Joint Action on Chronic Diseases and Promoting Healthy Ageing Across the Life Cycle

Good Practice in the Field of Health Promotion and Primary Prevention

Spain Country Review

Coordinated by the Spanish Ministry of Health, Social Services and Equality, with the participation of the autonomous communities public health authorities and the National Institute of Health Carlos III

CHRODIS
ADDRESSING CHRONIC DISEASES & HEALTHY AGEING ACROSS THE LIFE CYCLE

This document arises from the EU CHRODIS Joint Action which has received funding from the European Union, in the framework of the Health Programme (2008-2013). Sole responsibility lies with the author and the Executive Agency for Health and Consumers is not responsible for any use that may be made of the information contained therein

Table of Contents

This Country Review has been developed based on the questionnaire 'Good practice in the field of Health Promotion and Primary Prevention' developed by EuroHealthNet, as part of Work Package 5, Task 1 of JA-CHRODIS.

Background

JA-CHRODIS is a European collaborative initiative that brings together over 60 partners from 26 European Union Member States. The collaborative partners are from areas including the national and regional departments of health and research institutions. They work together to identify, validate, exchange and disseminate good practice approaches for chronic diseases across EU Member States, and facilitate the uptake of these approaches across local, regional and national borders. The focus of JA-CHRODIS is on health promotion and primary prevention, with an additional focus on the management of diabetes and multi-morbid chronic conditions. One of the key deliverables will be a 'Platform for Knowledge Exchange', which will include both an online help-desk for policy makers and an information portal which provides an up-to-date repository of best practices and the best knowledge on chronic care.

Work Package (WP) 5 focuses on these objectives in relation to the package's theme: *Good Practice in the Field of Health Promotion and Primary Prevention*. Furthermore, **the objectives of WP 5 are to promote the exchange, scaling up, and transfer of highly promising, cost-effective and innovative health promotion and primary prevention practices for older populations.** This will involve the identification, review, and validation of health promotion and primary prevention interventions for **cardiovascular diseases, stroke, and type 2 diabetes and their modifiable behavioural and social risk factors**. WP 5 will not only take into account lifestyles and health-related behaviours, but also the wider social and economic determinants that influence them.

The following **Country Review** provides an **overview of the health promotion and primary prevention situation and approaches for cardiovascular disease, stroke and type 2 diabetes in Spain**. This review outlines relevant policies; implementation mechanisms; good practices, and whether and how they have been identified; and forecasting and cost-effectiveness studies that have been undertaken on the topic in Spain. The authors of this report have also identified current gaps and needs of promotion and primary prevention of chronic diseases. The information in this report will contribute to subsequent WP tasks, namely the identification, exchange and transfer of promising practices to promote health and prevent strokes, cardiovascular disease and type 2 diabetes in Spain.

The Health Promotion and Chronic Disease Prevention Landscape

Policy design and implementation

Article 43 of the Spanish Constitution of 1978 establishes the right to health protection for all citizens. Regulation of the actions to enable exercising the right to health protection have been set out over time within the following acts: General Health Act (1986), Act on the Cohesion and Quality of the National Health System (2003), Act on Guarantees and Rational Use of Medicines (2006), Public Health Act (2011) and Royal Decree-Law on Emergency Measures for the Sustainability of the National Health System and Improvement of Quality and Safety (2012).

The fundamental principles and criteria enabling the exercise of this right are:

- Public funding, universal coverage and free healthcare services at the time of use.
- Defined rights and duties for citizens and public authorities.
- Political decentralization of healthcare devolved to the autonomous communities.
- Provision of comprehensive healthcare, striving to attain high levels of quality duly evaluated and controlled.
- Integration of the different public structures and health services under the National Health System.

The National Health System (NHS) is configured as a coordinated set of health services from the Central Government Administration and the autonomous communities that integrates all healthcare functions and benefits for which public authorities are legally responsible. Under constitutional provisions and their respective autonomy statutes, all the autonomous communities have taken up responsibilities with respect to healthcare.

Each autonomous community has its own Health Service, which is the administrative and management body responsible for all the health centres, services and facilities in its region; provincial administrations; town councils; and any other intra-regional administration.

Central Government retains healthcare management in the cities with autonomy statutes – Ceuta and Melilla – through the National Health Management Institute (INGESA).

The Interterritorial Council of the National Health System is the body responsible for the coordination, cooperation and liaison among the central and autonomous communities' public health administrations.
Its purpose is to promote the cohesion of the National Health System through an effective and equitable guarantee of the rights of citizens throughout the country.
It is made up of the Minister of Health, Social Services and Equality and the Regional Ministers of the autonomous communities. The Minister of Health acts as President of the Interterritorial Council. Vice Presidency is held by one of the Regional Ministers of the autonomous communities, elected by and among the Regional Ministry comprising the Board. Resolutions are approved by consensus and materialized through recommendations.

Source: Distribution of responsibilities according to the Spanish Constitution of 1978, Act 14/1986, April 25th 1986, the General Health Act, and Act 16/2003, May 28th 2003, on the Cohesion and Quality of the National Health System.

Organisation of the NHS

The National Health System is structured into two health care levels; primary care and specialist care, in which there is an inverse relationship between accessibility and technological complexity. Primary care makes basic health care services available within a 15-minute radius from any place of residence. The main care facilities are the health care centres, staffed by multidisciplinary teams comprising general practitioners, paediatricians, nurses and administrative staff, and, in some cases, social workers, midwives and physiotherapists.

Since primary health care services are located within the community, they also deal with health promotion and disease prevention.

The services offered by the National Health System to citizens include preventive, diagnostic, therapeutic, rehabilitation and health promotion and maintenance activities.

The basic services portfolio is established in Act 16/2003, 28 May 2003, on the cohesion and quality of the National Health System and in Royal Decree 1030/2006, 15 September 2006.

Main public bodies and other organisations

The main public bodies with a mandate for health promotion and primary prevention are:

- At the national level, the Ministry of Health, Social Services and Equality. Its main mission regarding health promotion and primary prevention is coordination and legislation.
- At the regional level, the Regional Departments of Health. At this level, health promotion and primary prevention are addressed by Public Health and Primary Health Care.
- At the local level, Health Services of the Town Council may also exist.

Regarding other main organisations in Spain which are implementing policies and programmes in these areas, there are multiple examples:

- The main private health insurance companies have a holistic approach for health that includes health promotion and prevention.
- As examples of Community Based Organisations, at the local level there are associations and community centres that promote health and wellbeing by organising different activities regarding physical activity, mental wellbeing, spaces for social interaction, etc. Some have a specific focus on older people.
- Regarding private companies, Spain participates in the European Network for Workplace Health Promotion. For more information see: INSHT - Empresas Saludables

Strategies and programmes

Level/ Place	Name/ Title	Policy/ law/ strategy	Evaluation framework (yes/no)	Focus on equity (yes/ no)	Focus on 65 and over (yes/ no)	Gender specific dimension (yes/no)	Topics covered (health promotion / primary prevention of cardiovascular disease / primary prevention of stroke / primary prevention of type 2 diabetes)	More information
National	Law 16/2003 on Cohesion and Quality at the NHS	law	yes	yes	no	yes	all	BOE.es - Documento consolidado BOE-A-2003-10715
National	33/2011 Public Health Act	law	yes	yes	no	yes	all	BOE.es - Documento BOE-A-2011-15623
National	Act 28/2005 and act 42/2010 on tobacco production, selling and consuming	law	yes	no	no	yes	primary prevention of cardiovascular disease, stroke and type 2 diabetes	BOE.es - Documento BOE-A-2010-20138
National	Strategy for Addressing Chronicity in the NHS	strategy	yes	yes	no	yes	all	http://www.msssi.gob.es/organizacion/sns/planCalidadSNS/abordajecronicidad.htm (Executive summary in English)
National	Ischemic Heart Disease Strategy of the NHS	strategy	yes	no	no	yes	primary prevention of cardiovascular	http://www.msssi.gob.es/organizacion/sns/planCalidadSNS/cardiopatials

							disease	quemica.htm (Executive summary in English)
National	Diabetes strategy of the NHS	strategy	yes	no	no	yes	primary prevention of type 2 diabetes	http://www.msssi.gob.es/organizacion/sns/planCalidadSNS/diabetes.htm (Executive summary in English)
National	Stroke strategy of the NHS	strategy	yes	no	no	yes	primary prevention of stroke	http://www.msssi.gob.es/organizacion/sns/planCalidadSNS/ictus.htm (Executive summary in English)
National	Strategy on health promotion and prevention at the NHS	strategy	yes	yes	yes	yes	all	http://www.msssi.gob.es/profesionales/saludPublica/prevPromocion/Estrategia/estrategiaPromocionyPrevencion.htm (Executive summary in English)
National	National strategy for nutrition, physical activity and prevention of obesity (NAOS)	strategy	yes	no	no	yes	all	http://www.naos.aesan.msssi.gob.es/
National	National Integral plan for physical activity and sports	strategy	yes	no	yes	yes	health promotion	http://www.planamasd.es/
Andalucia	Public Health Act of Andalusia	law	yes	yes	yes	yes	all	http://goo.gl/nf8YOH
Andalucia	4th Health Plan of Andalusia Autonomous	strategy	yes	yes	yes	yes	all	http://goo.gl/UauaTA

	Region (“IV PAS”)							(Executive summary in English)
Andalucia	Andalusian Plan for integrated attention to patients with chronic conditions	strategy	yes	yes	no	yes	all	http://goo.gl/mqCFm5
Andalucia	Andalusian Plan for Attention to Heart Diseases	strategy	yes	yes	yes	yes	all	http://goo.gl/jqcNeL
Andalucia	Andalusian Plan for Stroke Attention	strategy	yes	yes	yes	yes	all	http://goo.gl/OtGBP
Andalucia	Comprehensive Action Plan on Diabetes in Andalusia	strategy	yes	yes	yes	yes	all	http://goo.gl/PA6AiI
Andalucia	Comprehensive Tobacco Action Plan for Andalusia (“PITA”)	strategy	yes	yes	yes	yes	all	http://goo.gl/ylfmWO (In English)
Andalucia	Plan for the Promotion of Physical activity and balanced diets (“PAFAE”)	strategy	yes	yes	yes	yes	all	http://goo.gl/tAQzor (In English, plan is still ongoing)
Andalucia	“GRUSE” (Socio-educational Groups)	strategy	yes	yes	yes	yes	all	http://goo.gl/pAj8Ay
Andalucia	“Forma Joven”	strategy	yes	yes	no	yes	all	http://www.formajoven.org/
Andalucia	Child Obesity Comprehensive Action Plan for Andalusia	strategy	yes	yes	no	yes	health promotion	http://goo.gl/Oab5lS

	("PIOBIN")							
Andalucia	The Andalusian Active Aging White Book	policy	no	yes	yes	yes	all	http://goo.gl/xVrsFj (Executive summary in English: pp 471-508)
Castilla-La Mancha	Cardiovascular risks screening	strategy	yes	yes	no	no	all	
Castilla-La Mancha	Chronicity attention global plan (Plan Director de Atención a la Cronicidad en Un modelo de Integración Asistencial)	strategy	yes	yes	yes	no	all	
Comunidad Valenciana	Public Health Act 4/2005, of Valencia autonomous region	law	yes	yes	yes	yes	all	www.san.gva.es http://www.boe.es/buscar/doc.php?id=BOE-A-2005-12101
Comunidad Valenciana	Health plan of Valencia autonomous region	strategy	yes	yes	yes	yes	all	www.san.gva.es
Comunidad Valenciana	Plan on stroke attention 2011-2015	strategy	yes	no	yes	yes	primary prevention of stroke	www.san.gva.es
Comunidad Valenciana	Plan on cardiovascular diseases prevention	strategy	yes	yes	yes	yes	primary prevention of cardiovascular disease	www.san.gva.es
Comunidad Valenciana	Diabetes plan	strategy	yes	no	yes	yes	primary prevention of diabetes	www.san.gva.es

Región de Murcia	Health plan for the Murcia autonomous region	strategy	yes	yes	no	yes	all	http://www.murciasalud.es/pagina.php?id=144972
Región de Murcia	Integral programme for the attention of the Ischemic heart disease 2010-13	strategy	no	no	no	no	health promotion/primary prevention of cardiovascular disease	http://www.murciasalud.es/recursos/ficheros/206516-SANIDAD_CARDIOPATIA_ISQUEMICA_web.pdf
Región de Murcia	Stroke attention programme	strategy	no	no	no	no	health promotion/primary prevention of stroke	http://www.murciasalud.es/recursos/ficheros/155902-155902-ictus.pdf
Región de Murcia	Activa programme	strategy	yes	no	no	no	health promotion (physical activity)	http://www.ffis.es/eventos/activa/documentacion/Programa_Activa_DGPOSFI.pdf
Región de Murcia	Integral programme for the attention of diabetes 2005-2009	strategy	no	no	no	no	primary prevention of diabetes	http://www.murciasalud.es/recursos/ficheros/76198-plan_diabetico.pdf
Extremadura	Health plan for the Extremadura autonomous region 2013-2020	strategy	yes				all	
Extremadura	Strategic plan on health promotion	strategy					health promotion	
Extremadura	Ischemic Heart Disease integral plan (PIEC) 2013 - 2016	strategy	yes	no	no	yes	all	http://saludextremadura.gobex.es/es/listadonovedades/-/ultimasNovedades/6gP9/content/id/3441824

Extremadura	Integral plan on diabetes 2014-2018	strategy	yes	no	no	yes	health promotion/primary prevention of diabetes	http://saludextremadura.gobex.es/es/listadonovedades/-/ultimasNovedades/6gP9/content/id/3441824
Extremadura	Health Act 10/2001 of Extremadura autonomous region	law	yes	yes	no	no	all	
Extremadura	Public Health Act 7/2011 of Extremadura autonomous region	law	yes	yes	no	yes	all	http://www.boe.es/buscar/doc.php?id=BOE-A-2011-6650
Aragón	Public Health Act 5/2014 of Aragón autonomous region	law	yes	yes	no	yes	all	http://www.boe.es/buscar/doc.php?id=BOE-A-2014-8282
Aragón	Strategy to promote healthy eating and physical activity (PASEAR) 2013-2018	strategy	yes	yes	no	yes	all	http://bit.ly/13QekwS
Cataluña	Public Health Act 18/2009 of Cataluña autonomous region	law					all	http://www.boe.es/buscar/doc.php?id=BOE-A-2009-18178
Cataluña	Health plan for the Cataluña autonomous region (Pla de Salut) 2011-2015	strategy	yes	yes	yes	yes	all	Health Plan for Catalonia 2011-5 (English version)

Cataluña	Physical activity, sports and health Plan (PAFES)	strategy	yes	yes	yes	yes	health promotion	www.pafes.cat
Cataluña	Intersectoral public health plan	strategy	yes	yes	yes	yes	all	Interministerial Health Plan (English version)
Cataluña	Integral Plan for Health promotion through Physical activity and healthy diet (PAAS)	strategy	yes	yes	yes	yes	health promotion	PAAS website
Cataluña	Prevention and Control of Chronic Diseases Plan for Catalonia	strategy	yes	yes	yes	yes	all	Prevention and Control of Chronic Diseases Plan (PPAC)
Cataluña	Ischaemic Heart Disease Strategy of Catalonia	strategy	yes	no	no	yes	prevention of cardiovascular disease	www.gencat.cat/salut
Cataluña	Stroke Strategy of Catalonia	strategy	yes	no	no	yes	prevention of Stroke	www.gencat.cat/salut
Madrid	Primary care standardized portfolio (Services nº 403 to 418)	strategy	yes	yes	yes	yes	all	http://bit.ly/1ohGw2q
Madrid	Health promotion and prevention strategy	strategy	yes	yes	yes	yes	all	http://bit.ly/1BJb7A7
Madrid	Strategy for the attention to chronicity	strategy	yes	yes	yes	yes	primary prevention of cardiovascular disease/primary prevention of	http://bit.ly/1ohGDLp

							stroke/primary prevention of type 2 diabetes	
Madrid	Regional protocol for myocardial infarct attention	strategy	yes	yes	yes	yes	primary prevention of cardiovascular disease	http://bit.ly/1vq3ytP
Madrid	Regional protocol for stroke attention	strategy	yes	yes	yes	yes	primary prevention of stroke	http://bit.ly/1sZaIat
Comunidad Autónoma Vasca	Health plan for the Basque autonomous region	strategy	yes	yes	no	yes	all	http://www.osakidetza.euskadi.net/contenidos/informacion/publicaciones_informes_estudio/es_pub/adjuntos/plan_salud_2013_2020.pdf
Comunidad Autónoma Vasca	Health in all policies	strategy	yes	yes	no	yes	health promotion	http://www.osakidetza.euskadi.net/contenidos/informacion/publicaciones_informes_estudio/es_pub/adjuntos/plan_salud_2013_2020.pdf
Comunidad Autónoma Vasca	Physical activity promotion strategy 2013-2020 (MUGIMENT)	strategy	yes	yes	yes	yes	Health promotion	http://www.osakidetza.euskadi.net/r85-cksalu02/es/contenidos/informacion/aktibili/es_aktibili/aktibili.html
Comunidad Autónoma Vasca	Youth and alcohol programme	strategy	yes	yes	no	yes	all	http://www.osakidetza.euskadi.net/contenidos/informacion/alcoholismo/es_6692/adjuntos/ProgramaMenoresAlcohol.pdf
Comunidad Autónoma Vasca	Smoke free Euskadi	strategy	yes	yes	no	yes	all	http://www.osakidetza.euskadi.net/r85-ckdrog02/es/contenidos/informacion/vive_sin_tabaco/es_def/index.sht

								ml
Islas Baleares	Public Health Act 16/2010 of Illes Balears autonomous region	law					all	http://www.boe.es/buscar/doc.php?id=BOE-A-2011-2108
Islas Baleares	Healthy eating and active living strategy	strategy	yes	yes	no	yes	all	http://e-alvac.caib.es/es/index.html
Islas Baleares	Strategy on diabetes	strategy	yes	no	yes	yes	health promotion/primary prevention of cardiovascular disease/primary prevention of type 2 diabetes	http://planificaciosanitaria.caib.es/sacmicrofront/contenido.do?mkey=M1104181248485460169&lang=CA&cont=34036
Islas Baleares	Strategy on stroke	strategy	yes	no	yes	yes	health promotion/primary prevention of cardiovascular disease/primary prevention of stroke	
Islas Baleares	Strategy on ischemic heart disease	strategy	yes	no	yes	yes	health promotion/primary prevention of cardiovascular disease	
Asturias	Health promotion and participation strategy of Asturias autonomous region	strategy	yes	yes	no	yes	health promotion	

Asturias	Cardiovascular health strategy of Asturias autonomous region	strategy	yes	yes	no	yes	all	
La Rioja	Second Health Plan of La Rioja autonomous region	strategy	yes	yes	yes	no	all	http://www.riojasalud.es/f/old/ficheros/2_plan_salud_la_rioja_2009-2013.pdf
La Rioja	I Plan for the promotion of healthy habits (physical activity and nutrition)	strategy	yes	yes	yes	yes	all	http://www.riojasalud.es/f/old/ficheros/plan_promoc_habitos_saludables09.pdf
Canarias	"The circles of healthy life" (Los Círculos De La Vida Saludable)	strategy	yes	yes	no	yes	all	http://circulosdelavida.es/ http://www2.gobiernodecanarias.org/sanidad/scs/aplicacion.jsp?idCarpeta=cc8a68ff-98de-11e1-9f91-93f3670883b5
Canarias	Childhood obesity prevention programme (PIPO)	strategy	no	yes	no	yes	all	http://www.programapipo.com/
Canarias	Delta Project: Nutritional Education and Physical Activity Promotion (Proyecto Delta de Educación Nutricional y Actividad Física)	strategy	yes	yes	no	yes	all	http://www2.gobiernodecanarias.org/sanidad/scs/contenidoGenerico.jsp?idCarpeta=32c1e8fa-cc0f-11e1-adc8-491cdb90fd3e&idDocument=8a401edb-18f8-11e2-afb1-b9b294c3b92c
Galicia	Health plan of Galicia autonomous region	strategy	yes	yes	yes	yes	all	http://www.sergas.es/Publicaciones/DetallePublicacion.aspx?IDCatalogo=

	2011-2014							2058&IdPaxina=10166
Galicia	Xente con Vida	strategy	no	no	no	no	health promotion	http://xenteconvida.sergas.es/Paginas/Portada
Galicia	Programme healthy activities, exercise and eating	strategy	no	yes	yes	yes	all	http://www.sergas.es/mostrarcontidos_n3_t01.aspx?idpaxina=61585
Galicia	Campaign "Stair by Stair" "step to step"	strategy	no	yes	no	yes	health promotion	http://www.sergas.es/MostrarContidos_N3_T01.aspx?IdPaxina=62860
Galicia	Citizens health school “Escuela Gallega de Salud para los Ciudadanos	strategy	yes	yes	yes	yes	all	http://www.sergas.es/EscolaSaude/PortadaEscola.aspx?IdPaxina=75000
Castilla y León	Public health and food security act 10/2010	law					all	http://www.boe.es/buscar/doc.php?id=BOE-A-2010-17980
Castilla y León	Public health strategy 2013-2015	strategy	yes				all	http://www.saludcastillayleon.es/institucion/es/planes-estrategias/estrategia-salud-publica
Castilla y León	Strategic plan for health 2011-2015	strategy	yes				all	http://www.saludcastillayleon.es/institucion/es/planes-estrategias/lineas-estrategicas-objetivos-gerencia-regional-salud-casti
Castilla y León	Strategy for the attention to chronicity	strategy	yes				all	http://www.saludcastillayleon.es/institucion/es/planes-estrategias/estrategia-atencion-paciente-cronico-castilla-leon

Cantabria	Health plan of Cantabria autonomous region 2014-2019	strategy	yes				all	http://www.saludcantabria.es/index.php?page=PlanSalud2014-2019
Cantabria	Smoking prevention plan of Cantabria autonomous region 2012-2016	strategy	yes				all	http://www.saludcantabria.es/index.php?page=plan-de-prevencion-y-control-del-tabaquismo
Cantabria	Healthy eating and physical activity programme on childhood	strategy	yes				all	http://www.saludcantabria.es/uploads/pdf/consejeria/Programa%20Alimentacion.pdf
Navarra	Health plan of Cantabria autonomous region 2014-2019	strategy	yes				all	https://www.navarra.es/home_es/Temas/Portal+de+la+Salud/Profesionales/Planes+y+programas/Planes+de+Salud+de+Navarra/
Navarra	Strategy for the attention to chronicity	strategy						https://www.navarra.es/home_es/Temas/Portal+de+la+Salud/Profesionales/Planes+y+programas/Estrategia+navarra+de+atencion+integrada+a+pacientes+cronicos+y+pluripatologicos.htm
Navarra	Health promotion strategic plan	strategy					Health promotion	http://www.navarra.es/home_es/Gobierno+de+Navarra/Organigrama/Los+departamentos/Salud/Organigrama/Estructura+Organica/Instituto+Navarro+de+Salud+Publica/Publicaciones/Planes+estrategicos/Promocion+de+la+Salud/

Financing

The health-related public policies implemented in Spain are taken into account by the public budget for health, which comes from general taxation.[1]

In 2011, the public expenditure on health in Spain was 72.217 million euros, which corresponded to 6.8% of the GDP and 1,530 euros per inhabitant. Because of the organisation of the health system, each Autonomous Community presents their particular public expenditure on health, for example, in 2011, ranging from 1,121 euros per inhabitant in the region with the least expenditure, to 1,632 euros per inhabitant in the region with the most expenditure.[2]

In the table below, the public expenditure on health of 2012 is outlined distributed by function.[3]

Public expenditure in health by function	**Million euros**
Curative and rehabilitation services	42.000
Long-term care services	6.612
Auxiliary services	4.707
Medical products for outpatients	10.881
Prevention and public health	1.954
Health administration and health insurance administration	1.418

Source: Sistema de Cuentas de Salud, 2012. Ministerio de Sanidad, Servicios Sociales e Igualdad.

The Strategies of the National Health System do not have a global budget, but numerous specific actions and implementation projects are financed, both at the national and regional level. The implementation phase of the strategies is a shared responsibility between both levels of health authorities.

References

[1] Sistema Nacional de Salud de España 2010 [monografia en Internet]. Madrid. Ministerio de Sanidad y Política Social, Instituto de Información Sanitaria.

[2] Ministerio de Sanidad, Servicios Sociales e Igualdad. Informe anual del Sistema Nacional de Salud, 2012. Available at: www.msssi.gob.es

[3] Ministerio de Sanidad, Servicios Sociales e Igualdad. Sistema de Cuentas de Salud. Serie histórica 2003-2012. Available at: http://www.msssi.gob.es/estadEstudios/estadisticas/sisInfSanSNS/pdf/SCSdatosEstadisticos.xls

Identifying good practices

(1) In Spain, there is an established procedure to identify good practices across the National Health System (NHS). This procedure was agreed upon in 2013 among the national government and the regional health authorities in the coordination body named "Consejo Interterritorial del SNS". It is applied within the different "Health Strategies of the NHS". Among the work to design the Spanish "Strategy on Health Promotion and Prevention on the NHS", this procedure was adapted to the field of health promotion and primary prevention. The procedure runs as follows:
The coordination team of the Strategy asked the regional representatives of the Institutional Committee of the Strategy to send, for consideration, the practices/interventions that fulfilled the following inclusion criteria: adequacy (it covers the factors and issues considered in the Strategy); relevance (its objectives correspond with the needs and characteristics of the target population or with a regulatory rule); based on the best evidence available (efficacy proven); potential evaluation possible (registry systems in place); sustainability (implemented for at least one year and funding in place).

The practices selected were then evaluated according to these prioritisation criteria:

- Evaluation/ Effectiveness: it is evaluated in accordance with planned objectives, considering both process and end results. It demonstrates effectiveness, gets positive results in real conditions.
- Efficiency: economic evaluation performed.
- Equity: it is evaluated whether there is an equity approach incorporated into the situation analysis and in the formulation of the different actions, taking into account the different needs of population groups. Participation of the target population in different stages and intersectoral work are also considered here.
- Feasibility: it is suitable for transferability.
- Strategic adequacy: it is aligned with the main national and international strategies on the field.
- Comprehensiveness: it takes action on two or more risk factors/health determinants.
- Ethical issues: potential conflicts of interest of the different actors involved are being considered.

Each criterion was scored according to a guide provided beforehand (based on the level of fulfilment), and a final sum score was obtained. Practices were ranked according to this final score and they served as the roots for designing the actions selected for implementation at a national level on this "Strategy on Health Promotion and Prevention on the NHS".

(2) There is no established procedure to select and fund interventions apart from the one described earlier regarding the "Strategy on Health Promotion and Prevention on the NHS".

It is planned that online access to the best practices, detected and evaluated according to the procedure described earlier, will be provided next year, in 2015. The Ministry of Health website will host this web database that will allow basic and advanced searches for good practices detected within the different National Strategies, such as the "health promotion and prevention", "cardiovascular diseases", and "diabetes" strategies.

Forecasting Studies

Forecasting studies undertaken in Spain.

1. Dégano IR, Elosua R, Marrugat J. *Epidemiology of acute coronary syndromes in Spain: estimation of the number of cases and trends from 2005 to 2049*. Rev Esp Cardiol 2013;66:472-81.

The aims of this report are to estimate the number of acute coronary syndromes cases in the Spanish population in 2013 and 2021, and the trend from 2005 to 2049. The number of acute coronary syndromes cases by sex and Spanish autonomous community were estimated using data from the most updated population and hospital registries assuming that the number of cases followed a Poisson distribution. There will be 115 752 acute coronary syndromes cases in Spain in 2013 (95% confidence interval, 114 822-116 687). Within 28 days, 39 086 of these patients will die and 85 326 will be hospitalized. Non-ST segment elevation acute coronary syndromes (56%) and acute myocardial infarction (81%) will be the most common admission and discharge diagnoses, respectively. Approximately 109 772 acute coronary syndromes cases are estimated in 2021 (95% confidence interval, 108 868-110 635). The trend of acute coronary syndromes cases from 2005 to 2049 will stabilize in the population aged 25 to 74 years, but increase in those older than 74 years. Due to population aging, the number of acute coronary syndrome cases will increase overall until 2049, it may stabilize in the population aged <75 years. The acute coronary syndromes case-fatality has decreased in hospitalized patients but the proportion of sudden deaths remains unchanged.

2. Grau M, Subirana I, Vila J, Elosua R, Ramos R, Sala J et al. *Validation of a population coronary disease predictive system: the CASSANDRA model*. J Epidemiol Community Health 2014.

The CASSANDRA model (coronary heart disease (CHD) incidence and CHD risk distribution) is a predictive risk algorithm based on the Framingham-REGICOR cardiovascular risk function validated for the Spanish population to estimate the excess risk in cardiovascular disease-free individuals aged 35–74 years according to their prevalence of cardiovascular risk factors compared to the average of the population to which they belong. The CASSANDRA model aims to predict future CHD events (angina pectoris, MI and CHD death) at a population scale according to different conditions (modifications in demographic population characteristics, and in the prevalence of cardiovascular risk factors). Considering only the demographic changes expected in the Spanish population, the number of future CHD events and the annual CHD incidence rate for the period 2013–2022, were 627 197 and 523.4/100 000 men, respectively, and 290 166 and 232.3/100 000 women. Additionally, 25.3% of men and 7.8% of women with no history of cardiovascular disease will be at high cardiovascular risk (≥10%). However, an improvement in the cardiovascular risk profile (mean cardiovascular risk 4.5% and 2.2% in men and women, respectively) would decrease the number of CHD cases (581 591 in men and 277 168 in women), the annual CHD incidence rate (485.5 and 222.0/100 000 men and women, respectively) and the percentage of individuals at high risk (20.2% and 6.4% of men and women respectively). In conclusion, applying the CASSANDRA model to official Spanish data showed that the number of CHD events and the CHD incidence rate will increase between 2013 and 2022 merely due to the progressive ageing of the population. However, this trend

was attenuated by improvement of the population's cardiovascular risk profile (i.e., decrease in total cholesterol, systolic and diastolic blood pressure).

3. Medrano MJ, Alcalde-Cabero E, Ortiz C, Galán I. *Effect of cardiovascular prevention strategies on incident coronary disease hospitalisation rates in Spain; an ecological time series analysis.* BMJ Open 2014;4:e004257.

To assess the overall population impact of primary prevention strategies (promotion of healthy lifestyles, prevention of smoking and use of vascular risk drug therapy) of coronary disease in Spain, an ecological time series analysis, 1982-2009 was performed. Annual incident coronary disease hospitalisation rates in all public and private hospitals in Spain were modelled according to nationwide use of statins, antihypertensive, antidiabetic and antiplatelet drugs, and prevalences of smoking, obesity and overweight. Additive generalised models and mixed Poisson regression models were used for the purpose, taking year as the random-effect variable and adjusting for age, sex, prevalence of vascular risk factors and the number of hospital beds in intensive and coronary care units. Across 28 years and 671.5 million person-years of observation, there were 1 441 980 hospitalisations classified as incident coronary disease. Hospitalisation rates increased from 1982 to 1996, with an inflection point in 1997 and a subsequent 52% decrease until 2009. Prevalences of smoking, obesity, overweight and use of vascular risk drug therapy were significantly associated with hospitalisation rates ($p<0.001$): incidence rates ratios (95% CI) for the fourth versus the first quartile were 1.46 (1.42 to 1.50), 1.80 (1.78 to 1.83), 1.58 (1.55 to 1.60) and 0.57 (0.51 to 0.63), respectively. These variables accounted for 92% of interannual variability. In conclusion, after decades of continuous rises, hospitalisation due to incident ischaemic heart disease has been cut by half, an achievement associated with the decline in smoking and the increase in vascular risk drug therapy. These results indicate that these two primary prevention strategies have been effective at a population level, thanks to an appropriate balance between financial and health goals, something that should be left intact despite the current economic crisis.

4. Gènova-Maleras R, Álvarez-Martín E, Morant-Ginestar C, Fernández de Larrea-Baz, Catalá-López F. *Measuring the burden of disease and injury in Spain using disability-adjusted life years: an updated and policy-oriented overview.* Public Health 2012;126:1024-31.

Disability-adjusted life years (DALYs) were calculated at country level using the methodology developed in the Global Burden of Disease study. DALYs were divided into years of life lost and years of life lived with disability. Results were obtained using Spanish mortality data for 2008 and morbidity data estimated previously by the World Health Organization for Euro-A. Cardiovascular diseases were the cause of DALYs in 12.5% (ischaemic heart disease 5.5% and cerebrovascular disease 3.5%).

5. Mackenbach JP, Kulhanova I, Menvielle G, Bopp M, Borrell C, Costa G et al. *Trends in inequalities in premature mortality: a study of 3.2 million deaths in 13 European countries.* J Epidemiol Community Health 2014.

Data on mortality by educational level between the 1990s and 2000s among men and women aged 30-74 years were collected in several European countries, including three Spain's regions, Barcelona, Madrid and Basque Country. Overall, Spain tended to have smaller differences in mortality than the North, East and West of Europe. No change was found in the relative inequality in age-standardised mortality rates by education for the 1990s and 2000s both in men and women. However, while absolute reductions in all cause mortality were higher among low educated, in men absolute reductions in mortality from all cardiovascular disease, ischaemic heart disease and stroke were lower among low educated compared with high educated in this period. In women, absolute reductions in all cause mortality and deaths from those causes were higher among low educated.

To sum up the specific forecasting studies, some evidence suggests that the number of CHD events and the CHD incidence rate will increase between 2013 and 2022 merely due to the progressive ageing of the population. However, this trend was attenuated by improvement of the population's cardiovascular risk profile (decrease in total cholesterol, systolic and diastolic blood pressure).

Other related studies are shown in Annex I.

Various studies of the results of the Global Disease Burden Study, and others based on this study, for example Génova-Maleras et al., were analysed and taken into account in the development of the National Strategy for Health Promotion and Prevention in the NHS. Also, a publication regarding the REGICOR study used in Grau et al. was analysed in the context of the National Strategy (Agüero F, Dégano IR, Subirana I, Grau M, Zamora A, Sala J, Ramos R, Treserras R, Marrugat J, Elosua R. *Impact of a partial smoke-free legislation on myocardial infarction incidence, mortality and case-fatality in a population-based registry: the REGICOR Study*. PLoS One. 2013;8(1):e53722.). The study by Estruch et al. (in Annex II at the end of this document) was also taken into account, as well as the results of the National Health Survey that are analysed in Gutierrez-Fisac et al. (also in Annex II). The studies published beyond 2013 could not be taken into account in the development of this National Strategy due to its timeline.

Cost-Effectiveness Studies

We found two studies undertaken in Spain, one on cost-effectiveness and another on cost-benefit.

1. Sagarra R, Costa B, Cabré JJ, Solà-Morales O, Barrio F. *Lifestyle interventions for diabetes mellitus type 2 prevention.* Rev Clin Esp 2014;214:59-68.

A prospective cohort study, the Diabetes in Europe-Prevention using Lifestyle, Physical Activity and Nutritional intervention (DE-PLAN) project in Catalonia, was performed in primary care involving

individuals without diagnosed diabetes aged 45-75 years (n=2054) screened using the questionnaire Finnish Diabetes Risk Score (FINDRISC) and a subsequent oral glucose tolerance test. Where feasible, high-risk individuals who were identified (n=552) were allocated sequentially to standard care (n=219), a group-based (n=230) or an individual-level (n=103) intensive (structured programme of six hours using specific teaching techniques) lifestyle intervention (n=333). The primary outcome was the development of diabetes (WHO). We evaluated the cost of resources used with comparison of standard care and the intervention groups in terms of effectiveness and quality of life (15D questionnaire). After 4.2-year median follow-up, the cumulative incidences were 18.3% (14.3-22.9%) in the intensive intervention group and 28.8% (22.9-35.3%) in the standard care group (36.5% relative-risk-reduction). The corresponding 4-year hazard ratio was 0.64 (0.47-0.87; P<.004). The incremental cost induced by intensive intervention compared with the standard was €106 per participant in the individual level and €10 in the group-based intervention representing €746 and €108 per averted case of diabetes, respectively. The estimated incremental cost-utility ratio was €3243 per quality-adjusted life-years gained. In conclusion, the intensive lifestyle intervention delayed the development of diabetes and was efficient in economic analysis.

2. Hormigo Amaro J, García-Altés A, López MJ, Bartoll X, Nebot M, Ariza C. *Análisis de coste-beneficio de un programa de prevención del tabaquismo en escolares*. Gac Sanit 2009;23:311-4.

To analyse the efficiency of a school-based smoking prevention program in Barcelona (PASE.bcn program) a cost-benefit analysis was performed. As costs, those corresponding to the design and implementation of the program were included. As benefits we considered healthcare costs and the productivity losses avoided. This study was conducted from a societal perspective, and the estimations of costs and benefits related to 2005. Assuming an effectiveness of 1%, the PASE.bcn program would achieve a total benefit of €1,558,311.46. The healthcare benefits per prevented smoker were €1997.57, and the indirect benefits per prevented smoker were €21,260.80. Given the total cost of the school-based program (€68,526.03), the cost-benefit ratio was 22.74. From a societal perspective, the benefits of school-based tobacco prevention programs, in terms of healthcare costs and productivity losses avoided, are far greater than the costs. These results support universal application of this type of intervention.

Gaps and Needs

Leadership and strategic vision

- Need to continue the reorientation of the health system towards health promotion and prevention, and towards chronic diseases.
- Need of a more in-depth integration of intersectoral action, towards Health in All Policies.
- The health equity approach has to be implemented in an effective way in the different policies and programmes.
- Need of effective mechanisms for social participation.

Evaluation

- The culture of evaluation of programmes and policies is still not completely incorporated in day to day work.
- Adaptation of criteria to evaluate health promotion and prevention initiatives.
- Disaggregation of results according to socioeconomic variables and small geographic areas, to adapt interventions according to population needs towards health equity.

Human resources

- Incentive mechanisms for health promotion and prevention initiatives and continuous training.

Implementation

- Coordination to strengthen the work and avoid duplicities between sectors and between levels (national, regional, local).
- Strengthen a comprehensive healthy lifestyles approach.

Effectively transfer and scale-up the best practices detected through the established procedure.

Annexes

Annex I

Other relevant studies carried out in Spain related to health promotion and primary prevention of cardiovascular disease, stroke or diabetes, not included in the third question "Forecasting Studies"

6. Flores-Mateo G, Grau M, O'Flaherty M, Ramos R, Elosua R, Violan-Fors C et al. *Analyzing the coronary heart disease mortality decline in a Mediterranean population: Spain 1988-2005*. Rev Esp Cardiol 2011;64:988-96.

To examine the extent to which the decrease in coronary heart disease mortality rates in Spain between 1988 and 2005 could be explained by changes in cardiovascular risk factors and by the use of medical and surgical treatments the authors used the previously validated IMPACT model to examine the contributions of exposure factors (risk factors and treatments) to the main outcome, changes in the mortality rates of death from coronary heart disease, among adults 35 to 74 years of age. Main data sources included official mortality statistics, results of longitudinal studies, national surveys, randomized controlled trials, and meta-analyses. The difference between observed and expected coronary heart disease deaths in 2005 was then partitioned between treatments and risk factors. From 1988 to 2005, the age-adjusted coronary heart disease mortality rates fell by almost 40%, resulting in 8530 fewer coronary heart disease deaths in 2005. Approximately 47% of the fall in deaths was attributed to treatments. The major treatment contributions came from initial therapy for acute coronary syndromes (11%), secondary prevention (10%), and heart failure (9%). About 50% of the fall in mortality was attributed to changes in risk factors. The largest mortality benefit came from changes in total cholesterol (about 31% of the mortality fall) and in systolic blood pressure (about 15%). However, some substantial gender differences were observed in risk factor trends with an increase in diabetes and obesity in men and an increase in smoking in young women. These

generated additional deaths. In conclusion, approximately half of the coronary heart disease mortality fall in Spain was attributable to reductions in major risk factors, and half to evidence-based therapies. These results increase understanding of past trends and will help to inform planning for future prevention and treatment strategies in low-risk populations.

7. Huerta JM, Tormo MJ, Chirlaque MD, Gavrila D, Amiano P, Arriola L et al. *Risk of type 2 diabetes according to traditional and emerging anthropometric indices in Spain, a Mediterranean country with high prevalence of obesity: results from a large-scale prospective cohort study.* BMC Endocr Disord 2013;13:7.

In this longitudinal study in 37 733 participants (63% women) of the Spanish EPIC (European Prospective Investigation into Cancer and Nutrition) cohort without prevalent diabetes, detailed questionnaire information was collected at baseline and anthropometric data gathered following standard procedures. A total of 2513 verified incident type 2 diabetes mellitus (T2DM) cases occurred after 12.1 years of mean follow-up. Multivariable Cox regression was used to calculate hazard ratios of T2DM by levels of anthropometric variables. Overall and central obesity were independently associated with T2DM risk. BMI showed the strongest association with T2DM in men whereas waist-related indices were stronger independent predictors in women. Waist-to-height ratio revealed the largest area under the ROC curve in men and women, with optimal cut-offs at 0.60 and 0.58, respectively. The most discriminative waist circumference (WC) cut-off values were 99.4 cm in men and 90.4 cm in women. Absolute risk of T2DM was higher in men than women for any combination of age, BMI and WC categories, and remained low in normal-waist women. The population risk of T2DM attributable to obesity was 17% in men and 31% in women. In conclusion, diabetes risk was associated with higher overall and central obesity indices even at normal BMI and WC values. The measurement of waist circumference in the clinical setting is strongly recommended for the evaluation of future T2DM risk in women.

8. Guasch-Ferré M, Bulló M, Costa B, Martínez-González MA, Ibarrola-Jurado N, Estruch R et al. *A risk score to predict type 2 diabetes mellitus in an elderly Spanish Mediterranean population at high cardiovascular risk.* PLoS One 2012;7:e33437.

A diabetes risk score was derived from a subset of 1381 nondiabetic individuals from three centres of the PREDIMED study (derivation sample). Multivariate Cox regression model ss-coefficients were used to weigh each risk factor. PREDIMED-personal Score included body-mass-index, smoking status, family history of type 2 diabetes, alcohol consumption and hypertension as categorical variables; PREDIMED-clinical Score included also high blood glucose. We tested the predictive capability of these scores in the DE-PLAN-CAT cohort (validation sample). In the subset of the PREDIMED study, 155 individuals developed diabetes during the 4.75-years follow-up. The PREDIMED-clinical score at a cutoff of >/=6 had sensitivity of 72.2%, and specificity of 72.5%, whereas AUC was 0.78. The AUC of the PREDIMED-clinical Score was 0.66 in the validation sample (sensitivity = 85.4%; specificity = 26.6%), and was significantly higher than the FINDRISC and the GDRS in both the derivation and validation samples. In conclusion, classical risk factors for diabetes were used to develop the PREDIMED-clinical Score to determine those individuals at high risk of developing diabetes in elderly

individuals at high cardiovascular risk. The predictive capability of the PREDIMED-clinical Score was significantly higher than the FINDRISC and GDRS, and also used fewer items in the questionnaire.

9. Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, Aros F et al. *Primary prevention of cardiovascular disease with a Mediterranean diet.* N Engl J Med 2013;368:1279-90.

In a multicenter trial in Spain, participants who were at high cardiovascular risk, but with no cardiovascular disease at enrolment, were assigned to one of three diets: a Mediterranean diet supplemented with extra-virgin olive oil, a Mediterranean diet supplemented with mixed nuts, or a control diet (advice to reduce dietary fat). Participants received quarterly individual and group educational sessions and, depending on group assignment, free provision of extra-virgin olive oil, mixed nuts, or small nonfood gifts. The primary end point was the rate of major cardiovascular events (myocardial infarction, stroke, or death from cardiovascular causes). On the basis of the results of an interim analysis, the trial was stopped after a median follow-up of 4.8 years. A total of 7447 persons were enrolled (age range, 55 to 80 years); 57% were women. The two Mediterranean-diet groups had good adherence to the intervention, according to self-reported intake and biomarker analyses. A primary end-point event occurred in 288 participants. The multivariable-adjusted hazard ratios were 0.70 (95% confidence interval [CI], 0.54 to 0.92) and 0.72 (95% CI, 0.54 to 0.96) for the group assigned to a Mediterranean diet with extra-virgin olive oil (96 events) and the group assigned to a Mediterranean diet with nuts (83 events), respectively, versus the control group (109 events). No diet-related adverse effects were reported. In conclusion, among persons at high cardiovascular risk, a Mediterranean diet supplemented with extra-virgin olive oil or nuts reduced the incidence of major cardiovascular events.

10. Gutiérrez-Fisac JL, Suárez M, Neira M, Regidor E. *Tendencia de los principales factores de riesgo de enfermedades crónicas.* España, 2001-2011/12. Madrid: Ministerio de Sanidad, Servicios Sociales e Igualdad, 2013.
Available at:
http://www.msssi.gob.es/estadEstudios/estadisticas/inforRecopilaciones/FactoresRiesgoEspana__2001_2011_12.pdf

Accessed on 24 July 2014. Report in Spanish.

Based on the information taken from periodic national health surveys this report from the Ministry of Health shows the trends in prevalence of chronic disease risk factors in people over 16 living in Spain between 2001 and 2012. Except for women 45-64 years, the proportion of smokers decreased over the decade. By 2012, the percentage of smokers was 27.1%. The proportion of people physically inactive decreased although by 2011/2 over 40% were inactive. Obesity increased over the decade, 2% in females and 5.7% in males. Inadequate intake of fruits and vegetables increased in subjects 16-24 years and decreased in those over 24. High risk drinking markedly declined, from 4.3% in 2002 to 1.2% in 2011/2