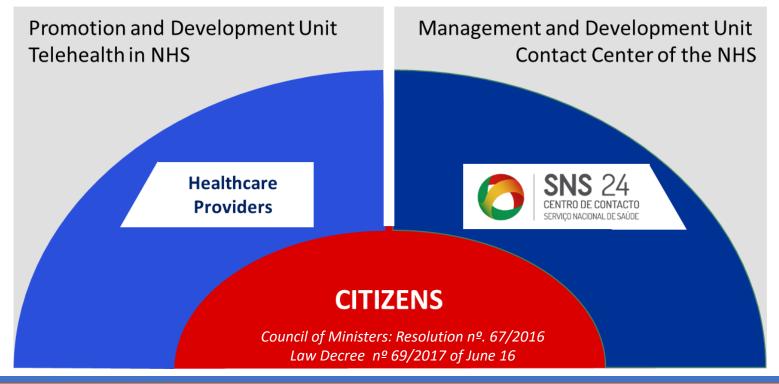
Citizen's empowerment

Supporting design of IT systems that enable telehealth



Enable health professionals

Development of telehealth initiatives



Participate in regulation

Innovation and I&D

Mobile Solutions_ integrated in the context of teleservices (myNHS Wallet --> SNS24 app)

Mobile E-Prescription Mobile E-Death Certification **MyNHS**

mHealth can make eHealth applications MyNHS Wallet --- > SNS24 App: and medical

MvNHS Times

information available anywhere at

anytime, but it must also be portable,

secure and easy to

use

ISBN 978-619-90601-6-2

A Century of Telemedicine: Curatio Sine Distantia et Tempora A World Wide Overview - Part V

TeleHealth Evolution in Portugal in the Last (

Henrique Martins, Paula Amorim (Chapter Editors)



I. Introduction from Chapter Editors

Brief on Portuguese Health System Brief on the Structure and Logic of the Chapter References

II. Telehealth Evolution in Portugal

2.1. First Consultations in National Health Servi F. Mota References

2.2. The Emergence of Telemedicine Services in Por and the Collaboration with CPLC (Communit

Editors: M. Jordanova, F. Lievens

2022

	ortuguese Language Countries)				
M	f. Maia, J. Gregório, L. Lapão				
	Introduction	38			
	Telehealth as a Key Healthcare Promoter:	n Dominion 1 20			
	Telehealth from Portugal to Cor	2.4.4 Telemetheless	58		
	Portuguese Language Countries (CPLP)	2.4.4 Telepathology	38		
	Telehealth to Better Serve Growing Den	C. Correia			
	Final Considerations	The Telepathology Model of Hospital Centre of 58			
	Acknowledgments	Cova da Beira and IPATIMUP			
	References				
	10101011000	2.4.5 Teledermatology	61		
	2.3. Legal Framework, Clinical Guidelines, N	V. Costa			
	of Ethics	Initial Phase	2021)		
	P. Amorim	Officialization Phase	240 77 1/47 14	00	
	Code of Medical Ethics	Generalization Phase	2.4.9. Hospital Portals	88	
		Advantages and Disadvantages	R. Veloso References	91	
	Clinical Guidelines	Teleconsultation in Pandemic Times	References	91	
	Legislation			02	
	References	2.4.6 Telemonitoring in Chronic Ob	III. Telehealth and eHealth in National Health Service	92	
		Pulmonary	H. Martins		
	2.4. Evolution in Provided Teleservices	Disease	References	94	
	2.4.1. Alentejo Telehealth Program	R. Nêveda			
	L. Gonçalves	Introduction	IV. Telehealth in Private Institutions	95	
	Teleconsultations	Telemonitoring of Patients with Co	M. Monteiro		
	Teleconsultancy	Portugal – An Innovated Program	The Portuguese Private Healthcare Sector	95	
	Tele-Education	1 - Breath Well Live Better Program	Adoption of Telehealth among Traditional Private	95	
	Dermatological Telescreening	2 - Telemonitorization program	Healthcare Providers		
	Conclusions	3 - Primary Care Integration	Private Health Insurers - From Financier to Provider	97	
		References	Leveraged By Telehealth	07	
	2.4.2. Telehospitals		Tech Innovators as New Healthcare Providers Telehealth Leveraging Private Philanthropy	97 98	
	T. Magalhães, C. Sousa	2.4.7. Telemonitoring in Cardiac Failure	References	98	
	References	D. Brito	References	70	
		The Burden of Cardiovascular Diseases	V. The Bigs of AAL in Bontwood: From the Hespital to the	99	
	2.4.3. Primary Care Delivery through Dig	Telehealth and Telemonitoring in Portuga	V. The Rise of AAL in Portugal: From the Hospital to the Health Center and Patients Homes	99	
	J. Gregório, M. Maia, M. Peyroteo, L. La	Telemonitoring TM Projects			
	Context	Other TM Programs	M. Peyroteo, M. Maia, S. Azevedo, A. R. Londral,		
	Digital Health in Primary Care	References	L. Lapão Introduction	99	
	ePharmacy		Home Hospitalisation Unit at the Hospital Garcia da Orta	100	
	Conclusion	2.4.8. Telehealth during COVID-19 Pandemic	Primary Healthcare METHIS Project	100	
l	Acknowledgment	L. Gonçalves	The Value of a Remote Patient Monitoring System in the	101	
	References	PSD Resolution Draft (submitted on Mar	Cardiothoracic S Short-term Plans of SITT		
	References	Draft of PS Resolution (submitted on	Teleassistance at		
	37	2021)	Conclusions		
	57	Draft Resolution of the Bloco de Esque	References VII. Perspectives		
		Party (submitted on 16th June 2021)	7.1. Telemedicine in Occupational He	alth	
, 1	Portugal 38	PCP Draft Resolution (Submitted on 1	VI. Iberic Telehea F. Louro		
		(Telehealth - SITT)		
nι	inity of		F. G. Costa 7.2. What Do Physicians Have To Lea	arn About	
	Objectives of SIT Telemedicine				

M. Castelo-Branco

7.3. Future Perspectives H. Martins

111

References

Main Activities of

https://www.isfteh.org/files/media/A Century of Telemedicine -Part V 2022.pdf

SNS 24 Website Next Steps





Total Integrate

Integration of the site with the Contact

Al & Chat Bot

Implementation of a Chat Bot in the website

Center

New Symptoms

Development and implementation of new clinical algorithms in the symptom checker





THANK YOU!

Questions? (now or via email/website)





Home / Programs / Advanced | PostGraduate / Digital Health



Be a leader in the digital health transition_

Get an international view of the current situation in the area of Digital Health with the set of national and international knowledge. It provides a multiple perspective from personal / technical, intermediate and macro / strategic levels. It allows contact with the topic of digital health from the point of view of how projects are led and an entrepreneural initiative can be developed.







