# Management of family health and poverty during the economic downturn in Portugal

Gestão de saúde familiar e pobreza em período de recessão económica em Portugal

### Ivo Oliveira

Instituto Politécnico de Gestão e Tecnologia. Vila Nova de Gaia, Portugal.

Email: ivo.oliveira@unisla.pt

## Fernanda Nogueira

Universidade de Lisboa. Instituto Superior de Ciências Sociais e Políticas. Lisboa, Portugal.

E-mail: fnogueira@iscsp.ulisboa.pt

### João Marôco

Instituto Universitário de Ciências Psicológicas, Sociais e da Vida. Lisboa, Portugal.

E-mail: jpmaroco@ispa.pt

### Francisco Diniz

Universidade de Trás-os-Montes e Alto Douro. Centro de Estudos Transdisciplinares para o Desenvolvimento. Trás-os-Montes e Alto Douro, Portugal.

E-mail: fdiniz@utad.pt

# **Abstract**

The objective of the present study is to discuss management and health. It investigates the contribution of family health and its role in local development in the context of economic recession and poverty increase in Portugal. Overall, 1,021 individuals were inquired, and the statistical treatment consisted of inferential, factor and regression analyses. The main result shows that the fact that an individual considers himself a healthy person depends on occupation, housing and on other determinants related to living conditions. A consistent factor analysis identified a set of important factors for the management of family health. The conclusion is that citizens' living and working conditions are related to their level of health. We identified the most important determinants to explain average life expectancy. They are reflected in economic downturn periods.

**Keywords**: Health Economics; Public Health; Family and Community Medicine; Life Expectancy; Poverty.

### Correspondence

Ivo Oliveira Instituto Politécnico de Gestão e Tecnologia. Rua Cabo Borges, 55.Vila Nova de Gaia, Portugal. 4430-646.

### Resumo

Este artigo assumiu como objetivo principal investigar sobre gestão e saúde, verificando a contribuição da saúde familiar e o seu papel no desenvolvimento local em contexto de recessão económica e agravamento da pobreza em Portugal. Na metodologia inquiriram-se 1021 indivíduos em Portugal Continental, com tratamento estatístico através de análise inferencial, fatorial e também de regressão. Salientam-se como resultados que o facto de um indivíduo se considerar uma pessoa saudável não é independente da atividade profissional, condições de habitação, ou outros determinantes relacionados com as condições de vida. Através de uma análise fatorial consistente foram identificados um conjunto de fatores com importância sobre a gestão de saúde familiar. Como conclusão resulta que as condições de trabalho e em que vivem os cidadãos estão relacionadas com o seu nível de saúde. Identificámos os determinantes mais importantes para explicar a esperança média de vida e que se refletem em período de recessão económica.

**Palavras-chave**: Economia da Saúde; Saúde Pública; Medicina de Família e Comunidade; Expectativa de Vida: Pobreza.

# Introduction

Portugal is presently going through the greatest recession period since the Great Depression in the 1930s. The main reason is the severe international crisis triggered by the speculative bubble in the real estate sector in the United States of America (USA), which erupted in the wake of the sovereign debt crisis (IMF, 2011; Brinkman et al., 2010). Portugal is particularly affected due to its small geographic and economic dimension and to the fact that it is strongly integrated into the world's economy. In addition, there are the structural problems of the Portuguese economy in the context of the Euro (Blanchard, 2006).

A crisis of this dimension is reflected, in the macroeconomic level, in the behavior of several indicators, like the Gross Domestic Product (GDP), exports and imports. The social effects can be seen in the decrease in the population's purchasing power (Anríquez; Daidone; Mane, 2013) and in the increase in unemployment and poverty.

The Portuguese society is currently poorer: 10.9% of the Portuguese live in severe material deprivation (Portugal, 2014; Figueiredo; González, 2014) and one fourth of the population was at risk of poverty or of social exclusion in 2012. This category includes people who are undergoing at least one of three situations: people at risk of poverty, people in situation of severe material deprivation, and people who live in households with very low labor intensity. In Portugal, the highest value lies in the category of people at risk of poverty (17.9%), that is, those who live in a household whose net annual income is lower than 60% of the average income (per adult equivalent) in the country, after payments of social contributions (Eurostat, 2014). The most affected segments are families with dependent children, unemployed individuals, and people younger than 18 years (Rede Europeia Anti-pobreza, 2014).

The relationship between poverty and health is evident. The health status of a population group in a territory is defined not only by health problems and needs, but also by accessibility and social responses to the adversities that vulnerable groups must face, mainly groups that are exposed to poverty, social exclusion or geographic isolation (Marmot et al., 2008).

The Spring report of the *Observatório Português dos Sistemas de Saúde* (Portuguese Observatory of Health Systems) warned of difficulties in the population's access to health care and stated that "the increasing difficulties and needs of an impoverished population are not being sufficiently met" (OPSS, 2012). In addition, the most recent report of the OECD (Organisation for Economic Co-operation and Development) indicates that, in Portugal, users' health expenses have been growing, which increases their weight in the family budget (Maisonneuve, 2013; Oliveira, 2012).

Health is currently understood as an integral level of comfort in physical and mental terms, and also in terms of integration into society. It is not related solely to the non-presence of any type of disease (WHO, 2006); its definition is broader and targeted at quality of life (Toscano; Oliveira, 2009).

In this context, the family plays a leading role in promotion and practices concerning health and disease (Hanson; Ligeiro, 2005). Affective relationships and the family context can influence individual behaviors like diet, physical exercise or even adherence to therapeutic treatments. Thus, we have an approach that focuses on what has been called the social determinants of health inequalities (Awofeso, 2011). Health is directly connected with living conditions and is influenced by social factors, such as income, level of schooling, smoking habits, social involvement, sanitation or environmental and housing quality.

In the literature analysis referring to the determinants mentioned above, we started with eating habits. A diet rich in fruits and vegetables can reduce the risk of many causes of death and plays an important role in weight control. Therefore, it is important to develop healthy eating habits as early as possible (Fall et al, 2011). Another aspect are social and economic conditions. The occupational status, income and level of schooling of a population are related to its health status (European Commission, 2010), especially in this context of economic crisis (Catalano, 2009; Mckee, 2011). Working conditions produce a great impact on workers' health (Magee; Caputi; Iverson, 2011).

Regarding prevention and health education, it is crucial to guide the population towards the adoption

of habits that are considered healthy (Mourão, 2011).

Housing conditions can contribute to the emergence of chronic diseases in some populations, like asthma, diabetes in urban areas, propensity to have pest infestation problems (Julien et al.,2008) or overcrowding (Steelfisher et al.,2010).

The relationship between health and development is complex and points to the field of political economy, as it involves different social, political and economic interests (Gadelhaet al, 2011). Based on Average Life Expectancy (ALE), we verify that the majority of the countries has had great gains in this variable in recent decades due to improvements in living conditions, public health interventions and advances in medical treatment. However, this is also associated with a higher prevalence of chronic diseases and dependence in the activities of daily living. In 2009, average life expectancy at birth in Portugal was 79.5 years, which is equal to the average of the OECD. Average life expectancy at birth has been increasing progressively in Portugal, and it is higher among women (Portugal, 2004).

The analysis presented here is part of a larger study that uses an original model to explain the impact of family behaviors on health management.

The main objective is the investigation of family behavior in health management and its impact on average life expectancy, which is a development indicator (Oliveira, 2012). In terms of specific objectives, we will focus on the dimensions found in the literature about several components of life that can contribute, directly or indirectly, to a broader concept of health, and we will verify their possible presence in an analysis carried out in Continental Portugal. The second specific objective is related to citizens' perceptions. We will approach the way in which these determinants influence the perception of good health. The last specific objective is related to Social Determinants of Health and their relationship to health status, taking into account the complex relation between health and development (Gadelha et al, 2011), and the fact that a large number of countries have registered strong increases in Average Life Expectancy in recent years due to improvements in living conditions, public health and advances in medicine.

# Materials and methods

The data collection method for the study was the questionnaire inquiry. We asked the participants about the dimensions found in the literature related to several life components that can contribute, directly or indirectly, to a broader concept of health.

The inquiry contained 80 questions, the majority of them of multiple choice. The questions assessed Families' Housing Conditions (physical, location and framing factors, effect on mental health), Conditions of Utilization and Access to Health Services (causes, reasons and periodicity of medical visits, social responses, territory, location of equipment and infrastructures), Labor Conditions (shifts, assiduity, precariousness, job insecurity, stress), Socialization and Leisure Behaviors (individual and conjugal behaviors, physical exercise, psychological wellbeing, social support network), Eating Habits (way of life, fast food, obesity), Prevention and Health Education Behaviors (family antecedents, alternative medicines, prevention and suppression of shortages, personal and environmental hygiene, sedentariness, smoking), and Social and Economic Conditions (children and others, social classes, unequal distribution of resources and opportunities).

The respondents were invited to participate voluntarily in writing and by e-mail. The inclusion criterion was to live in Continental Portugal. The sample was organized by district and age, and it was proportionally stratified by District, a territorial division used in the country. Within these segments, the interviewees participated randomly. The response rate was 48%. Overall, 1,021 valid inquiries were collected during the second semester of 2012.

Of the 1,021 inquiries that constitute our sample, 57.5% were answered by women. The respondents are aged between 18 and 88 years, and the majority of them is single (60%). Moreover, 57% have completed higher education, 27.2% have completed secondary school and 3.9%, the first cycle of primary school.

Table 1 - Number of individuals according to District, Continental Portugal, 2nd semester of 2012

District	N°
Lisboa	179
Porto	145
Setúbal	69
Beja	31
Vila Real	50
Leiria	46
Santarém	45
Castelo Branco	30
Bragança	43
Portalegre	39
Viseu	37
Vieira do Castelo	31
Braga	69
Aveiro	57
Évora	31
Coimbra	44
Faro	44
Guarda	31
TOTAL	1021

Source: Oliveira, 2012

Table 2 - Proportion (%) of individuals according to level of schooling, Continental Portugal, 2nd semester of 2012

Level of Schooling	Proportion (%)
ıst cycle	3.9
2nd cycle	5.3
3rd cycle	6.5
Secondary school	27.2
University	57.0
TOTAL	100

Source: Oliveira, 2012

After the answers were received, we performed an exploratory analysis of the data, followed by an inferential analysis in which we compared counts and proportions, with the aid of the Chi-Square Test, to verify whether two or more independent populations (or groups) differ in relation to a given characteristic (Maroco, 2010). We investigated perception of good health based on the aspect of life that was considered the most important one, filtering by age group, marital status, if the respondent has a professional activity, level of schooling, the home's adequacy for health, number of residents in the domicile, seeing a doctor when the respondent is ill, visiting the family doctor or a specialist.

After this initial analysis, we conducted an exploratory factor analysis using the extraction of the main components. The validity of the obtained factors was assessed by means of a confirmatory factor analysis with the use of the software AMOS (v.19, SPSS Inc, Chicago, IL). The internal consistency of each component was measured through Cronbach's. In order to investigate and conclude that the analysis was viable, we used the "Kaiser-Meyer-Olkin Measure of Sampling Adequacy" (KMO=0.668) and "Bartlett's test of sphericity (χ²=1611.452; df=276; Sig=0.000). To analyze average life expectancy by region we considered the Average Life Expectancy at Birth (ALE - Average number of years that a person at birth can expect to live, if the mortality rates by age observed at the moment of reference remain the same) that was provided by the Instituto Nacional de Estatística (National Statistics Institute) (Portugal, 2004).

To verify in what way the several factors are responsible for the perception the individuals have of their health and how they influence average life expectancy, a multiple regression analysis was carried out, with a saturated model defined by all the variables.

# Results and discussion

This study utilized a four-stage statistical analysis: descriptive, inferential, factor and regression analyses. In the descriptive synthesis, the aspect of life that the respondents considered the most important one is health (49.5%), followed by family (45.4%), work (2.8%) and money (1.3%).

# Socio-demographic characteristics

Our respondents considered themselves, in the majority of cases, healthy people. Sixty-five percent of the sample have a professional activity and 93% state they live in a home that is adequate for a good health. Having a home in good conditions is the first material objective of the average Portuguese citizen. In 2013, 40% of the available income of households was spent on housing costs<sup>6</sup>.

The minimum number of people in the household is 1 person, the maximum is 9 and the mean is 3 people (standard deviation of 1.3). Overall, 5.9% of the respondents live with someone who is ill or physically disabled, approximately 51.8% go to the doctor only when they are ill, more than 91.7% state they attended a medical consultation in the last 12 months, mainly due to prevention and disease, and the majority (64.8%) did not use an emergency service. Accidents, asking for prescriptions and sick leaves are indicated as the main reasons for going to a health service. As for the "Type of Consulted Doctor", the most frequent answer is the family doctor, which reflects some results of a good practice of a State program that stimulates visits to the family doctor.

Of our respondents, 37.7% referred that, in the last 5 years, their health and the health of their relatives had been affected by working conditions; 68.1% consider that these conditions can have effects on health and 64.4% are beneficiaries of Social Security or of another regime.

Few of the respondents work at home (17.7%), in shifts (10.8%), were absent from work due to health reasons (22.7%) or to care for a sick relative (12.7%). Working extra hours was reported by 41.4%. Due to downsizing, it is possible to predict that the number of extra hours of the employees who remain in the companies will gradually increase.

In the dimension Socialization and Leisure Behaviors, 58.2% of the answers were affirmative concerning the practice of physical activity. Subsequently, we analyzed the habits of the spouse and children. Fifty-eight percent stated they are married or in a stable union, and in 69% of these cases, the spouse has a professional activity. A large part (37.2%) of the respondents stated their children live in the same domicile.

### **Habits**

As foods eaten daily, we have, above 80%, water (96.8%), dairy products and bread (83.8%). Also with high percentages, we have fruit (77.9%), meat (69.4%) and vegetables (64.2%). With a consumption that occurs predominantly on a weekly basis, we have sugary foods (40.1%), legumes (56.9%), fish (53%) and fried foods (51.6%). Among these, legumes and fish have, as the second highest answer percentage, the indication of daily consumption (30.5% and 41% respectively). Fried foods also present high consumption figures for monthly and rarely (21.6% and 21.9%, respectively). Sugary foods present, as second category, daily, with 25.4%. Another highlight are rarely consumed foods, such as readymade dishes (51.1%), soft drinks (36.6%), Macrobiotic Products (38.7%) and Exclusively Vegetarian Products (43.4%).

We verified that the consumption of ready-made dishes and fried foods is higher in the younger age group, instead of the consumption of fruit and fresh vegetables.

We shall now discuss the various obstacles to healthy eating. The main ones are habits and routine, tastes, lack of time and unwillingness. Many respondents, although not the majority, mentioned price and the type of foods that are usually available, which confirms the results of investigations that have drawn an inverse association between socioeconomic level and nutrition quality (Bernstein et al., 2010).

Regarding whether, in the last 5 years, the respondents' own health and/or their relatives' was affected by the rhythms of daily life, by relatives' illness or by working conditions, the answers were similarly distributed. The most referred items were the rhythms of daily life (46.5%), stress related to relatives' illness (43.6%), and working conditions (37.7%). Thus, there is a concern about the rhythms of life. Periods of economic recession create high levels of anxiety, mainly in the classes that are most vulnerable in economic terms, as they do not have resources, neither material, nor psychological, to face the situation of crisis (CDSS, 2010).

By investigating, in a period of economic crisis, the impact of cuts in health prevention programs, we found that the mean age of those who answered that in the last 5 years, their own health or their relatives' health had been affected by the rhythms of daily life was 34.29 years, while the mean age of those who referred that they had not been affected was 31.64 years. According to Student's t-test, the differences observed between the mean ages of the two groups are statistically significant (t(927) = 3,400; p=0.001). In the cases in which, in the last 5 years, the respondents' own health or their relatives' had been affected by working conditions, the value was 34.43 years, while the mean age of the ones who referred not having been affected was 32.28. According to Student's t-test, the differences observed between the mean ages of the two groups are statistically significant (t(938) = -2.705; p= 0.007).

As for the actions undertaken when a member of the family is sick, the majority consult the pharmacist or go immediately to the doctor. With percentages above 40%, we have the alternatives "use the home pharmacy" and "uses the drugs that the doctor had prescribed in previous situations". Few of the respondents ask for the advice of other people (relatives, friends or neighbors) and only a very restricted group state they resort to alternative medicines. This group of questions included the question "Do you smoke or is there anyone in your family who smokes on a regular basis?" Overall, 52.3% of the respondents answered "No" to this guestion. The proportion of daily smokers among adults has been sharply declining in the last three decades in the majority of the OECD nations, either because of the progressive introduction of anti-smoking legislation, or because of people's voluntary adoption of a set of simple rules for healthy behavior (not smoking, not drinking excessively, not using drugs, not eating high-calorie foods, doing physical exercise, using the seat belt in motor vehicles, not speeding, and complying with safety rules in the workplace, among others).

# Self-rated health

In a general analysis of their health status, the majority of the respondents rated it as "Good", and the rest of the answers were similarly distributed among "Very Good" and "Regular". Small percentages were registered for "Poor" (1.9%) and "Very Poor" (0.3%). This is a normal situation, as the sample is relatively young, concerned about their health, as we have seen above, and practice physical activity.

# Inferential analysis

To evaluate if the perception of good health depends on the aspect of life that is considered the most important one and if they have the perception that the professional activity can have effects on health, we employed the Chi-square test of independence. A type I error probability ( $\alpha$ ) of 0.05 was considered in all the inferential analyses.

Table 3 - Individuals' perception of good health according to aspect of life. Continental Portugal,  $2^{nd}$  semester of 2012

Aspect of life	Χ²	Р	N°	
The most important aspect	16.423	0.01	979	
Age group	47.012	0.01	985	
Marital status	5.795	0.122	980	
Having a professional activity	13.831	0.01	955	
Level of schooling	56.749	0.01	978	
Home's adequacy for health	19.545	0.01	942	
No. of residents in the domicile	20.815	0.008	933	
Going to the doctor when ill	8.088	0.04	993	
Visiting the family doctor	4.384	0.037	983	
Going to a specialist	8.201	0.04	963	
Going to the doctor only when ill	1.014	0.314	975	
Attended a consultation in the last 12 months	4.645	0.031	974	

Source: 2012 (Oliveira, 2012)

Table 1 shows that perception of good health is not associated with marital status and with going to the doctor only when ill, and that it is associated with the remaining aspects, like age, marital status, professional activity, level of schooling, housing conditions, number of residents in the domicile, or going to the doctor frequently, mainly the family doctor or a specialist. Therefore, it is clear that going to the doctor produces a feeling of tranquility, calmness and wellbeing. It is crucial to guarantee that citizens visit their family doctor on a regular basis.

Table 4- Perception that the professional activity can have effects on health, according to type, Continental Portugal, 2<sup>nd</sup> semester of 2012

Type of work	X²	Р	N°
Working at home	1.996	0.16	900
Working in shifts	4.678	0.03	884
Working extra hours	133.172	0.01	875

Source: 2012 (Oliveira, 2012)

Working conditions have a deep impact on workers' health, as Table 4 shows us. A flexible workforce is understood as an advantage to economic competitiveness, but it produces effects on health (Benach; Muntaner, 2007). Bad mental health results are usually associated with precarious jobs (Kim, 2006). The relationship among timetables, excessive working hours and health status has been the object of many studies for decades, as well as working in shifts or fixed schedules and even the nature of work requirements (Patel; Hu, 2008), whose result is the increased risk of obesity.

In the sample, which has a young/adult profile with a high level of schooling, there is the perception that the professional activity can have effects on health and is associated with working in shifts or working extra hours.

This situation is connected with the workers' fear of losing more labor rights in this period of economic recession. It is important to notice that, in the microeconomic level, many companies, aiming at short-term survival, have drastically cut expenses and reduced their number of workers, which confirm the tendency of association between higher levels of unemployment and periods of economic recession with a weak growth of the Gross Domestic Product.

# Factor analysis

The study of the validity of these constructs led us to choose a solution of 6 components. The criterion used to define the number of factors was eigenvalue > 1.

Thus, the following factor solution was found, explaining 46.73% of the total variance. In terms of internal consistency, it ranges between .45 and .63 in the respective subscales or factors, according to Table 5.

Table 5 - Results of the Factor Solution

	Factors					
Items	1	2	3	4	5	6
In private offices, doctors are more attentive	0,776					
The private health system meets the population's needs more quickly than hospitals	0,750					
Health care centers are mostly attended by people with fewer economic resources	0,578					
The health care centers' low response leads to a greater use of hospital emergencies	0,564					
The hospital allows the patient to undergo all the necessary exams and this does not happen at the health care center	0,437					
Do you have a professional activity?		0,786				
Do you usually work extra hours?		0,708				
Do you believe that your professional activity can have effects on your health?		0,659				
Are you a beneficiary of social security or of any other similar regime?		0,490				
Does your husband (wife)/spouse/partner have a professional activity?		0,482				
Fruit			0,756			
Fresh vegetables			0,660			
Water			0,560			
Legumes (beans, grain)			0,510			
Dairy products			0,510			
I prefer to go to the health care center because there I have my doctor who knows me and my problems				0,822		
It is very important to have a family doctor who monitors us throughout our life and knows our problems				0,731		
Have you visited a family doctor?				0,589		
Unwillingness					0,761	
Habits and routine					0,761	
Tastes					0,722	
Asks the pharmacist's advice						0,671
Asks other people's advices (relatives, friends or neighbors)						0,660
Uses the home pharmacy and also the drugs that the doctor had prescribed in previous situations						0,638
% of specific variance	8,93	8,63	8,04	7,69	7,27	6,16
% of total variance	46,73			•		
Cronbach's Alpha	0,64	0,63	0,55	0,53	0,45	0,45
Total Cronbach's Alpha	0,576			•		

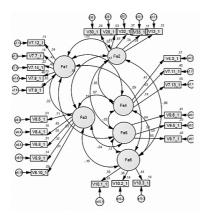
Source: Oliveira, 2012

Thus, the following factors were obtained, illustrated in Figure 1: "Difficulty in access to health care" (Fa1), which is related to the setbacks that the citizens must face to receive health care; "Labor Precariousness" (Fa2), which is based on the professional activity and its effects on health; "Eating Habits" (Fa3), which considers whether the respondents eat in a healthy way; "Family Health Behaviors" (Fa4), about how they organize and live their life in terms of health; "Socioeconomic Behaviors" (Fa5), which considers the activities in society; "Health Education and Prevention" (Fa6), an important area.

There are many models that attempt to outline the network of relations among the diverse factors that were studied (Gunning-Schepers, 1999; Evans, 2001). The social determinants of health consider: social exclusion, poverty, socioeconomic position, income, public policies, health services, education, housing, transports, behaviors or lifestyles, and the community's supporting networks (Farrel-Macvoy; Wilde, 2008).

The confirmatory factor analysis reveals an adjustment that is not so good based on the values obtained in CFI = 0.872. However, it presents a good adjustment based on the values obtained in GFI=.951 and RMSEA=.039.

Figure 1 - Fai — "Difficulty in access to health care"; Fa2 — "Labor Precariousness"; Fa3 — "Eating Habits"; Fa4 — "Family Health Behaviors"; Fa5 — "Socioeconomic Behaviors": Fa6 — "Health Education and Prevention"



These dimensions are not fixed. Many determinants interact among one another. Concerning eating habits in the work context, recent studies have shown the association of job satisfaction with a better quality of life, less stress and lower prevalence of some diseases<sup>37-38</sup>.

Regarding the relation between eating habits and health education and prevention, the proverb "we are what we eat" translates this fact well (Nunes; Breda, 2001). As for the relationship between access and utilization of services and health education and prevention, there is a connection between these determinants that we can classify as "action over health".

Therefore, the existence of a correlation among these factors is clear. For example, between "family health behaviors" and "health education and prevention", between "family health behaviors" and "difficulty in access to health care", and between "family health behaviors" and "eating habits".

# **Regression Analysis**

Concerning the multiple linear regression analyses, the model is statistically significant (F=8.553, p=.000); however, it is responsible for a small percentage of ALE (4.8%,  $R^2$ =.048).  $R^2$  is very low, which shows that only a small part of ALE can be explained by these variables. Nevertheless, the tendencies are clear and consistent with the literature, which means that we must consider these determinants.

Only the factors "Labor Precariousness" (t=2.625, p=.009), "Family Health Behaviors" (t=-5.381, p=.000) and "Socioeconomic Behaviors" (t=2.685, p=.007) are significant. According to this model, ALE is explained by the following regression equation: ALE=79.809-.002 "Difficulty in Access to Health Care" -.038 "Labor Precariousness" - .009 "Eating Habits" -.025 "Family Health Behaviors" +.057 "Socioeconomic Behaviors" +.039 "Health Education and Prevention".

These results differ from other studies because they correspond to an analysis of a specific territory and identify tendencies and aspects that can be influenced and which will have an effect on the variable under study. In addition, we have a young sample, which will also enable comparative analyses in the future. Thus, it is possible and desirable, in the future, to approach the sample in comparative terms, observing its evolution over time, in a repeated way, like a barometer, allowing even to intervene in it, so as to enhance the aspects of life that were considered.

# Conclusion

The worsening of the risk of poverty is a reality in Portugal. There seems to exist a clear conception of health and family, quality of life and average life expectancy. Health, in the socioeconomic point of view, is a fundamental barometer for the evaluation of a society's degree of development.

As for quality of life, a closer look on our country shows that the Portuguese are dissatisfied, suspicious and insecure.

After a consistent factor analysis that identified a set of factors that are important for the management of family health, we appropriately defined the following components: "Difficulty in access to health care"; "Labor Precariousness"; "Eating Habits"; "Family Health Behaviors"; Socioeconomic Behaviors"; "Health education and prevention". Thus, we verified the presence of health determinants in Portugal, and a rational intervention is crucial, not only in the measurement and financial dimension of health, but also in the specificities of the social determinants of health.

Therefore, it is possible to act over health, intervening in critical variables which have a relevant impact on health perception and on the connection with average life expectancy, an indicator of development.

The way in which a socioeconomic crisis affects health depends essentially on social protection right from the beginning and on the quality of the responses (Stuckler et al., 2011; Mladovsky et al., 2011; McKee, 2011).

In this period of economic crisis, the State has been reducing health expenses. In addition to the reduction in the price of medicines and in the salaries of health professionals, there has also been lower investments in prevention and public health programs, which is cause for concern. It is known

that cuts in programs to combat obesity or smoking may improve the public accounts, but it is possible to say that these short-term benefits will be outbalanced by higher long-term expenses, not only in the State's spending, but also in citizens' health.

It is a fact that Portugal can be proud of the positioning of its Health Care System (SNS) in international terms; however, nowadays, contradictory realities are being experienced. Thus, the SNS is the health care system that is most used by the Portuguese. The population has a good perception of it, and it reports that its greatest fear for the future is the loss of the quality of the SNS¹. Nevertheless, there have been attempts to implement measures to rationalize expenses and to reduce costs in the provision of health care that may jeopardize this situation.

The indicators that come to be gradually known show a significant decrease in medical consultations and in treatments due to many people's economic difficulties, as well as an increase in the costs of services and user fees (Portugal, 2010). The consequence is a risk of "implicit rationing" in the public health services that inhibits the "provision of necessary health care" and shows the "existence of clear signs related to the reduction in the patients' accessibility to medications, associated with their impoverishment"43.

The Government's program establishes the aim of continuing to improve the quality and the citizens' effective access to health care, in a system that is universal, equitable, and which tends to become free, as well as to enhance the system of prices and revision of the drug subsidization system. The purpose is to guarantee an efficient and dynamic resource management, redefining the model of drug evaluation for the State's subsidization, without neglecting the most unprotected citizens (Portugal, 2010).

There is a focus on the completion of the works of the National Health Plan 2011-2016 as the fundamental pillar of the reform of the health care system, targeted at clinical quality, prevention and promotion of healthy lifestyles, aiming at the population's health gains with national and integrated programs. Another aim is to guarantee primary care coverage,

<sup>1</sup> Study carried out by the research institute: CEGEDIM; NETSONDA. Study about health in Portugal. Oeiras, 2012.

ensuring that all citizens have access to a family doctor, minimizing the current regional or social asymmetries of access and coverage, and betting on prevention.

Therefore, we have ascertained the value of health determinants, but in practice, we have found lower investments in health care, less resources, and fewer professionals. Health is managed in a business-like perspective, and the focus is solely the measurement and market dimension, which obliterates many of its specificities.

Another central aspect is the objective of regional development. We aim at its fulfilment, but we close health services and ignore the implications to the population and in the territories.

This is what is called sustainability, that is, it is necessary to constitute an increasingly efficient system that focuses on the service provided for citizens, families and communities.

# References

ANRÍQUEZ, G.; DAIDONE, S.; MANE, E. Rising food prices and undernourishment: a cross-country inquiry. *Food Policy*, Guildford, v. 38, p. 190-202, fev. 2013.

AWOFESO, N. Racism: a major impediment to optimal Indigenous health and health care in Australia. *Australian Indigenous Health Bulletin*, Mount Lawley, v. 11, n. 3, p. 1-13, 2011.

BENACH, J.; MUNTANER, C. Precarious employment and health: developing a research agenda. *Journal of epidemiology and community health*, London, v. 61, n. 4, p. 276-277, 2007.

BERNSTEIN, A. M. et al. Relation of food cost to healthfulness of diet among US women. *American Journal of Clinical Nutrition*, Iowa City, v. 92, n. 5, p. 1197-1203, 2010.

BLANCHARD, O. Adjustment within the euro: the difficult case of Portugal. *Portuguese Economic Journal*, Lisboa, v. 6, n. 1, p. 1-21, 2006.

BRINKMAN, H. J. et al. High food prices and the global financial crisis have reduced access to nutritious food and worsened nutritional status and health. *The Journal of Nutrition*, Paris, v. 140, n. 1, p. 153S-161S, 2010.

CATALANO, R. Health, medical care, and economic crisis: the New England journal of medicine, Boston, v. 360, n. 8, p. 749-751, 2009.

CDSS - COMISSÃO PARA OS DETERMINANTES SOCIAIS DA SAÚDE. Redução das desigualdades no período de uma geração: igualdade na saúde através da acção sobre os seus determinantes sociais: relatório final da comissão para os determinantes sociais da saúde. Lisboa: OMS, 2010.

EUROPEAN COMMISSION. Reducing health inequalities in the European Union. Luxembourg:, 2010.

EUROSTAT - EUROPEAN STATISTICS. More than 120 million persons at risk of poverty or social exclusion in 2013. *Eurostat newsrelease*, Brussels, n. 168, 4 nov. 2014. p. 2011-2014. Disponível em: <a href="http://ec.europa.eu/eurostat/documents/2995521/6035076/3-04112014-BP-EN.pdf/62f94e70-e43a-471f-a466-2e84d1029860">http://ec.europa.eu/eurostat/documents/2995521/6035076/3-04112014-BP-EN.pdf/62f94e70-e43a-471f-a466-2e84d1029860</a>. Acesso em: 25 mar. 2015.

EVANS, T. et al. *Challenging inequities in health* from ethics to action. New York: Oxford University Press, 2001.

FALL C. et al. Infant-feeding patterns and cardiovascular risk factors in young adulthood: data from five cohorts in low- and middle-income countries. *International Journal of Epidemiology*, London, v. 40, n. 1, p. 47-62, 2010.

FARREL-MACVOY, H. C.; WILDE, J. *Tackling Health Inequalities*: an all Ireland approach to social determinants. Dublin: Combat Poverty Agency, 2008.

FIGUEIREDO, A.; GONZÁLEZ, P. Crisis, austerity and the European social model in Portugal. *Economia & Lavoro*, Venezia, v. 48, n. 2, p. 49-69, 2014.

GADELHA, C. A. G. et al. Saúde e territorialização na perspectiva do desenvolvimento. *Ciência & Saúde Coletiva*, Rio de Janeiro, v. 16, n. 6, p. 3003-3016, 2011.

GUNNING-SCHEPERS, L. J. Models: instruments for evidence based policy. *Journal Epidemiology Community Health*, London, v. 5, n. 53, p. 263, 1999.

HANSON, S.; LIGEIRO, I. Enfermagem de cuidados de saúde à família: teoria, prática e investigação. Loures: Lusociência, 2005.

IMF - INTERNATIONAL MONETARY FUND. Fiscal *monitor*: September: addressing fiscal challenges to reduce economic risks. Washington, DC, 2011.

JULIEN R. et al. Pesticide loadings of select organo-phosphate and pyrethroid pesticides in urban public housing. Journal of Exposure Science and Environmental Epidemiology, New York, v. 18, n. 2, p. 167-174, 2008.

KIM, I. H. The relationship between nonstandard working and mental health in a representative sample of the South Korean population. Social Science and Medicine, Boston, v. 63, n. 3, p. 566-574, 2006.

MAGEE, C. A.; CAPUTI, P.; IVERSON, D. C. Short sleep mediates the association between long work hours and increased body mass index. Journal of Behavioral Medicine, New York, v. 34, n. 2, p. 83-91, 2010.

MAISONNEUVE, C.; MARTINS, J. A projection method for public health and long-term care expenditures. Paris: OECD, 2013.

MARMOT, M. et al. Closing the gap in a generation: health equity through action on the social determinants of health. The Lancet, London, v. 372, n. 9650, p. 1661-1669, 2008.

MAROCO, J. Análise estatística com o PASW Statistics. Sintra: ReportNumber, 2010.

MCKEE, M. Responding to the economic crisis: Europe's governments must take account of the cost of health inequalities. Journal of Epidemiology Community Health, London, v. 65, n. 5, p. 391, 2011.

MLADOVSKY, D. et al. Health policy responses to the financial crisis and other health system shocks in Europe. Copenhagen: WHO Regional Office for Europe: European Observatory on Health Systems and Policies, 2011.

MOURÃO, P. R. Time elapsed since the last medical visit: analysis of a statistical model applied to the case of Spanish women. Revista da Associação Médica Brasileira, São Paulo, v. 57, n. 2, p. 162-167, 2011.

NUNES, E.; BREDA, J., Manual para uma alimentação saudável em jardins-de-infância. Lisboa: Direcção Geral de Saúde, 2001.

OLIVEIRA, I. Gestão e saúde: o comportamento das famílias na gestão da saúde: impacto na esperança média de vida e no desenvolvimento. 2012. Tese (Doutorado em Gestão) - Universidade de Trás-os-Montes e Alto Douro, Vila Real, 2012.

OPSS - OBSERVATÓRIO PORTUGUÊS DOS SISTEMAS DE SAÚDE. Relatório de primavera 2012: crise & saúde: um país em sofrimento. Lisboa: ENSP. 2012.

PATEL, B.; HU, F. B. Short sleep duration and weight gain: a systematic review. Articles epidemiology, Silver Spring, v. 16, n. 3, p. 643-653, 2008.

PORTUGAL. Instituto Nacional de Estatística. Projecções de população residente (2000-2050). Lisboa, 2004.

PORTUGAL. Presidência do Conselho de Ministros. *Programa do XIX governo* constitucional. Lisboa. 2010.

PORTUGAL. Instituto Nacional de Estatística. Rendimento e condições de vida 2013. Lisboa, 2014.

REDE EUROPEIA ANTI-POBREZA. Indicadores sobre a pobreza: dados europeus e nacionais: atualização (março, 2014). Porto: EAPN, 2014.

STEELFISHER, G. K. et al. The public's response to the 2009 H1N1 influenza pandemic. *New England Journal Medicine*, Boston, v. 362, n. 22, p. x-x, 2010.

STUCKLER, D. et al. Effects of the 2008 recession on health: a first look at European data. The Lancet, London, v. 378, n. 9786, p. 124-125, 2011.

TOSCANO, J. J. D. O.; OLIVEIRA, A. C. C. D. Qualidade de vida em idosos com distintos níveis de atividade física. Revista Brasileira de Medicina do Esporte, São Paulo, v. 15, n. 3, p. 169-173, 2009.

### WHO - WORLD HEALTH ORGANIZATION.

Ação sobre os determinantes sociais da saúde: aprendendo com experiências anteriores. Genebra: Secretaria da Comissão sobre Determinantes Sociais, 2006.

# Authors' contribution

Oliveira collected and analyzed the data and wrote the first draft to manuscript. Marôco collaborated in the analysis of data and critical review of the manuscript. Nogueira helped the design of research questions, analysis of results and manuscript review. Diniz helped to design the investigation questions, to write the results analysis and manuscript review.

Recebido: 05/12/2013 Reapresentado: 30/05/2014 Aprovado: 30/06/2014