Inter-ministerial Public Health Plan |PINSAP|

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Inter-ministerial Public Health Plan
|PINSAP|

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Most public policies have the potential to influence health and health equity, either positively or negatively, and many of our societal goals cannot be achieved without a healthy and well-educated population.

Jyrki Katainen, Prime Minister of Finland

Prevention requires population-wide interventions that are beyond the power of ministries of health to introduce. The health and medical professions can plead for lifestyle changes […] but they cannot reengineer social environments in ways that encourage people to make healthy lifestyle choices.

Margaret Chan, Director-General of WHO

Foreword to *Health in All Policies: Seizing Opportunities, Implementing Policies. 2013*

Health in all Policies [...] taking as a starting point the crucial role that health plays in the economic life of a society. Health has become a major economic and social driving force. [...] A healthy and skilled population is critical to workforce participation, productivity and a healthy economy [...]

Ilona Kickbusch and Kevin Buckett (eds.), *Implementing Health in All Policies. Adelaide 2010*

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INTRODUCTION

The aim of the Inter-ministerial Public Health Plan (PINSAP) is for all sectors of the Government, Catalan government agencies and society to capitalize on their respective influences on the health and wellbeing of the Catalan population, in order to contribute jointly to the creation of public health policies and develop initiatives designed for health promotion and protection, particularly in the most vulnerable social groups. With the same validity as the Health Plan for Catalonia, PINSAP initiates the gradual process of promoting inter-sector action in the design and implementation of initiatives on general determinants of health.

This is the basic PINSAP document. It includes an initial part that illustrates the influence of determinants on the health of people and populations and sums up the background and approaches on which the intervention model proposed is based, which, along with the proposals and objectives, constitutes the second section of the document.

The assessment of the impact of this Plan on healthcare interventions plays a dual role: on the one hand, the most direct role of confirming whether the planned objectives are in fact met—so that the Plan becomes a useful tool for accountability and for introducing, if necessary, any pertinent amendments—and, on the other, the role of accentuating the contribution by various sectors of the Government and society to the welfare obtained through public policies, for which there is a preliminary proposal to detect and recognise the Government initiatives that are most relevant for healthcare.

Following the example of California,[1] two fundamental strategic core areas are considered. One core area focuses on the specific actions related to the promotion of a healthier Catalonia (increasing the number of years of good health enjoyed by the population), and the other core area aims to incorporate the health vision in the design and assessment of public policies. The document contains contributions and considerations on each of the areas of action identified by the Catalan Ministry of Health's Working Group based on an adaptation of Dahlgren and Whitehead's model of determinants referring to living and working conditions and related to the environment, town planning and housing, mobility, education, employment, the public health system and diet. Given the importance of leisure time, especially for certain age groups, a section on this concept has been added to the model, which includes aspects related to culture. Finally, proposals related to social policies are also included. Each section reflects possible priority lines of intervention for improving these conditions, promoting equity and decreasing social inequalities that affect them, thereby reducing health inequalities that are preventable and unjust. This chapter also includes a necessarily incomplete selection of current best practices, which can be used to promote new actions.

A section is included that contains the proposals for new actions within the framework of the Horizon 2020 programme, which will begin to be implemented in 2014-2015, as well as a cross-cutting programme to promote community healthcare, which will be developed on an inter-sector basis.

Despite being known as the Inter-ministerial Public Health Plan (PINSAP), since it combines contributions from all Government ministries, PINSAP also involves local authorities and all sectors of society, which were consulted during the final stage of the preparation of this document. And there are plans in place for the latter to participate on a continuous basis in the redefinition and adaptation of the Plan, so that it becomes a dynamic, living product, adapted to the needs and evolution of the current situation.

1. JUSTIFICATION

1.1. Determinants of health

Although it is well known that a person's health depends on many factors, most of which are unrelated to the public health system, when we speak about the population's health problems, we generally focus on aspects more closely related to healthcare.

However, we must bear in mind, for example, that a sedentary lifestyle is associated with a notable increase in mortality rates, whilst walking, cycling and using public transport instead of travelling by car are beneficial for our health because they involve increased physical activity and also reduce air pollution. [2]

Similarly, the regular consumption of fruit and vegetables helps decrease the risk of dying from ischaemic heart disease[3] and from some types of cancer, such as colorectal cancer. If, moreover, the food is produced locally, this has a positive impact on the local economy and environmental conservation.

Whilst specific initiatives are devoted to physical activity and diet by the health system and the public health and healthcare services, in particular primary healthcare, in the form of advice and recommendations, the effectiveness of these recommendations is very limited if the living conditions, town planning, work, transport, and so on, do not facilitate healthy habits in citizens. Inter-sector and inter-ministerial projects such as the Physical Activity, Sport and Health Plan (PAFES) provide advice to the public in primary healthcare centres with the identification and planning of health and healthy routes and the use of community resources and equipment. [4]

Another example is that of accidental injuries, especially those derived from traffic accidents, which remain one of the main causes of premature mortality and also morbidity. For each death caused by a traffic accident in Catalonia, there are around 12 hospital admissions due to injuries which often lead to permanent disablement. In this situation, whilst the health system helps care for the victims, traffic accident prevention plays a more important role. Inter-sector traffic safety policies in Catalonia during the period 2000-2010 led to a 57% reduction in mortality rates, with almost 2,900 fewer deaths, 25,444 fewer hospital admissions, and a saving of 18 billion euros in expenses for society. [5]

Other factors more difficult for the health authorities to change, in other words, unilaterally, include housing conditions, which also have a clear influence on a person's health. Firstly, there is the guarantee of access to housing, which must be maintained, particularly during an economic crisis, and, secondly, naturally, the fact that this housing must be habitable with all the basic requirements such as a proper water supply, a toilet and a shower or bath. If any of these elements are inadequate or lacking, or if there is overcrowding, or damp or unsuitable heating or cooling systems, people are more likely to suffer from injuries or illness.[6]

Work also has an impact on a person's health. On the one hand, we have unemployment, which has a negative effect on a person's health and can lead to higher rates of mental illness, alcohol and drug abuse, and cardiovascular disease. The effects of the economic crisis and unemployment on mental health in the European Union have been described.[7] These same authors also state that an investment of USD10 per person/year in employment policies would reverse the majority of these effects.[8]

With regard to the influence of sectors such as trade and industry, it is estimated that the introduction of regulations to reduce the lead content in toys sold in the European Union (EU) will improve intellectual performance and reduce attention deficit disorder rates, thereby saving over EUR30 billion in the EU.[9] Pollutants are emitted into the atmosphere and, therefore, policies to improve air quality must be both exhaustive and cross-cutting.

More recently, the possible influence on human health of other factors linked to technological development and new lifestyles, such as electromagnetic radiation, noise and light pollution has been highlighted.

Poverty and social exclusion have a negative impact on people's quality of life and increase the risk of suffering various cardiovascular, osteoarticular and respiratory diseases, diabetes and mental illness, among others.[10]

One of the factors that best predicts survival and health is the level of education achieved, which is consistently associated with a reduction in morbidity and mortality for various reasons as well as a decrease in the prevalence of behaviour that is detrimental to health, such as a sedentary lifestyle, smoking and alcohol and drug abuse. Therefore, avoiding or limiting educational failure is an important step in improving people's health.[11]

Children and adolescents with a better health profile and healthy behaviour (such as physical activity) display higher school attendance rates and higher academic performance.[12]

Finally, participating in and attending cultural events is associated with improved self-perceived health, a more favourable cardiovascular risk pattern (healthy diet and higher levels of physical activity) and higher levels of mental wellbeing.[13,14]

All these examples clearly show the importance of the influence of social sectors other than healthcare in the protection and promotion of public health. This influence has been known for a long time. However, it was not until recently that people began to consider its explicit contribution to all public policies as being of great importance.

1.2. Background

Knowledge of the influence of certain environmental and cultural determinants on people's health was already recorded in Hippocratic texts twenty-five centuries ago. In fact, the very viability of the first towns during the Neolithic period depended on sanitation, on water supply, the removal of waste products, the storage and conservation of food and on the burial of the dead.

Nevertheless, the formalisation of health protection activities such as political interventions was carried out by the natural hygiene movement and, above all, occurred during the social development that followed the Industrial Revolution.

El 1976, the Second Speech at the 10th Congress of Catalan-speaking Physicians and Biologists, on the social function of medicine, in addition to providing a definition of health that is still valid, helped vindicate the role of citizens and communities in the production of health, and made a decisive impact on the creation of the health section of the Catalan Culture Congress, which defines health as a collective issue: 'health is everyone's business'.

Around the same time, the International Conference on Primary Health Care in Alma-Ata promoted a social perspective of health and recognised the importance of inter-sector action as key to achieving the goal of health for all, which was stated in the declaration adopted there.[15]

However, it was almost ten years later, in Ottawa,[16] at the First International Conference on Health Promotion that public health policies were discussed explicitly, and the following five strategic priority areas were identified:

1) Build healthy public policy
2) Create supportive environments
3) Develop personal skills
4) Strengthen community actions
5) Reorient health services

These proposals coincided with the development of the new public health initiative and the healthy cities movement. Although these actions are very closely related, the establishment of public health policies is the key issue. At the Second International Conference on Health Promotion in Adelaide in 1988, this agenda was developed, and other aspects such as transparency and accountability in the evolution of health were included, as were the

development of alliances and commitment to global public health. Future areas for intervention and challenges were also highlighted. The Third Conference in 1991 in Sundsvall focused on the construction of favourable environments for health and the importance of community empowerment. The Jakarta Conference in 1997 highlighted the importance of a multi-sector approach and the need for collaboration between public authorities and civil society. The Sixth Conference was held in Bangkok in 2005 and was the direct precursor of WHO Commission on Social Determinants of Health, which published its final report in 2008, a document we shall refer to below.

First, however, we should note that, coinciding with Finland's presidency of the European Union, the development of a global governance programme was promoted through the coordination and integration, where necessary, of public policies affecting health. This initiative is known as 'Health in All Policies' (HiAP).[17]

Health in All Policies is thus a global approach based on the conviction that in order to improve the population's health, initiatives in a wide variety of areas both inside and outside the health sector must be coordinated and harmonised. It is a systematic approach that takes into account the impact that decisions made in other sectors of politics, government and society in general have on health and health systems. This approach aims to prevent any possible harmful effects and promote beneficial synergies, both to improve the population's health and to achieve equity—reducing inequalities that are preventable and unjust—and sustainability in healthcare systems.[18]

This strategy is based on the notion that improving the population's health and reducing inequalities are objectives shared in a cross-cutting manner by all sectors responsible for public policies. It also considers that it is feasible to give a joint response to problems and challenges in which health and inequalities are important elements.

The strategy introduces, as an instrumental and evaluative tool, the health-based assessment of the impact of interventions, measures and actions derived from sector-based policies that affect health. This is done both from the more traditional perspective of comparing the effects of the interventions carried out and from a more proactive and preventative perspective, which bears in mind the eventual consequences of intervention proposals that make up specific policies. This approach is similar to that of an environmental impact assessment, which aims to guarantee the viability of the environment in the medium and long term, applying the precautionary principle.[19]

The aim is to enable the adoption of a more suitable approach to improve the viability of health systems and all services for the social welfare of today's population and for future generations. More specifically, in June 2013, the 8th Global Conference on Health Promotion was held in Helsinki, where a second edition of the report first published in 2006 was presented[20], which was accompanied by a thought-provoking speech by Ilona Kickbusch, former director of WHO Global Health Programme at the time when the bases for the current health promotion approach were developed.[21]

1.3. Social inequalities and their repercussions on health

The contribution to the perspective of the reduction of social inequalities proposed by WHO Commission on Social Determinants of Health is an essential conceptual image for the PINSAP project.[22]

Inequalities in the way in which society is organised mean that the possibilities of developing and enjoying good health are unfairly distributed within a given society and between different societies. These inequalities can be seen in early childhood living conditions, schooling, types of employment and working conditions, the physical features of the urban environment and the quality of the natural environment in which the population lives. Depending on the characteristics of these environments, the physical conditions, psychosocial support and patterns of behaviour vary from one group to another and make them more or less vulnerable to disease. Social stratification also creates disparities in access to the health system and in the use of the health system, and this gives rise to inequalities in the promotion of health and wellbeing, the prevention of disease and possibilities of recovery and survival from illness.

Empirical analysis shows that social inequalities in the health aspect due to social class, gender, ethic group, territory or country of origin have an impact on the population's health. Therefore, these elements must be made a priority in health policies. At the same time, they must be a core area of inter-ministerial and, above all, inter-sector actions, which can improve the situation based on initiatives taken to address the determinants. The WHO European Region has just published a review on this, coordinated by Sir Michael Marmot and published by the Institute of Health Equity,[23] with the participation of advisors such as Amartya Sen and Guillem López Casasnovas and other prominent Catalan professionals, including Carme Borrell, Èlia Díez and Joan Benach. This interim report includes the following recommendations:

a) The development of policies that ensure a just distribution of power, money and resources: health and equity in all policies, just finance and public spending for equity, political power and participation and good governance.

b) The improvement of living and working conditions at all stages of life (infancy, working years, old age) and, in general, the creation of environments that favour good health.

c) The promotion of research, information, monitoring, teaching and study of social inequalities in the health sector.

d) The reorientation of health system services to ensure they become more effective, safer, more efficient and more equitable.

As part of the MEDEA and INEQ-CITIES projects, the Barcelona Public Health Agency has drawn up a useful document to serve as a guide to dealing with health inequalities in urban areas and recommending effective measures to reduce these inequalities. The document includes an appendix containing 36 recommendations to local authorities on how to mitigate the impact of the current economic crisis on health.[24] These recommendations are based on the report by the Liverpool Public Health Observatory.[25] This approach was a fortuitous answer that satisfied the motion by the Plenary Assembly of the Parliament of Catalonia on 14 March 2013, which unanimously pressed the Government to present 'the Plan with the actions agreed on by the Public Health Agency—and the associations of local entities—and the Catalan Health Service with an explanation of the measures aimed at minimising health inequalities derived from growing social inequalities'. It is only logical to include a community health promotion and protection cross-cutting programme, aimed specifically at vulnerable individuals, especially those who are vulnerable over the long-term, and in general targeting those at high risk of social exclusion, particularly children.

1.4. The health situation in Catalonia[1]

According to data published in the Health Report 2012,[26] Catalonia has good health indicators for the population as a whole and occupies an upper-intermediate position with regard to other European countries.

The main objective of the Health Plan, and subsequently of PINSAP, is to increase healthy life expectancy. Healthy life expectancy is a composite indicator that includes both length and quality of life. Therefore, it includes the life expectancy calculated on the basis of mortality and the perception of health calculated using a health survey. The objective has been formulated in terms of the proportion of life spent in good health and, although it is an objective that is very hard to achieve because life expectancy is increasing, it is important to bear it in mind because it marks the path we want to follow, towards giving priority to the more qualitative elements in life.[27]

Table 1. Percentage of healthy life expectancy in Catalonia in different years and target for 2020.

	1994	2000	2011	2020 Objective
Men	80.0%	79.7%	82.3%	86.4%
Women	70.8%	72.9%	74.1%	77.8%
Total	75.0%	76.1%	78.0%	81.9%

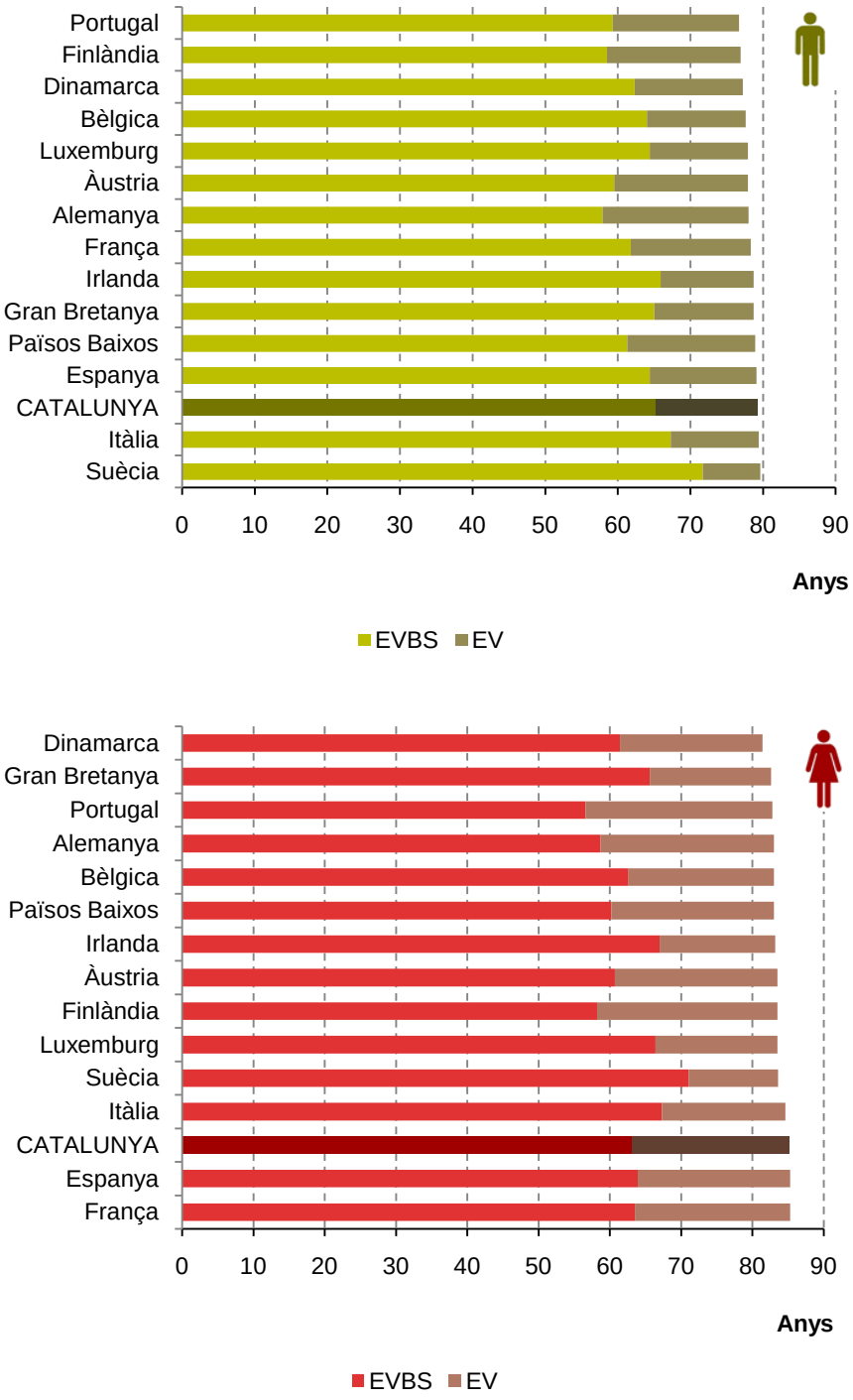
Source: Marcant fites.

In 2011, life expectancy (LE) at birth in Catalonia underwent a moderate increase. It should be noted that women live almost six years longer than men. Healthy life expectancy (HALE) at birth, on the other hand, is three years higher in men than in women.

The EU-15 countries present similar values for life expectancy (LE) and show differences in the healthy life expectancy (HALE); the differences according to sex are maintained. Catalonia is situated in an intermediate position. The LE values are relatively better than the HALE values, with men in seventh position in terms of the ratio between HALE and LE, and women in tenth position (Figure 1).

[1] This section is a summary of some of the aspects of the *Health Report 2012* and the document *The Catalan Health System in a Process of Change. Mid-term Summary of the Health Plan 2011-2015* of the Catalan Ministry of Health.

Figure 1. Life expectancy (LE) and healthy life expectancy (HALE) by sex and country in EU-14 countries (2009) and in Catalonia (2010-2011)



The highest morbidity-mortality rate is due to the frequency and impact of chronic diseases: around 80% of deaths are caused by chronic diseases, 37.2% of the population suffers from chronic health problems and the care of chronic diseases takes up over 50% of the system's resources, according to the Catalan Ministry of Health's budget.

Another aspect of health status is psychological wellbeing, which focuses on positive aspects of mental health (affective-emotional, cognitive-evaluative, and psychological). The Catalan population displays a satisfactory level of psychological wellbeing in comparison with the general Scottish population (in Scotland an original instrument was developed to measure this), since in an interval of 14-70 possible points, the Catalan population presents an average score of 59, whilst in the Scottish population the average is 51.

Infectious diseases are a major public health problem, because it is essential to avoid initial cases of infection leading to secondary cases. For example, despite the fact that the tuberculosis rate in Catalonia is the lowest in the last 23 years (16.2 per 100,000), it remains higher than in most EU countries (France, 7.9 per 100,000; Finland, 6.1 per 100,000; Austria, 8.2 per 100,000; Germany, 5.3 per 100,000; Denmark, 6.5 per 100,000; and the UK, 13.7 per 100,000).

In 2012, a total of 716 cases of HIV were recorded on the Register of Diseases of Compulsory Individual Declaration, a figure that represents a global rate of 9.9 cases per 100,000 inhabitants. According to current criteria, diagnosis of HIV infection is considered late if the CD4 lymphocyte count is below 350 × 106/l at the time of diagnosis. Moreover, the diagnosis of a patient with advanced HIV infection is considered late when the CD4 lymphocyte count is below 200 × 106/l. Forty-five per cent of all the HIV diagnoses made in 2012 with information on the CD4 lymphocyte count (631) met the criteria for late diagnosis. The number of cases of late diagnosis is higher in individuals over 49 years old (64%) and in heterosexual men (56%). Despite the fact that the percentage of late diagnosis is very high, in Catalonia a significant decrease has been observed: it dropped from 60% in 2001 to 45% in 2012. The late diagnosis of HIV infection has a negative effect both on the person who is diagnosed late (and who, therefore, will have a worse prognosis) and for the public health system, since without an HIV diagnosis, no prevention or treatment measures are taken to reduce the risk of infection. Early diagnosis is currently given priority in prevention programmes.[28]

Drug use is a cross-cutting phenomenon, which involves heterogeneous groups (young people, people receiving treatment, active users, family members, professionals, etc.), different types of problem and, therefore, a large number of professionals depending on the area of work (preventative, healthcare, damage control, etc.). Usage trends have varied over the years, in line with social changes, as have the resources to respond to the problems deriving from drug use. Since the start of 2000 to the present day, with regard to drug use trends, in terms of public health, tobacco and alcohol continue to cause higher morbidity-mortality rates and cocaine consumption places a heavier burden on healthcare resources than heroin.

In general, although the analysis of the health situation reveals a relatively homogenous country, there are differences related to socio-demographic and economic conditions, which place certain groups in a vulnerable situation. It is traditionally accepted that gender, social class, level of academic achievement and the country in which a person lives are the main core areas of health inequality, and that a person's vulnerability grows with the number of inequality core areas that apply to him or her.

Between 2006 and the period 2010-2012, the family context of the child population changed. The change was positive because the level of education in the population rose, and it has been proven that this has a favourable effect on children's health, with the mother's level of academic achievement being of particular importance. However, the change also had a negative side, because the percentage of children with at least one family member who is unemployed has risen from 9.7% to 20.7%, which can act as a health risk factor.

A gender analysis of the indicators has been carried out, and very different patterns have been observed in men and women. In terms of health indicators, except in the case of sedentary lifestyles, women display healthier behaviour (less tobacco consumption, lower alcohol consumption, etc.), but their perception of their health status is worse. Women suffer from a higher percentage of chronic diseases, are more likely than men to suffer from mental illness, use the health services more frequently and take more medicine.

Depending on the social class and level of education, a descending scale can be detected. In general, the sector of the population belonging to the most disadvantaged classes (groups IVb and V) and the population with a low level of academic achievement have a worse perception of their health status and have higher levels of unhealthy behaviour.

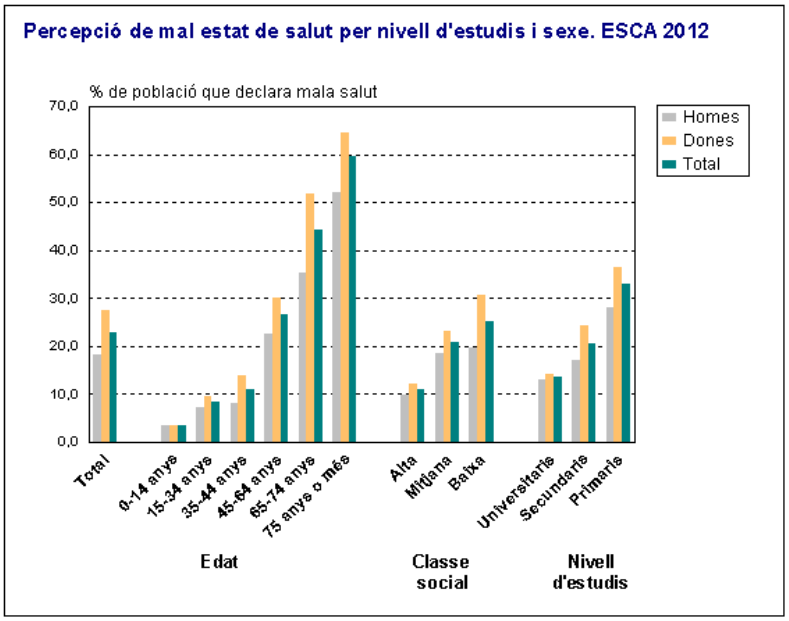
In general, the unemployed population has worse health indicators than the employed population, with significantly higher percentages of self-perceived bad health and depression and/or anxiety. There are no significant differences between the employed and unemployed population with regard to a sedentary lifestyle and alcohol abuse, whereas tobacco consumption is more frequent in the unemployed population. In terms of the use of health services, no significant differences between the two populations were observed in the frequency of the consumption of medicines, in visits to a healthcare professional or in the use of accident and emergency services and hospitalisation.

Self-perceived health

Health surveys carried out periodically allow citizens to express their views on different aspects of their health. One question common to most of the surveys consists of asking, 'How would you rate your overall health?', with the answers being: Excellent, Very Good, Good, Average or Bad. And to facilitate the analysis, the five response categories are grouped into two categories: 'Good Health' (Excellent, Very Good and Good) and 'Poor health' (Average or Bad).

Although this is a measurement based on subjective criteria, it makes it possible to reflect aspects that are hard to appreciate via other indicators or parameters. Various studies state

that a person's health status is a strong predictor of mortality,[29,30] as well as illness and the use of health or social services.[31]



In 2012, 8 out of 10 Catalans said they were in good health (82.8%). According to this evaluation, more men than women declared they were in good health, with percentages of 87.2% and 78.4% respectively. Self-perceived health worsens with age, and after the age of 45, the difference between the two sexes increased, to the detriment of women.

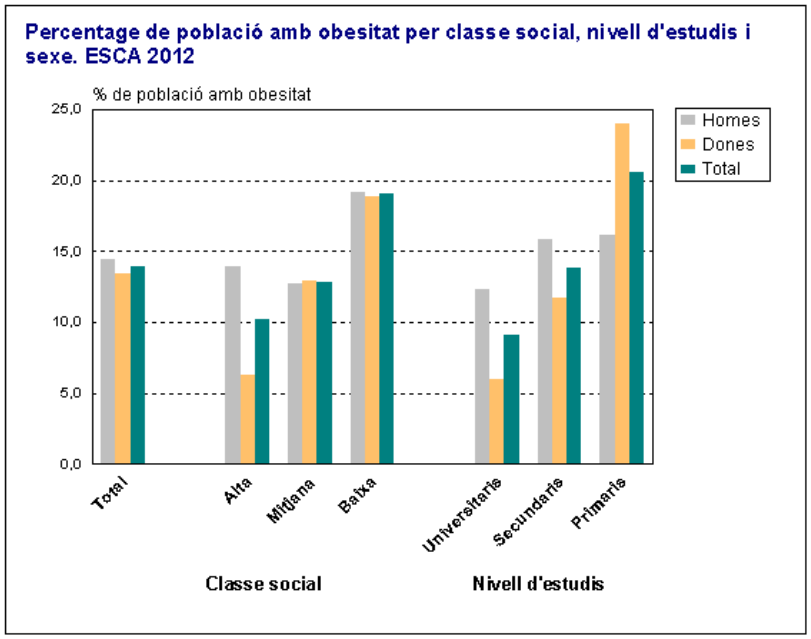
Whilst only 15% of those with university-level education consider their health as poor, the percentage rises to 18.7% in those who have secondary-level education, and to 36.3% in people who only achieved primary-level education or who have no education at all. Similar behaviour can be observed in the case of social class.

Incidence of self-reported excess weight

The percentage of the population that is overweight is another indicator conditioned by the social environment. In 2012, almost half the total population of Catalonia aged between 18 and 74 were overweight (49.2%), and 57.8% of all men and 40.4% of all women, according to self-reported data on weight and size.

In Catalonia, in men, the incidence of being overweight is close to the average figure for Spain, and the incidence for obesity is lower than the average figure. In women, both the self-reported condition of being overweight and obesity are below the average figures for Spain.

Excess weight includes both being overweight and obesity. 35.4% of the Catalan population aged between 18 and 74 are overweight and 13.9% are obese. More men are overweight (42.6%) than women (27.9%). The figures are closer for obesity, with values of 15.2% and 12.5%, respectively.



A clear relationship can be observed between excess weight and social class or level of education. This relationship is more pronounced in the case of obesity. Thus, whilst 7.7% of the population with university-level education are obese, the percentage rises to 20.7% for members of the population who only completed primary school education. In women, the difference is higher: women who have only completed primary school education or who have no studies are four times likelier to suffer obesity than women with a university education.

34.4% of the population aged between 6 and 12 are overweight. With regard to the child population aged 2 to 17, in Catalonia, the percentages of overweight individuals are lower than the average for all Spanish autonomous communities for both girls and boys. The incidence of

obesity in boys is lower than the Spanish average, and in girls it is similar to the Spanish average.

2. MODEL AND OBJECTIVES

The welfare of the population is one of the aims that justify the existence of governments and administrations, and the welfare of the population depends to a large extent on the health of this population. So, recognising these influences, PINSAP's purpose is to promote the latter and to help increase the positive effects and reduce the negative ones. The initiatives designed to carry this out must be developed jointly and in a coordinated manner in order to produce more benefits than they would if they were unilateral and sporadic.

Thus, first of all, PINSAP is a means of highlighting the influences that all sectors of society and government have on the health of individuals and populations and, consequently, of recognising their respective roles as agents in health promotion and protection. It is fair and appropriate that this role should be capitalised by the social sector and the corresponding Government ministry, given that it has become an incentive to build a healthier society. However, it must also become an effective exercise in cooperation that promotes synergies and prevents interferences or overlapping between the different governmental initiatives that affect the population's health.

It is estimated that 80% of the determinants of health are outside the health system. It is not simple to act on these determinants from a governmental standpoint. It requires careful planning and well-organised actions. It is not just a technical task, but rather involves certain changes in culture and values in those responsible for carrying it out.

The Government has a powerful organisational structure capable of carrying out its functions and services, often to a notable standard, but it is less effective when it comes to solving complex problems or when the appropriate action exceeds the areas of responsibility of each of the ministries. This is why inter-sector initiatives require the creation of new working areas, and an inclusive point of view when it comes to designing the actions. Finally, they require the pooling or sharing of resources, knowledge, responsibilities and actions.

Action on the determinants of health must be carried out from the different perspectives and responsibilities of each of the social and government sectors involved, to ensure that the topics dealt with go beyond the areas of authority of any one ministry. The projects must involve the global action of the government and, although the execution of these actions involves decentralised interventions, coordination is of key importance in the design, development and implementation of the policies.

If we accept the idea of health as being an independent, caring and happy way of living, we also need a proactive approach from those responsible for our health. This approach and mentality have to be cultivated starting with the family, schools and the community environment, and their continuity over the course of a person's life needs to be ensured. A positive perception of health is associated with the concept of the creation of health,[32] which prioritises action in all health assets and in the things that generate health or favour the quality of life over prevention and attention to the factors that could decrease it and create

inequalities. This approach is of key importance in promoting personal independence and the independence of individuals in relation to communities in terms of the control and improvement of their health.

2.1. Legal mandate

Law 18/2009 of 22 October 2009, on public health in Catalonia, stipulates that the Inter-ministerial Public Health Plan (PINSAP), which is coordinated with the Health Plan, is the basic tool for implementing public health actions in Catalonia, and its provisions are binding for the Government.

Although the drawing up of PINSAP is something for which the Government ministries are responsible—as their activities influence the population's health—under the leadership of the Catalan Ministry of Health, local authorities, social and economic agents, scientific societies, professional corporations, institutions and civil society in general participate in its design.

PINSAP can act as a tool to ensure that local bodies become aware of the need for 'global government action', working in cooperation with civil society and the economic sector, for the protection and promotion of public health. PINSAP must help all the Government of Catalonia ministries transfer the influence that their actions have on the public health sector as they carry out their duties to the municipal services. It must also encourage them to bear in mind the value of the health aspect and highlight the capitalisation of this value.

2.2. Purpose

The purpose of PINSAP is 'to mobilise various government sectors and make them responsible for health levels by acting on their main determinants, both structural and those related to lifestyle'.

Given the current situation, the initiative is particularly appropriate, as the economic crisis has emphasised even more the need to optimise efficiency in the use of resources and makes it inexcusable not to take into consideration the factors that facilitate the effectiveness and equity of healthcare interventions. As described in the motion approved by the Parliament in its plenary session of 14 March 2013, PINSAP must include explicitly the measures designed to minimise the health inequalities resulting from growing social inequalities. Moreover, and in accordance with the stipulations laid out in Law 18/2009, PINSAP must develop activities designed to favour the specific promotion of women's health, in line with the planned policies for women approved by the Government. In general, the Plan must adopt a perspective that considers gender.

2.3. Generals and specific objectives

- To improve the health of the population of Catalonia and decrease health inequalities based on inter-ministerial and inter-sector action.
- To incorporate health effectively as one of the core areas of government policy (health in all policies).
- To involve all Government ministries, so that they can capitalise on their positive influence on health.
- To improve coordination and promote synergies that lead to an increase in effectiveness, efficiency and equity of inter-sector policies on health and wellbeing.
- To help simplify matters for public authorities and make them more agile when dealing with policies affecting public health.
- To acknowledge and draw up an inventory of sector-oriented and inter-sector actions that have a considerable influence on the population's health.
- To monitor the effects of sector-oriented and inter-sector policies with the development of the most suitable indicators.
- To develop a continuous process based on an initial proposal of inter-sector policies and actions.

2.4. Operational aspects

PINSAP is conceived as a process in which health, and the wellbeing associated with health, becomes a basic objective of public policies, so that each of the Government ministries capitalises on the influence that the proposed measures and interventions have on the population's health. And the population thus takes on its responsibility in a coordinated manner in order to contribute to the Government's cross-cutting action and the creation of inter-sector policies.

PINSAP's activities can be grouped into two areas:

On the one hand, **those promoted by each of the ministries during the exercise of its own responsibility and competences**, which could be improved as a result of being included in PINSAP by promoting the inter-sector characteristics. The Inter-ministerial Commission has analysed all the activities and services of each ministry that have a considerable impact on the population's health, in terms of health promotion and protection, including both individual activities and initiatives carried out jointly with other ministries. Likewise, the Commission

highlights some of these initiatives as examples of best practices, which deserve particular accreditation or acknowledgement as healthy interventions.

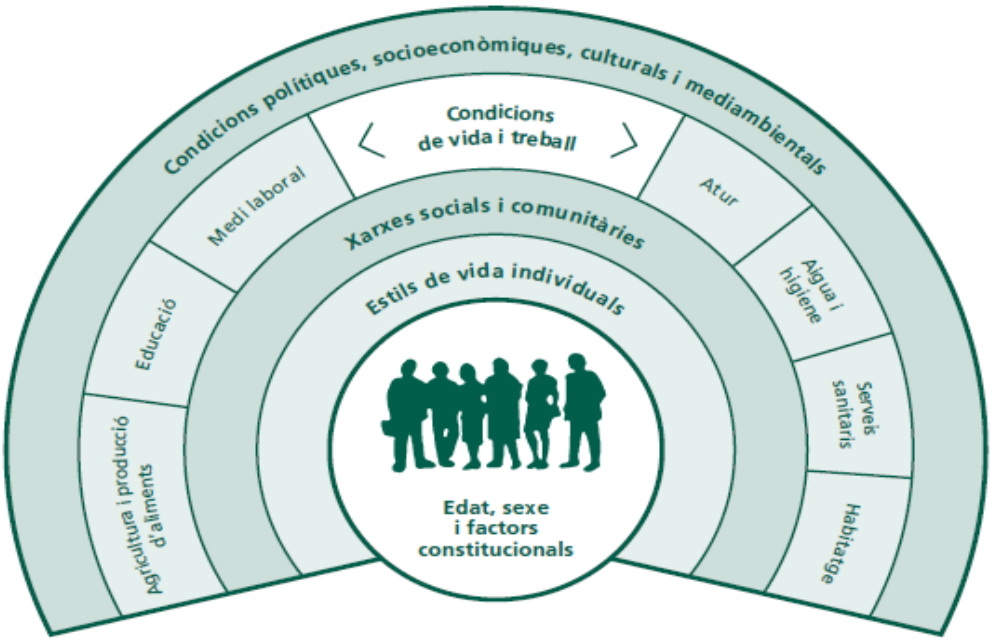
On the other hand, **those that are a new proposal for action within the framework of PINSAP** in each of the areas covered. Moreover, there are plans to start a health promotion and protection cross-cutting programme that takes into account the economic and social crisis and the problems it entails for the population's health, basically aimed at the sectors exposed to a high risk of poverty and social exclusion. The application of this programme, the proposals for which are developed in section 5 of this document, which includes an initial draft version of the design, could serve as a trial run for the development of the territorial dimension of public policies for health promotion and wellbeing in Catalonia.

2.4.1. Methods

The determinants of the population's health can be conceptualised in a series of layers, superimposed like a rainbow (Figure 1) around individual characteristics such as age, sex and several hereditary factors that cannot be modified.

Figure 1. Model of the main determinants of health by Dahlgren and Whitehead (1991) modified by ASPB

Figura 1. Model dels determinants de la salut.



Font: Modificat de Dahlgren i Whitehead[3].

Around it, on the concentric rings, are a series of influences that can be modified by political action. Firstly, there are the so-called *individual lifestyle factors*, which include tobacco and alcohol consumption and physical activity. Secondly, people interact with one another and with their community, integrated into social and community networks; belonging to these networks conditions their lifestyle and health. In the third layer we find living and working conditions, food, and access to basic goods and services such as education and healthcare services. Finally, as health mediators we have the economic, cultural and environmental conditions, which affect all the other layers.

In all countries of the world we can find social inequalities in the population's health, which mainly come from the conditions under which people are born, grow up, live, work and grow old. In accordance with the Universal Declaration of Human Rights, everyone has the right to a standard of living adequate for the health and wellbeing of himself and his family, including

food, clothing and medical care and necessary social services. Working and living conditions include housing; the makeup of the home and the family; the characteristics of the environment in general and specific urban, work, school or leisure environments; the existence of employment and working conditions; how easy it is to develop healthy behaviour, and so on.

Social class, the level of income and purchasing power, level of education, and so on, are structural determinants of health, which are directly or indirectly influenced by living conditions and people's behaviour.

Since, despite still being useful as a benchmark, the model was designed decades ago and from a conceptual perspective, the working group adapted it to the current situation in Catalonia. Thus, the 'Unemployment' and 'Living and working conditions' sections have been placed in the 'Employment' section. The 'Water and sanitation' section has been placed in a broader section, 'Environment', which also includes air quality and other related aspects. Two more sections have been added, which are of particular importance in today's society: 'Mobility', which includes both the active mobility of individuals and transport and road traffic safety, and 'Culture, leisure and physical activity'. The 'General socioeconomic, cultural and environmental conditions' layer, however, has been included in the 'Social policies' area, in particular those associated with actions to combat inequalities.

Many of the most serious health problems are affected by these determinants, which make up people's living conditions. This is an influential aspect that, in socioeconomic circumstances like the current one, increases health inequalities. Despite the growing interest in tackling the social determinants of health properly, as revealed by a systematic review of the evidence generated in developed countries between 2000 and 2007 on the effect of interventions in water and sanitation, food and agriculture, access to social and healthcare services, working, housing and living conditions, education and transport on the adult population, more research must be done, because the results obtained to date are inconclusive, irrespective of the improvements observed by disadvantaged social groups with regard to interventions in housing and employment conditions.[33] Another review of the effects on children's health reveals that there is extensive scientific literature supporting the importance of determinants of health and inequalities and their differentiated influence across a lifespan, but there is a lack of quality research on the effects of interventions to reduce inequalities.[34]

This lack of quality research on the effects of interventions cannot prevent action on determinants of health from being carried out; however, it forces us to be careful in selecting which actions to carry out and to develop a rigorous assessment strategy. At the same time, it forces us to promote synergy with research groups that help make progress in the production of evidence.

The development of PINSAP would benefit notably from applied research, which improves current knowledge of the effects of inter-sector interventions on health. This research should be carried out in the country's research centres, and the findings could contribute to the assessment process planned for PINSAP.

Meanwhile, and initially, the Commission has selected from amongst the ministerial actions those it considers to have the greatest impact on living conditions and which could potentially help reduce unjust and preventable public health inequalities. These actions have been analysed in bilateral sessions from the perspective of each Government ministry and from the perspective of the Catalan Ministry of Health.

The criteria drawn up by Johns Hopkins University[35] were taken into account when selecting the interventions, attempting to respect the following principles:

- Prioritising interventions on the causes of the causes (upstream), which have an impact on health results (downstream).
- Searching for and emphasising the costs and benefits for everyone, across the entire social gradient.
- Listening to society and giving a voice to its interests, incorporating the visions held by men and women and their associations.
- Empowering individuals and society, creating conditions to enable them to have control over their life and their health. Paying particular attention to women and the elderly.
- Starting with specific projects and expanding on them.
- Spreading experiences or best practices successfully, with proven results.
- Incorporating the gender perspective and other core areas of inequality into the health analysis.
- Assessing the results with indicators sensitive to gender, age, socioeconomic level and ethnic origin, which will make it possible to study the differences caused by inequalities.
- Collaborating with the media and advertising companies to change the discourse, tacking male and female stereotypes and spreading information on the differences between men and women with regard to both living conditions and health status.
- Promoting collaboration and partnership.
- Working jointly to achieve a common goal.
- Adapting to a constantly changing, globalised context. Innovating and adapting to future challenges. Using information and communication technologies.

2.4.2. The participation of local authorities and civil society

Based on the contributions by local authorities, the idea is to design an operative organisational proposal, which can be based on the following aspects:

- Creation of a working group to develop and implement PINSAP, with the participation of municipal bodies and provincial councils, as well as other civil society institutions, particularly the Third Sector Roundtable and voluntary bodies, with advice from scientific societies and professional corporations. Appendix 1 contains a list of the institutions that have responded to the Commission's call and those that have made specific contributions.

- Inclusion in the bilateral agreements between Public Health and the city and provincial councils regarding interventions within the context of PINSAP.

- Local health plans can be the instrument for political commitment by local governments to develop community action within the framework of the Health Plan and PINSAP. The community health actions and interventions contained in local health plans must count on the participation and shared accountability of all key agents in the territory—government agencies, healthcare professionals, economic agents, the third sector and citizens—within the framework for community actions (resource map).

In short, this Plan proposes a series of actions and recommendations to promote health and reduce health inequalities that affect the population of Catalonia, aimed at improving material living conditions, subject to inter-sector intervention and coordinated by the whole Government. Proposals include those to fight poverty and to promote social inclusion in Catalonia, which in this case is coordinated by the Catalan Ministry of Social Welfare and Family, with the participation of the whole Government, the local authorities and civil society.

In this respect, some of the actions of each ministry have been chosen, those which have a health impact (ones that already form part of the inter-ministerial plans or are actions made by the ministry itself) and are valuable as they promote the inter-sector aspect, and these will become PINSAP activities during 2014-2015 (Horizon 2020 programme). Other initiatives, services and programmes that can gradually be incorporated into PINSAP will be listed in an operative annual action plan.

2.5. Funding

PINSAP has specific funding for new actions that are launched and also receives specific budgetary allocation from the Government with regard to actions that have a health impact.

Despite not involving extra costs in public budgets, improvements in efficiency and effectiveness linked to developing the plan must allow it to be carried out and improve people's health, above all the most vulnerable groups. More specifically, when allocating the €123.8 million budget for public health, priority will be given to interventions that form part of PINSAP.

3. HEALTH IMPACT ASSESSMENT AND EVALUATION

3.1. Considerations for creating indicators

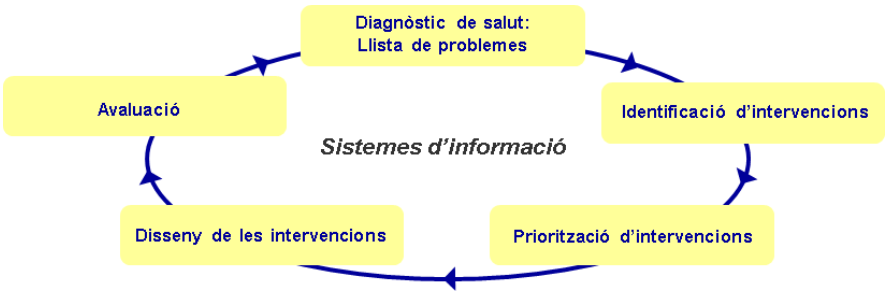
The assessment of the impact of this Plan on healthcare interventions plays a dual role in PINSAP. On the one hand, it has the most direct role of confirming whether the planned objectives are in fact met and, on the other, of identifying and highlighting the contribution by various sectors of the Government and society to the welfare obtained through public policies. Assessment is a useful tool in determining accountability and must help improve the planning process, so that the appropriate amendments can be made, if necessary. In order to achieve this goal, information must be obtained that allows the starting point, the most important polices for health being carried out and the results attained to be identified.

3.1.1. Acknowledgement and assessment of current initiatives

Through PINSAP, Government agreements, plans, programmes, projects and interventions have a major impact on the health and wellbeing of the population and, in particular, those devoted explicitly to a specific aspect of health are detected systematically. The aim is to promote these interventions and any possible synergies, in addition to predicting potential overlapping and interference. One of PINSAP's initiatives is to determine the right indicators for evaluating the most important aspects of the actions.

3.1.2. Required information for PINSAP assessment

As a tangible product of the information systems, the indicators are essential throughout the entire planning process. Assessment must be present in all phases of the planning cycle and information is needed in order to carry it out.



The complexity of the health/illness phenomenon makes it hard to organise all the information required to plan interventions and assess them. Information systems must allow population's health status to be related to the use of resources and costs, in order to evaluate if health policy objectives are met in terms of effectiveness, efficiency and security.

The available information systems must help decisions to be made based on objective data that affect people's health in a context of scant resources, with the best guarantees of equity and efficiency.

Specifying the required information for planning and assessing the interventions and PINSAP itself is an unavoidable task, one which requires the joint efforts of all parties involved in the Plan. Given the quantity and heterogeneity of the data available, it is necessary to identify, analyse and select the information that best meets the Plan's current and future needs. The process of identifying and prioritising the most profitable policies will help determine the most suitable indicators in each case.

The indicators that allow the evolution of the association between the inter-sector activities implemented and improvements in health and quality of life garnered to be assessed have been selected based on three main levels:

- Health indicators: improvement in health and quality of life (includes lifestyles).
- Indicators of the determinants (social and environmental).
- Indicators of the proposed interventions: the extent to which they are achieved and the scope.

Based on the analysis of the available information, the indictors that best help evaluate to what extent PINSAP's objectives are being met have been selected.

In order to carry out this selection, a series of criteria have been taken into account. In order for PINSAP to consider them to be valid, the indicators must provide objective, quantifiable information from stable systematic or periodical sources. The quality criteria or attributes required to apply them are: validity, reliability, specificity, sensitivity, availability, relevance and efficiency.

The process of establishing the indicators must establish which ones are the most suitable units of register in each case. With regard to the population, it is necessary to have information on small areas that allows us to discover the behaviour of indicators with a sufficient level of disaggregation, such as, for example, the basic healthcare area (ABS) or census tract. In order to meet PINSAP's general objectives, social health inequalities must be evaluated, which justifies the need to achieve sufficient disaggregation.

In this respect, a great effort must be made and all the ministries must be involved in order to define minimum shared areas. The collaboration that has been established with the Statistical Institute of Catalonia (Idescat) is essential.

Mechanisms for the collection, storage, analysis and dissemination of the information must also be set up. The risks of not predicting the complexity of managing such heterogeneous information must be assessed. The metrics of the indicators that allow the variability to be measured must also be defined.

Initially, the proposed arrangement should have a low number of indicators, which are reasonably easy to manage using existing sources of updated, accessible information.

Operative considerations:

- The selected indicators must provide quantified information from stable, available sources, with the usual quality criteria required for selection: validity, reliability, specificity, availability, relevance and feasibility.
- It is important to bear in mind the possibility of the information being disaggregated (by region, sex, age group, social class, etc.) in order to detect and tackle in an appropriate manner the potential inequalities and variability.
- The design of each indicator must include a series of basic dimensions: definition, calculation formula, disaggregation, source of information, periodicity, those responsible for drawing up the indicator, etc.

3.1.3. Selected indicators

In accordance with the criteria described earlier, and mainly based on the Catalan Ministry of Health's and Idescat's information systems, the following indicators for the Plan’s monitoring and assessment have been included.

Whenever possible, there must be disaggregation by age, sex, social class, level of education and territory (planned calculation by county, region and large municipality).

A. Basic health and lifestyle indicators

1. Life expectancy
2. Healthy life expectancy
3. Self-perceived poor health
4. Standardised mortality rate (global or specific)
5. Avoidable mortality resulting from causes subject to intervention by inter-sector health policies (global and for AIDS/HIV infection, malignant lung tumour, alcoholic liver disease, traffic accidents, suicides, homicides, etc.).
6. Prevalence of tobacco consumption
7. Prevalence of alcohol consumption
8. Prevalence of being overweight and obesity
9. Prevalence of sedentary lifestyle
10. Psychological wellbeing index

B. Basic indicators of social determinants

1. Employment and unemployment rates
2. Level of education achieved
3. Average annual income per household, person and consumption unit
4. Risk of poverty or social exclusion rate
5. Individuals with legally recognised disability
6. Households based on the facilities contained
7. Satisfaction with working conditions
8. Existence of different situations in the workplace
9. Existence of discrimination in the workplace (low rates)
10. Air pollution:
    - Nitrogen dioxide (NO_2): percentage of stations complying with the annual threshold value (ATV) of NO_2 in AQZ1 and AQZ2.
    - Suspended particulate matter with a diameter of 10 micrometres or less (PM10): percentage of stations complying with the annual threshold value (ATV) of PM10 in AQZ1 and AQZ2.
    - Ozone (O_3): percentage of stations that exceed the target threshold value for the protection of human health.

C. Impact indicators for the formulated interventions

- Each intervention in PINSAP will have at least one indicator that will enable the level of implantation and, as far as possible, the effectiveness and impact to be measured. Given the multifactor nature of health, the changes observed in the result indicators (such as, for example, life expectancy or child mortality) are hard to attribute to a single intervention, and thus do not allow the health impact of the policies implemented to be assigned clearly.

For this reason, the process indicators are defined as PINSAP's interventions are specified, which enables the implementation of the policies and actions established to be monitored in the short and medium term. These indicators can be divided up into two categories:

- Indicators showing the level of implementation and execution of policies and actions.
- Indicators showing intermediate results in terms of health, which should be linked to the first indicators and allow their specific impact to be assessed.

3.1.4. Baseline values of the available selected indicators

	Baseline values of the proposed PINSAP indicators *Indicator*		Reference value	Year	Information source
A. Basic health and lifestyle indicators					
1	Life expectancy (in years)	Men	79.5	2011	RMC
		Women	85.3	2011	
		Total	82.5	2011	
2	Healthy life expectancy (in years)	Men	65.2	2011	RMC + ESCAc
		Women	63.1	2011	
		Total	64.2	2011	
3	Self-perceived poor health (% of the population)	Men	12.8	2012	ESCAc
		Women	21.6	2012	
		Total	17.2	2012	
4	Standardised mortality rate (number of deaths per 1,000 inhabitants)	Men	7.6	2011	RMC
		Women	4.2	2011	
		Total	5.6	2011	
5	Avoidable mortality through inter-sector interventions (rate per 100,000 inhabitants)	Men	94.2	2011	RMC
		Women	43.4	2011	
		Total	68.5	2011	
6	Prevalence of tobacco consumption (proportion of daily smokers + occasional smokers)	Men	34.2	2012	ESCAc
		Women	22.9	2012	
		Total	28.5	2012	
7	Prevalence of hazardous drinking	Men	6.0	2012	ESCAc
		Women	1.7	2012	
		Total	3.9	2012	
8	Prevalence of being overweight and obesity in adult population	Men	57.7	2012	ESCAc
		Women	40.1	2012	
		Total	49.0	2012	
9	Prevalence of sedentary lifestyle in adult population	Men	16.4	2012	ESCAc
		Women	19.2	2012	
		Total	17.8	2012	
10	Psychological wellbeing index	Men	59.0	2011	ESCAc
		Women	57.8	2011	
		Total	58.4	2011	

B. Basic indicators of social determinants

1.1	Total employment rate (per 100)	Men	52.6	2012	Idescat + EPA
		Women	43.9	2012	
		Total	48.1	2012	
1.2	Total unemployment rate (per 100)	Men	23.2	2012	Idescat + EPA
		Women	22.1	2012	
		Total	22.6	2012	
2	Proportion of the population aged >15 with no studies or who only completed primary school education	Men		2012	ESCAc
		Women		2012	
		Total	25.7	2012	
3.1	Average net annual income per household (€)	Total	26,418.0	2011	Idescat (INE)
3.2	Average net annual income per person (€)	Total	10,101.0	2011	Idescat (INE)
4	Risk of poverty rate	Men	18.0	2011	Idescat (INE)
		Women	20.3	2011	
		Total	19.1	2011	
5	Number of individuals with legally recognised disability	Men	239,726	2012	Idescat (DASF)
		Women	250,408	2012	
		Total	490,134	2012	
5.1	Primary residences with heating (per 100)	Total	91.7	2011	Idescat
6.2	Family home in good state of conservation (per 100)	Total	91.1	2011	Idescat
7	Overall satisfaction with work (values ranging from 0 to 10)	Men	7.45	2010	Idescat (DEO)
		Women	7.53	2010	
		Total	7.49	2010	
8	Existence of different situations in the workplace	Total	n.d.	n.d.	Pending
9	Air pollution: measurement sites where the daily threshold value exceeds PM10 (number/total number of sites)	Total	9/138	2012	XVPCA (DTS)

3.2. Drawing up of a proposal for regulating health impact

Both the Law on Public Health and the Health Plan describe the need to assess the health impact of the main public interventions and activities in terms of their potential influence on the health of the population affected. It is important for this assessment to be applicable to both the existing policies and to new initiatives, and to policies dealing with healthcare and otherwise (employment, town planning, housing, mobility, etc.).

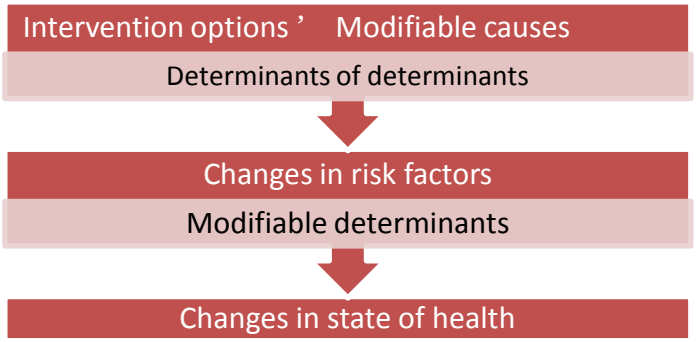
One of the key tools for developing health in all policies is the health impact assessment (HIA). HIA is a 'combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of these effects within the population'.[36] In other words, 'the estimate of the effects that a specific action will have on the health of the population'.[37] HIA helps incorporate health and its determinants into the policy-making process.[38]

The fundamental objectives of HIA are:

1. To assess the potential positive and negative impacts of policies, programmes and projects on health.
2. To improve the quality of the public decision-making process through recommendations to reinforce planned positive impacts and minimise the negative impacts.

HIA is a tool that helps make health effective in all policies, since it introduces health and health equity into the design and implementation of sector-oriented policies.[39] It also helps incorporate a more comprehensive vision of health, its social determinants, the concept of health equity, work among sectors and participation, and, at the same time, its brings transparency to decision making.[40] There is a resource centre in Spain.[41]

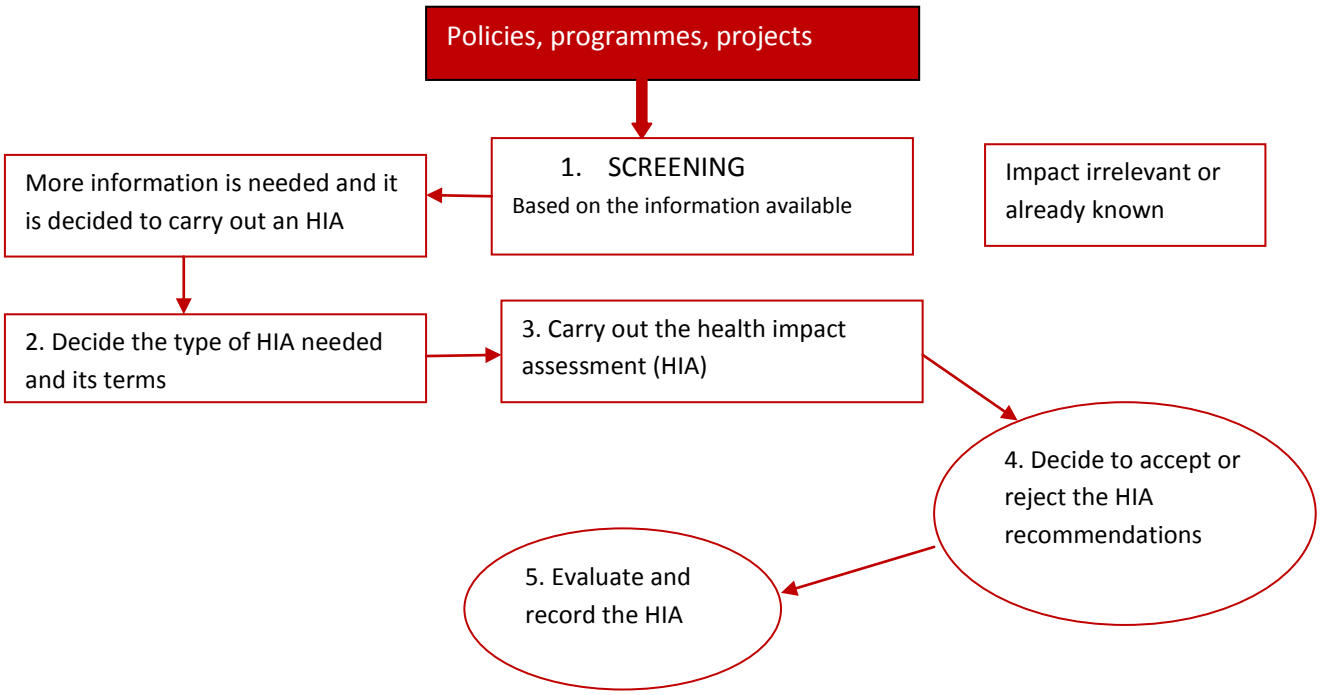
Conceptual framework



Conceptual framework for HIA. A: Bacigalupe et al. Gac Sanit. 2009. Based on: Joffe M, Mindell J. A framework for the evidence base to support Health Impact Assessment. J Epidemiol Comm Health. 2002 February; 56(2):132-8.[42]

HIA, depending on its extent and depth, can be quick (an assessment of 'office' scenarios is carried out to evaluate the possible impacts of a policy on health) or complete (in-depth assessment, in order to obtain a good estimate of the level of the impact). Although HIA is considered a forecasting activity (analysis of a potential future impact if the proposal is carried out), some authors consider the possibility of concurrent HIA (whilst a proposal is being implemented) or a retrospective HIA (once the proposal has been implemented).

HIA stages



Simplified model: HIA stages

1. Screening: is the most important phase. It involves the selection of the policies, projects and programmes the HIA is to analyse, bearing in mind practical, political and legal issues not particularly related to the potential impact on health. The objective of this stage is to identify the projects that could benefit from a HIA and the projects in which more information is needed about the way in which the population will be affected. The screening phase allows priorities to be established when it comes to selecting the most suitable policies for an HIA in accordance with pre-established criteria. Thus, depending on the scope of the screening, two types can be differentiated: 'in-depth screening', which is applied in an individualised manner and analyses the impacts in greater detail, and 'systematic screening', which consists of screening all the interventions of a given sector in a given process.[43]

2. Scoping: this is the stage during which the technical conditions (terms of reference) of the HIA are established. The aspects that need to be specified include: the HIA's objectives, the types and criteria that must be taken into account, the impacts that must be analysed in greater depth, the groups that have to be consulted, the resources available and the schedule.
3. Assessment: during this stage the HIA methodology is carried out and this consists of the following phases:
   - Analysis of the proposal
   - Creation of the health profiles or determinants of health of the potentially affected community.
   - Consultation of the social agents affected, interviewing of stakeholders and key informers.
   - Gathering and analysis of evidence, reports and preliminary studies.
   - Identification of the determinants of health affected by the proposal studied and estimation of the impact.
   - Prioritisation of the impacts.
   - Recommendation and justification of the proposal's options for change.
   - Final report to the management group.
4. Alternative options: this is a key moment in the process, at which point decisions are made about whether or not to accept the HIA's recommendations.
5. Evaluation of the HIA: this consists of evaluating the extent to which the HIA's predictions were correct. This allows the methodology to be improved for future HIAs. This evaluation of the HIA contains the following two aspects:
   - Evaluation of the process: methodological rigour and assessment document.
   - Evaluation of the health outcomes: check whether the decisions made helped achieve a positive impact on the population's health, and estimate the benefits of implementing any of the HIA's recommendations.

Incorporation of HIA into PINSAP

Within the framework of PINSAP, the proposal is to develop a screening tool that allows for the easy identification of the proposals for which it would be important to carry out an in-depth HIA, similar to the work done in the Basque Country.[44]

Moreover, training and awareness raising on HIA and this screening tool will be carried out. The aim of the training will be to give tools to experts from different sectors on HIA screening, and to raise awareness about the HIA's distinctive elements: evidence-based decision making, health in all policies, determinants of health and health equity, work among sectors and participation in order to improve the health of the population.

3.3. The central core of intervention

Incorporating the vision of health into the design and assessment of public policies is one of PINSAP's main aims. So, it could become an incentive for maintaining and expanding on the initiatives undertaken by various government bodies, which have a positive impact on the health of the population. These initiatives materialise as specific proposals for actions by PINSAP in sections 4 and 5 of this document.

This more global aspect of promoting inter-sector and inter-ministerial actions covers four areas in general: the design of healthy, equitable public policies; information and research; commitment between the authorities in charge, and commitment to the community.

3.3.1. The perspective of health and equity in public policies

So that the orientation and design of public policies can incorporate the health vision—which includes the perspective of equity, given that the aim is to avoid unjust, avoidable health inequalities, it is important to highlight the effect of public policies on the health of the population; to acknowledge the contribution from other sectors, as well as the health sector, to health; to promote interventions in public policies that have a positive influence on health; and to protect the health of the population from potentially negative consequences of public policies.

It is important to evaluate the initiatives carried out by all the Government ministries—Government agreements, regulations, projects, programmes, and so on—that have a stronger potential influence on the health of the population; to promote actively any initiatives likely to improve the impact from an inter-sector perspective; and to draw up regulations for assessing their impact on health.

3.3.2. Information and research

As a support to carry out specific actions in the best possible manner, it is advisable to optimise the generation and management of the necessary information in a coordinated way and, given the current economic and social crisis, to control the effects on health, particularly from the perspective of the protection of the most vulnerable groups and individuals. Finally, it is also advisable to promote lines of applied research, which take advantage of the data generated by the actions and that improve our knowledge of the impact of these interventions on health, to modify, if necessary, the projects currently being implemented.

3.3.2.1. Optimise the use of the available data and guarantee its application and transparency

It is essential to collect the data on the collective determinants of health that are currently generated by all the Government ministries; they must be homogenised so that they can be used by all parties involved in PINSAP and analysed in order to guarantee their practical use (for the design of interventions and the assessment of results) in the development of PINSAP.

This involves being able to access the inventory of data (with the collaboration of Idescat) from all the Government ministries and institutions involved. The indicators for the regulation of health impact assessments (HIA) and the specific indicators for assessing the effects of the interventions on health must also be drawn up, and data must be published periodically.

3.3.2.2. Monitor the effects of the crisis on inequalities and health

Despite the fact that some macroeconomic indicators show signs of recovery, the serious nature and depth of the current economic crisis fully justifies the creation of a specific device to reinforce epidemiological monitoring, which allows us to detect as quickly as possible the effects this crisis has on health and, in particular, to identify the social and collective determinants of health affected, so that these impacts can be neutralised, or at least reduced to an absolute minimum.

To achieve early detection of the negative effects on health, more suitable indicators must be designed (changes in the main collective determinants; earlier negative effects); baseline indicators for monitoring must be created; data must be gathered and analysed; and reports must be published periodically and, if necessary, immediately on the negative effects and proposed actions. The Catalan Agency for Health Information, Assessment and Quality (AIAQS) and the Catalan Health System Observatory (OSSC) play leading roles in this project.

3.3.2.3. Promote research

Given the difficulties and poor knowledge of the influence of social and collective determinants on the health of the population, it would be advisable to improve this situation. PINSAP must be an opportunity to generate useful data and information, both from specific experiences from each of the interventions and from the study of the global inter-ministerial and inter-sector strategy. Thus, research would entail an operative return on knowledge to develop public policies that help public health promotion and protection.

Therefore, it is essential to collaborate with the country's research institutes, to guarantee the maintenance of the current lines of research into collective determinants and to draw up an inventory of the projects being carried out, as well as promote new lines of research in the same area and cooperation in international research.

3.3.3. Inter-sector commitment and commitment between government agencies

PINSAP aims to improve the efficiency, efficacy and equity of the government agency interventions that affect the health of the population; to reduce overlapping and interference in interventions from the various sectors of the Catalan Government (autonomous and local) that affect the population's health; and to promote inter-sector coordination in Catalonia through the local authorities.

For this reason, the plan is to develop the territorial (and local) dimension of the interventions selected for PINSAP; design and gradually apply the community health promotion and protection cross-cutting programme in Catalonia; and foster a sense of shared responsibility among the government agencies involved.

Most of the interventions and PINSAP itself involve collective commitment and effort from all sectors of society, especially the productive sector and social agents.

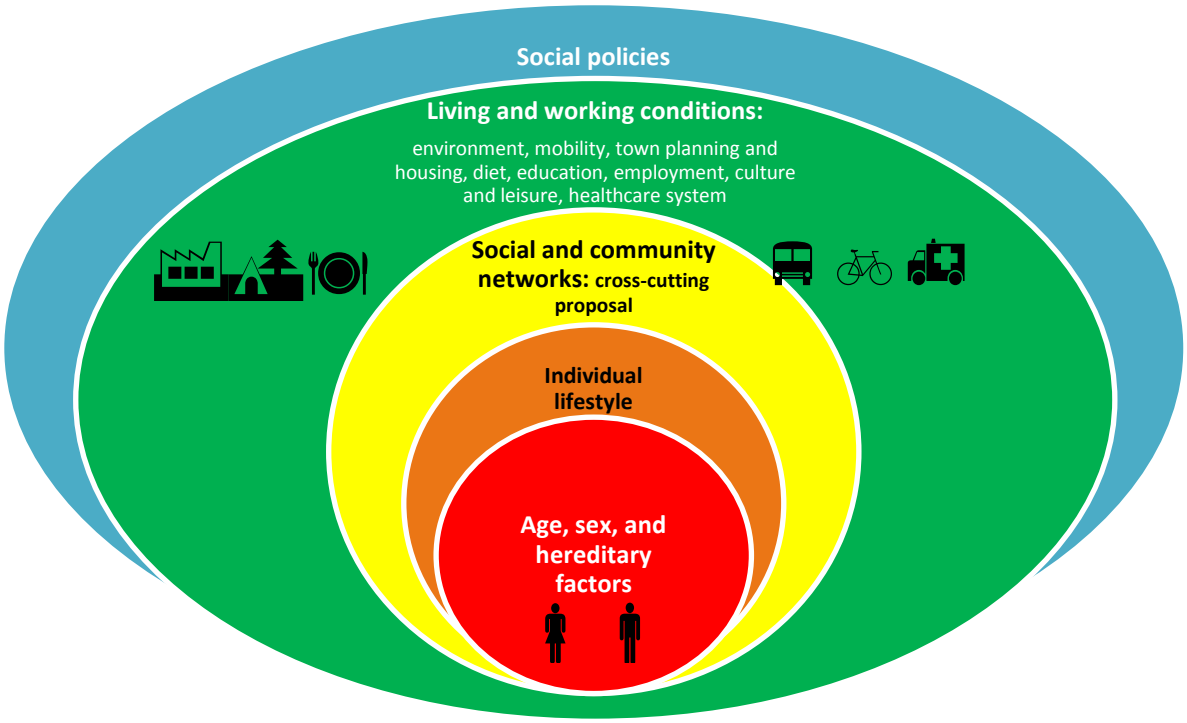
3.3.4. Participation of civil society

Without the involvement of civil society, it is impossible to develop 'health in all policies', so it is necessary to increase social empowerment in the sphere of public health policies, and to establish proportional accountability in terms of the use of public health services and in the joint construction of a more responsible and participative society inasmuch as the collective determinants of health and wellbeing associated with health are concerned.

In short, it requires facilitating information on PINSAP properly and collecting any possible contributions; designing the operative phase of the cross-cutting programme jointly (with third sector organisations and local authorities); promoting community development plans and local health plans; and creating a shared platform for monitoring PINSAP.

4. PINSAP 2014-2015 ACTIONS FOR HORIZON 2020

The actions to which priority is given take into account the determinants of health model designed by Dahlgren and Whitehead,[45] adapted with contributions referring to social inequalities that influence health,[46] the effects of the economic crisis at a local level[47,48] and the criteria drawn up by the Johns Hopkins Urban Health Institute. As explained earlier, the Working Group has adapted the model to the current situation of Catalonia.



Models of experiences in other countries like the one developed in California[49] and the King's Fund[50] were taken into account. The selection of the proposed interventions considered feasibility, given that these were measures that the Government ministries in charge had begun. It also considered their pertinence with a view to protecting and promoting health and the value added that being selected as a PINSAP activity for Horizon 2020 entails, because this increases their scope and inter-sector nature.

A series of 30 specific inter-ministerial and inter-sector areas are planned in the framework of Horizon 2020, which are divided up into two core areas and 14 sub-areas:

- Core area 1. Increase the Catalan population's years of good health (promote a healthier Catalonia)

- Core area 2 (global). Incorporate health vision into the design and assessment of public policies

Five goals have also been proposed—one focusing on mental health in particular—which include some general activities and other specific activities for priority groups or groups that are particularly vulnerable. The goals are:

- To ameliorate the **obesity** epidemic, in both the child and adult population.
- To control **infections**, with a particular focus on sexually transmitted diseases and HIV.
- To promote **mental health** and mitigate the effects of the recession.
- To reduce the impact of **addictions**, particularly on young people.
- To unite and promote the **country's** efforts to improve the environment, living and working conditions; to strengthen inter-sector work; and to work in networks on structural and social determinants of health.

4.1 Mobility and health

Mobility and road safety policies have a great impact on society, since they help allow goods and people to move around, and constitute a considerable source of economic growth.

During the second half of the 20th century, developed countries experienced a notable growth in the use of private vehicles with an internal combustion engine (cars and motorcycles). Despite the undeniable positive effects of the growth in the number of vehicles and the intensive use in terms of mobility, industrial development and public investment, a mobility model highly dependent on private motor vehicles is unsustainable from an energy and environmental point of view, and can have a negative global impact, which leads to a reduction in physical activity and an increase in air pollutants and the risk of injury.

Getting around on foot, by bicycle or using public transport instead of using a private vehicle increase physical activity and reduce the emission of pollutants, which have a negative effect on health. Low levels of physical activity increase the risk of mortality from all causes by 20-30%.[51]

Accidental injuries, especially those derived from traffic accidents, remain one of the main causes of premature death. For each death caused by a traffic accident in Catalonia, there are around 12 hospital admissions for injuries, which often lead to permanent disablement. The road safety policies developed in Catalonia during the period 2000-2010 reduced mortality by 57%, and prevented the death of around 2,900 individuals, avoided 25,444 hospital admissions and entailed a saving of €18 billion for society.[52]

The effect of emissions from the various modes of motorised land transport on the quality of the air is felt in areas closest to the source of the emissions, which are in general locations in which the majority of the population live. This is why urban traffic has a very significant effect on the air we breathe, given the design and architecture of the towns within the Barcelona Metropolitan Area, where roads and railway lines are located very close to housing, which generally consist of compact blocks of flats, several stories high.

This is also reflected in the data from the Air Pollution Monitoring and Forecasting Network, which reveal higher values at measurement points within areas with heavy traffic.

One study by the Centre for Research in Environmental Epidemiology (CREAL) in 2013 shows that transport policies designed to reduce car journeys can have considerable beneficial effects for health in terms of a reduction in morbidity, in particular amongst those who use an active travel system. The study describes eight different transport scenarios and estimates the results in terms of morbidity related to replacing car journeys in the Barcelona Metropolitan Area (3,231,458 inhabitants) with a healthier alternative. A 40% reduction in long car journeys (around 6 km) and the replacement of car journeys with public transport and bicycle result, each year, in 127 fewer cases of diabetes, and 45 of cardiovascular disease and 30 of dementia, 16 fewer minor injuries, 0.14 fewer serious injuries, 11 fewer cases of breast cancer

and 3 fewer cases of colorectal cancer, which translates into a total reduction of 302 years of life (adjusted to account for disability) lost per year in travellers. Moreover, the reduction in the general population's exposure to fine particulate matter (PM2.5) leads, annually, to 7 fewer cases of low birth weight, 6 fewer cases of premature birth, 1 case less of cardiovascular disease and 1 case less of infection of the lower respiratory tract.[53]

A prior study by the same research group had revealed that the impact of Bicing, Barcelona's public bicycle service, represents an annual saving of 12 lives and reduces CO_2 emissions by 9,000 tonnes. This paper shows that the health benefits of physical exercise reaped by riding a bicycle in the city are far greater than the risks posed by air pollution and traffic accidents. This is the first study to quantify the health impact of the introduction of this type of service, which has now become widespread across the globe. In the case of Bicing, in 2009 11% of the population of Barcelona had signed up for the service. 68% of all Bicing trips were made to go to work or school, and 37% of all users combined Bicing with another means of transport. The average daily distance covered using the Bicing service was 3.29 km, with an average duration of 14.1 minutes.[54]

The reduction in the use of private vehicles in short journeys would have very positive effects in Catalonia in terms of improving traffic flow, road safety and air quality, which would also have beneficial effects on health. For example, it is estimated that if some of the car trips with origins and destinations in the city of Barcelona were to be replaced by trips by bike or on public transport, as a result of increased physical activity and a reduction in air pollution, 58-117 deaths would be prevented per year in the Barcelona region.[55] It has also been estimated that if all the residents of Catalonia who do not follow the recommendation to perform the equivalent of 30 minutes of physical activity on a daily basis and who make several short car trips of under 5 minutes each day were to make at least one of these trips on foot, the impact on their health would be the equivalent of an annual reduction of 188 deaths and represent a saving of almost €210 million per year.[56]

Transport and public health policies share numerous objectives, such as those selected by the World Health Organization,[57] which can be summed up as:

- **Sustainable economic development**: sustainable transport systems enhance economic development, whilst minimising the potential negative aspects.
- **Safety**: sustainable transport systems improve safety.
- **Accessibility**: transport systems ensure everyone can access transport services and facilities (without barriers).
- **Environmental sustainability**: transport systems promote environmentally sustainable transport options.
- **Sustainable communities and livelihoods**: sustainable transport systems promote mobility conducive to livelihood security and sustainable communities.

The United Nations General Assembly has proclaimed the period 2011-2010 as the Decade of Action for Road Safety, with the aim of stabilising and then reducing the forecast number of

traffic fatalities around the world by 2020. The European Union has also set itself the target of reducing traffic fatalities by 50% in this period.

The Catalan Traffic Service has drawn up the Catalan Strategic Road Safety Plan for 2020, where the goal is also a 50% reduction in traffic fatalities in comparison with the numbers killed in 2010, with a view to achieving the 'Vision Zero' road safety goal: in other words, no fatalities or serious casualties resulting in lifelong consequences by 2050. The strategic objectives of the Strategic Road Safety Plan 2014-2020 are:

- To protect motility users and control high-risk behaviour effectively.
- To promote a continuous road safety area (urban and interurban areas).
- To involve and coordinate public and private bodies in the improvement of safe mobility.
- To acquire the road safety management structures, instruments and mechanisms needed to achieve the desired results.
- To facilitate the learning of safe mobility over an entire lifespan.
- To promote research and development and research applied to road safety.

As can be seen in the section on the environment, the Air Quality Improvement Plan for 2015 promoted by the Catalan Ministry of Territory and Sustainability aims to re-establish the air quality levels containing the so-called city pollutants (nitrogen dioxide and suspended particulate matter, PM10) in 40 municipalities within the Barcelona Metropolitan Area where the threshold values set by European legislation have been exceeded.

The data from the emissions inventory for this zone reveal that the sector that produces the highest levels of emissions is land transport. The production levels are even higher in urban areas. For this reason, the Air Quality Improvement Plan for 2015 establishes measures to decrease the impact of this area, aimed at reducing the number of vehicles on the road, as well as providing incentives to encourage the use of vehicles that generate less city pollutants. These actions should be implemented as a matter of priority in urban areas.

Lines of action currently underway, which are included in PINSAP

- Reinforcement of road safety policies, paying particular attention to the safety of pedestrians and cyclists in urban environments.
- Promotion of active travel (walking, using public transport and cycling) by setting up bicycle lanes, community bicycle services, parking for bicycles, wide pavements, traffic lights adapted for the disabled, elimination of physical barriers.
- Promoting and encouraging people to use public, urban and interurban transport. In order to achieve this, it is necessary to work on developing the following measures:

    - Modal transfer to public road transport by improving the transport available and its intermodal nature within the framework of the Catalan Passenger Transport

Plan (PTVC) and the Master Plan for Infrastructure (PDI) in the Barcelona Metropolitan Area.

- Modal transfer to public rail transport by improving the transport available and its intermodal nature within the framework of the Master Plan for Infrastructure (PDI) in the Barcelona Metropolitan Area and the Catalan Passenger Transport Plan (PTVC).
- Modal transfer to public transport by creating and promoting park-and-ride systems, in order to achieve a modal transfer to large-capacity public transport services, especially rail services, facilitating car parking at a station close to the point where the passenger starts his/her journey.
- Modal transfer to public transport by offering discount travel passes, aimed at guaranteeing access to public transport for the entire population, with discount travel passes that attract users to this kind of transport and avoid the use of private vehicles.

- Favour modal exchange, energy diversification and the rational use of private vehicles.
- Promote the greening of the country's fleet of vehicles.
- Continue regulating road safety and the dynamic management of speed in order to reduce congestion.
- Design of public spaces that facilitate traffic flow and protect pedestrians and cyclists (bicycle lane network), as well as the promotion of the use of bicycles on a daily basis within the Master Plan for Mobility (PDM) in the Barcelona Metropolitan Area, in which a series of aspects related to the planning of cycling mobility are defined, which must be considered in the urban mobility plans (PMU).
- Promote the drawing up of urban mobility plans (PMU).
- Generate an adapted, assisted transport model, which facilitates access to daily care services for disabled and dependent people, in order to help keep people in their socio-affective and community environment, and reinforce the maintenance of natural relationship networks (family, friends, etc.).

Inter-ministerial and inter-sector area of action of PINSAP

- Promote active mobility (walking: pavements, school routes; cycling: cycle lanes, community bicycle services, green routes, etc.) both for everyday and leisure time activities. Integrate the concepts of health and safety into the mobility plans and design.

Best practice

Catalan Strategic Road Safety Plan

Accidental injuries, particularly those resulting from car crashes, continue to be one of the main causes of premature death. For every road traffic death in Catalonia, there are about 12 hospital admissions due to injuries, which often lead to permanent disability. Road safety policies in Catalonia between 2000 and 2010 led to a 57% drop in the death rate, a saving of 2,900 lives, 25,444 hospital admissions and some 18 billion euros in expenses for society.

The Catalan Traffic Service has drawn up the **Catalan Strategic Road Safety Plan for 2020,** where the goal is also a 50% reduction in traffic fatalities in comparison with the numbers killed in 2010, with a view to achieving the 'Vision Zero' road safety goal: in other words, no fatalities or serious casualties resulting in lifelong consequences by 2050. The strategic objectives of Strategic for Road Safety Plan 2014-2020 are:

- To protect mobility users and control high-risk behaviour effectively.
- To promote a continuous road safety area (urban and interurban areas).
- To involve and coordinate public and private bodies in the improvement of safe mobility.
- To acquire the road safety management structures, instruments and mechanisms needed to achieve the desired results.
- To facilitate the learning of safe mobility throughout life.
- To promote research and development and research applied to road safety.

4.2. Diet and health

Although a high percentage of the world population has problems accessing the most basic foodstuffs (it is estimated that malnutrition is responsible for 35% of the deaths of children under 5 across the globe), excess weight and obesity represent a major problem in most high-income countries. In Catalonia, being overweight affects 1 out of every 2 adults and 4 out of every 10 children, especially in the most disadvantaged social groups, and this fact is related to access to high-calorie processed foods and a sedentary lifestyle. However, in wealthier countries the economic crisis also appears to be increasing the number of individuals within the most disadvantaged groups who have no access to an adequate diet.

Another problem that should be considered is the incidence of eating disorders, which are influenced, among other factors, by image and fashion, and is particularly common in certain age groups such as adolescent girls.

In Catalonia, the agri-food industry plays a very important role in the country's industrial base, which contributes over 20%, with annual net sales of over €18 billion. It is a sector that employs over 75,000 people (Food Safety Plan 2012-2016). [58]

A fundamental part of the Government of Catalonia's food policies—described in the Catalan Food Safety Plan 2012-2016—focuses on guaranteeing the safety of the foodstuffs produced and consumed in Catalonia. However, in order to improve the diet of the Catalan population (a varied, balanced diet rich in fruit and vegetables, olive oil, nuts and seeds, and low in refined sugar), the coordinated action of policies on public health, agriculture, livestock and fisheries is essential. A healthy diet has a very positive effect on health. For example, it has been reported that eating one more portion (80 g) a day of fruit and vegetables reduces the risk of mortality due to ischaemic heart disease by 4%.[59]

Catalonia, like all Mediterranean countries, is characterised by the availability of a wide and varied selection of food, especially items related to the Mediterranean diet. Moreover, it has a distribution chain that includes retail establishments that provide the population with locally produced food. The local markets, supermarkets and shops in Catalonia allow the entire population to consume safe, healthy food.

Catalonia also has an excellent traditional cuisine, which is reflected in the quality of the country's home cooking, passed down from generation to generation, and also in the quality of its restaurants.

Based on the fact that no foodstuffs are actually bad, but rather that the aim is to follow a healthy diet, it is very important to ensure that healthy food is accessed more readily than items that should only be consumed occasionally.

The globalisation of commerce increases the diversity of the food available to end consumers, but it also introduces new dangers that need to be controlled. The consumption of food

contaminated by biological, physical or chemical agents has a direct impact on the health of the population. The consequences of these risks can affect large populations, even those far away from where the food is produced, and these effects can be observed in the short, medium and long term. Chemical risks are related to chronic exposure and long-term effects, where it is hard to establish direct relations between the illnesses and their cause. Biological risks are normally associated with direct and short-term consequences, and give rise to so-called food poisoning which usually occurs in epidemics, over 80% of which are associated with specific sections of the final phases of the food chain. According to data from the *Butlletí Epidemiològic de Catalunya* ['Epidemiological Bulletin of Catalonia'], in 2009 the main agents responsible for food poisoning were *Salmonella* (30.8% of the outbreaks), *Norovirus* (17.6%), *Clostridium perfringens* (5.8%) and *Staphylococcus aureus* (5.8%). With regard to the carriers, fish and shellfish (17.6%) are the most frequent, followed by mayonnaise and egg products (16.6%), meat and cold cuts (7.3%), and pasta (7.3%).

Of the 1,415 human pathogens known in the world, 61% are zoonotic and, therefore, are directly related to public veterinary health activities.[60] WHO[61] defines zoonoses as 'diseases and infections that are naturally transmitted between vertebrate animals and humans'. This definition is very broad, because it includes infections that humans acquire from animals, illnesses caused by non-infectious agents such as toxins or by toxins and infections that animals acquire from humans. A multidisciplinary approach is required to reduce the incidence of zoonoses and zoonotic agents and prevent infections.

In order to prevent the appearance of health problems associated with food risks, it is essential to ensure that the correct conditions are adhered to by all agents related to the food chain and, at the same time, assess the existence of risk in food available on the market. At present, the organisation of official controls for food sold on the market bears in mind the requirements that have arisen due to the globalisation of said market. Thus, it takes into account that the food sold in Catalonia comes from many different sources and reaches the sales outlets very quickly. In many cases, these products have a very short shelf life. Controls are also carried out on foodstuffs that are sold to other countries or locations far from Catalonia. The Catalan Ministry of Health carries out health control programmes to monitor establishments selling food at phases after primary production—including exportation establishments—and food sold in Catalonia to check that businesses comply with the public health requirements and to monitor the levels of contaminants in the food in order to prevent, eliminate or reduce to acceptable levels the risk to human health.

Coordinated action by agri-food and public health polices helps protect and promote health through food, in line with the following objectives: [62]

- To increase the consumption of healthy food, mainly fruit and vegetables, olive oil, nuts and seeds.
- To promote the consumption of seasonal and local products.
- To promote healthy eating at points of sale and in the restaurant industry.
- To reduce the consumption of food with low nutritional value.
- To guarantee access to suitable basic foodstuffs.
- To promote food safety.

Lines of action currently underway, which are included in PINSAP

- Promotion of the consumption of seasonal and local fruit and vegetables; for example, in the school environment with the *A l'escola la fruita entra sola* ['At school, fruit's cool'] project, co-funded by the European Union, in which ministries of agriculture, education and health all participate.
- Promote access to fruit and vegetables at low prices (reduced VAT).
- Support for local distribution networks.
- Integrated Plan for the Promotion of Physical Activity and a Healthy Diet (PAAS), from the Catalan Ministry of Health's Public Health Agency, which includes over 65 actions in school, community, work and health sectors. This plan includes the revision of school menus and the Mediterranean Diet Promotion Programme (AMED) with establishments promoting Mediterranean food.
- Projects to help in decision making in sales outlets and catering establishments.
- Promotion of healthy menus in school dining halls and other collective canteens.
- Actions aimed at guaranteeing the basic dietary requirements for all individuals who do not have sufficient resources to eat properly, targeting children and pregnant women in particular. Solidarity food distribution table, actions to prevent food wastage, actions to prevent eating disorders, etc.
- Information on how to ensure a healthy, safe diet on a limited budget, and dissemination among groups at risk of dietary problems (for example, the 'Menjar sa amb menys diners' ['Eat Healthily for Less'] project).
- Collaboration with third sector entities to help ensure that those in poverty have an adequate diet.
- Promotion of the consumption of healthy food (olive oil, nuts and seeds, oily fish).
- Promotion of the use of natural parks.
- Promotion of inter-sector actions aimed at preventing eating disorders, paying particular attention to gender specificities (Eating Disorder Roundtable).

Inter-ministerial and inter-sector areas of action of PINSAP

▪ Increase the availability of healthy food, promoting the choice of fruit in meals served at catering establishments.
▪ Promote health quality as a criterion of the prestige of food produced in Catalonia and aimed at the international market.
▪ Prevent eating disorders in children, establishing the protocol for the coordinated action of the social services, and the ministries of Education and Health.
▪ Increase access to a healthy, Mediterranean diet in work canteens, through the AMED project, giving priority to those belonging to the Integrated Public Health System of Catalonia (SISCAT).

Best practice

'At school, fruit's cool'

This is a European Union initiative, implemented jointly in Catalonia by the ministries of Agriculture, Health and Education. It consists of distributing free fresh fruit to schools. The scheme began in 2009.

The objectives are to:

- Provide free fruit for school breakfasts and/or afternoon snacks to increase acceptance and foster regular consumption amongst schoolchildren and their families.
- Inform of the benefits of increasing consumption of fruit and vegetables, diversity, characteristics, production, seasonality…
- Propose fruit as an excellent alternative to other foods of less nutritional value.

For one week every month, fruit is selected (depending on seasonality, proximity of production, quality…) and distributed.

The fruit is given to 1st-, 2nd-, 3rd- and 4th-year primary school children for breakfast and/or their afternoon snack, to be eaten on school premises.

Schools are given a calendar of produce and the weeks it will be distributed, along with cards with key information on the selected produce, to pass on to families. Schools develop complementary activities.

4.3 Environment and health

The environment consists of a set of physical, chemical and biological influences that interact with people and have an effect on human health. The environment can also affect future generations. In Europe, it is considered to be a major determinant of health and it is estimated to account for almost 20% of all deaths in WHO European Region.[63] The main environmental health problems are related to indoor and outdoor air pollution, the poor quality of water and sanitation and chemicals.

The effects on health include respiratory and cardiovascular disease, cancer, asthma and allergies, as well as reproductive dysfunctions and neurodevelopmental disorders. However, we must take into account that the establishment of causal links between certain environmental factors and the harmful effects for health is difficult due to the variation in the type of environmental load (mixtures of pollutants to which we can be exposed on a daily basis), the various means of exposure, the diversity of the population, the genetic variability, the different types of effect (short- or long-term), etc.

Air pollution is a major environmental risk to health. Urban air pollution is estimated to cause 1.3 million deaths per year worldwide.[64] Amongst the pollutants that generate most concern in urban centres are suspended particulate matter (PM) and nitrogen oxides (NO_x). The presence of tropospheric ozone (O_3) also affects the environment and human health, given that its concentration can reach high levels in different parts of the country, often in rural areas, which receive emissions of pollutants that are ozone precursors from built-up areas. In Europe it is estimated that 1-3% of deaths due to cardiorespiratory diseases and 2-5% of all deaths due to lung cancer are caused by PM, and that in 2010 the annual PM2.5 levels caused 3.1 million deaths and around 3.1% of global disability-adjusted life years. Exposure to PM2.5 reduces the population's life expectancy by around 8.6 months on average.

Similarly, it is estimated that daily mortality levels due to all causes increases by 0.2-0.6% per 10 µg/m^3 of PM10. In terms of long-term exposure to PM2.5, the risk of mortality due to heart and lung disease increases by 6-13% per 10 µg/m^3 of PM-2.5. People suffering from pre-existing lung or heart conditions, as well as the elderly and children, are particularly vulnerable. There is no evidence of the existence of a safe exposure level or a threshold below which there are no adverse effects on health.[65] The reduction in air pollution levels can reduce global morbidity levels for respiratory infections, heart disease and lung cancer. This reduction requires actions to be taken by the authorities in different areas: the environment, industry, transport, town and country planning, public health, housing and energy.

Climate change is causing a gradual increase in average temperatures (global warming) and major changes in all elements of the atmospheric system and its patterns. These changes affect certain parts of the planet most intensely, including the Mediterranean area. The extreme air temperatures are directly related to deaths from cardiovascular and respiratory diseases, especially in the elderly. In one study carried out by the Centre for Research in Environmental Epidemiology (CREAL) on heat waves and the specific causes of mortality at all ages,[66] it was observed that three consecutive hot days led to a relative increase in daily mortality of 19%, and it was calculated that 1.6% of all deaths were caused by the heat. Similarly, it was determined that in new-born babies the first week of life is the most critical window of vulnerability.

Chemicals play a vital role in our daily lives. When used correctly, many chemicals can help improve our quality of life, health and wellbeing. However, other chemicals are dangerous and, when used incorrectly, can have a negative impact on our health and the environment. There are over 100,000 pollutant chemicals. In certain cases, lead and mercury, known for

their effect on health, can be found in drinking water and food or are contained in a variety of articles and products. Furthermore, pollutants can also come from industrial emissions or waste. Current European policies for assessing, authorising, registering and limiting the sale and use of chemicals are basic tools for preventing health risks in the population. Likewise, many public health and environmental regulations set maximum values and thresholds for different chemical substances in the air, water and soil, in order to protect the population's health and the environment.

Both municipal and hazardous waste products—whether they directly or indirectly pollute the soil, groundwater or the air—are being managed satisfactorily in Catalonia. Over a period of 20 years, a total of 3,000 landfills that did not comply with regulations were closed and cleaned up and 1,500 new management facilities were built. Law 6/1993 on the regulation of waste, updated by Legislative Decree 1/2009 (revised text), regulates the complete waste management cycle in Catalonia and establishes management and financing systems. Worthy of note is the efficiency of the integrated waste management systems, which are applied to specific sectors, such as healthcare waste and industrial waste.

It is estimated that over one third of diseases in children is due to environmental risk factors.[67] Children constitute an especially vulnerable population group, as they are developing and are thus less able to break down or eliminate toxins. They are lighter than adults and their behaviour in certain cases involves greater risk (putting their hands in their mouth or crawling on the ground, etc.).

The inhalation of aerosolised water and/or soil contaminated by the waterborne bacterium *Legionella* spp. can cause Legionnaire's disease (Legionellosis), which affects the respiratory tract. This infection originates in buildings or installations with incorrect structural features or poorly maintained pipework and water systems. The establishment of technical requirements in facilities at risk and the monitoring of compliance with these requirements are important in order to prevent cases and outbreaks caused by this infectious agent.

Public policies to protect nature and landscapes, from the sustainable management of forests to the control of light pollution in open areas, have a positive impact on human health, whilst phenomena involving a degradation of the natural environment, such as deforestation or the destruction of landscapes, especially if they are caused by forest fires, have negative repercussions.[68] In 2008, the term 'nature-deficit disorder'[69] was coined to describe the series of symptoms associated with the negative effects of spending less time in a natural environment: attention deficit disorder and hyperactivity, lack of creativity and curiosity, natural illiteracy, lack of connection and identification with the environment, individualism and a poor sense of community. The positive effects spending more time in natural surroundings can have on a person's physical health include: slower heart rate and lower blood pressure, lower risk of developing cardiovascular disease, better vitamin D production, quicker recovery from illness and strengthened immune system. When protected natural areas (PNA) are declared, they must be managed properly with specific programmes in order to conserve them. This is particularly important in peri-urban and threatened areas.

Noise is a pollutant that can have an impact on people's health and their quality of life. Epidemiological studies clearly show the relationship between exposure to environmental noise and the adverse effects on health. For this reason, noise pollution is not only considered to be an environmental nuisance but also a public health problem. It can cause short- and long-term health problems such as sleep disturbances, cardiovascular issues, cognitive deterioration, hearing problems, etc.[70] It has been estimated that around 20% of the population of the European Union, around 80 million people, are exposed to what are considered to be inacceptable noise levels, that is, levels that disturb people's sleep and have other adverse effects on their health.[71] Likewise, it has been estimated that the total burden of disease due to environmental noise in Western European countries is 61,000 disability-adjusted life years (DALYs) lost for ischaemic heart disease and 45,000 DALYs for cognitive impairment in children and young people aged 7-19.[72] Compliance with established environmental nose thresholds, as well as the modification of certain individual behaviour patterns, can reduce people's global exposure to noise.

For some time now, we have known about the benefits of sunlight in synchronising biorhythms in humans and producing vitamin D through the skin's exposure to the sun's rays. However, long exposure to sunlight can be harmful to health if we do not take precautions. On the one hand, exposure to artificial light at night can disrupt our natural biological clock and can in turn disrupt the body's circadian rhythms and affect our resting and sleep cycle. Moreover, ultraviolet and infrared radiation and short-wave visible (blue) light can damage the retina or the cornea and cause cataracts.

Existing scientific knowledge indicates that there is no evidence of a direct cause and effect relationship between electromagnetic fields and human health. However, there is no evidence to prove the contrary, either. International organisations have been studying this subject for years now, and the International Agency for Research on Cancer (IARC) has classified these agents in Group 2B, as 'possibly carcinogenic to humans'. Therefore, it would be advisable to carry out more research on this subject. Following the precautionary principles, in various European countries protocols are now beginning to be applied, which include measuring levels and informing citizens; at the same time, experts in this field are monitoring the scientific research that is being carried out.

Only through collaboration between the different sectors involved can we protect human health and the environment from pollution: the scientific community, with the study and assessment of the dangers, risks and replacement measures; governments, with the establishment of regulations, guidelines, recommendations, informative and awareness-raising policies, control of the agents involved and risk management, following the precautionary principle in the event of doubt; and the industrial and service sectors, complying with existing criteria and regulations and promoting improvement. With regard to citizens, it is essential to promote healthy behaviour, such as the proper ventilation of enclosed spaces, hygiene and proper maintenance of buildings, the rationalisation of the use of chemicals, and the avoidance of unnecessary or inadequate exposure (to noise, for example).

At the last Ministerial Conference on the Environment and Health held in Parma in March 2010, the World Health Organization European Region, together with experts in health and the environment from the EU Member States in the European Region, agreed to intensify efforts in the following areas:[73,74]

- The effects of climate change on health and the environment.
- The health risks for children and other vulnerable groups resulting from environmental, working and precarious living conditions (in particular, the lack of safe water and sanitation).
- The effects of socioeconomic and gender inequalities on the human environment and health, made worse by the financial crisis.
- The burden of non-communicable diseases, inasmuch as it can be lessened through proper policies in areas such as urban development, transport, food safety and nutrition, and working and living environments.
- The concerns raised by persistent, bioaccumulative and toxic chemicals and endocrine disruptors, nanoparticles as well as emerging problems.
- Insufficient resources in some parts of WHO European Region.

Lines of action currently underway, which are included in PINSAP

The main lines of action currently being carried out in coordination with several of the Government of Catalonia's ministries or organisations are:

- **Actions to improve water quality.** The Catalan Ministry of Health carries out health control programmes to monitor the water supply intended for human consumption. Moreover, the Catalan Water Agency (ACA) controls water in the natural environment and promotes improvements in the public water supply, supporting city councils. The two bodies work in coordination with one another, in order to promote and prioritise actions to improve the quality of water intended for human consumption in the most appropriate public water supplies. With regard to the problem of excess nitrogen from agricultural sources in water bodies and its repercussions, in some areas where there are high levels of nitrates in water for human consumption, work is also being done with the ACA and the Catalan Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment to define the vulnerable areas in which several measures should be applied to reduce the presence of these substances. The abovementioned ministries also coordinate with each other regarding the control and monitoring of pesticides in water for human consumption and food. Moreover, in the event of new concessions involving water intended for human consumption or modifications of the existing ones, as well as discharges and concessions for the reuse of reclaimed wastewater, the ACA or the Ebro Hydrographic Confederation, if appropriate, asks the Catalan Ministry of Health for the corresponding public health report, and they work together to define criteria. With regard to the quality of bathing water, the Beach and Coastal Water Quality Monitoring Plan coordinated by the ACA must continue to be promoted, in collaboration with city councils and with the participation of the Catalan Ministry of Health in the steering committee.

- Within the framework of the assessment of **air quality in Catalonia**, the Catalan Ministry of Territory and Sustainability has the main instrument, the **Air Pollution Monitoring and Forecasting Network**. The Network is a complex detection and management system for obtaining information on the concentration levels of the main air pollutants. The legal framework for the management of environmental air quality establishes the need to reduce air pollution levels, which reduces the harmful effects on health to a minimum; in this respect, the assessment of air quality is generally carried out by determining pollutants such as nitrogen dioxide, sulphur dioxide, suspended particulate matter PM10 and PM2.5, carbon monoxide, tropospheric ozone, benzene, polycyclic aromatic hydrocarbons and heavy metals. On 18 December 2013, within the framework of new measures to improve air quality, the European Commission adopted a Clean Air Policy Package consisting of a new 'Clean Air Programme' for Europe, in order to ensure that its short-term air quality objectives were met. This programme has revealed that poor air quality is one of the main environmental causes of premature death within the EU. With regard to the management and assessment of air quality in Catalonia, two of the actions carried out by the Catalan Ministry of Territory and Sustainability are worthy of note:

- On the one hand, there is the action in regard to nitrogen dioxide (NO2), suspended particulate matter (PM10), ozone (O3) and other local pollutants that affect human health, which are unlike the pollution produced by other more global agents such as greenhouse gases, which can have an impact on the planet's climate. While the impact of the former extends over a limited geographical area, they can have a direct effect on human health. The local health impact that the abovementioned pollutants have means that the actions to be taken must be carried out in the same area where the pollutants are emitted. The aim of the action plan to improve air quality by 2015 promoted by the Government of Catalonia is to achieve the air quality threshold values for these two fundamentally urban pollutants.

  In light of the evolution in the air quality data and the European and Catalan regulations on the protection of the atmosphere, on 23 May 2006, the Government of Catalonia approved Decree 226/2006. Later, on 31 July 2012, through Government Agreement 82/2012, 40 municipalities in the Barcelona Metropolitan Area were declared 'special protection areas' to protect the atmospheric environment from the nitrogen dioxide and suspended particulate matter PM10. The abovementioned action plan involves the minimum actions that must be introduced in order to improve the quality of the air the population breathes.

  It should be noted that these measures mainly affect the area of mobility of people and goods, as well as citizens' habits. This Plan will be followed up with a new Programme 2015-2020 in line with the European Union 'Clean Air' strategy.

- On the other hand, each year the Catalan Ministry of Territory and Sustainability carries out a tropospheric ozone level monitoring campaign in Catalonia. Last year, for the first time, it incorporated the prediction of ozone levels and a prior notice to municipalities to facilitate the adoption of the appropriate preventative measures. Ozone concentrations above a certain level and certain exposure time can have adverse effects on human health: cough, irritated pharynx, throat and eyes, respiratory tract problems, decreased performance, poor lung function and immune response to respiratory disease and symptoms of general malaisel (tiredness, headache, depression). Sensitivity to ozone can vary greatly from one person to the next. However, certain groups are particularly vulnerable: people suffering from asthma or other diseases of the respiratory tract or heart disease, people who exercise in the open air, especially during the hours when ozone levels are at their highest (between 12.00 pm and 4.00 pm, solar time), children and the elderly. For this reason, the Catalan Ministry of Health recommends adopting basic preventative measures in the event of exceeding certain levels established by existing legislation: the information threshold (180 µg/m³ in 1 hour) and the alert threshold (240 µg/m³ for 3 consecutive hours). As a prevention system, people should avoid any strenuous physical exercise in the open air, especially it is

exhausting, of long duration or carried out between the hours of 10.00 am and 4.00 pm (solar time).

- It also monitors pollutants of industrial origin, which require particular attention, especially in the areas where this type of activity is concentrated, such as in Camp de Tarragona or certain parts of El Vallès and El Baix Llobregat, but also in isolated locations where certain activities in the cement, chemical or energy industry, etc. are carried out.

- On 13 November 2012, the Government approved the **Catalan Climate Change Adaptation Strategy. Horizon 2013-2020**, which proposes a series of adaptation measures in line with the level of vulnerability of the sectors and systems, and specifies the body or ministry responsible for them. One of the sectors is the health sector, which proposes various measures such as the promotion of research into the relationship between health and climate change, monitoring and control campaigns for diseases transmitted by vectors, the control and monitoring of pests, and the development of the Action Plan to Prevent the Effects of a Heat Wave on Health. This strategy facilitates coordination between various sector-specific policies with a clear impact on the environment.

- **Actions to ensure the compliance of chemicals and mixtures manufactured, sold and used in Catalonia.** Catalonia is one of the main chemical-producing regions in Europe and represents almost half of Spain's production; it involves around 1,500 companies.

- **Information for citizens on the possible relationship between electromagnetic fields (EMF) and health.** The possible effects of EMF on health are of great concern to the general public and, at the same time, a constant research topic studied by different international organisations specialising in this area. The study and management of the possible implications of EMF for public health require technical information from a wide variety of different areas, such as technology related to the use of radiofrequencies for mobile phones and other devices or power lines, scientific knowledge on possible effects on health and epidemiological research, etc. It is thus important to share the information, look for synergies between the ministries that have functions in this area and promote joint actions, above all promoting those related to information for citizens. In this respect, the Catalan Ministry for Business and Labour, in collaboration with the Catalan Ministry of Territory and Sustainability, the Catalan Ministry of Health and CREAL, has prepared the Radio-electric Governance website,[75] on which citizens are informed about the results of the monitoring carried out and updates on new studies into the possible repercussions of EMF on human health. Likewise, and in order to continue to promote coordination between the ministries involved in this area, the creation of an inter-ministerial commission will be promoted, which will encompass everything related to EMF.

- Light pollution can affect human health, damage the environment and make it hard to see the night sky properly. In Catalonia, **Law 6/2001 on the protection of the environment**

from light pollution at night limits the emission of short-wave radiation in outdoor artificial lighting.

- **Law 20/2009 of 4 December, on the prevention and environmental control of activities** is a preventative regulatory tool, whose goals include guaranteeing a high level of protection for human health. The Law regulates the degree of intensity of the Government's intervention in accordance with the pollution potential of the activities. In order to adapt the Law to the proper functioning of the productive sector, it established the creation of an Assessment and Monitoring Committee. This Committee is coordinated by the Catalan Ministry of Territory and Sustainability, and its main function is to assess and monitor recommendations and regulations prescribed in the productive activities resulting from the application of the Law and to propose, where necessary, corrections and improvements to its execution.

- **The Asian Tiger Mosquito Prevention and Control Strategy in Catalonia,** drawn up by an inter-institutional commission made up of various local bodies and ministries involved in this area (the Catalan Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment and the Catalan Ministry of Health), defines the basic criteria for actions to prevent and control the Asian tiger mosquito. Its objective is to minimise the density and dispersal of the mosquito, the problems it causes the population as a result of bites and to prevent the risks due to it acting as a vector for disease. Its areas of action involve the environmental monitoring of the mosquito, control of the mosquito, healthcare monitoring, raising citizen awareness, training professionals and research, and it indicates the agents and institutions currently involved in each area of action. It is essential to promote their development, in particular with regard to management models, both for the Asian tiger mosquito and other problematic types of mosquito, and the definition of a protocol for action in the event of any arbovirus.

- The **protocol for veterinary monitoring actions for animals that can transmit rabies**, which defines the activities carried out by the different organisations involved in episodes of biting or aggression by an animal that could spread rabies and the characteristics of the aggressor animal, has been drawn up. The Public Health Agency carries out the processing and coordination of actions in the event of a pet dog attacking a person when the animal is suspected to be suffering from rabies. The main actions consist of processing reports and monitoring the aggressor animal, so that local organisations can ask the owner to have the animal examined and get a clinical examination carried out to see whether the animal does in fact have rabies. If the animal has to be sacrificed, a sample will be taken for confirmation and sent to the laboratory; the Agency takes care of this task at the Animal Health Research Centre (CreSA) (proposed agreement pending). Moreover, the Catalan Ministry of Health is informed of the annual data regarding cases of rabies in animals and humans, in accordance with the standardised model established by the World Health Organization.

- The **Action Plan 2012-2014 for the prevention and control of the black fly** in the affected counties of Catalonia is funded by several of the Government of Catalonia's ministries

(Territory and Sustainability; Agriculture, Livestock, Fisheries, Food and Natural Environment; and Health) and the corresponding provincial councils (Tarragona, Lleida and Girona's Dipsalut) and is executed by the El Baix Ebre and El Montsià Agri-environmental Services Consortium and the Bay of Roses and Lower Ter Voluntary Inter-municipal Association of the Mosquito Control Service. Also participating are the Institute for the Development of the Ebro Regions (IDECE) and the Aquatic Ecosystems Unit of the Agri-food Research and Technology Institute (UEA-IRTA). It is essential to continue to develop the Plan in order to reduce the problems the black fly causes the population.

- **Legionnaire's disease prevention and control actions**. Within the framework of the committee for the coordination of the health inspection of facilities at risk of spreading legionnaire's disease, made up of the Catalan Association of Municipalities, the Federation of Municipalities of Catalonia and the Catalan Ministry of Health, there are plans to promote the preparation of informative material and management tools to favour an improvement in this area, especially with regard to facilities at low risk of spreading Legionnaire's disease, with the collaboration of local authorities, which are responsible for controlling this kind of facility.

- Within the framework of the **promotion of the sustainable, safe use of pesticides**, established by the European Union and the World Health Organization, the Catalan Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment and the Catalan Ministry of Health are preparing criteria regarding the prevention of the use of plant health products in public spaces, in order to avoid undesirable exposure to pesticides, which could endanger human health.

Inter-ministerial and inter-sector area of action of PINSAP

- Improve and monitor air quality, and reduce emissions derived from the transportation of people and goods and of industrial and energy generation activities.

Best practice

Air Quality Improvement Plan for 2015

The Air Quality Improvement Plan for 2015 promoted by the Ministry of Territory and Sustainability aims to re-establish the air quality levels containing the so-called city pollutants (nitrogen dioxide and suspended particulate matter, PM10) in 40 municipalities within the Barcelona Metropolitan Area where the threshold values set by European legislation have been exceeded.

The measures that make up the Air Quality Improvement Plan for 2015 have been established according to the following criteria:

- Inclusion of measures from other plans with direct repercussions on air quality improvement in special protection zones.
- Inclusion of new measures assessing their economic and technical viability.
- Promotion of participation and encouragement in the face of prohibition.
- Priority adoption of the measures affecting government agencies

Two types of measure have been considered:

- Existing measures: promoted initially in other plans with similar objectives to the Air Quality Improvement Plan for 2015.
- New measures: these are approved for the first time and are not shared by, nor form part of, any other plan; rather they are included in the Air Quality Improvement Plan for 2015, which establishes its own objectives.

4.4. Employment and health

Employment (work) provides income, a sense of identity and helps structure a person's everyday life.

It is related to other important determinants of health and conditions them:

- Living conditions.
- Socioeconomic, cultural and environmental factors.
- Social and community factors.
- Lifestyles and individual factors such as age and gender.

Unemployment often leads to material and social hardship and psychological stress. Lack of work is associated with physical and mental health problems including depression and anxiety.

Unemployment and job insecurity has increased in Spain and Catalonia and has reached very high levels, especially amongst young people, who are at a critical point in their lives. It is also very common among women and people who have lower levels of education.

Temporary jobs, part-time (paid) work and other types of precarious employment also have adverse effects on a person's health. The relationship between unemployment and the appearance of health problems is linked to several factors. Firstly, unemployment often leads to material hardship and poverty through the drop in income and disappearance of any benefits that were formerly provided by the person's employers. Secondly, when a person loses his job it causes a great deal of stress, lowers his self-esteem, changes his former daily routine and increases anxiety. Thirdly, unemployment increases the likelihood of the adoption of unhealthy habits such as smoking and alcohol consumption.

The study carried out using data from the Catalan Health Survey (ESCA) in the report *Població ocupada i aturada: comparació d'indicadors de salut ESCA, 2006 i 2011-2012*[76] ['Employed and unemployed population: comparison of ESCA health indicators, 2006 and 2011-2012'] concludes that the health status of the unemployed population is worse than that of the employed population, both in 2006 and 2011-2012.

Job insecurity often involves working longer and antisocial hours, with poor working conditions, which are associated with higher stress levels, aches and pains and a high risk of injury.

Excess working hours increases the possibilities of physiological and psychological problems such as sleep deprivation, high blood pressure and cardiovascular disease. Therefore, unemployment, insecurity and other work-related problems have a negative effect on personal relationships and also on family roles and childcare.

The effects of unemployment and recessions on health, and on mental health in particular, have been studied in the European Union.[5,6,77]

The current context of crisis in the productive system is leading to the deterioration of working conditions and the quality of work, which require public policies that adapt to the new market circumstances in order to avoid an increase in inequalities and the impact that this situation has on workers' health. In this respect, whilst it is true that the unemployment rate among men is 1.53 higher than in women, it is also true that activity and employment rates in the latter are slightly lower than in men (12 and 8 points, respectively), in addition to a ratio of part-time to full-time employment that is three times higher in men (23.8% compared with 7.4%), and a 16.9% difference in pay for the same job to the detriment of women. These data, along with employment segregation (horizontal and vertical) and the double presence, make up a panorama of job inequality, which also has a negative effect on women's health.

Some macroeconomic indicators are beginning to show a positive change, which it is hoped will have a knock-on effect and activate the job market.

A wide range of policies regulate decisive aspects of health related to the world of work. Sector-specific policies, such as social, employment, business, labour market and educational policies, are involved. One also has to consider the influence of participation practices on the job market and their impact on health.

The prevention of occupational hazards, that is, activities a company has to carry out in order to guarantee its workers health and safety, is not just a legal obligation, but also an imperative in terms of both ethics and social responsibility. Moreover, it is important to take into account the fact that poor employment conditions have a significant negative economic effect on corporate competitiveness and entail a great burden on their economy and that of the entire country.

Public policies to prevent employment risk focus on the concept of promotion and essentially primary prevention; the defence and improvement of workers' health are both its objective and raison d'être.

Over and above the prevention of specific risks, the working environment provides the ideal scenario for the promotion of workers' health. Thus, numerous companies work within the framework of what is considered to be a healthy company or one that promotes health.

For the World Health Organization,[78] a healthy workplace is one in which workers and managers collaborate in a process of continuous improvement to protect and promote the health, safety and welfare of all the workers, as well as the sustainability of the workplace, based on identified needs that take into account the following aspects:

- Health and safety with regard to the physical working environment.
- Health, safety and welfare with regard to the psychosocial working environment, including the organisation of the work and the organisational culture.

- Personal health resources in the workplace (providing support and promoting healthy lifestyles).
- Community participation systems to improve the health of workers, their families and other members of the community.

Lines of action currently underway, which are included in PINSAP

Catalan Work Health and Safety Strategy

This is the common, shared framework of the occupational hazard prevention actions that the Government and the agencies involved must develop.

The actions carried out within the framework of this strategy have had an impact on the objective of reducing workplace accidents and have improved companies' working conditions. Their fundamental core areas were:

- Advice on how to improve working conditions.
- Promotion of best practices with regard to the prevention of occupational hazards.
- Development of knowledge and the prevention culture.
- Promotion of training and research on workplace health and safety.
- Contribution to compliance with regulations.
- Involvement of all stakeholders related to prevention (governments, social and economic stakeholders).
- Improvement in the detection and monitoring of workplace accidents.

Catalan Employment Strategy (ECO)

The Catalan Employment Strategy (ECO), with its Active Policy Development Plan (PDPA), plans to carry out flexible employment policies tailored to meet the specific needs of each country, sector and group of unemployed individuals.

The idea is to strengthen work and training programmes with income policies in order to help mitigate this situation, not forgetting career guidance programmes, professional qualification programmes, programmes on local development, programmes on entrepreneurship and those aimed at the disabled or people suffering from mental illness.

The main aim of the Catalan Employment Service (SOC) programme is, therefore, to try to generate opportunities in order to ensure people stay active and increase their employability. At an exceptional time like the present, the goal is to ensure as many unemployed people as possible who are not receiving any kind of benefit can participate in programmes with a job contract, which will later enable them to receive benefits or subsidies. These programmes will not simply be a substitute for income but instead will help improve their qualifications and therefore their employability.

Within the framework of PINSAP, the Catalan Employment Strategy is of particular importance, especially with regard to young people and the groups who have the greatest difficulties finding secure employment. All these lines of work are of high priority.

- **Within the Comprehensive Plan on Mental Health and Addictions:**

  Individual placement and support (IPS) programmes for individuals suffering a serious mental illness, respecting the individual's personal preferences and in competitive working environments integrated within the job market.[79]

Inter-ministerial and inter-sector areas of action of PINSAP

▪ Improve the health of the employed population through the creation of a health promotion corporate brand and its consideration in public sector contracts.
▪ Prevent and improve health problems through coordinated intensive action by the employment, health and social services, in areas with high unemployment rates.

4.5 Town planning, housing and health

The urban environment is where people spend most of their life and, as a result, the characteristics of cities constitute some of the most important determinants of health. In fact, public health, or at least sanitation, is one of the basic elements for protecting health in today's cities. However, town planning has an even broader influence, since it directly affects the living conditions of citizens, with regard to their home, their work, mobility and transport, not forgetting the role played by landscapes as an element of comfort and in promoting health. Thus, many considerations regarding the environment can be applied to it. Urban renewal also offers possibilities for community health promotion and protection, as shown by the experience with the 'Salut als barris' ['Neighbourhood Health'] programme.

Both town planning and design, with the promotion of green spaces and the rationalisation of transport systems, are factors that can jointly have a positive effect on the population's level of physical activity, their health and their wellbeing.

Contact with nature helps relieve mental fatigue through relaxation. In built-up areas, parks and green spaces promote social relations and physical activity and reduce stress. Urban green areas provide neutral areas in which people can meet and increase their social interactions (and this includes people of different origins) and these relations are channelled. Therefore, there are both individual and collective health benefit.[80]

Moving house to an urban zone with more green spaces is associated with sustained improvements in mental health (5 years); therefore, increasing urban green spaces may provide sustainable benefits for public health.[81]

Housing can also affect health in different ways. For many decades, the relationship between living conditions and health has been known; there are assessment studies from the beginning of the 1930s as well as a series of controlled experimental studies, making this one of the most frequently studied fields. Over nine systematic revisions have focused on housing and health, two of which look at 'social' changes (such as housing benefit programmes) to allow people to choose where they want to live), five of which are concerned with 'environmental' changes in housing (for example, changes in lighting or in physical infrastructures such as insulation, services, etc.) to reduce the risk of falls and injuries; and two are more global initiatives (urban renewal of the zone, prohibition of the use of firearms in the zone).[20]

Both social interventions and housing benefits, which prevent people with financial problems from concentrating in certain areas, improve health, but their effect is limited. Global improvements in housing are related to global social improvements, with a feeling of safety and an increase in social participation.[20]

Moreover, the wide range of difficulties that people have to deal with in order to access housing and their characteristics are a notable cause of social inequalities in the health sector.

Some of these characteristics (inadequate water supply, absence of toilets, showers or baths, overcrowding, damp or inadequate air-conditioning) increase the risks of injury and disease.[82]

In the case of the elderly, the physical characteristics of housing and the urban environment have a significant impact on their personal independence, mobility and safety. Several recommendations have been published on how adapting housing where old people live can reduce the risk of falls and injuries: eliminating or securing rugs, removing obstacles on the floor and unstable pieces of furniture, improving lighting, adapting the bath and the toilet, installing railings on stairs, increasing the height of the bed, etc.,[83] a series of measures that could reduce the risk of falls by 26%.[84]

Noise in the home can disturb sleep, cause stress and affect a person's physical and mental health. In order to avoid disturbed sleep, it is recommended that the maximum noise level in a bedroom should be under 30 dB(A). In general, in homes the noise level should not exceed 35 dB(A). In order to reduce noise levels, buildings should be constructed in accordance with regulations and double glazing and mechanical installation installed in homes with high levels of environmental noise. Traffic noise should also be taken into consideration and traffic-calming measures established.[85]

Improvements in household heating systems help reduce respiratory problems in children and even improve mental health.[86] In Scotland, Portugal and Spain, as a result of indoor temperatures, mortality levels are higher in winter than in Scandinavia, where the winters are colder.[87]

The elderly and young children are the groups most vulnerable to low temperatures. Funding or subsidising heating (the electricity, town gas or butane gas bill) can reduce mortality rates in winter, and also dampness and allergens in the home.

It has been observed that children in families who live in subsidised housing have more access to sufficient food and better health parameters than similar families who are on a waiting list for housing.[88]

This connection between affordable housing, poverty and health also occurs in adults. For example, people who live in non-affordable houses are described as having poorer health than similar people who live in more affordable housing.[89]

There is also evidence to suggest that having problems paying bills, the mortgage or maintaining housing is related to low levels of psychological wellbeing and a greater likelihood of requiring medical help.[90]

The World Health Organization has selected several shared objectives for public health and housing policies, which should facilitate inter-sector collaboration in this area. [91] These include:

- **Solid construction.** Housing provides a suitable refuge from the natural elements and dangerous substances.
- **Safety and protection.** Housing provides privacy, safety and protection.

- **Suitable dimensions.** Housing provides an appropriate space for the composition and number of residents.
- **Basic services.** There are reasonable levels of basic services in the neighbourhood.
- **Affordability.** Housing costs are reasonable and affordable.
- **Accessibility.** The location of the housing facilitates access to personal services, services and activities for everyday life, and economic opportunities.
- **Tenancy.** The tenants are assured they can live in the housing for a reasonable, continuous period of time.
- **Protection from the effects of climate change.** The housing protects the residents from the effects of climate change.

Lines of action currently underway, which are included in PINSAP

- **Right to Housing Plan**

  This Plan regulates subsidised housing and the lines of support with Catalonia's own legal regulations, whilst there are plans to carry out specific actions in the main areas at risk of residential exclusion and urban degradation. It also includes new intermediate tenancy models to avoid evictions and facilitate access to housing and other measures to support social policies. Moreover, the plan offers the following services:

  - Granting of emergency loans to families with rent or mortgage arrears and the *Ofideute* service for mediating between banks and families who have difficulties paying their mortgage.
  - Social housing network, managed by third sector bodies, with the support of the Catalan Housing Agency.
  - Emergency board, which allows public subsidised housing to be allocated to families experiencing serious social and financial hardship.
  - There are different types of special emergency aid for individuals who have already been evicted.

- Preparation of the new *Town Planning, Architecture and Landscape Act* aimed at creating new land-use planning tools and committed to high-quality town planning. A committee of experts collaborates with and advises the Catalan Ministry of Territory and Sustainability about this reform of land-use planning policies.

Inter-ministerial and inter-sector areas of action of PINSAP

- **Incorporate the health value into the assessment of housing benefits in situations of severe financial and social hardship and other cases with special needs.**
- **Improve health promoting conditions in projects to restore buildings and in new buildings (stairs as a priority, lifts, and thermal and acoustic insulation and air-conditioning). Priority action in public buildings.**

4.6 Education and health

Health and education interact at different levels.

Education provides skills and knowledge, which have direct and indirect influences on the wellbeing of the population. Education in general and health education in particular are some of the main tools that allow us to correct social disadvantages associated with health inequalities, which tend to be passed down from one generation to the next.

A higher level of education is associated with a reduction in morbidity and mortality for various reasons and a reduction in the incidence of behaviours that endanger health, such as a sedentary lifestyle, tobacco consumption and alcohol and other drug's abuse.[92] Moreover, children and adolescents with a better health profile and behaviours (such as physical activity) display higher school attendance rates and better academic performance.[93]

The wellbeing of schoolchildren and teachers is considered essential in order to ensure good academic results. On the one hand, schoolchildren with health problems often have difficulties concentrating and learning and have higher levels of absenteeism and higher school dropout rates. And, on the other, the effectiveness of the education system is to a large extent based on the performance of a numerous group of professionally competent, healthy teachers. In this respect, the wellbeing of the teachers is also a key element in the success of the entire system. Several studies have revealed that education systems that provide little support for teachers are characterised by a deterioration in the health of the latter, which leads to high levels of absenteeism and high staff turnover. This, in turn, has a negative impact on the quality of the education.

Several objectives shared by educational and public health policies, which have been identified by WHO[94] are:

- **Universal access** with enough educational services and opportunities for everyone.
- **Equal access.** Everyone can access educational services and opportunities.
- **Improved quality.** Improvements in the quality of the whole system are implemented.
- **Equity in the results.** Inequalities in the educational level and performance of schoolchildren are corrected.
- **Critical periods and lifelong learning.** Education at critical periods and lifelong learning prepare citizens for dealing with challenges and capitalising on opportunities.

Likewise, it is important to progress in the rolling out of health education at school, bearing in mind that, traditionally, the school environment has been considered a great opportunity, in terms of time and space, for creating attitudes and habits linked to healthy behaviour in schoolchildren. In this respect, experiences such as the 'Salut i escola' ['Health and School'] programme help promote health and the prevention of illness in schools as just another context within the community.

Lines of action currently underway, which are included in PINSAP

- In general, educational success is seen as a basic element for promoting student wellbeing and reducing risk behaviour. In this respect, the Catalan Ministry of Education has prepared the *Ofensiva de país a favor de l'èxit escolar* ['Country-wide Offensive for Scholastic Victory'] plan, which describes the core areas and measures required to improve scholastic success. Insofar as a population's educational level is one of the main determinants of its health, this plan constitutes one of the key elements to consider in PINSAP.

- The Catalan Ministry of Education and the Catalan Ministry for Business and Labour collaborate in the development of a series of programmes aimed at young people who have not obtained the compulsory secondary school leaving certificate.
- Moreover, specific actions in the area of education and health include:
  - Detecting learning difficulties in nursery and primary school, intervening early.
  - Promoting integrated education that helps make up for social inequalities with regard to the access to certain healthcare services (vaccinations, etc.), basic needs (food), the acquisition of a healthy lifestyle (physical activity, etc.) and emotional wellbeing (emotional education) and risk prevention (tobacco, alcohol and other drugs, accident rate).
  - Promoting educational and community health promotion projects aligning them with existing plans such as local education plans and other social and educational projects.
  - Promoting training strategies to favour the reincorporation of people who missed a lot of schooling or left school very early and lack training into the education system.
  - Promoting the involvement of the family in education to ensure their children adopt healthy habits.

Inter-ministerial and inter-sector areas of action of PINSAP

- Opening school playgrounds up to the community (promoting local education plans).

Best practice

Community Service

In its role as promoter of civic commitment and voluntary work amongst students, the Ministry of Education is developing a project to promote community service amongst compulsory secondary school students.

The aim of this project is to guarantee that, throughout their schooldays, students experience and take part in civic activities, learn the active exercise of citizenship and use their knowledge and skills for the good of the community. Community service enables students to learn about associations, organisations and individuals committed to various spheres and thus increase participation in associations, foster commitment to improving society and promote support in the region.

Community service is undertaken under the educational initiative 'Aprenentatge servei' ['Service-learning'], which combines learning with community service in a single well-articulated project. Participants learn social and citizen skills, responsibility for the society they live in and acquire civic commitment while working on real needs in their community.

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4.7. Culture, leisure, physical activity and health

In considering culture to be a set of traditions, regulations and values that develop and bond human communities, the relationship between culture and health becomes very broad, both with regard to the very concept of health that is perceived and interpreted in line with cultural influences, and with regard to the practice of or participation in what are known as cultural activities (artistic, historical, scientific, etc.) and people's health status. It is a relationship that not only covers dimensions such as the family, education or work, but also affects leisure time, in which most of the population's cultural consumption is concentrated.

Culture

Some eating disorders such as anorexia and bulimia are, at least in part, a result of social conventions with regard to supposed aesthetic canons.[95] Beyond this cultural dimension of health, a notable correlation between engaging in culture and the achievement of a better health status can be observed, including the general public's self-perceived health. Attendance at cultural events has a positive impact on a person's survival.[96,97] There is also clear evidence of the benefits of the use of the arts (music, visual arts, etc.) in treating cancer and cardiovascular diseases and also in relieving pain, or in helping people with mental health problems, and so on.[98]

For example, the participation of museums and other cultural centres in community health programmes increases health education and social capital[99,100,101] and helps maintain health,[102] while it decreases cardiovascular risk factors in communities with limited socioeconomic resources[103] and has even proved beneficial in helping treat patients with mental health problems and individuals suffering from dementia or cancer.[104]

The health benefits of participating in cultural events can be summed up in the following points:

- Improved cognitive function as a result of the stimulation of sensory neurons.
- Improved capacity for analysis and criticism, which 'empowers' people to dispel myths and social stereotypes related with habits that can be detrimental to health.
- Increases sociability, especially in people who take part in civil associations. As a result, the subsequent creation of networks of contacts, solidarity, collaboration, etc., strengthen people's character and help them cope with difficult situations.[105]
- Perception of pleasure as a result of enjoying an aesthetic experience.
- Release or control of emotions through the practice of artistic disciplines such as painting, theatre, writing, etc., or participation in cultural events.
- Reinforcement of self-esteem as a result of the perceived satisfaction of active participation in artistic disciplines.
- Maintenance of a level of physical activity related with mobility through attending cultural events or centres (exhibitions, museums, libraries, etc.).

According to data from the last Eurobarometer[106] on cultural access and participation, visits to museums and galleries and going to the cinema, concerts and the theatre have declined, whilst visits to public libraries and the consumption of cultural programmes on the radio and television have increased. The main reason cited for not going to the cinema or concerts is a lack of money, whilst lack of interest followed by lack of money are the reasons given for not going to the theatre, opera, or to see a ballet or dance performance.[107]

Thus, from a health and social welfare perspective it is advisable to increase cultural practices and maintain as far as possible the highest level of cultural consumption attained so far.

Lines of action currently underway, which are included in PINSAP

- Promote the association between health and cultural centres in order to reinforce the treatment of certain health conditions (health promotion, recommendation of cultural activities, etc.).
- Promote participation in cultural associations.
- Increase the average number of books read by the general public as a basic indicator of a country's cultural capacity.
- Include certain cultural practices in local community health plans as complementary tools to improve health.
- Increase schoolchildren's and students' attendance at cultural activities aimed directly at these groups.
- Include systems for improving habits (with healthy menus in cultural facilities with restaurants) and expand the installation of machines selling condoms in local cultural facilities (libraries, etc.).
- Organise cultural activities offering an attractive alternative for night-time leisure events (Museum Night, etc.).

Leisure

A high percentage of cultural activities are carried out during leisure time. Therefore, they constitute a healthy way of filling a dimension of our social life that is becoming increasingly important. Given its importance to young people, it becomes one of the ideal scenarios for promoting certain lifestyles,[108] many of which are associated with people's emotional health. Good emotional health involves psychological wellbeing, which allows us to cope with stress, maintain personal relations and function properly.[109] A person's emotional health improves if they have support networks and maintain a healthy lifestyle. It worsens with drug consumption, social inequalities and social isolation or exclusion.[110,111] Being an active member of a community is associated with higher mental wellbeing, lower levels of depression and fewer psychological disorders.[112]

Social support, which expresses the number, strength and quality of relationships between the individual and those around them, is associated with a person's health status; it mitigates the

effect of environmental stress and can help protect against psychosomatic diseases, depression and anxiety, as well as promote mental wellbeing. The presence of social resources reduces the risk of cognitive deterioration as we grow old.[113,114] Social isolation decreases mental capacity and reduces neuronal activity and the capacity for intellectual processing and decision making,[115] also having an effect on mortality comparable to that of obesity or tobacco consumption.[116]

The social environment determines mental health. Therefore, mental health promotion must include social interventions that affect fundamental social determinants of wellbeing: active lifestyles, community participation in leisure activities and social support.[117]

With regard to the factors that can generate health problems, such as acute poisoning, traffic accidents, high-risk sexual relations, aggressive behaviour and violence, one of the most decisive elements is alcohol and other drug's consumption in recreational settings.[118] Furthermore, the globalisation of the leisure market and, in parallel, the drug market has brought about a rapid increase in the population's access to new psychoactive substances. The drug trafficking routes and transport methods have also diversified, as has the use of information and communication technologies in the cycle of supply and demand.

In Catalonia, although general population surveys indicate a stabilizing trend in the incidence of diverse drug use, among the most vulnerable age groups (14-18 years old) and young people (15-29 years old) there are worrying patterns of binge drinking, marijuana consumption and use of the so-called emerging drugs.[119,120] The majority of consumption by young people in these age groups takes place over the weekend in order to relate to a group of their peers and create a space in which they can feel freed of the conditioning factors and responsibilities of day to day life.[121] Some of the factors associated with increased risk due to consume at this age are the length of the time spent going out, the purchasing power and the recreational environment.[122,123]

Alcohol and other drug's consumption is associated with a laxness in the adoption of measures to protect oneself from the risk of contracting HIV and other STDs.[124] The fact that 29.2% of the people newly diagnosed with HIV in Catalonia in 2012 were under 30 [125] and that the pregnancy rate among girls between 14 and 17 years of age is 10.3 out of 1,000 for the same year[126] calls for reinforced action to prevent health problems related to high-risk sexual activity.

The growing burden of the sexual transmission of HIV infections, the increase in STDs and the subsequent rise in HIV infections, the similarity in the transmission and the synergy in the combined preventative action mean that it is essential to address sexual and emotional health in young people. The reinforcement of preventative interventions outside the regulated area, in areas frequented by young people, no doubt allows them to be accessed by vulnerable young people[127] and access to these preventative tools with proven efficacy, such as condoms, must be improved in places where sexual contacts may be initiated.[128]

From the perspective of health promotion and the prevention of drug consumption-related problems, interventions linked to institutions and activities that encourage young people to socialise are an important protection factor,[129] especially leisure activities aimed at children and young people in the most deprived areas.[130] It is also essential to consider the need for strategies to improve access to healthy leisure options aimed at adults at risk of social isolation. As for the nightlife sector, a balanced approach must be established between preventative measures, risk reduction measures and law enforcement.[131]

The Council of the European Union document *Council conclusions on the prevention and reduction of health and social risks associated with the use of illicit drugs in recreational settings*, along with the actions proposed by the EU Drugs Action Plan 2009-2012, the European Action Plan to Reduce the Harmful Use of Alcohol 2012-2020[132] and the strategic lines of the new EU Drugs Strategy 2013-2020,[133] define some of the objectives and lines of preventative intervention for tackling social and health problems in the nightlife and leisure sector, which are described in the Catalan Public Health Agency's Drug and Mental Health Prevention Plan 2012-2016. It includes the following recommendations:

Regarding alcohol consumption

- Decrease alcohol consumption prevalences, periods of intoxication and binge drinking in young people and minors.
- Decrease the road traffic accident rate associated with alcohol and other drug consumption.
- Raise awareness regarding the risks of alcohol consumption related to health and driving.

Regarding nightlife facilities

- Inform and advise drug users about the risks of drug consumption.
- Implement environmental measures to promote safer and healthier recreational settings.
- Train professionals in the nightlife sector about the responsible serving of alcohol and also about conflict management and first aid.
- Implement community preventative programmes in a coordinated manner between local bodies, professionals, the owners of recreational facilities, as well as regional organisations and associations.
- Establish measures to promote law enforcement.

Lines of action currently underway, which are included in PINSAP

The initiatives aimed at preventing problems related to drug consumption are carried out jointly by the Catalan Ministry of Health (Catalan Public Health Agency) with the Catalan Ministry of Education and the Catalan Ministry of Social Welfare and Family (Directorate-General for Youth and the Directorate-General for Childhood and Adolescent Care) and the Catalan Ministry of Justice (Directorate-General for Criminal Justice in the Community and Juvenile Justice), with the support of the Federation of Municipalities of Catalonia and the Catalan Association of Municipalities.

- Provision of tools to support educational work and to raise awareness in children and young people for professionals in the education and leisure sectors: the *L'aventura de la vida* ['The Adventure of Lifetime'] programme; the School Sports and Prevention Project: EP@; the exhibitions, *Febre del divendres nit* ['Friday Night Fever'] and *Coca, què?* ['Coke, What?']; the educational material, *Sortim?* ['Wanna Hit the Town?'], etc.
- Use of ICT to broadcast preventative messages about alcohol and drug consumption among young people over 12 years old through the website 'elpep.info' and 'laclara.info' and social networks (Facebook and Twitter).
- Production of material to raise awareness and spread information about drugs, aimed at the general public, through the Canal Drogues (Canal Salut) and the exhibition 'Entre Nosaltres' ['Between Us'].
- Implementation of the screening of hazardous drinking and brief advice on primary healthcare services. 'Beveu menys' ['Drink Less'] programme.
- Dissemination of materials aimed at reducing risks among young consumers in leisure facilities.
- Promotion of stands in shopping centres providing information and advice on the risks of drug consumption.
- Promotion of the creation of groups of young people to disseminate measures on reducing risks using peer education methodology.
- Support for the establishment of substance analysis stands in shopping centres. 'Energy Control' project.
- Dissemination of environmental measures to create healthier and safer leisure facilities (facilitating access to drinking water, signposting rest areas, avoiding overcrowding, etc.) amongst the organisers of local parties through the *Guia de recomanacions per a la prevenció de problemes relacionats amb l'alcohol I altres drogues* ['Manual to Prevent Alcohol and Drug-related Problems'].
- Rollout of the quality stamp to identify leisure or party facilities with basic services related to the health and wellbeing of their clients.
- Courses for professionals in the nightlife, recreational and festival venue sector, and training groups of young people who organise 'bars' or 'refreshment stalls' in the context of local festivals.

- Rollout of the 'Plataforma Nits Q' programme for community-level preventative actions regarding the use of drugs in nightlife venues.

The initiatives related to the prevention and promotion of mental health carried out by the Catalan Public Health Agency in the recreational sector include:

- Implementation of the Social Prescription pilot programme as an example of primary healthcare services in order to encourage the social participation of people at risk of isolation in the activities organised by citizens' associations in their local environment so that they can make the most of them. The aim is to increase their participation in community activities.
- Positive mental health measurement (emotional wellbeing) of the inhabitants of Catalonia through the introduction of the Continuous Health Survey of Catalonia (ESCAc) using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), adapted and validated to suit Catalonia. This is a questionnaire that includes the latest advances in psychological measurements in order to group together the positive aspects, in line with the definition by the World Health Organization (WHO), which establishes that this notion goes beyond the absence of disease. Positive mental health is related to many indicators of quality of life and allows us to recognise wellbeing even in stages of life in which the effect of symptoms or chronic diseases are very much present.

The initiatives aimed at preventing infection through HIV and other STDs in young people in leisure activities were designed within the framework of the Inter-ministerial AIDS Commission of Catalonia and are reflected in the **HIV/AIDS Action Plan 2010-2013**. They are carried out in conjunction with the Catalan Ministry of Health (Catalan Public Health Agency) and the Catalan Ministry of Education and the Catalan Ministry of Social Welfare and Family (Directorate-General for Youth, Area for Equal Treatment and Non-discrimination of LGBT people, the Directorate-General for Immigration and the Catalan Women's Institute), the Catalan Ministry of Justice, the Barcelona Public Health Agency, local bodies and non-governmental organisations dealing with AIDS, with the support of the provincial councils, the Federation of Municipalities of Catalonia and the Catalan Association of Municipalities.

These are listed below:

- Working to develop preventative skills in adolescents and young people in the social arena:
    - Promote the inclusion of emotional and sexual education in the health area in training teachers of leisure education activities.
    - Promote emotional and sexual education in particularly vulnerable young people.
    - Favour peer education.
    - Provide online information, guidance and advice.

- Facilitate accessibility with regard to material on STD and pregnancy prevention:

- Disseminate information on free access to condoms.
- Provide condoms and lubricants free of charge.
- Increase the availability and provision of cheap condoms.
- Reinforce the availability of informative material in recreational venues.
- Promote the involvement of the sectors of the business world related to leisure activities.

These actions are in line with the **Catalan Agreement to deal with HIV in Catalonia and to fight against the stigma related to this virus**, which was approved by the Parliament of Catalonia in January 2014. As indicated, this Inter-ministerial Public Health Plan must guarantee approaches that take into account social inequalities from a community point of view on prevention and on the treatment of people living with HIV. As the backbone of public health in Catalonia, PINSAP is an entry point for the best approach to reducing health inequalities and promoting strong, integrated leadership of community participation in planning and assessment as well as in practice.

Physical activity and sport

Physical activity and sport have become one of the most important social elements of the 21st century. The sports phenomenon has helped ensure the harmonious and complete development of the human being, has enabled the comprehensive training of individuals and favoured social wellbeing and quality of life. Today, it can be said that the relationship between sport and physical activities and health is becoming increasingly broad and close, especially when referring to the great impact sport and physical activities have on people's health.

According to data from the last survey on sports carried out by the Catalan Sports Observatory in 2010, 50.5% of the population aged over 15 practises sport and the main motivations are to keep fit and to improve health (82%).

The practice of physical activity and sport is associated with four main principles:

- Health, given the scientific evidence of the benefits of physical activity and sport and their impact on people's health.
- Education. Physical activity and sport are seen as generators of values and habits.
- Effective equality between men and women in all areas (practice, leadership and management) and also in relation to trainers for physical activity and sport.
- Social inclusion. Physical activity and sport are considered to be tools for generating social cohesion.

According to WHO reports, lack of physical activity is the fourth leading risk factor for global mortality. These effects can be clearly seen in three trends: the ageing of the population, rapid and haphazard town planning, globalisation and new technologies, which are all factors that lead to unhealthy behaviour. WHO has drawn up global recommendations on physical activity for health, with the general objective of providing policy makers at both national and regional levels with guidance on the relationship between the frequency, duration, intensity, type and total quantity of physical exercise and non-communicable disease prevention.

WHO says that Spain is one of the European countries with the highest levels of overweight people and childhood obesity. This fact coincides with the reduction in the number of hours devoted to physical exercise at school, and Spain is one of the EU countries that dedicates the smallest percentage of the secondary school timetable to physical education (3-4%).

Practising moderate physical activity on a regular basis is an effective tool for primary, secondary and tertiary prevention, with very few negative effects if it is carried out in a controlled and supervised fashion. All studies carried out to date prove and confirm the benefits of an active lifestyle.

It has been proven that regular physical activity reduces the risk of coronary heart disease, strokes, type-2 diabetes, hypertension, colorectal cancer, breast cancer and depression. Moreover, physical activity is a decisive factor in energy consumption and, therefore, is essential to control weight.

These benefits can be characterised in accordance with a person's age, according to WHO's *Global Recommendations on Physical Activity for Health*, which draw conclusions based on scientific evidence from different studies (bibliographical references were examined from sources such as the Centres for Disease Control and Prevention (CDC) (2008), Janssen (2007), and Janssen and Leblanc (2009)), all of which observed that an increase in physical activity is associated with more favourable health parameters.

With this scientific evidence, we can say that the relationship between physical activity and sport and health can last well into old age. The relationship starts when a person is very young, through school physical education and out-of-school physical activity and sports. It continues in puberty and adolescence through school physical education and also sports and physical activity outside of school, or the practice of a sport in a more regulated fashion. Then, when a person is an adult, the physical activity aspect diversifies and turns into a leisure activity, which has experienced a boom in recent years, and federated and/or high-performance sports. The relationship ends with the great impact that physical activity can have on the elderly.

This close relationship between physical activity and health means that the health of the active sector of society improves and, therefore, those in charge of organising sports activities are also responsible for the health of those who take part.

Most children and young people exercise almost without noticing it, through playing and everyday activities as part of an active lifestyle: walking to school, playing at break or in the park, climbing up stairs or taking the dog for a walk.

With regard to school physical education, all schoolchildren have at least one hour of physical education per week (40 minutes in real time), although some primary school have two hours per week (1 hour 20 minutes in real time), within the school timetable. However, this school physical activity is insufficient and, in fact, a recent study by the EU statistics office for European education systems and policies (Eurydice) ranks Spain as one of the European countries that devotes the least amount of time to physical education in secondary schools.

A recent study by the Sant Joan de Déu Observatory for Childhood and Adolescent Health shows that physical activity improves learning and school performance and reveals the health benefits of activity for physical and mental health and the construction of values. It is also worth noting that, in educational centres, the practice of physical activity and sports improves school attendance rates and children's relations with their parents. It reduces behavioural disorders, delinquency and drug consumption.

For this reason, it is essential to make physical activity and sports accessible, as a preventative tool, to all sectors of society, and to try to ensure that young children start practising sport as early as possible and adopt healthy habits that will continue throughout their whole life. It should be borne in mind that, in early childhood when these habits are being established, the responsibility for them leading an active life generally does not lie with the children themselves. Therefore, it is essential to devote a great deal of effort to facilitate the actions carried out at school as well as to try to make the families aware that physical activity and sports can be highly beneficial for their children.

Elderly people who remain physically active can help slow down, and even reverse, many of the effects of age, which has a beneficial effect on them and on society in general.

Lines of action currently underway, which are included in PINSAP

The Secretariat-General for Sport is carrying out the following:

- **Catalan Strategic Plan for School Sports 2013-2020 (PEEC).** A plan to consolidate and increase the practice of physical activity and sports in Catalan children and adolescents developed by the Secretariat-General for Sport and the Catalan Ministry of Education, in collaboration with the sports councils of Catalonia. It includes three specific programmes: The Catalan Sports at School Plan, the Catalan School Games Programme and the FITJOVE programme.

- **Catalan Sports at School Plan (PCEE).** Plan to promote out-of-school sports in children and young people in primary and secondary schools, developed by the Secretariat-General for Sport and the Catalan Ministry of Education.

  The main objective of PCEE is to increase children and adolescents' participation in physical activities outside of school hours at the school itself and, at the same time, to use these practices to teach the students values and help them acquire healthy habits.

- **Catalan School Games Programme (JEEC).** Programme for the promotion of school sports at a regional level, developed by the Secretariat-General for Sport and the sports councils.

  The JEEC's directives state that, in addition to promoting sports: '…it is also necessary to carry out specific actions to recognise and promote the educational values of sport as well as to promote the acquisition of healthy habits, in collaboration with bodies that encourage this, in order to promote its dissemination amongst both the schoolchildren and their families and the trainers and managers'.

- **FITJOVE programme.** Programme to promote physical exercise aimed at adolescents in their fourth year of secondary school in PCEE schools, as a strategy to prevent drug consumption, developed by the Secretariat-General for Sport and the Catalan Public Health Agency.
- **Strategic Plan for University Sport in Catalonia (PEUC).** Plan to consolidate and increase physical exercise and sports in Catalan university students, developed by the Secretariat-General for Sport and the Inter-university Council of Catalonia, with the collaboration of Catalan universities.
- **'Women and Sports' Programme.** Programme developed by the Secretariat-General for Sport and the Catalan Women's Institute, which aims to promote initiatives designed to correct existing inequalities between men and women in sports, at all levels, and to promote mechanisms to exchange knowledge and experiences between sporting bodies and women's groups, which make it possible to progress towards the effective equality of men and women in sports.
- **National Plan for the Promotion of Physical Activity (PNPAF).** Plan being developed by the Secretariat-General for Sport, with the collaboration of various Catalan authorities and the private sector, which favours greater social awareness of the need for all age groups of the population to be active, and which makes use of the work carried out by the Physical Activity, Sport and Health Plan (PAFES). PAFES has been promoted by the Catalan Ministry of Health and the Secretariat-General for Sport since 2007 to combat sedentary lifestyles in adults, and recommends physical activity and sports in primary healthcare to improve patients' quality of life and to prevent the appearance of certain diseases.

Moreover, the Catalan Ministry of Health, through the Catalan Public Health Agency, is carrying out:

- **Integrated Plan for the Promotion of Physical Activity and a Healthy Diet (PAAS)**

  In order to promote health through physical activity, the Catalan Ministry of Health started up the Pla integral per a la promoció de la salut mitjançant l'activitat física i l'alimentacio saludable (PAAS) [the 'Integrated Plan for the Promotion of Physical Activity and a Healthy Diet (PAAS)'][134] in line with the NAOS strategy of the Catalan Ministry of Health, Social Services and Equality, and WHO Global Strategy on Diet, Physical Activity and Health.

It is based on the evidence that confirms that multidisciplinary, multi-factor and integrated approaches are most effective at changing habits and lifestyles. PAAS aims to be universal; it promotes equity across the entire country and in underprivileged groups and the use of existing resources. It works to train both professionals and patients. Since it was first implemented, PAAS has completed over 65 actions in the educational, community, health and labour sectors, with the participation of other ministries of the Government of Catalonia, city councils and local bodies, foundations, universities and research institutes, industry, and other community institutions and resources. PAAS forms part of Project 2.2 of the Health Plan 2011-2015 (Foster programmes for health protection and promotion and disease prevention) within the framework of chronic diseases.

The **Physical Activity, Sport and Health Plan (PAFES)** forms part of the Health Plan and PAAS. In conjunction with the Secretariat-General for Sport and the city councils, PAFES has spread to almost all primary healthcare centres and reached around 400,000 people. With its application, a 19% relative reduction in sedentary lifestyles has been observed, which has been concentrated in PAFES' target population. It is estimated that in Catalonia between 2006 and 2011 there were 240,000 fewer sedentary persons. Given that WHO estimates that the cost of a sedentary person at between €150-300/year, this represents a saving of approximately €54 million.

Inter-ministerial and inter-sector areas of action of PINSAP

- Use information and communication technologies (ICT) in the prevention of sexually transmitted diseases in young people.
- Prevent and reduce risks (consumption of alcohol and other drugs, non-toxic addictions) and promote health in young people via social networks and community programmes. Correct and safe use of ICT and social networks among young people.
- FITJOVE. Encourage the practice of sport to promote health in adolescents at risk.
- Monitor and control new forms of consumption, especially products related to tobacco (electronic cigarettes).
- Promote participation in cultural activities. Implementation of programmes such as 'Lletres i salut' ['Arts and Health']. The promotion of reading and reflection on subjects related to self-healing, the promotion of health, dealing with disease, death, etc., in health, community and cultural centres.
- 'Salut: tu pots decidir' ['Health: you decide']. Informative health education campaign to help citizens make informed decisions to benefit their health.

- Programme prescribing social and cultural activities for vulnerable individuals.

4.8. Healthcare system and health

Despite the fact that most determinants of health are found outside the healthcare system, healthcare systems have a direct influence on the health of individuals, communities and populations and, in the case of publicly funded healthcare systems, they also have an indirect influence as elements of social cohesion. As for the direct influences, despite their obvious aim of being beneficial for health, they can also have a negative impact.

Although it is estimated that the healthcare system's contribution only contributes a small percentage (estimated at 10-20% of global health and longevity),[135] the appropriate and easy access to health services is fundamental to maintain the health of individuals and populations, as long as these healthcare services are suitable and include promotion (improvement), protection (prevention of diseases), treatment and rehabilitation.

This can only be achieved for a small minority of the population unless there is sufficient public funding to guarantee healthcare cover and insurance for the whole population. It was precisely within the context of this economic crisis that has affected so many countries that WHO devoted its Health Report 2010 to the financing of health systems as a path to universal health coverage.[136,137] The report's arguments are divided into three main topics:

(i) Guarantee that sufficient resources are devoted to health systems.
(ii) Reduce the financial risks and barriers to accessing healthcare services.
(iii) Promote the efficient use of resources.

As mentioned above, the direct influences of health systems can be negative in some cases, as a result of adverse reactions to interventions, which is more worrying still in the case of unadvisable interventions, and as a result of the inefficient use of resources. The authors of the abovementioned report estimate that 20-40% of all healthcare expenditure is inefficient, even in countries in which the expenditure is clearly insufficient. In order to reduce the inefficiency, they propose:

1. Reducing excess medicalization dosing through proper management and suitable, rational use of drugs and healthcare technologies and an improvement of the whole process (from purchasing, storage and distribution to indication, prescription and use).
2. Maximising the efficiency of health technologies and services.
3. Motivating healthcare professionals.
4. Improving the efficiency of health centres, especially hospitals.
5. Obtaining proper care from the outset by reducing healthcare mistakes.
6. Eliminating waste and corruption.
7. Carrying out a critical assessment of the necessary services.

Another problem is that of health inequalities, a high percentage of which are linked to social inequalities; others, however, are a result of the organisation and use of the health services themselves. Therefore, it is essential to identify biases, inequalities and different types of

injustice in the healthcare sector, whether they are related to ethnic groups, social classes, age or gender.

With regard to gender inequality, which affects both sexes and, according to the current public health law, must be addressed specifically, it is essential to bear in mind the following points:

a) Whether men and women seek medical help in different ways for the same problem, at the different levels of the health services, and whether these differences in attitude between men and women are related to gender behaviour models.

b) Whether men and women describe their health problems and symptoms in different ways, given the same level of severity, and whether they complain about their problems in the same way. It is known that women use primary healthcare services more frequently and men use hospital services more often. This is in part due to the expectations of our society, which make it easier for women to complain and ask for help. In men, these things are considered to be signs of weakness unless they are seriously ill.

c) Gender differences can be seen in the way healthcare staff look after patients, in terms of the care provided and in their diagnoses and treatment.

d) It is important to analyse the situation from a gender perspective when choosing or giving priority to health problems for which resources and interventions are primarily aimed at either men or women, since it is in this prioritisation that we can detect elements that may lead to gender inequality.

Moreover, it is essential to bear in mind that the health system is not homogeneous. Instead, several different subsystems coexist in both the public and private healthcare sectors. Health insurance systems for common illnesses and work-related illnesses also coexist.

We must be diligent and try to prevent and address the effects that the current recession, which is both deep and lasting in countries like ours, is having on the population's health and to adapt healthcare systems to the new situation. According to the report by Thompson et al.,[138] up to now research has focused on the short-term effects of recessions on health, such as the impacts on mental health, infections and injuries. However, it is very likely that economic crises have other effects on health that are not immediately apparent, such as those related to chronic diseases and their complications. In any case, with regard to the effects on mental health, it is advisable to avoid inappropriate medicalization as a response and favour interventions addressing the causes of emotional disorders, anxiety and depression. On the one hand, it is essential to consider the importance of public health measures and actions in all policies such as those on which PINSAP is based, and, on the other, we must also introduce an assessment of the impact that health and non-health measures used to deal with the recession (for example, social protection policies or austerity policies) have on health.

Public health services must be considered part of the health system. In fact, given that most of the causes are outside the health system, an inter-sector approach to public health is needed. The Institute of Medicine (IOM) in the USA describes public health systems as complex

networks of people and organisations, which when they work together represent what society does collectively to guarantee the conditions required to ensure that an individual can lead a healthy life.

A study shows that 50% of the increased life expectancy in the USA since 1950 can be attributed to public health strategies related to food, tobacco consumption and other measures.[139]

We also know that the investment in public health is related to a decrease in the number of avoidable deaths, especially in low-resource communities. [140]

International strategies for the prevention and control of chronic disease play a key role in prevention. Only through health prevention and promotion can we achieve the objective of increasing healthy life expectancy.

Many public health interventions are efficient and others have a cost-effectiveness ratio that is better than or equivalent to that of interventions fully established in the health system. Interventions that generate savings or have a very good cost-effectiveness ratio include vaccinations, the control of tobacco consumption, cardiovascular disease prevention and the promotion of health in the workplace.[141]

According to the US report *Prevention for a Healthier America*, the investment in proven prevention and promotion programmes (for example the spending of US$10 per person/year in proven programmes to prevent smoking and other tobacco use and improve nutrition) can be recovered by the decrease in healthcare spending in around one or two years, and in five years this can lead to a return of US$5.6 for every US$1.[142]

This saving leads to non-incurred expenses (virtual money) in a relatively far-off future. For example, avoided cases of measles or polio are associated with a clear social impact and financial savings. One aspect that must be considered is how difficult it is to visualise the specific people who benefit from the interventions.

The current financial crisis makes the efficient use of resources even more of a priority. As we saw earlier, public health spending is more than just expenditure—it constitutes an investment.

A society that invests in public health is a healthier society with greater productive capacity. In Catalonia each years over 3,200,000 vaccinations are given to over 1,700,000 people. With these vaccinations, over 900,000 cases of disease have been avoided over 20 years as well as the associated complications and deaths. The smoking prevention and control law has led to an 11% decrease in hospital admissions for heart attacks, thus avoiding all the associated costs and burden the patients would have incurred. It is estimated that the 240,000 people who gave up their sedentary lifestyle and became more active thanks to programmes such as the Physical Activity, Sport and Health Plan (PAFES) have helped decrease annual health expenditure by €54 million. The close to 3,000 traffic accident fatalities avoided in a ten-year period are associated with an estimated saving of €18 billion. Each year, over 30,000 controls

of high-risk food establishments and facilities are carried out, which guarantee that the food that reaches our table, the water we drink and the air we breathe do not harm our health. The appearance of outbreaks of Legionnaire's disease is reduced thanks to annual inspections of high-risk facilities. Official health controls are carried out in slaughterhouses with a volume of over 314 million head of cattle killed to avoid the transmission of disease. The monitoring of public health, especially that of communicable disease and their determinants, and the rapid response to public health emergencies and the support for the management of the alert system allow actions to be taken to improve the health of the population.

Based on the detection of the population's health requirements and environmental risks and the monitoring of trends, both on risk factors and diseases, in public health, protection, promotion and prevention actions are planned and programmed, even covering aspects such as occupational health and food safety. Sometimes these actions are carried out by the public health system's own resources, both by the autonomous governments and local authorities; other times, they are carried out jointly with the healthcare system's resources.

The public health service works to empower individuals and communities, and to create a safer and healthier environment. The aim is for people to be responsible for and in charge of their own health, in environments where everyone has equal opportunities to achieve this. This implies carrying out universal actions and specific actions for individuals and groups in vulnerable situations. The perspective of the person's background, gender and place of origin must also be incorporated. In order to achieve this, the commitment of all public health professionals is required.

Public health actions address the needs of the population's health. They rarely respond to explicit demands. This is why proactive action by government agencies is required in order to anticipate health problems through:

- The management of health risks (air, water, food) represented by high-risk facilities (slaughterhouses, canteens, water networks, etc.).
- Action on determinants of health (health in all policies) and of inequalities.
- The promotion of personal lifestyles of self-responsibility. At the same time, it is important to ensure that the healthy options are the easiest ones.
- Preventative actions, especially vaccinations.
- Food safety.
- Occupational health.
- The monitoring of public health and the determinants of health.
- International health and cooperation.

Lines of action currently underway, which are included in PINSAP

- **All the activities in the public health portfolio,** particularly those related to health protection and promotion, infectious disease prevention (especially vaccinations, etc.), and addiction prevention and control, epidemiological monitoring and occupational health.
- Of these activities, due to its specific nature and inter-sector character, among other things, the **Integrated Plan for the Promotion of Physical Activity and a Healthy Diet (PAAS),** stands out. It includes the Physical Activity, Sport and Health Plan and the Mediterranean Diet Promotion Programme (AMED), among others.
- **Inter-ministerial plans for the prevention and control of drug addiction and for the prevention and control of infection by HIV and AIDS.**
- **Community health** promotion, through the development of community interventions, by the Catalan Ministry of Health and the Catalan public health system on the one hand and with the promotion of inter-sector initiatives with other measures by government agencies and civil society on the other. The former is basically shared among the public health and primary healthcare services on a regional level, through networks such as AUPA, ASACO, etc., and promotes the dedication of SISCAT's healthcare measures to community health.
- Transformation of the healthcare model to achieve a **more decisive integrated system**, through collaboration agreements between regional healthcare teams, alliances between services, the reorganisation of processes, etc.
- **Chronicity Care and Prevention Plan** to guide the health system towards more proactive and/or continuous care of chronic patients, without undervaluing preventative programmes, and in collaboration with the health and social sectors.
- **Comprehensive Care Plan for People with Mental Disorders and Addictions.** It helps improve the mental health of the population and reduce social inequalities in people with mental disorders and addictions by identifying their comprehensive needs, improving the care they receive, increasing their opportunities for integration and reinforcing planned inter-ministerial action by the health, education, social, labour market integration and justice services.
- **Essencial project.** Its aim is to achieve a more rational consumption of resources in order to limit waste in the use of products and services that are ineffective and do not improve health in clinical practice, and also to reduce the associated adverse reactions, through the preparation of recommendations and the development of policies that effectively motivate the prevention of overuse and overmedication.
- **Patient safety** projects to reduce adverse reactions associated with clinical practice as a result of singular or systemic factors.
- **Continuous quality improvement** projects to increase the pertinence, effectiveness, efficiency and equity of healthcare interventions.
- **Benchmarking and accountability**, through transparency and clarity in the information accessible to the population on activities carried out by the health system through publications by the Results Centre.

Inter-ministerial and inter-sector areas of action of PINSAP

- Prevention of suicidal behaviour with the activation of the Code Suicide Risk in high-risk individuals.
- Implementation of rapid HIV tests in primary healthcare centres in priority areas.
- Promote community health through networking between public health and the healthcare system and citizens.

Best practice

Suicide Prevention

Phone monitoring of patients attended in A&E departments following suicidal behaviour lowers the reattempt rate and increases periods between new episodes, which may translate into a drop in the suicide mortality rate. This is the main conclusion drawn by a team of Taulí Park mental health professionals. The results of this study by Taulí Park Mental Health Centre were so positive that a case management nurse is already applying it in real clinical practice to all patients—adults and young people—attended to in A&E following a suicide attempt. In the case of adults, the programme involves prioritising a visit to a psychiatrist in the week following discharge, plus regular phone monitoring for 12 months to ensure continued care. In the case of minors, all patients undergo full evaluation 24-48 hours after the suicide attempt at the Adolescent Day Hospital, which aids the implementation of an intensive individual and family therapy plan.

The study was based on the fact that one of the populations with the highest recognised risk of suicide, and easily accessible through preventive intervention programmes, are patients who have survived a suicide attempt and are attended to in hospital A&E departments.

Suicide is the second most common cause of death amongst adolescents in Spain. Depression, which affects almost 10% of the population, is considered one of the most important risk factors. A number of studies have shown a drop in death rates from suicide associated with the introduction of measures aimed at providing psychiatric care for people with risk factors for suicidal behaviour, which complement other preventive interventions such as control of access to suicide means, and programmes to improve public communication about suicide, amongst other public health measures.

4.9 Social policies and health

The major economic and social structural changes that have occurred in recent years and the extension of new risks of vulnerability and exclusion in our society, which the economic crisis has spread and has made very evident, require a social inclusion policy that can address the wide variety of new social problems. This social inclusion policy must be sensitive to social transformations and to the extension of risks of rupture associated with social exclusion processes in the broadest layers of society, and it must be able to address the new needs that may arise at any stage of the lifecycle as a result of the social exclusion processes.

Social protection can make a major contribution to the population's health and help reduce health inequalities. The length of time for which a person lives in conditions of poverty or exclusion reduces their possibility of escaping from this situation, and progressively worsens their economic and social situation as well as their health. The social determinants of health, including poverty, isolation and social exclusion, have a negative impact on quality of life and increase the risk of suffering various diseases (cardiovascular, osteoarticular and respiratory diseases, diabetes, mental illness, etc.).[143]

The welfare state is made up of the social security system, the healthcare system, the education system, the social services system, labour policies, housing polices and other public interventions. Social services consist of a set of interventions whose objective is to guarantee citizens' basic needs, and they focus above all on maintaining their personal autonomy and promoting the development of personal skills within a framework of respect for human dignity.

In accordance with the provisions set out in Law 12/2007 on social services, the Government of Catalonia, the municipalities and other local authorities in Catalonia are in charge of social services.

The Government is responsible for the social services portfolio, as well as for giving orders to the different social services and establishing directives, criteria and formula for the general coordination of the system.

Bearing in mind the current social and economic circumstances, the strategic interventions proposed by the Catalan Ministry of Social Welfare and Family focus on maintaining social services at the standard attained by looking for more efficient solutions, improving equity and accessibility, and addressing the needs of citizens whilst paying particular attention to maintaining personal autonomy and social and community integration.

Lines of action currently underway, which are included in PINSAP

From the Catalan Ministry of Social Welfare and Family

- **Adapting the different services included in the social services portfolio to current needs and context, whilst guaranteeing the sustainability of the Catalan social services system and social protection of the most vulnerable sectors.**

  The current socioeconomic system and the changes in the profiles and needs of the people using the services have made it necessary to work to guarantee the sustainability of the Catalan social services system. This work must be carried out from a multidisciplinary perspective by establishing bases in order to ensure that the planning of services and resources also becomes a crisis management system.

  Work is being carried out within the specialised social services area in terms of revising the service models included in the current social services portfolio.

  In this context, the collaboration between the Catalan Ministry of Health and the Catalan Ministry of Social Welfare and Family constitutes a strategic element of the Government to guarantee an integrated approach to certain problems that affect the two departments and which cannot be dealt with separately, since it is essential to guarantee continuous healthcare based on the networking of different services.

- **Caring for dependent people whilst promoting personal autonomy.**

  To the extent that the current economic context permits, a great effort is being made to continue to address the needs and demands of dependent people and those in situations of special need, to offer the most suitable resources to meet the needs of people with a recognised level of dependence.

  Work is being carried out on the new Catalan law on personal autonomy promotion, which will entail an improvement of the care focused on the needs and skills of these individuals.

- **Consolidation of training, standardisation and participation processes with people with special difficulties regarding community life, paying particular attention to prevention.**

  The exchanges between the services must be improved, when the person is ready to take a step towards greater autonomy, and it is essential to respect those cases in which the person has to spend some time with a service giving higher levels of care, if their condition has worsened or become unbalanced. In any case, the aim is to avoid the institutionalisation model, due to a lack of personal and social insertion dynamics, and to consolidate a more inclusive healthcare model. For those cases with a more advanced process of personal rehabilitation, the processes of social integration must be strengthened through the creation of programmes to support them in their autonomous life. This support should be reduced gradually, taking the form of a system to facilitate the person's independence and their full inclusion in community life.

- **Creation of cross-cutting strategies and actions to fight poverty and social exclusion.**

  The current recession has led to a significant increase in the number of individuals and families living in a situation of severe material deprivation in our society. During the period of economic growth, it was not possible to reduce the number of individuals and families living in poverty significantly. This number is currently rising at an alarming rate.

  The Catalan Ministry of Social Welfare and Family is in charge of the preparation of a **Pacte per a la lluita contra la pobresa a Catalunya** ['Pact for the Fight Against Poverty in Catalonia']. Based on an approach to social exclusion as a dynamic, multidimensional and multi-factor phenomenon, this Pact will constitute the framework for carrying out intervention actions and mechanisms to reduce the risk of poverty in Catalonia to a minimum. In order to do this, it will have an Action Plan to tackle multi-level strategies, which will affect all the risk factors from a multidimensional perspective, by considering both palliative actions to improve the existing situations of need and preventative ones to promote the empowerment of individuals in a situation of material deprivation, making them participate on their journey towards active inclusion. Along these lines, it will include actions that will have to be carried out from the labour, residential, community and health sectors, among others.

- Pla etratègic de polítiques de dones 2012-2015 ['Strategic Plan for Women's Policies 2012-2015']. It is based on a cross-cutting conceptualisation of the gender perspective and is committed to strategic planning based on the methodology of agreed on and shared work, which allows for the cross-cutting incorporation of the gender perspective into the actions of different ministries. The Catalan Women's Institute aims to design cross-cutting strategies that guarantee that all the policies incorporate the perspective of gender and women.

From the Catalan Ministry of Justice

- The **Curricular Organisation Framework Programme (PMOC) in Catalan prisons,** both open and ordinary, aims to facilitate all centres with the same number of intervention activities and programmes, whilst promoting the effect of intervention programmes; it aims to guarantee the continuity of the work plans of the inmate population and make them more dynamic, whilst enabling control of the level of participation in the assigned activities. This Framework Programme also aims to provide guidance in the preparation of individual treatment programmes and to guarantee the quality of the activities. The main areas of action are:
  - Training of adults.
  - The world of work.
  - Health and personal development.
  - Legal, social and cultural context.
  - Specialised care.

- Intervention in departments where prisoners live with their children.
- Actions to help prisoners re-enter the job market after they leave prison.
- Interventions by external, subsidised bodies. These subsidies are designed to support actions carried out by not-for-profit bodies, subsidised through public calls aimed at the reintegration and rehabilitation of people who have been in prison.
- Actions in the field of youth justice: technical advice, mediation programmes, measures for open environments, measures for detention in centres, specialised treatment of mental health problems and/or addictions.
- Healthcare programmes that range from health promotion (healthy childhood programmes, women's care programmes, etc.) to disease prevention and control (including infections such as HIV/AIDS, hepatitis C, tuberculosis, drug addictions, and so on).

Inter-ministerial and inter-sector areas of action of PINSAP

Improve collaboration between basic social services and primary healthcare.
Maintain and promote health as a core area of development in community development plans.

Best practice

Training in quality of life and person-focused care

As part of its work promoting new methods of training professionals in specialised social services, the Ministry of Social Welfare and Family is developing cross-cutting training that targets various sectors (senior citizens, mentally and physically handicapped, mental health, drug addiction and HIV/AIDS) that involves quality of life and people-focused care (PFC).

The aim of this training is to work on the concept of people-focused care and identify best practices currently implemented in this work methodology in service provider day centres and residences, and also to transfer this conceptual framework of person-focused care to other care areas where it has not been formally introduced and link it to the quality of life model.

5. CROSS-CUTTING PROGRAMME FOR COMMUNITY HEALTH PROMOTION AND PROTECTION

5.1. Justification and aims

Because of the current economic and social crisis, the most important public health problems are those that lead to social exclusion and poverty. This is particularly relevant in the case of people living in homes where there is no regular income. Unemployment, and, above all, long-term unemployment, is one of the main determinants of health problems in Catalonia. These problems are the result of material deprivation, but they are also due to a lack of expectations and self-esteem and the perception of uselessness and loss of dignity.

This situation worsens mood disorders, anxiety and, above all, mild depression. It also involves a demand for medical care, which often leads to an increase in the prescription and consumption of drugs, basically psychotropic, anti-anxiety, and antidepressant medication, without them having a positive effect on solving the problems causing this trouble.

All in all, therefore, it concerns economic and social inequalities that the crisis has increased notably. These inequalities lead to health inequalities in the Catalan population because, directly or indirectly, they affect the living conditions that are the main determinants of health and hinder the adoption of healthy behaviour with regard to diet, physical activity and drug consumption. They also have a negative effect on feelings of solidarity and belonging to the community and personal dignity. Thus, and in accordance with the unanimous vote by the plenary session of the Parliament of Catalonia on 13 March 2013, PINSAP explicitly presents a community health promotion and protection cross-cutting programme with its own line of action, and in parallel with interventions devoted specifically to the most important conditioning factors, which must also allow the possibilities of inter-sector cooperation to be tested.

Given the fact that a large percentage of the population find it impossible to obtain paid work, it is essential to consider the possibility of offering at least an occupation that will allow these people—if they want—to devote part of their time to acquiring a skill that will allow them to feel welcomed by the community and to be useful as far as possible. This contributes to community health promotion and protection, based on practical training in a series of very diverse activities, which have as a common denominator the beneficial influence on health, both of the people who take care of our health in community activities and other people from the same community.

5.2 Objectives

The general objectives of the programme are, therefore, to find jobs for people most exposed to the risk of social exclusion in Catalonia. This job is also meant to help provide them with potentially useful training in a near future and, in terms of practical experience, it should help community health promotion and protection, which affects them directly, but which also affects other people at risk of social exclusion and the community in general. And this must be carried out through the learning and practice of specific activities to health promotion and protection in the broadest sense, aimed at the specific health groups mentioned in the first part of this document.

In other words, even some people at high risk of social exclusion, and also others who are not in such precarious situations but who have lost their job or part of their self-esteem, can protect or even improve their health, occupying their spare time collaborating with accredited bodies as volunteers, without receiving anything in return except being recognised in the future by the volunteer work law.

5.3. Target population

Populations at risk of social exclusion, both as a result of poverty and marginalisation, are the priority target groups. They include the most vulnerable individuals, particularly the long-term unemployed, young people who are out of work and also children, especially if they belong to families with no financial income. However, the initiative is open to everyone who wants to take part, and especially old people and those who belong to ethnic and cultural minorities.

Part of the target population will be invited to participate actively and collaborate in carrying out the activities. So, this active participation will become a PINSAP activity. This can be carried out in two ways: as a practical training programme for community health agents (with recognition from the Catalan Ministry of Education and the Catalan Ministry for Business and Labour) or as volunteers.

Other beneficiaries of the activities are people such as children or the disabled who, despite not participating actively, will see improvements in their living conditions by benefiting from the health promotion and protection activities that are carried out as part of the programme by the trainee community health promotion and protection agents.

5.4 Means of participation

Active participation in the programme can be carried out in two different ways.

The first means of participation is practical training as community health agents. Candidates will be called actively by the social, labour or healthcare services, or other authorities who will put them in touch with individuals at risk of social exclusion or who are suffering as a result of the effects of the recession on their health. They can also be recruited via public calls. These

candidates will have to learn about and practise the community health promotion and protection activities implemented by the regional support measures (see Section 5). In return, their contribution will be acknowledged formally by the Catalan Ministry of Education and the Catalan Ministry for Business and Labour, so that it can be of use to them when they are looking for paid work.

The second means of participation is voluntary work. The candidates, who are chosen through active or public calls held by the accredited bodies that collaborate with the programme, will participate in the community health promotion and protection activities carried out by these bodies, with the informal recognition established in the voluntary work regulations. However, the prestige involved with devoting one's time to volunteer work and the experience, knowledge and skills acquired are an asset in demand in the job market in general, and one that the country's social and economic stakeholders take into account.

5.5 Contents. Nature and scope of the interventions

The activities basically consist of health promotion and protection interventions in the different areas of society that they affect. Depending on the availability of each of the sectors and bodies of the Government involved, the contents of the activities will refer to the specific competences of each sector. For example, the community health promotion activities regarding a healthy diet and physical education must include recommendations on diet and physical activity (health), on health education (education, health, sport), on access to food and food safety (agriculture, trade, health) or on environmental impact (locally sourced produce, environment).

The idea is that each of the regional measures involved receive people who volunteer to participate (selected in accordance with established criteria) and that each one collaborates in the design and development of community health projects related to the various areas of intervention, depending on the type of living conditions on which it is feasible to act.

Naturally, the local measures for rolling out the programme must be capable of organising and coordinating the activities. The people who benefit from and play leading roles in these activities will learn to act as community health agents. The first mode of active participation will involve explicit training and professional recognition and, for the second mode, this will be established in accordance with the activities actually carried out.

To illustrate this, we can look at this example from the social and health services sector:

- With regard to the elderly, the infirm and those with other needs:
    - Accompanying them to medical appointments and helping them with administrative procedures.
    - Helping them shop for food and other items; help in monitoring their diet and ensuring it is healthy.
    - Accompanying them when they go out for physical exercise and so forth.

  - Home visits to chat, read, and play board games (emotional support and cognitive stimulation).
  - Checking by telephone, interphone or in person to see whether the individual has any special requirements and, if they do, acting accordingly (model similar to the 'Radar' project).

- Activities in health and community centres: encouragement, talks, workshops (cooking classes, etc.).
- Accompanying and providing social and emotional support for patients in hospitals, etc.

Similarly, from other Government ministries and other local government agencies, activities aimed at changing determinants of health can be selected: participation in educational activities, supervision and improvement of hygiene, safety and habitability conditions in homes, promotion of healthy and safe mobility, access to housing, employment and culture, etc.

5.6 Facilities equipped for organising, hosting and developing activities

A wide variety of locations can be used to organise and carry out the activities. In theory, they can be health service premises (primary healthcare centres, local surgeries, some hospital services); local offices of other Government ministries; municipal social services and other municipal services; leisure centres, community centres and sports centres; several accredited non-governmental organisations (NGOs) (Cáritas, the Red Cross, etc.), civic bodies, citizens' associations, etc.

The government facilities should be selected directly by the Inter-ministerial Commission or by the competent body for the effective implementation of PINSAP. It is important to guarantee that these are facilities that decide voluntarily to collaborate and also that the institutions in charge, if they are Government ministries and the local authorities (municipalities, regional councils, provincial councils or companies associated with these agencies), work to facilitate this participation.

For example, of the 369 primary healthcare teams in Catalonia, 73 belong to the AUPA (Actuant Units per a la Salut ['Acting Together for Health']) and probably have more time to get involved, as long at this dedication to community activities is something they can cope with. The possibility of helping to develop effectively the Essencial project is an opportunity to improve benefits and efficiency in a complementary manner.

The primary social care services can be another source of regional facilities that can receive, train and teach community health agent candidates to carry out health promotion and protection activities within the social services sector.

Other possible regional facilities are municipal premises and facilities in which community health protection and promotion activities could be carried out: sports and cultural facilities; urban sanitation; urban renewal; road safety for schoolchildren or the supervision of traffic signs; activities to encourage better use of public services; home improvements; urban allotments; and so on.

It is however essential to bear in mind the existence of community development plans, of which there are currently around 100 in Catalonia. Many of these plans have health tables, which include the relevant institutions, including primary healthcare centres, as well as civic bodies and citizens' associations. This is already underway in some districts, such as Roquetes in Barcelona, where very beneficial community health initiatives have been carried out.

Civil society can also help provide regional facilities through third sector institutions, NGOs, civic bodies and citizens' associations. This collaboration requires an agreement between the Government, the public authorities and civil society that reconsiders whether the current relations are necessary and tries to neutralise the negative effects of the recession on Government aid.

The advantages for the other possible facilities that must be selected must be anticipated, and specific incentives proposed, most of which will not be financial.

As for the rest, a public call would be advisable, and the formalisation of a collaboration contract or agreement.

5.7. Criteria and requirements for the selection of candidate regional facilities

The general criteria should be the object of a broad agreement between the various ministries, local authorities and civil society. The requirements and procedures to select the centres and facilities must be established jointly based on general criteria that guarantee the maximum achievement of the aims and objectives of the cross-cutting programme and, as far as possible, prevent their improper use.

Furthermore, there has to be an explicit call among possible candidates, both those who depend directly on the various Government ministries and those that depend on local authorities, service provides, if applicable, and bodies and associations empowered by the respective Government ministries, whether it be Governance, Social Welfare and Family, Culture or Justice.

5.8. Criteria and requirements for the selection of individual participants

The general criteria should be the object of a broad agreement between the various ministries, local authorities and civil society. The requirements and procedures for selecting candidates—whether as health promotion and protection agents (first mode) or as volunteers (second mode)—have to be established jointly with the institutions responsible for the regional support facilities. Priority must be given to the long-term unemployed and groups at risk of social exclusion. This does not mean other people who want to participate should be excluded, particularly if they are elderly or belong to ethnic or cultural minorities.

In any case, it would be advisable to formalise the collaboration between the participant and the receptor institution so that mutual obligations and commitments are recorded.

It would be a good idea to explore other possible ways of participating, such as time banks and, in general, any other procedure that promotes exchanges between individuals.

5.9. Difficulties and limitations

It is advisable to estimate the costs of the implementation, which, as far as possible, should be covered by the budgets of the various government agencies involved and, in the case of non-governmental organisations, through current grants or, if possible, increases in the grants for this purpose. It might be possible to obtain funding through European social innovation projects; however, it might be best to look for financial sponsors.

Possible opposition should be borne in mind, if anyone considers that the trainee community health agents are preventing other people from accessing paid employment, in cases where the agents carry out tasks for which they should receive a salary. The argument is that these jobs do not actually exist at the moment, and perhaps it might encourage someone to create them in the future. In any case, the activity will be recognised and this will help maintain the unemployed people's dignity and self-esteem and their feeling of belonging to a community that is not indifferent to their problems.

In order to ensure that voluntary work activity does not compete with the creation of paid employment, it is important to establish the criteria for accepting the activities that are to be carried out, and also the conditions in which they are to be implemented, from the support facilities to the voluntary work organisations that are going to collaborate.

For example, in addition to being related to the protection and promotion of health, the activities must be tasks for which there is currently no job market and for which it is likely that a salary could not be paid, because companies would not view them as a business venture and because the Government cannot fund them at present.

With regard to the conditions and circumstances of the implementation, they must be defined collaborations; activities that are organised occasionally or to meet occasional, short-term requirements.

If they are voluntary activities carried out through NGOs, for questions of legal authorisation and civil responsibility, it would be advisable to offer the NGOs a series of action programmes related to the protection and promotion actions and to value the collaboration for the health of the community and recognise that this task is a source of personal or protective health.

Recognition for the collaboration with a brand related to work in favour of health and training may be the most pertinent.

When they are activities that it would be recommendable to incorporate into the job market in the long term, for example, monitors for community actions, entrepreneurial actions can also

be promoted. An example would be the creation of teams of unemployed people who start to collaborate free of charge but who receive training from experts in the healthcare and social welfare systems (who have help in meeting the demand they cannot cover at the moment), and gain practical experience and expertise that will be of use if these activities end up being incorporated into the services market.

5.10. Elements for operative development

A. Need to establish explicit agreements between the various Government ministries affected in order to:

1) Define the role of the voluntary bodies and NGOs in the programme.
2) Know the availability of the pertinent regional facilities in each of the fields covered by the ministries involved.
3) Coordinate the activities relevant for the population's health that each of the ministries carries out (plans for childhood, poverty, employment, etc.).
4) Guarantee the viability and continuity of the programme.

B. Need to establish explicit agreements with local authorities.

C. Need to establish explicit agreements with third sector bodies.

D. Setting up of an operative, inter-sector working group for the operative design of the programme:

1) Selection of the geographical areas of intervention. The existence of any community development plans that may become the initial focus of the implementation of the programme must be taken into account. The availability of healthcare and social care centres is another strategic element for facilitating the initial development of the programme.

2) Design of the formulae and procedures for attracting regional facilities (EAP/CAP primary healthcare teams (AUPA network, etc.); basic primary social care teams (EBASP) at municipal level; other facilities belonging to the autonomous or local government; third sector bodies (NGOs such as Cáritas or the Red Cross); civic bodies and citizens' associations; and so on.

3) Design of formulae and procedures for the public call and the selection of candidates for the intervention.

4) Definition of the incentives for the peripheral facilities (recognition of the collaboration; real facilities for the development of the activities (in the case of the EAP, inclusion of community objectives in the programme contract, determined by the effective application of the recommendations of the Essencial project), as so forth).

E. Preparation of a map of collective and social determinants of health, which allows for an operative approach to the social needs associated with the population's health in order to adapt the health promotion and protection activities of the cross-cutting programme better and also to provide a general baseline for PINSAP. Initially, use of the approaches that some Government ministries, such as the Catalan Ministry of Social Welfare and Family and the Catalan Ministry for Business and Labour, are carrying out in the areas of greatest social need.

F. Design of the activities for the training programmes for community health agents in the various areas of action:

1) Health protection: thermal insulation in housing; surveillance of traffic signs; traffic safety at school arrival and departure times; action plans for catastrophes (Civil Defence); urban sanitation; safety of sports and leisure facilities, etc.

2) Health protection: accompanying groups carrying out physical activity; promotion and practice of a healthy diet; efficient and responsible use of public services (healthcare, social, education, etc.); urban renewal; healthy mobility; historic memory (elderly people about to retire, who share their experiences with pupils); urban allotments; time banks; promotion of associations in general, etc.

Moreover, we should not forget the PINSAP 2014-2015 action proposals selected from each of the sections of determinants and conditioning factors of health (see Section 4), which in some cases can become activities in the practical training programme.

Generalitat de Catalunya
Agència de Salut Pública de Catalunya

Inter-ministerial Public Health Plan |PINSAP|

Proposal of areas of action 2014-2015 for Horizon 2020

CIS 31.01.2014

1714 2014

Core area 1. Increase the Catalan population's years of good health (promote a healthier Catalonia)

Area	Inter-ministerial and inter-sector areas of action	Ministries involved*	Challenge PINSAP	Target group[2]	Relationship with others
1. Mobility	1.1. Promote active mobility (walking (pavements, school paths); biking (bicycle lanes, community bicycle services, and green routes)) both for everyday and leisure time activities. Integrate the concepts of health and safety into the mobility plans and design.	TES/INT/ SLT/PRE	country	G E	6,8,9,10
2. Food	2.1 Increase the availability of healthy food, promoting the choice of fruit in meals served at catering establishments.	AAM/ SLT	country/ weight	G	4
	2.2 Promote health quality as a criterion of the prestige of food produced in Catalonia and aimed at the international market.	AAM/SLT/ ECO/EMO	country	G EM	4
	2.3 Promote the prevention of eating disorders in children, establishing the protocol for the coordinated action of social services, and the ministries of education and health.	BSF/ENS/SLT	country/ weight	C	8,9
	2.4 Increase access to a healthy, Mediterranean diet in work canteens, through the AMED project, giving priority to those belonging to the health system (SISCAT).	SLT/EMO	country/ weight	EM	2, 8
3. Environment	3.1 Improve and monitor air quality, and reduce emissions derived from the transportation of people and goods and from industrial and energy generation activities.	TES/SLT	country	G C / P	1,4
4. Employment	4.1 Improve the health of the employed population through the creation of a health promotion corporate brand and its consideration in public sector contracts.	EMO/SLT/ECO/PRE	country	EM	1,2,3, 5,7
	4.2. Prevent and improve health problems through coordinated intensive action by the employment, health and social services, in areas with high unemployment levels.	EMO/SLT/BSF	mental health	U	8,10

[2] Target group: **C** Children **Y** Youth **E** Elderly **W** Women **P** Pregnant women **U** Unemployed **EM** Employed **G** General Population

* PRE: Presidential Department; GRI: Ministry of Governance and Institutional Relations; ECO: Ministry of Economy and Knowledge; ENS: Ministry of Education; SLT: Ministry of Health; INT: Ministry of Home Affairs; TES: Ministry of Territory and Sustainability; CLT: Ministry of Culture; AAM: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment; EMO: Ministry for Business and Labour; BSF: Ministry of Social Welfare and Family; JUS: Ministry of Justice.

5. Town planning and housing	5.1. Incorporate the health vision into the assessment of housing benefits in situations of severe financial and social hardship and other cases with special needs.	TES/BSF/SLT/ECO	country / mental health	U E / C	8,9,10
	5.2. Improve conditions that promote health in projects to restore buildings and in new buildings (stairs as a priority, lifts, and thermal and acoustic insulation and air-conditioning). Priority action in public buildings.	TES/SLT GRI	country	G E	1, 3, 8
6. Education	6.1. Opening school playgrounds to the community (promoting local education plans).	ENS/BSF/PRE/SLT	country / weight	C/Y/G	1, 2, 3, 5, 7, 9, 10
7. Culture, leisure, physical activity	7.1. Use information and communication technologies (ICT) in the prevention of sexually transmitted diseases in young people.	SLT/BSF/ ENS	infections	Y	8
	7.2. Prevent and reduce risks (consumption of alcohol and other drugs, non-toxic addictions) and promote health in young people via social networks and community programmes. Correct and safe use of ICT and social networks among young people.	SLT/BSF/ ENS/CLT	addictions	Y	8
	7.3. FITJOVE. Encourage the practice of sport to promote health in adolescents at risk.	PRE/SLT/ENS	addictions	Y	8
	7.4. Monitor and control new forms of consumption, especially products related to tobacco: electronic cigarettes.	SLT/INT/ JUS	addictions	G Y	8
	7.5. Promote participation in cultural activities. Implementation of programmes such as 'Lletres i salut' ['Arts and Health']. The promotion of reading and reflection on subjects related to self-healing, the promotion of health, dealing with disease, death, etc., in health, community and cultural centres.	CLT/SLT/ ECO/ENS	mental health	G	1, 8, 9, 10
	7.6. 'Salut: tu pots decidir' ['Health: You Decide']. Informative health education campaign to help citizens make informed decisions to benefit their health.	SLT/INT/ EMO/PRE	global	G	global
	7.7. Programme prescribing social and cultural activities in vulnerable individuals.	SLT/BSF/ CLT	mental health	G E	8, 9, 10
8. Health system	8.1. Prevention of suicidal behaviour with the activation of the Code Suicide Risk in high-risk individuals.	SLT/BSF/ EMO/JUS	mental health	U	4, 9, 10

	8.2. Implementation of rapid HIV tests in primary healthcare centres in priority areas.	SLT/BSF/	infections	Y	9
	8.3. Promote community health through networking between public health and the healthcare system and citizens.	SLT/BSF/ ENS	global	G E	1, 2, 4, 5, 7, 9, 10
9. Social policies	9.1. Improve collaboration between basic social services and primary healthcare.	BSF/SLT	mental health	G E	1, 2, 4, 5, 7, 8, 10
	9.2. Maintain and promote health as a core working area in the community development plans.	BSF/SLT ENS	global	G	1, 2, 3, 4, 5, 7, 8, 10
10. Cross-cutting	10.1. Help preserve mental health through the promotion of the protection and promotion of community health in vulnerable individuals.	BSF/SLT ENS/EMO/JUS	mental health	U	1, 2, 4, 5, 7, 8, 9, 10

Core area 2 (global). Incorporate health into the design and assessment of public policies

Area	Inter-ministerial and inter-sector areas of action	Ministries involved*	PINSAP challenge	Target group[3]	Relationship with others
1. Incorporation of health into decision making	1.1. Incorporate the perspective of health and equity into the design of public policies: assessment of the impact the Government's main actions and agreements have on health.	The whole Government	global	C/Y/G	1-10
2. Data and research	2.1. Optimise the use of the data available in the different ministries of the Government of Catalonia and the related institutions in order to study the impact of the policies and actions on health, and to promote the transparency and visibility of the data.	ECO/The whole Government	global	G	1-10
	2.2. Monitor the effects of the economic crisis on health through the Health and Crisis Observatory, focusing particularly on inequalities and proposing interventions.	SLT/ECO/ BSF	global	U/W/ E/Y	1-10
	2.3. Promote research into health in all policies and an assessment of the impact of the policies and actions on health.	ECO/SLT	global	G	1-10
3. Inter-sector and inter-administrative commitment	3.1. Promote collaboration between administrations, especially with the local authorities, and different sectors.	The whole Government	global	G	1-10
4. Commitment to the community	4.1. Promote community participation.	The whole Government	global	G	1-10

[3] Target group: **C** Children **Y** Youth **E** Elderly **W** Women **P** Pregnant women **U** Unemployed **EM** Employed **G** General Population

* PRE: Presidential Department; GRI: Ministry of Governance and Institutional Relations; ECO: Ministry of Economy and Knowledge; ENS: Ministry of Education; SLT: Ministry of Health; INT: Ministry of Home Affairs; TES: Ministry of Territory and Sustainability; CLT: Ministry of Culture; AAM: Ministry of Agriculture, Livestock, Fisheries, Food and Natural Environment; EMO: Ministry for Business and Labour; BSF: Ministry of Social Welfare and Family; JUS: Ministry of Justice.

6. AGENDA

6.1. Initial agreement by the Inter-ministerial Commission on the considered proposals.

6.2. Specific collaboration with local authorities (Catalan Association of Municipalities and the Federation of Municipalities of Catalonia; provincial councils, especially Barcelona Provincial Council and Girona Provincial Council's Dipsalut).

6.3. Participation of civil society (social agents, corporations, scientific and professional societies, civil bodies and the productive sector).

6.4. Adoption by the Government and presentation to Parliament.

Appendix 1

ORGANISATIONS CONSULTED

Associació Catalana de Municipis
Federació de Municipis de Catalunya
Consorci de Salut i Social de Catalunya
Institut Català de la Salut
Unió Catalana d'Hospitals (UCH)
Comisiones Obreras (CCOO)
Unión General de Trabajadores (UGT)
Petita i Mitjana Empresa de Catalunya (PIMEC)
Foment del Treball
Col·legi de Biòlegs de Catalunya
Il·lustre Col·legi d'Advocats de Barcelona
Il·lustre Col·legi d'Advocats de Girona
Il·lustre Col·legi d'Advocats de Tarragona
Col·legi d'Arquitectes de Catalunya
Col·legi Oficial de Farmacèutics de Barcelona
Col·legi Oficial de Farmacèutics de Girona
Col·legi Oficial de Farmacèutics de Lleida
Col·legi Oficial de Farmacèutics de Tarragona
Col·legi de Fisioterapeutes de Catalunya
Col·legi de Llicenciats en Educació Física i Ciències de l'Activitat Física i de l'Esport de Catalunya
Col·legi Oficial de Metges de Barcelona
Col·legi Oficial de Metges de Girona
Col·legi Oficial de Metges de Lleida
Col·legi Oficial de Metges de Tarragona
Col·legi Oficial de Psicòlegs de Catalunya
Col·legi Oficial de Treball Social de Catalunya
Col·legi Oficial de Veterinaris de Barcelona
Col·legi Oficial de Veterinaris de Girona
Col·legi Oficial d'Infermeria de Barcelona
Col·legi Oficial d'Odontòlegs i Estomatòlegs de Catalunya
Col·legi Professional de Dietistes-Nutricionistes de Catalunya
Col·legi Oficial de Veterinaris de Lleida
Consell de Col·legis d'Infermeres i Infermers de Catalunya
Consell de Col·legis de Veterinaris de Catalunya
Consell Nacional de la Joventut de Catalunya
Spanish National Research Council (CSIC)
Centre de Recerca en Epidemiologia Ambiental (CREAL)
Sociedad Española de Salud Pública y Administración Sanitaria (SESPAS)
Societat Catalana pel Control i Tractament del Tabaquisme (SCATT)
Societat Catalana de Dret Sanitari
Societat Catalana de Medicina de l'Esport
Societat Catalana de Psiquiatria Infantojuvenil
Societat Catalana de Seguretat i Medicina del Treball
Societat Catalana de Pediatria
Societat Catalana de Pediatria i Salut Mental
Societat Catalana de Medicina Familiar i Comunitària (CAMFIC)

Societat Catalanobalear de Psicologia
Societat de Salut Pública de Catalunya i Balears
Sociedad Española de Epidemiología
Sociedad Española de Sanidad Ambiental
Institut d'Estudis Catalans
Institut d'Investigacions Biomèdiques de Barcelona
Confederació Cristiana d'Associacions de Mares i Pares d'Alumnes Catalunya (CCAPAC)
Coordinadora d'Usuaris de la Sanitat: Salut, Consum i Alimentació (CUS)
Federació d'Associació de Mares i Pares d'Alumnes amb Discapacitat Intel·lectual (DINACT-FAMPADI)
Federació d'Associació de Mares i Pares d'Alumnes de Catalunya (FAPAC)
Federació d'Associació de Pares i Mares d'Alumnes d'Ensenyament Secundari de Catalunya (FAPAES)
Federació d'Associació de Mares i Pares d'Alumnes d'Escoles Lliures de Catalunya (FAPEL)
Federació Catalana de Voluntariat Social
Fundació Institut Guttmann
Associación de Prevención de Accidentes de Tráfico (P(A)T)
STOP Accidents
Taula d'Entitats del Tercer Sector Social a Catalunya
Fundació "´la Caixa"
Consell Assessor de Salut Pública
Comitè de Direcció del Departament de Salut

COLLABORATING ORGANISATIONS

Associació Catalana de Municipis	(contributions)
Federació de Municipis de Catalunya	(contributions)
Consorci de Salut i Social de Catalunya	(contributions)
Institut Català de la Salut	
Unió Catalana d'Hospitals	
Comisiones Obreras (CCOO)	
Unión General de Trabajadores (UGT)	
Petita i Mitjana Empresa de Catalunya (PIMEC)	
Foment del Treball	
Consell de Col·legis Farmacèutics de Catalunya	
Col·legi Oficial d'Infermeres i Infermers de Barcelona	(contributions)
Consell de Col·legis d'Infermeres i Infermers de Catalunya	
Col·legi de Fisioterapeutes de Catalunya	(contributions)
Col·legi d'Arquitectes de Catalunya	
Col·legi Professional de Dietistes-Nutricionistes de Catalunya	(contributions)
Col·legi Oficial de Farmacèutics de Girona	
Col·legi Oficial de Veterinaris de Lleida	
Consell de Col·legis de Veterinaris de Catalunya	(contributions)
Spanish National Research Council (CSIC)	(contributions)
Institut d'Investigacions Biomèdiques de Barcelona	
Societat Catalana de Pediatria	
Societat Catalanobalear de Psicologia	
Societat Catalana de Medicina Familiar i Comunitària (CAMFIC)	
Societat Catalana de Psiquiatria i Salut Mental	(contributions)
Societat Catalana de Salut Laboral	

Societat de Salut Pública de Catalunya i Balears	
Sociedad Española de Farmacia Comunitaria, Catalonia delegation	(contributions)
Sociedad Española de Epidemiología	(contributions)
Sociedad Española de Sanidad Ambiental	
Societat Catalana pel Control i Tractament del Tabaquisme (SCATT)	(contributions)
Societat Catalana de Medicina de l'Esport	
Juristes de la Salut	(contributions)
Sociedad Española de Salud Pública y Administración Sanitaria (SESPAS)	(contributions)
Federació d'Associacions de Mares i Pares d'Alumnes de Catalunya (FAPAC)	(contributions)
Federació d'Associacions de Pares i Mares d'Alumnes d'Escoles Lliures de Catalunya (FAPEL)	(contributions)
Associación de Prevención de Accidentes de Tráfico (P(A)T)	
Coordinadora d'Usuaris de la Sanitat: Salut, Consum i Alimentació (CUS)	(contributions)
Federació Catalana de Voluntariat Social	(contributions)
Taula d'Entitats del Tercer Sector Social a Catalunya	(contributions)
STOP Accidents	
Fundació Institut Guttman	
Fundació "la Caixa"	

7. REFERENCES

[1] Health in All Policies Task Force Report to the Strategic Growth. Council Executive Summary, Sacramento (CA): Health in All Policies Task Force, December 2010.
http://www.sgc.ca.gov/hiap/publications.html
[2] World Health Organisation. Global status report on noncommunicable diseases 2010. Geneva: WHO; 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf
[3] Crowe FL, Roddam AW, Key TJ, Appleby PN, Overvad K, Jakobsen MU, et al. Fruit and vegetable intake and mortality from ischaemic heart disease: results from the European Prospective Investigation into Cancer and Nutrition (EPIC)-Heart study. Eur Heart J. 2011;32(10):1235-43.
[4] www.pafes.cat
[5] García-Altés A., Suelves JM, Barberia E. Cost savings associated with 10 years of road safety policies in Catalonia, Spain. Bull World Health Organ. 2013;91(1):28-35.
[6] WHO European Centre for Environment and Health. Environmental health inequalities in Europe. Assessment report. WHO: Copenhagen 2012.
Available at: http://www.euro.who.int/__data/assets/pdf_file/0010/157969/e96194.pdf
[7] World Health Organisation Regional Office for Europe. Impact of economic crises on mental health. Copenhagen: WHO Regional Office for Europe, 2011.
Available at: http://www.euro.who.int/__data/assets/pdf_file/0008/134999/e94837.pdf
[8] Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. Lancet 2009; 374: 315-323.
[9] European Commission DG Enterprise and Industry. Impact assessment study on the health costs due to children's exposure to lead via toys and on the benefits resulting from reducing such exposure. 2012. Document available at: http://ec.europa.eu/enterprise/sectors/toys/files/reports-and-studies/final-report-lead-in-toys-matrix-insight_en.pdf
[10] Wilkinson, Marmot. Social Determinants of Health, the solid facts. Copenhagen: World Health Organisation, 2003. Available at: www.euro.who.int/document/e81384.pdf
[11] Egerter, Braveman, Sadegh-Nobari, Grossman-Kahn, Dekker. Education and Health. Robert Wood Johnson Foundation: 2009.
Document available at: http://www.commissiononhealth.org/PDF/c270deb3-ba42-4fbd-baeb-2cd65956f00e/Issue%20Brief%20620Sept%2009%20-%20Education%20and%20Health.pdf
[12] Centres for Disease Control and Prevention. The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance. Atlanta, GA: U.S. Department of Health and Human Services; 2010.
Available at: http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf
[13] Wilkinson, Waters, Bygren, Tarlov. Are variations in rates of attending cultural activities associated with population health in the United States. BMC Public Health 2007, 7:226.
[14] Renton, Phillips, Daykin. Yua, Taylor,Petticrew. Think of your arteries: Arts participation, behavioural cardiovascular risk factors and mental wellbeing in deprived communities in London. Public Health. 2012; 126:S57-S64.
[15] World Health Organisation International Conference on Primary Health Care, Alma-Ata, USSR, 6-12. Declaration of Alma-Ata. September 1978. Available at:
http://www.who.int/publications/almaata_declaration_en.pdf
[16] World Health Organisation. The Ottawa Charter for Health Promotion 1986.
Available at: http://www.who.int/healthpromotion/conferences/previous/ottawa/en/
[17] Ståhl T, Wismar M, Ollila E, Lahtinen E & Leppo K (Eds.). Health in all policies. Prospects and potentials. Helsinki: Ministry of Social Affairs and Health, 2006.
Available at: http://www.euro.who.int/__data/assets/pdf_file/0003/109146/E89260.pdf
[18] Koivusalo M, Marco de acción nacional de Salud en todas las Políticas. Reunión Preparatoria de la 8ª conferencia mundial de Promoción de la Salud. Brasilia 2013.
[19] Andorno, R. The Precautionary Principle: A New Legal Standard for a Technological Age, Journal of International Biotechnology Law, 2004; 1: 11–9.
[20] Leppo K, Olilla E, Peña S, Wismar M, Cook S. Health in All Policies. Seizing opportunities, implementing policies. Helsinki: Ministry of Social Affairs and Health, 2013.
http://www.euro.who.int/__data/assets/pdf_file/0007/188809/Health-in-All-Policies-final.pdf

[21] Kickbusch I. Health in All Policies. An approach that accepts that health is not created by ministries of health and health care systems. BMJ 2013; 347: f4283 (published 3 July 2013).
[22] Commission on Social Determinants of Health. CSDH final report: closing the gap in a generation: health equity through action on the social determinants of health. Geneva: World Health Organisation, 2008.
[23] UCL Institute of Health Equity. Review of social determinants and the health divide in WHO European Region: Final report. WHO Regional Office for Europe: Copenhagen, 2013. Accessible at: http://www.euro.who.int/en/publications/bibliographical-databases/contact-us/request-forms
[24] Borrell C, Díez E, Morrison J, Camprubí L. Las desigualdades en salud a nivel urbano y las medidas efectivas para reducirlas. Barcelona: Proyectos Medea e IneqCities; 2012. Available at: http://www.aspb.es/quefem/docs/equidad_salud_urbana.pdf
[25] Liverpool Public Health Observatory: Assessing the impact of the economic downturn on health and wellbeing. February 2012. Observatory report series no. 88. http://tinyurl.com/7kxxset
[26]Departament de Salut. Informe de Salut 2012. http://www20.gencat.cat/docs/salut/Home/El%20Departament/Pla_de_Salut/documents/arxius/InformeSalut2012_WEB.pdf
[27] Departament de Salut. El sistema de salut de Catalunya en procés de canvi. Balanç del Pla de salut 2011-2015 a meitat de període. Barcelona, December 2013. http://www20.gencat.cat/docs/salut/Home/El%20Departament/Pla_de_Salut/3a_jornada_Pla_de_Salut/Documents/balanc_pladesalut_2013.pdf
[28] Centre d'Estudis Epidemiològics sobre les Infeccions de Transmissió Sexual i Sida de Catalunya (CEEISCAT). Informe sobre el monitoratge del diagnòstic de la infecció pel VIH a Catalunya, 2013. http://www.ceeiscat.cat/documents/Informe_CEEISCAT_%202013.pdf
[29] Kaplan GA, Camacho T. Perceived health and mortality: a nine-year follow-up of the human population laboratory cohort. Am J Epidemiol. 1983;117:292-304.
30 DeSalvo KB, Bloser N, Reynolds K, et al.: Mortality prediction with a single general self-rated health question. A meta-analysis. J Gen Intern Med 2006, 21:267-275.
31 Halford C, Wallman T, Welin L, Rosengren A, Bardel A, Johansson S, et al. Effects of self-rated health on sick leave, disability pension, hospital admissions and mortality. A population-based longitudinal study of nearly 15,000 observations among Swedish women and men. BMC Public Health 2012, 12:1103 doi:10.1186/1471-2458-12-1103.
32 Lindstrom B, Eriksson M. Salutogenesis. J Epidemiol Commun Health 2005;59:440–2.
[33] Bambra C, Gibson M, Sowden A, Wright K, Whitehead M, Petticrew M. Tackling the wider determinants of health and health inequalities: evidence from systematic reviews. J Epidemiol Community Health 2010; 64: 284-291.
[34] Oliver S, Kavanagh J, Caird J, et al. Health promotion, inequalities and young people's health: a systematic review of research. London: London EPPI-Centre, Institute of Education, 2008. Available at: http://eprints.ioe.ac.uk/5151/1/Oliver2008HealthpromotionTechReport.pdf
[35] Johns Hopkins Urban Health Institute, June 2013 Health Equity Through Action - Social Determinants of Health.
[36] WHO European Centre for Health Policy. Health Impact Assessment: main concepts and suggested approach. Brussels: WHO Regional Office for Europe; 1999.
[37] Scout-Samuel S. Health Impact Assessment: theory into practice. J Epidemiol Comm health. 1998; 52:74-5.
[38] Health in all policies: Prospects and potentials. Finnish Ministry of Social Affairs and Health & European Observatory on health systems and policies; 2006 Available at: http://www.euro.who.int/__data/assets/pdf_file/0003/109146/E89260.pdf
[39] Esnaola S, et al. La evaluación del impacto en la salud: una vía para introducir la salud en todas las políticas. Informe SESPAS 2010. Gaceta Sanitaria. 2010; 24 (Supplement 1): 109-113.
[40] Rueda JR. Guía para la evaluación del impacto en la salud y en el bienestar de proyectos, programas o políticas extrasanitarias. Gobierno Vasco, 2005. Report no.: Osteba D-05-04.
[41] Centro de recursos de Evaluación de Impacto en Salud, de la Escuela Andaluza de Salud Pública. http://www.creis.es/
[42] A Bacigalupe et al. La evaluación del impacto sobre la salud: una herramienta para incorporar la salud en las intervenciones no sanitarias. Gac Sanit. 2009; 23(1): 62-66.

[43] L. Taylor,N. Gowman,J. Lethbridge. Deciding if health impact assessment is required (screening for HIA). Learning From Practice, (2003).
[44] Aldasoro E et al. Avanzando en la evaluación del impacto en la salud: análisis de las políticas públicas sectoriales del Gobierno Vasco como paso previo a la fase de cribado sistemático. Gac Sanit 2012; 26:83-90.
[45] Dahlgren G., Whitehead M. Policies and Strategies to Promote Social Equity in Health. Stockholm: Institute for Futures Studies, 1991.

[46] UCL Institute of Health Equity. Review of social determinants and the health divide in WHO European Region: Final report: WHO Regional Office for Europe: Copenhagen, 2013. Accessible at: http://www.euro.who.int/en/publications/bibliographical-databasees/contact-us/request-forms
[47] Liverpool Public Health Observatory: Assessing the impact of the economic downturn on health and wellbeing. February 2012. Observatory report series 88. Accessible at: http://www.tinyurl.com/7kxxxset
[48] Borrell C, Diez E, Morrison J, Camprubí L. Las desigualdades en salud a nivel urbano y las medidas efectivas para reducirlas. Barcelona: proyectos Medea e IneqCities, 2012. Accessible at: http://www.aspb.es/quefem/docs/equidad_salud_urbana.pdf
[49] http://www.sgc.ca.gov/hiap/publications.html
[50] http://www.kingsfund.org.uk/topics/public-health-and-inequalities
[51] World Health Organisation. Global status report on noncommunicable diseases 2010. Geneva: WHO; 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf
[52] García-Altés A, Suelves JM, Barbería E. Cost savings associated with 10 years of road safety policies in Catalonia, Spain. Bull World Health Organ. 2013;91(1):28-35.
[53] Rojas-Rueda, D., et al., Health impact assessment of increasing public transport and cycling use in Barcelona: A morbidity and burden of disease approach, Prev. Med. (2013). http://dx.doi.org/10.1016/j.ypmed.2013.07.021
[54] Rojas-Rueda D, de Nazelle A, Tainio M, Nieuwenhuijsen MJ. The health risks and benefits of cycling in urban environments compared with car use: health impact assessment study. BMJ. 2011 Aug 4;343:d4521. http://www.bmj.com/content/343/bmj.d4521
[55] Rojas-Rueda D, de Nazelle A, Teixidó O, Nieuwenhuijsen MJ. Replacing car trips by increasing bike and public transport in the greater Barcelona metropolitan area: A health impact assessment study. Environment International. 2012; 49: 100–109.
[56] Olabarria M, Pérez K, Santamariña-Rubio E, Novoa AM, Racioppi F. Health impact of motorised trips that could be replaced by walking. Eur J Public Health. 2013;23(2):217-22.
[57] World Health Organisation. *Transport: shared interests in sustainable outcomes. Social determinants of health. Sectoral briefing Series 3*. Geneva: World Health Organisation, 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789241502290_eng.pdf
[58] Agència Catalana de Seguretat Alimentària. Pla de seguretat alimentària de Catalunya 2012-2016. Barcelona: Agència de Salut Pública de Catalunya, 2013. Available at: http://www.gencat.cat/salut/acsa/html/ca/dir1299/psa2012-2016.pdf
[59] Crowe FL, Roddam AW, Key TJ, Appleby PN, Overvad K, Jakobsen MU, et al. Fruit and vegetable intake and mortality from ischaemic heart disease: results from the European Prospective Investigation into Cancer and Nutrition (EPIC)-Heart study. Eur Heart J. 2011;32(10):1235-43.
[60] http://www.paho.org/panaftosa/index.php?option=com_content&view=article&id=137&itemid=233
[61] World Health Organisation. WHO Tech. Rep. Ser., 169, 6, 1959.
[62] Organización Mundial de la Salud. Estrategia mundial sobre régimen alimentario, actividad física y salud. 2004 [consulted 2/1/2013]. Available at: http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_spanish_web.pdf
[63] Environment and health. WHO www.euro.who.int/en/health-topics/environment-and-health
[64] Air quality and health. Fact sheet N°313. WHO. Available at: *http://www.who.int/mediacentre/factsheets/fs313/en/*
[65] Health effects of particulate matter. WHO Europe. 2013. http://www.euro.who.int/__data/assets/pdf_file/0006/189051/Health-effects-of-particulate-matter-final-Eng.pdf
IARC Scientific Publication No. 161 *Air Pollution and Cancer.* http://www.iarc.fr/en/publications/books/sp161/index.php

[66] Basagaña X, Sartini C, Barrera-Gómez J, Dadvand P, Cunillera J, Ostro B, Sunyer J, Medina-Ramón M. Heat waves and cause-specific mortality at all ages. Epidemiology. 2011 Nov;22(6):765-72.
[67] Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease. WHO. http://www.who.int/quantifying_ehimpacts/publications/preventingdisease/en/
[68] Kaplan i Kaplan, 1989, Ulrichi i d'altres, 1991, Harting i d'altres, 2003, De Vries i d'altres, 2003, Maas i d'altres, 2006.
[69] Louv, 2008, Corraliza, 2012, Pretty, 2011.
[70] Noise. Data and statistics. WHO. http://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics
[71] Noise. The Green Paper on Future Noise Policy. European Commission. http://ec.europa.eu/environment/noise/greenpap.htm#situ
[72] Burden of disease from environmental noise. Quantification of healthy life years lost in Europe. WHO and JRC European Commission. http://www.euro.who.int/__data/assets/pdf_file/0008/136466/e94888.pdf
[73] The Journey to Parma: a tale of 20 years of environment and health action in Europe. WHO Regional Director for Europe. http://www.euro.who.int/__data/assets/pdf_file/0016/104515/E93535.pdf
[74] Declaració de Parma: http://www.euro.who.int/__data/assets/pdf_file/0011/78608/E93618.pdf
[75] http://governancaradioelectrica.gencat.cat/
[76] Departament de Salut. Població ocupada i aturada: comparació d'indicadors de salut ESCA, 2006 and 2011-2012. http://www20.gencat.cat/docs/salut/Home/El%20Departament/Estadistiques%20sanitaries/Enquestes/01_enquesta_catalunya/documents/informe_ocupats.pdf
77 Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. Effects of the 2008 recession on health: a first look at European data. Lancet 2011; 378:124-125.
78 Healthy workplaces: a WHO global model for action http://www.who.int/occupational_health/healthy_workplaces/en/
[79] Rinaldi M, Perkins R, Glynn E, Montibeller T, Clenaghan M, Rutherford J. Individual placement and support: from research to practice. Advances in Psychiatric Treatment (2008), vol. 13, 50–60 doi: 10.1192/apt.bp.107.003509
80 Green Cities: good health. http://depts.washington.edu/hhwb/Thm_Place.html
81 Alcock I, White MP, Wheeler BW, Fleming L E, Depledge MH. Longitudinal Effects on Mental Health of Moving to Greener and Less Green Urban Areas Environmental Science & Technology 2014; 48: 1247-55.
[82] WHO European Centre for Environment and Health. Environmental health inequalities in Europe. Assessment report. WHO: Copenhagen 2012. Available at: http://www.euro.who.int/__data/assets/pdf_file/0010/157969/e96194.pdf
[83] Rubenstein LZ. Falls in older people: epidemiology, risk factors and strategies for prevention. Age and Ageing 2006; 35-S2: ii37–ii41.
[84] Clemson L, Mackenzie L, Ballinger C, Close JCT, Cumming RG. Environmental Interventions to Prevent Falls in Community-Dwelling Older People. A Meta-Analysis of Randomized Trials. Journal of Aging and Health. 2008; 20: 954-71.
85 Thomson H, Macdonald C, Higgins M, Palmer S, Douglas M. Health Impact Assessment of Housing Improvements: A Guide, ScotPHN and NHS Health Scotland, Glasgow, 2012.
[86] Thomson et al 2013; Marmot Review Team 2011; Liddell and Morris 2010.
[87] Healy JD. Excess winter mortality in Europe: a cross country analysis identifying key risk factors. J Epidemiol Community Health 2003;57(10):784-9.
[88] (2 March, Elizabeth L., Stephanie Ettinger de Cuba, Annie Gayman, John Cook, Deborah A. Frank, Alan Meyers, JoHanna Flacks, Megan Sandel, and Samantha Morton. 2009. Rx for Hunger: Affordable Housing. Boston, MA: Children's HealthWatch and Medical-Legal Partnership | Boston).
[89] (Pollack, Craig Evan, Beth Ann Griffin, and Julia Lynch. 2010. Housing Affordability and Health Among Homeowners and Renters. American Journal of Preventative Medicine 39(6): 515-521.5 Pollack, Craig Evan and Julia Lynch. 2009. Health Status of People Undergoing Foreclosure in the Philadelphia Region. American Journal of Public Health 99(10): 1833-1839.).
[90] Kaplan, R. 1993. The Role of Nature in the Context of the Workplace. *Landscape and Urban Planning* 26, 1-4:193-201.

[91] World Health Organisation. *Housing: shared interests in health and development. Social determinants of health. Sectoral briefing Series 1*. Geneva: World Health Organisation, 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789241502290_eng.pdf
[92] Egerter, Braveman, Sadegh-Nobari, Grossman-Kahn, Dekker. Education and Health. Robert Wood Johnson Foundation: 2009.
Document available at: http://www.commissiononhealth.org/PDF/c270deb3-ba42-4fbd-baeb-2cd65956f00e/Issue%20Brief%20620Sept%2009%20-%20Education%20and%20Health.pdf
[93] Centres for Disease Control and Prevention. The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance. Atlanta, GA: U.S. Department of Health and Human Services; 2010.
Available at: http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf
[94] World Health Organisation. *Education: shared interests in wellbeing and development. Social determinants of health. Sectoral briefing Series 3*. Geneva: World Health Organisation, 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789241502498_eng.pdf
[95] Carrillo Durán MV. La cultura del adelgazamiento a través de la "imagen" física: reflexiones y caso práctico. *Asparkia: investigació feminista*, 2003; 14: 83-97.
96 Bygren LO, Konlaan BB, Johansson SE. Attendance at cultural events, reading books or periodicals, and making music or singing in a choir as determinants for survival: Swedish interview survey of living conditions. BMJ. 1996; 313: 1577–80.
97 Wilkinson AV, Waters AJ, Bygren LO, Tarlov AR. Are variations in rates of attending cultural activities associated with population health in the United States? BMC Public Health 2007, 7:226.
98 Staricoff RL. Arts in health: a review of the medical literature. England: Arts Council, 2004: 6.
99 Grossi E, Sacco PL, Blessi, GT, Cerutti R. The Impact of Culture on the Individual Subjective Wellbeing of the Italian Population: An Exploratory Study. Applied Research in Quality of Life. 2011; 6: 387-410.
100 Cuypers K, Krokstad S.,Lingaas HT, et al. Patterns of receptive and creative cultural activities and their association with perceived health, anxiety, depression and satisfaction with life among adults: the HUNT study, Norway. Journal of Epidemiology & Community Health, 2012, 66: 698-703.
[101] Hacking S, Kent L, Secker J, Shenton J. Mental Health and arts participation: the state of the art in England. J R Soc Promot Health. 2006, 126: 121-7.
[102] Johansson SE, Konlaan BB, Bygren LO. Sustaining habits of attending cultural events and maintenance of health: a longitudinal study. Health Promotion International, 2001. 16: 229-34.
[103] Renton A., Phillips G., Daykin N. et al. Think of your art-eries: arts participation, behavioural cardiovascular risk factors and mental wellbeing in deprived communities in London. Public Health, 2012; 126: 57-64.
104 Camic PM, Chatterjee H. Museums and art galleries as partners for public health interventions. Perspectives in Public Health, 2013, 133: 66-71.
105 Fernández Peña R. Redes sociales, apoyo social y salud. Perifèria: 2005; 3: 13 http://revistes.uab.cat/periferia/article/view/149/166.
106 Cultural access and participation: Special Eurobarometer 399. European Commission, Directorate-General for Education and Culture, 2013
107 Estadístiques culturals de Catalunya Actualització novembre 2013. Barcelona: Departament de Cultura de la Generalitat de Catalunya [in press].
[108] United Nations Office on Drugs and Crime. International Standards on Drug Use Prevention. 2013.
[109] Friedli L. Mental health, resilience and inequalities. WHO Regional Office for Europe Copenhagen, Denmark; 2009.
[110] Herrman H, Saxena S, Moodie R. Promoting mental health: concepts, emerging evidence, practice: a report of the World Health Organisation, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. World Health Organisation; 2005.
[111] Friedli L, Jackson C, Abernethy H, Stansfield J. Social prescribing for mental health - a guide to commissioning and delivery. CSIP and North West Development Centre; 2009 [cited 16 January 2014]. 66 p. Recovered from:
http://www.centreforwelfarereform.org/uploads/attachment/339/social-prescribing-for-mental-health.pdf

[112] Greden JF. The burden of disease for treatment-resistant depression. J Clin Psychiatry. 2001;62 Supplement 16:26-31
[113] Glei DA, Landau DA, Goldman N, Chuang Y-L, Rodríguez G, Weinstein M. Participating in social activities helps preserve cognitive function: an analysis of a longitudinal, population-based study of the elderly. Int J Epidemiol. 2005;34:864-71.
[114] Holtzman RE, Rebok GW, Saczynski JS, Kouzis AC, Wilcox Doyle K, Eaton WW. Social network characteristics and cognition in middle-aged and older adults. J Gerontol B Psychol Sci Soc Sci. 2004;59:278-84.
[115] Cornwell EY, Waite LJ. Measuring Social Isolation Among Older Adults Using Multiple Indicators From the NSHAP Study. J Gerontol B Psychol Sci Soc Sci. novembre 2009;64B(Supplement 1):i38-i46.
[116] Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. PLoS Med. juliol 2010;7(7):e1000316.
[117] Friedli L, Vincent A, Woodhouse A, McCollam A. Developing social prescribing and community referrals for mental health in Scotland. Edinburgh: Scottish Development Centre for Mental Health; 2007 November p. 97.
[118] EMCDDA. 2012 Annual report on the state of the drugs problem in Europe. Luxembourg: European Monitoring Centre for Drugs Addiction; 2012 November p. 104
[119] Encuesta Domiciliaria sobre Alcohol y Drogas en España (EDADES) 2011. Ministerio de Sanidad, Servicios Sociales e Igualdad. Delegación del Gobierno para el Plan Nacional Sobre Drogas; 2011.
[120] Encuesta Estatal sobre Consumo de Drogas entre Estudiantes de Enseñanza Secundaria de 14 a 18 años (ESTUDES) 2010. Ministerio de Sanidad, Servicios Sociales e Igualdad. Delegación del Gobierno para el Plan Nacional Sobre Drogas; 2010.
[121] Observatori de Nous Consums, Subdirecció General de Drogodependències, 2009.
[122] Calafat A. Prevention Interventions in Recreational Settings. Strasbg Counc Eur Pompidou Group. 2010 [cited 16 January 2014]; Recovered from: http://www.irefrea.org/uploads/PDF/Calafat_2010_Prevention%20Interventions.pdf
[123] Burkhart G. Environmental drug prevention in the EU. Why is it so unpopular? Adicciones. 2011;23:87-100.
[124] Agència de Salut Pública de Catalunya. SIVES 2012. Sistema Integrat de Vigilància Epidemiològica de la SIDA/VIH/ITS a Catalunya [Internet]. Barcelona: Generalitat de Catalunya. Agència de Salut Pública de Catalunya.; 2013 p. 193. Report No.: 21. Recovered from: http://www.ceeiscat.cat/documents/SIVES_2012.pdf
[125] CEEISCAT. Informe de vigilància epidemiològica del VIH/SIDA. Updated 30 June 2013 [Internet]. CEEISCAT; 2013 June p. 30. Recovered from: http://www.ceeiscat.cat/documents/Informe_semestral_VIH.pdf
[126] Agència d. Butlletí de Vigilància en Salut Pública número 3 [Internet]. VigilànciaASPCAT. 2013 [cited 16 January 2014]. Recovered from: http://www20.gencat.cat/portal/site/canalsalut/menuitem.199d0d95d7df2c0213724f10b0c0e1a0/?vgnextoid=a8a797f05ec3f310VgnVCM2000009b0c1e0aRCRD&vgnextchannel=a8a797f05ec3f310VgnVCM2000009b0c1e0aRCRD&vgnextfmt=detall&contentid=5e8e95f20f302410VgnVCM1000008d0c1e0aRCRD
[127] Comissió interdepartamental de la sida a Catalunya. Pla d'acció enfront del VIH/sida 2010-2013 [Internet]. Departament de Salut. Direcció General de Salut Pública; 2010. Recovered from: http://www20.gencat.cat/portal/site/canalsalut/menuitem.af261f715269a25d48af8968b0c0e1a0/?vgnextoid=b0d56557203da210VgnVCM1000008d0c1e0aRCRD&vgnextchannel=b0d56557203da210VgnVCM1000008d0c1e0aRCRD&vgnextfmt=default#div_06
[128] Ministerio de Sanidad y Consumo. Plan Multisectorial frente a la infección por el VIH y el sida. Spain 2008-2012 [Internet]. Ministerio de Sanidad y Consumo; 2008 [cited 16 January 2014]. Recovered: http://www.msssi.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/PMS200812.pdf
[129] Pollard JA, Catalano RF, Hawkins JD, Arthur MW. Development of a school-based survey measuring risk and protective factors predictive of substance abuse delinquency, and other problems behavior in adolescent population.
[130] Pollard, et al, 1997 Pollard, J.A., Catalano, R.F., Hawkins, J.D. y Arthur, M.W. (1997). Development of a school – based survey measuring risk and protective factors predictive of substance abuse, delinquency, and other problem behaviour in adolescent population. 1997 (unpublished manuscript).

[131] Responding to drug use and related problems in recreational settings. Lisbon: European Monitoring Centre for Drugs and Drug Addiction (EMCCDA); 2012 July. Recovered from: http://www.drugsandalcohol.ie/18153/
[132] Commission E. EU Drugs Action Plan for 2009-2012. Off J Eur Union C. 2008;326:7-25.
[133] EU. EU Drugs Strategy (2013-2020). 2012. Recovered from: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:402:0001:0010:en:PDF

[134]

http://www20.gencat.cat/portal/site/salut/menuitem.f33aa5d2647ce0dbe23ffed3b0c0e1a0/?vgnextoid=0d2155a903ee2310VgnVCM2000009b0c1e0aRCRD&vgnextchannel=0d2155a903ee2310VgnVCM2000009b0c1e0aRCRD&vgnextfmt=default
135 McGinnis JM, Williams-Russo P, Knickman JA. The Case For More Active Policy Attention To Health Promotion Health Affairs, 2002; 21:78-93. doi: 10.1377/hlthaff.21.2.78.
136 World Health Organisation. The World Health Report 2010 - Health systems financing: the path to universal coverage. Geneva: WHO, Available at: http://www.who.int/whr/2010/en/index.html Accessed on: 21.07.2012.
[137] Bennett S, Ozawa S, Rao KD (2010) Which Path to Universal Health Coverage? Perspectives on the World Health Report 2010. PLoS Med 7(11): e1001001. doi:10.1371/journal.pmed.1001001.
[138] Thomson S, Jowett M, Evetovits T, Jakab M, McKee M, Figueras J. Health, health systems and economic crisis in Europe: impact and policy implications. 2013. www.euro.who.int/__data/assets/pdf_file/0011/186932/Health-and-economic-crisis-in-Europe4.pdf.
[139] Ford ES, Capewell S. Proportion of the decline in cardiovascular mortality disease due to prevention versus treatment: public health versus clinical care. Annu Rev Public Health. 2011;32:5–22.
[140] Mays GP, Smith SA. Evidence links increases in public health spending to declines in preventable deaths. Health Affairs, no. 2011: doi: 10.1377/hlthaff.2011.0196.
[141] Owen L, Morgan A, FisherA, Ellis S, Hoy A, Kelly MP. The cost-effectiveness of public health interventions. J Public Health 2011; 34: 37-45.
[142] Prevention for a Healthier America: Investments in disease prevention yield significant savings, stronger communities. www.healthyamericans.org July 2008.
[143] Wilkinson RG, Marmot M. Social Determinants of Health, the solid facts. Copenhagen: World Health Organisation, 2003. Available at: www.euro.who.int/document/e81384.pdf