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Presidency of the Council of the European Union

Health in Portugal 2007

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ABBREVIATIONS

ACS. High Commissariat of Health
AIDS. Acquired Immune Deficiency Syndrome
ASAE. Food and Economic Safety Authority
BSE. Bovine Spongiform Encephalopathy
IDU. Injecting Drug Users
CDC. Centres for Disease Control and Prevention
CJD. Creutzfeldt-Jakob Disease
PDU. Problematic Drug Users
DGS. Directorate-General of Health
DOTS. Directly Observed Treatment, Short-Course
ECDC. European Centre for Disease Prevention and Control
EEA. European Environment Agency
EFSA. European Food Safety Authority
EU. European Union
GDP ppp. Gross Domestic Product in purchasing power parity
GDP. Gross Domestic Product
HBSC. Health Behaviour in School-aged Children
HCAI. Healthcare Associated Infections
HIV. Human Immunodeficiency Virus
ICRP. International Commission on Radiation Protection
IDT. National Institute for Drugs and Addiction
IMR. Infant Mortality Rate
INE. National Statistics Institute
INFARMED. National Pharmacy and Medicines Institute
INSA. National Institute of Health Dr. Ricardo Jorge
LE. Life Expectancy
MS. Ministry of Health
NHIS. National Health Interview Survey
NHS. National Health Service
OECD. Organization for Economic Co-operation and Development
PALOP. African Countries of Portuguese Official Language
NHP. National Health Plan
NVP. National Vaccination Programme
SARS. Severe Acute Respiratory Syndrome
SDR. Standardized Death Rate
STI. Sexually Transmitted Infections
TB. Tuberculosis
UESP. Public Health Emergency Unit
WHO. World Health Organization

In Portugal's recent health history, the end of World War II (1945), the foundation of the World Health Organization (1948) and joining the European Union (1986) are decisive landmarks.

During the 20th century, life expectancy at birth almost doubled, as a result of social development. The health of the Portuguese is influenced by relatively favourable factors (geographical location, climatic conditions, cultural dimensions and population dynamics, among others). Together with the reduction in the birth rate they explain the ageing of the population producing new patterns of morbidity and mortality, similar to what happens in other industrialised societies.

In the future, diseases associated with ageing will increase, namely vascular diseases, diabetes, cancer, muscular-skeletal, neurological and psychiatric disorders. At the same time, communicable diseases will continue to be a concern because of the unexpected aspects that they can assume and the complexity of answers that they often demand. Environmental risk factors will also have a negative impact on the health of individual and communities. Control of these problems requires mobilisation of professionals and departments in different governmental sectors.

The principle of health in all policies must be translated into government decisions in all departments and not just limited to intervention in a strict concept of health. It is essential to ensure the contribution of education, transport, housing, agricultural and environmental as well as fiscal policies so as to guarantee high levels of health protection. An inter-departmental strategy (a horizontal policy) is needed to improve the level of health of the whole population.

It is crucial to recognise the opportunity of effective reorganisation of the health policy to one centred on anticipation, prevention and promotion of health.

The historical events that occurred in the last 30 years, in particular the creation of the National Health Service, brought about a favourable evolution of the main health indicators. In 2006, the annual budget of the National Health Service reached 8.57 thousand million euros and represented 22% of the current public expenditure.

PROMOTION OF HEALTHY LIFESTYLES

Sedentary habits and reduced physical activity, unbalanced diets, consumption of harmful substances, violence, accidents, high sexual risk behaviours and inadequate stress management constitute avoidable public health problems that cannot be ignored. They cause illness, incapacity, lowering of the quality of life and premature death. The preventable nature of these problems, their manifestations and their tendency to rise in frequency in the population, justify priority in the formulation and development of action programmes to stimulate the adoption of healthy lifestyles and reinforce the structural and environmental conditions favourable to health. Therefore, it is necessary to adopt diversified yet complementary intervention strategies: the implementation of public health policies, promotion of knowledge and education on health, creation of stimulating supportive environments, reinforcement of the community action and redirection of the health services.

Considering the multiplicity of health determinants, their globalised expression and the diversity of interventions, the resolution of many problems requires the participation of different partners towards consensus and sustainable commitments. The recent adoption of the Framework Convention on Tobacco Control and the European Charter on Counteracting Obesity, promoted by the World Health Organization and adopted by Portugal, are examples of this approach.

ENVIRONMENTAL RISKS WITH IMPACT ON PUBLIC HEALTH

Global warming constitutes a concern for environmentalists and public health experts. Al Gore's initiative to promote 'his' seminal movie 'An Inconvenient Truth, A Global Warning', appealing for the reduction of carbon dioxide emissions wasn't therefore a surprise. It is imperative to prevent the further rise of global temperatures urgently, as this is unequivocally linked to extreme climatic phenomena. Examples of extreme weather patterns of particular importance to Portugal are heat waves and droughts because of the impact they might have in excessive mortality and the occurrence of emerging problems of public health.

In 2003 Europe experienced excessive mortality estimated between 27 and 40 thousand deaths related to the heat wave (around two thousand in Portugal). In the coming years an increase in the intensity and frequency of heat waves is expected. As such, it is important to proceed with the investments predicted in the contingency plans at all department levels, including the health care units.

COMMUNICABLE DISEASES

Poliomyelitis, measles and German measles will follow smallpox, in the list of diseases to eradicate. However, communicable diseases continue to infect both humans and animals.

In the light of the cyclical theory of influenza pandemics, when a new subtype of the virus emerges, the risk of a pandemic occurring is acknowledged. Nowadays it is not possible to anticipate the antigenic and genetic constitution of the pandemic virus. It is also not possible to rigorously draw the most probable scenario, since the virulence of the virus itself may result in a light, moderate or serious expression (with distinct implications in its lethality).

In Portugal the work undertaken in preparation for the anticipated pandemic has included

the elaboration of a contingency plan developed in the following four axes: epidemiological surveillance, prevention/control measures, communication and evaluation.

The National Vaccination Programme was updated in January 2006 when the vaccine against meningitis C was integrated. The new Programme also adopted the pentavalent vaccine, which includes the inactivated poliomyelitis vaccine, replacing the oral vaccine, and the vaccines against diphtheria, tetanus, whooping cough (acellular pertussis) and Haemophilus influenzae type b (Hib). The Bacillus Calmette-Guerin (BCG) continues to be administered at birth.

NON-COMMUNICABLE DISEASES

Malignant tumours constitute the second most common cause of death in Portugal, followed by cerebrovascular diseases and ischemic heart diseases. In spite of the advancements observed in the populations' health condition in the last decades, cancer and diseases of the circulatory system leave Portugal in an unfavourable position when compared with the European average.

Many of the determinant causes of chronic diseases are understood and are triggered by avoidable risk factors. The problem resides in the individual and social acceptance of the protective measures, especially when these demand behavioural changes. The current pandemic expression of diabetes and obesity constitute a great concern and must be controlled. For example, the reduction of childhood obesity is guided by primary and secondary measures of prevention aiming the prevention of overweight (balanced food intake, adequate physical activity and limited amount of time spent in front of the television and computer screens/monitors, particularly in the most deprived social groups), as well as early diagnosis.

The National Platform Against Obesity was therefore outlined to bring efforts together and contribute to the reduction of the prevalence of this problem, through a multi-departmental approach based on a set of concrete and balanced measures of primary, secondary and tertiary prevention.

CHILD HEALTH

Globally, Portugal occupies a good position with regards to the child mortality index ranking (3.5/1000 live births in 2005). Despite of the excellence of this indicator there is the annual probability of 200 child deaths and 300 still-births taking place. The reorganisation of maternity hospitals started in 2006 should contribute towards further improvements.

HEALTHY AGEING

The ageing of the population, in particular with reference to the proportional increase of the elderly (aged 65 and more) in the communities (25% of the elderly population of Portugal lives in the interior), imposes change in the interventions, both in health and social sectors, as well as others, intending to maintain elderly autonomy and independence as well as total recovery when dependent. The aim is to improve elderly functionality, readaptation and family and social reinsertion. It is within this context, that investment is made in the promotion of health throughout life and in the Continued and Integrated Care Network, which are being developed as instruments to promote and support an active and healthy ageing. Without this Network that

includes domiciliary support, it would be necessary to keep inpatients in hospital for longer then desirable.

MENTAL HEALTH

In recent years there has been a growing effort to promote mental health and prevent mental illnesses. This is because in the European Union, neuropsychiatric disturbances constitute the main cause of loss of healthy years of life, especially as a result of depression. The problems of mental health and those related to alcohol consumption have a negative economic impact due to the precocious mortality and, most of all, to loss of productivity.

Since 1992, most of the Mental Health Services have been integrated in the National Health Service, in general hospitals. There is also a growing investment in community-based services.

EMERGING PROBLEMS

Emerging problems, either natural or resulting from bioterrorist actions have attracted the attention of the scientific community. There has been the unexpected appearance of new communicable diseases, such as HIV/AIDS and SARS. On top of this comes the worrying emergence of the new phenomenon of agents with antimicrobial resistance and in particular, of bacteria resistant to the antibiotics (like the resistance of staphylococcus to meticillin). In addition, the extensively multiresistant forms of Koch's bacillus (XDR-TB) that have been identified since 2000 also in Portugal are cause for increased concern. The National Programme against Tuberculosis is based on the DOTS strategy that implies early diagnosis of infectious cases and the adoption of standardised short treatments (six months).

GENDER

Gender, understood as the social construction of the differences between men and women, is a determinant with recognised impact in health indicators. In parallel to the vast scientific literature in this domain, in particular in the context of social sciences and health, the World Health Organization has been highlighting the importance of the development of health policies sensitive to sex and gender.

In Portugal, gender issues were primarily introduced in the debate regarding sexual and reproductive health to improve health through women empowerment.

The implementation of gender mainstreaming (understood as the process of creating knowledge and awareness of the ways gender affects health) requires added effort.

Taking on board the differences and similarities between men and women is a necessary approach when securing answers that are well-adapted to the needs of both men and women to improve their health.

As gender is now recognized as a determinant factor and a priority in the health agendas, the challenge turn out to be to develop innovative strategies to endorse gender mainstreaming in health programmes.

HEALTH AND MIGRATION

The intensification of migration flows is a reality that the European Union has been facing and that generates new challenges, namely with regards to both the migrant's health and the health of the hosting society.

For Portugal, the characterisation of migration tendencies and its determinants, as well as the identification of "good practices", has become a priority with the aim of promoting health, preventing disease and ensuring access to health care.

COOPERATION

Besides the participation in the works conducted in the European Union context, Portugal actively participates in different fora at supranational and international level, with particular emphasis on the work of the World Health Organization (in which it is a member of the Executive Board) and with Spain at a bilateral level.

The cooperation between Portugal and the Portuguese Speaking Countries is an essential and privileged instrument. In this group of countries, when formulating global and partnership development strategies, health is considered an area of priority intervention at different levels: human resources, training and investigation, services organisation, promotion of health and prevention of disease.

PORTUGAL, THE LAND AND THE PEOPLE

TERRITORY

Located in South-west Europe, the Portuguese territory is made up of a continental region, with an area of 88,966.7 km², and by the archipelagos of the Azores (nine islands) and Madeira (two main islands and the small islets Desertas and Selvagens), with an area of 2,322 and 801 km² respectively, situated in the Atlantic Ocean. Bounded by the Atlantic Ocean, to the West and to South, the continental territory has a coastline of 1,411 km to the West and South, and a land frontier of 1,320 km with Spain, to the North and East [1].

The average altitude is 240 m, with 71% of the territory situated below 400 m, and only 12% above 700 m. The River Tagus crosses the Central Region, flowing from East to West into the Atlantic Ocean near Lisbon. North of the Tagus, 95% of the territory has an altitude above 400 m; 62% of the area to the south has an altitude below 200 m. The maximum altitude is located in the Archipelago of the Azores (Pico Island with 2,351 m); within the continental territory the highest altitude is 1,993 m – Estrela Mountain– in the Central Region.

The climate is temperate and influenced by Atlantic characteristics which are more noticeable to the north of the Tagus River. The South Region benefits from the Mediterranean climate characteristics: Summers are hot and dry, whilst Winters are normally rainy. Over the last 15 years the average annual precipitation value has been 852 mm, oscillating between 542 and 1,092 mm. Recorded average annual temperatures have varied between 14.9 and 16.6ºC. The highest mean monthly values of 30ºC have been registered during the months of July and August, and the lowest mean values around 4ºC registered during the winter months [2]. The highest thermal variations are registered in the interior Central and Northern Regions.

POPULATION

The estimated Portuguese population for 31st December 2005 was 10,569,600, with 5,115,700 men and 5,453,800 women. There is a higher density in coastal areas where the main urban centres are located, whereas in the whole interior of the country the population density is low with lower urban density. The two main cities are Lisbon with 520,000 and Oporto with 233,000 inhabitants. However, these metropolitan areas were covering 2.8 and 1.3 million inhabitants respectively, in other words, 38.4% of the Portuguese population (estimates of December 2005). According to the 2001 Census there are six cities with a population above 100,000 inhabitants, totalling 1,325,933 people. There are 120 urban centres with a population of between 10,000 and 99,999 inhabitants making a total of 2,579,700 individuals; and 114 urban centres with a population between 5,000 and 9,999 inhabitants, in which 798,786 individuals reside. The remaining population inhabits places with less then 5 thousand inhabitants [3].

The aforementioned population distribution corresponds to an average population density of 115 inhabitants/km2. The highest values are in some districts of the metropolitan areas of Lisbon, Oporto and Braga (above 750 habitantes/Km2) and the lowest in most of the districts of the

interior, from the North to the South of the Country (figures lower then 60 inhabitants/km²).

During the 20th century, in spite of several demographic upheavals the Portuguese population almost doubled, yet with low growth rates: in 1900 the census registered 5,446,760 inhabitants, with the 2001 Census registering 10,356,117 inhabitants. The most intense migration flows took place in the second half of the 20th century with the beginning of the post-war period, particularly to Brazil and to the former colonies in Africa. The movements towards Europe, mainly to France in the sixties and also in lower numbers in the first years of the seventies, contributed to considerable decreases in the population with inevitable consequences, since emigration "weakens reproductive capacity, because it entices the most vigorous ages and deforms the population structure and accentuates the imbalance in the proportion between sexes, since it seizes higher numbers of men than women" [4].

After 1974, with the decolonisation process, the consequent return of hundreds of thousands of people and also due to the significant return of emigrants in Europe, a process of gradual recovery of the population was observed. Naturally, a set of micro-demographic variables also contributed to the growth of the population: the progressive reduction in child mortality or the high fertility rates during some of these periods, or its significant reduction in others. The total fertility rate was 3.15 in 1960 and as of 1995 one of the lowest in Europe. In 2004 the rate was 1.4 and practically since the beginning of the eighties (1981), this indicator is situated below the minimum threshold for population replacement. The next figure illustrates the natural, migratory and effective behaviour of the growth rates during the 1984-2004 period.

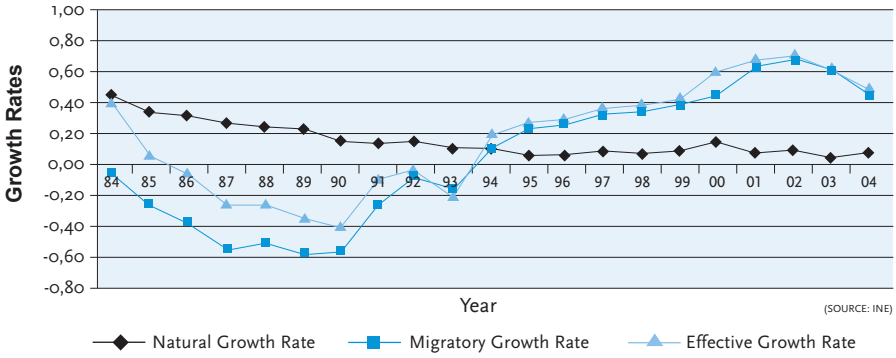


FIGURE 1. NATURAL, MIGRATORY AND EFFECTIVE GROWTH RATE EVOLUTION, 1984-2004

From 1994 the migratory growth rate is higher than the natural growth rate that has decreased since the beginning of the period under analysis.

In the last few years, the behaviour of the aforementioned demographic phenomena has revealed a strong similarity to various countries of the European Union (EU). However, in some of them the variations occurred some years before, such as the reduction of the total fertility rate.

Diaspora people and reception

The dispersal of the Portuguese across the five continents intensified after the 15th century after the Maritime Discoveries. Thereafter began the path that drove successive generations to concentrate in most cases in African, Asian and South American regions. On the other hand, the intense emigration movements, observed especially during the 20th century, as discussed previously, made this dispersal extend to new places, fundamentally in Europe, but also Africa, North and South America.

This movement of political and economical nature, a result of historical events, practically stabilised in the last decade of the 20th century, becoming insignificant as migration flow. Nevertheless, there is still a continuous movement, both of permanent emigration, particularly away from the European continent, as well as temporary emigration, to Europe.

Throughout the centuries Portugal witnessed its people depart. However, in the early 1990´s it was confronted with an unusual affluence of immigrants originating from several sociocultural contexts, following the considerable economical growth at the time.

Until the beginning of the nineties, the flow of immigrants to Portugal originated mainly from the African Countries of Portuguese Official Language (PALOP), particularly from Cape Verde who had already started this migratory flow at the beginning of the sixties. The influx of other immigrants then grew, the main contingents arriving primarily from Eastern European countries, from Brazil, and in lesser numbers from some African countries. This flow however, has taken place gradually. In 2005 the total number of resident immigrants was 275,906, corresponding to 2.6% of the estimated resident population. Of these immigrants 32% (88,560) came from Europe, 46% (125,934) from Africa and 17% (47,725) from the American continent, mainly from Brazil (37,617 individuals). In a quarter of a century the foreign population increased by more than five-fold, with an average rate of approximately 11,000 immigrants / year; taking into account the reduced natural balance immigration has contributed towards population growth.

TABLE1. IMMIGRANTS WITH LEGAL RESIDENT STATUS

	1980	1985	1990	1995	2000	2005
Immigrants with legal resident status	50,750	79,594	107,767	168,316	207,587	257,906*

(SOURCE: MINISTRY OF INTERNAL ADMINISTRATION)

* Provisional data

In 2005 over 54% of the immigrants were male and 46% were female, the majority of whom were of working age, as 61% of the total was in age group 25-64. There are also illegal flows that come to light during the official processes of regularisation.

Population projections for 2050

In a study presented by the National Statistics Institute (INE) on the projections for the Portuguese population for 2050, taking as a basis the variation of the fertility, mortality and migration components it is discussed that in any of the presented scenarios (three were pointed out), "the Portuguese population may decrease in the next 50 years at a percentage rate oscillating between 2% and 27% during this period, according to the chosen scenario" [5]. Although these are complex exercises due to the countless factors that influence demographic phenomena, we are undoubtedly facing tendencies. The presented scenarios predict a progressive increase of population ageing index that in the most negative scenario, could reach 457.1 and in the most favourable 216.2. One must bear in mind however that, since 1980, a continuous exacerbation of the population ageing index has been observed, increasing from 45.4 to 110.1. It seems plausible that this tendency will continue although with different degrees of intensity during the coming years.

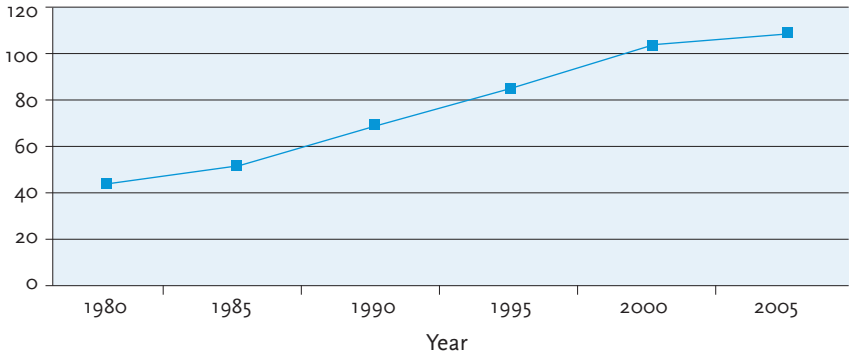


FIGURE 2. POPULATION AGEING INDEX, 1980-2005

On the other hand, the continuous decrease of the working age population (age group 25-64) is also significant and can be observed in any of the studied scenarios. This tendency presents itself as equally inevitable in a demographic context like our own.

CULTURAL DIMENSIONS

The official language of the country is Portuguese, presently also spoken in seven other countries, five of which in the African continent but also in Brazil and East Timor. The number of Portuguese speaking people is estimated at around 220 million.

Most of the Portuguese (around 84% of the total population - according to the 2001 Census) consider themselves Catholic, there being in addition a minority that follow other Christian religions and other creeds [3].

POLITICAL AND ADMINISTRATIVE ORGANISATION

According to the Constitution the Portuguese Republic is a State of right based on the popular sovereignty, on the pluralism of expression and on democratic political organisation. The Sovereign Organs are the President of the Republic, the Parliament of the Republic, the Government and the Courts. Whilst the President and the Parliament are elected by universal and direct suffrage, it is the President in accordance with electoral results that appoints the Prime Minister. The Azores and Madeira Archipelagos constitute Autonomous Regions with their own political-administrative structures and organs of government.

Administratively the Country is divided into 18 districts within the continental territory and two Autonomous Regions (Azores and Madeira). Districts are divided into Municipalities, and these into Parishes. In total the Country is made up of 308 municipalities and 4,257 parishes. The organs of power at the Municipal level are: the Town Hall (executive power) whose president is the first candidate from the highest voted party list and the Municipal Assembly (deliberative power), the members of which are elected by voters in that municipality. The executive organ of the parish is the Parish Council presided by the candidate from the highest voted party list.

DEVELOPMENT

Throughout the 19th century Portugal witnessed the decline of the colonial empire, and experienced difficulties in adapting to industrial and social development. New political concepts were expressed in violent and social upheavals. The increasingly weakened Monarchy persisted up to 1910. The dawn of the Republic was tumultuous and in 1928 an authoritarian and centralised regime was introduced, which lasted right up to April of 1974. The new democratic regime ended a period of colonial war that had lasted 11 years with devastating effects on society. In World War II Portugal did not suffer the war effort but neither did it benefit from the reconstruction programmes and from the "boom" of economic and technological growth that happened in the rest of Europe.

Portugal reached the last quarter of the 20th century with economic, education and health indicators that placed it at the bottom of European countries. The *coup d'état* on the 25th April of 1974, the Carnation Revolution driven by three essential ideas: democratise, decolonise and develop, unleashed an accelerated process of social change. Social progress especially the peaceful transition to an open and democratic society and joining the European Economic Community in 1986 happened quite slowly and then continued in a sustainable manner albeit with irregular rhythm. Longevity, as well as a set of quality of life indicators, has tended to improve in an uneven way and with rhythm variations, resulting from various circumstances. The documented development in the last 40 years, in particular in the mortality of all the child and youth age groups and in maternal mortality is a prime example (TABLE 2).

The challenge of education

In the last 30 years there were clear improvements in education development as the school population grew significantly: in 1974 compulsory schooling was only four years and even so a high number of students, particularly rural females didn't complete it. Gradually and with the difficulties inherent to a period of accelerated social changes, the educated population grew

TABLE 2. GDP PER CAPITA AND MORTALITY INDICATORS

		1961	1971	1981	1991	2001	2004
GDP per capita – USD ppp							
	Portugal	**783**	**2,153**	**7,812**	**11,783**	**18,071**	**18,125**
	Spain	1,201	2,951	7,447	14,152	22,257	25,875
	France	1,959	4,203	10,929	19,021	28,043	29,945
% of population aged 80 and more							
	Portugal	**1,2**	**1,4**	**1,7**	**2,6**	**3,5**	**3,7**
	Spain	–	1,5	2,0	3,0	3,9	4,2
	France	2,0	2,3	2,9	3,8	3,9	4,5
IMR							
	Portugal	**88,8**	**51,9**	**21,8**	**10,8**	**5,0**	**4,0**
	Spain	46,2	25,6	12,5	7,2	3,4	3,5
	France	26,0	17,2	9,7	7,3	4,5	3,9
Maternal Mortality Rate							
	Portugal	**–**	**54,5**	**19,1**	**12,0**	**6,2**	**–**
	Spain	–	29,9	9,6	3,3	4,2	–
	France	–	22,2	15,5	11,9	7,3	–
LE at birth							
	Portugal	**–**	**–**	**72,8**	**73,9**	**76,9**	**–**
	Spain	–	–	–	77,0	79,5	80,5
	France	71,0	72,1	74,5	77,0	79,2	80,3
LE – Males at age 80 years							
	Portugal	**–**	**–**	**–**	**5,7**	**6,7**	**–**
	Spain	–	–	–	6,8	7,5	–
	France	5,3	5,7	6,0	7,0	7,7	–
LE – Females at age 80 years							
	Portugal	**–**	**–**	**–**	**6,6**	**7,9**	**–**
	Spain	–	–	–	8,0	9,0	–
	France	6,4	7,2	7,6	8,8	9,7	–

(SOURCE: OECD HEALTH DATA 2006)

significantly: increasingly, children and adolescents spend more years in school. However it was only after joining the EU that compulsory schooling was increased and, nowadays is universal, compulsory and free and has the duration of nine years with compulsory attendance ending at 16 years of age. For students beginning the 1st school year in 2004/2005, the completion of the 12th year is compulsory. In this school year 1,530,000 students were enrolled in primary and secondary education and 381,000 thousand in higher education. The illiteracy rate registered at the 2001 Census was 9%, with the proportion of citizens that completed the 3rd year of primary education at 38% and those who completed higher education at 8.6%.

TABLE 3. REGISTERED STUDENTS

	Registered students	Pre-school %	Primary Education %	Secondary Education %	Higher Education %
1977/8	**1,848,646**	3,5	84,4	7,2	4,4
1980/1	**1,938,808**	5,1	81,2	9,1	4,3
1990/1	**2,190,912**	7,8	67,8	15,9	8,5
2000/1	**2,260,212**	10,4	54,1	18,3	17,1
2004/5	**2,172,853**	12,0	53,1	17,3	17,5

From the nineties public investment in Education came to general attention. In previous decades an effort had been made towards reaching an effective fulfilment of compulsory primary education and since then an expansion of schooling is being registered for preceding (pre-school) and downstream levels (secondary and higher education) [6]:

TABLE 4. GDP SPENT IN EDUCATION

1991	2001	2002	2003
5,9%	7,0%	7,1%	7,0%

A long term trend in the school system has been reversed: today Portuguese women study for longer than men and obtain better benefits. In spite of the significant improvement in qualification amidst the young population in 2001, 44.9% of young people between the ages of 18 to 24 years left the school before or immediately upon completion of compulsory schooling (52.5% of men and 37.2% of women) [6]. The Portuguese population continues to hold the lowest level of education in the EU-15, since undertaken investments take time to achieve results and are difficult to maximise when the rate of failure and drop-out are high.

TABLE 5. EDUCATIONAL LEVEL % OF POPULATION WITH ATTAINMENT

Education Level Attained	Countries	1991	2001
ISCED 0/1/2	**Portugal**	**85,8**	**80,0**
	Spain	78,2	59,7
	France	49,2	36,1
ISCED 3/4	**Portugal**	**7,5**	**10,9**
	Spain	11,9	16,7
	France	35,6	40,9
ISCED 5B	**Portugal**	**2,0**	**2,4**
	Spain	–	6,7
	France	7.4	11,2
ISCED 5A/6	**Portugal**	**5,0**	**6,7**
	Spain	–	16,9
	France	7,8	11,9

(SOURCE: OECD HEALTH DATA 2006)

ECONOMIC DEVELOPMENT

The economic situation measured by the Gross Domestic Product (GDP) and the social development measured by the educational level – attainment ISCED 5/6 are factors that feed into the health situation, which is measured in global indicators, namely the rate of infant mortality and the life expectancy at birth and especially at 80 years of age. In the next table one can appreciate the order in which the countries within the Organization for Economic Cooperation and Development (OECD) reached the level of a GNP per capita of 18 thousand dollars (US$) ppp. Portugal reached this economic development level relatively late with an obvious educational delay but with an infant mortality rate (IMR) and a life expectancy (LE) close to that of others. As such, one can recognise that in spite of the noted delay in economic growth and the historical inequalities that mark this society, the Portuguese enjoy relatively acceptable health levels. Multiple factors may contribute to this situation especially the cohesion and social solidarity deeply engrained in the culture and in social gatherings, the conservation of the family matrix and the networks of social support, the climatic conditions, the culturally inscribed food habits as well as the adequate health care services, namely, the activity of the National Health Service (NHS), established in 1979.

TABLE 6. GDP – INTERNATIONAL COMPARISONS

Years	Country	ISCED 5/6	IMR	Females LE at birth	Males LE at birth	Females at age 80 years	Males at age 80 years
1985	Switzerland	8,0 (1992)	6,9	80,1	73,4	8,2	6,7
1987	Luxembourg	11,7 (1999)	9,5	77,8	67,8	7,2	5,4
1987	Iceland	15,5 (1996)	7,1	79,6	74,8	8,8	7,1
1987	U.S.A.	24,0 (1992)	10,1	78,3	71,4	8,6	6,9
1988	Canada	15,0 (1992)	7,2	80,3	73,6	8,9 (1986)	6,9 (1986)
1989	Germany	12,0 (1992)	7,5	78,5	72,1	7,4	6,0
1989	Sweden	12,0 (1992)	5,8	80,6	74,8	8,4	6,7
1990	Austria	7,0 (1992)	7,8	78,4	72,2	7,2	6,1
1990	Belgium	9,0 (1992)	6,5	79,4	72,7	8,0	6,2
1990	Denmark	13,0 (1992)	7,5	77,7	72,0	8,1	6,3
1990	Finland	10,0 (1992)	5,6	78,9	70,9	7,5	6,1
1990	France	7,8 (1991)	7,3	80,9	72,8	8,6	6,8
1990	Netherlands	21,0 (1992)	7,1	80,1	73,8	8,3	6,4
1990	Japan	17,9 (1997)	4,6	81,9	75,9	8,7	6,9
1990	Norway	12,0 (1992)	6,9	79,8	73,4	8,0	6,4
1991	Italy	8,6 (1999)	8,1	80,2	73,6	8,1	6,7
1992	Australia	120 (1993)	7,0	80,4	74,5	8,7	6,9
1994	United Kingdom	13,7	6,2	79,3	74,1	8,5	6,6
1995	Ireland	10,0	6,4	78,4	72,9	7,5	5,9
1997	New Zealand	12,0	6,8	79,7	74,4	8,7	6,9
1998	Spain	14,1	4,9	82,1	75,1	8,6	7,1
2001	**Portugal**	**6,7**	**5,0**	**80,3**	**73,5**	**7,9**	**6,7**
2002	Greece	12,2	5,1	81,1	76,4	7,2	7,3
2002	Korea	18,5	5,3	80,4	73,4	7,2	6,6
2004	Czech Republic	11,7 (2003)	3,7	79,0	72,6	7,1 (2003)	6,1 (2003)

(SOURCE: OECD HEALTH DATA 2006)

EMPLOYMENT AND SOCIAL PROTECTION

Employment conditions have repercussions on the level of health, both of the person as well as of the family. After a decrease in the unemployment rate in the early nineties, the graph below shows an increase for both sexes from 2001, but the gap between men and women has stabilised.

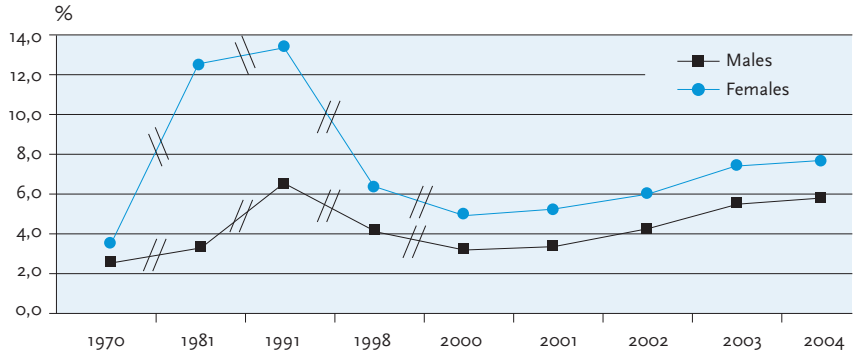


FIGURE 3. UNEMPLOYMENT RATE 1970-2004

From the mid seventies the main alterations to the Health sector that until then had been structurally tied to Social Security had two corresponding phases of development, in protection as well as in the creation and adjustment of contributive schemes. In 2004 there were 2.7 million pensioners in Portugal, of whom 1.7 million benefited from old age pensions, 674 thousand from survival pension and 336 thousand from disease and disability allowances.

The next figure shows the evolution of the financial responsibilities of social protection during the period of 1990-2002.

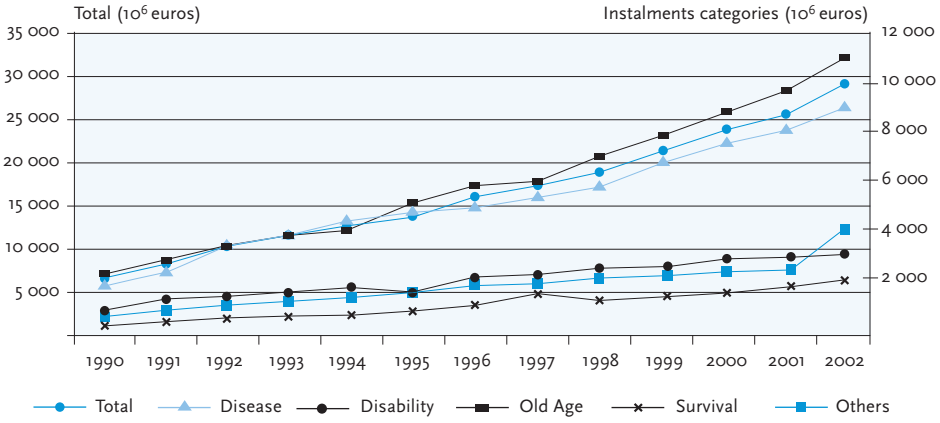


FIGURE 4. SOCIAL PROTECTION - ALLOWANCES BY PURPOSE, 1990-2002

It is further possible to compare the weight of the instalments per category, between Portugal and the EU-15 in 2002.

TABLE 7. SOCIAL PROTECTION INSTALMENTS (%)

Function Groups	Disease and disability	Old age and survival	Family	Unemployment	Others
Portugal	**9,7**	**10,2**	**1,1**	**0,9**	**0,4**
EU – 15	9,7	12,3	2,2	1,8	1,0

(SOURCE: INE AND EUROSTAT)

It is noteworthy that with the exception of the "disease and disability" and "old age and survival" categories, the weight of the instalment for each remaining categories is half or less then half of the observed for the average of the EU-15.

BIRTH RATE

A total of 109,457 infants were born alive in 2005. The decrease in birth rate directly causes increasingly smaller families, with an index of 1.4 offspring/woman, resembling that in others countries.

The actions developed within the scope of family planning were important and contributed towards the reduction in the percentage of live births by adolescent mothers (from 10.6% in 1979 to 5.0% in 2005). The number of births to adolescent fathers showed a downward tendency: 1,570 infants were born in 2004, (approximately a quarter of the number of births from adolescent mothers). From the total number of births in 2004, in 1% (1,116 cases) both parents were adolescents and 313 births were registered in 2004 to mothers under 16 years of age.

Of note is the accentuated increase in the number of births in women aged 35 and more. In 1995 these made up 10% (10,756 cases) of the total number of births while in 2005 this increased to 16.3% (17,871 cases). The average age of mothers at the time of their first-born is now 28 years.

Regarding perinatal health, birth in the hospital environment (public or private) constitutes one of the most important indicators. The number of births that occurred with admission in health establishments was 71.5% in 1979 and reached 99% in the nineties. In the last 10 years, the percentage of births in private institutions increased from 6 to 20%. At the same time, caesarean section reached a value of over 30%.

In Portugal, as in the majority of its EU partners, the fertility rate as specified by mothers' age displayed very significant variations over recent decades, as can be verified in the following figure. Note the convergence in 1994 of the series corresponding to women between 20-24 years and 30-34 years of age. As pointed before, 30-34 age group has immediately become more evident.

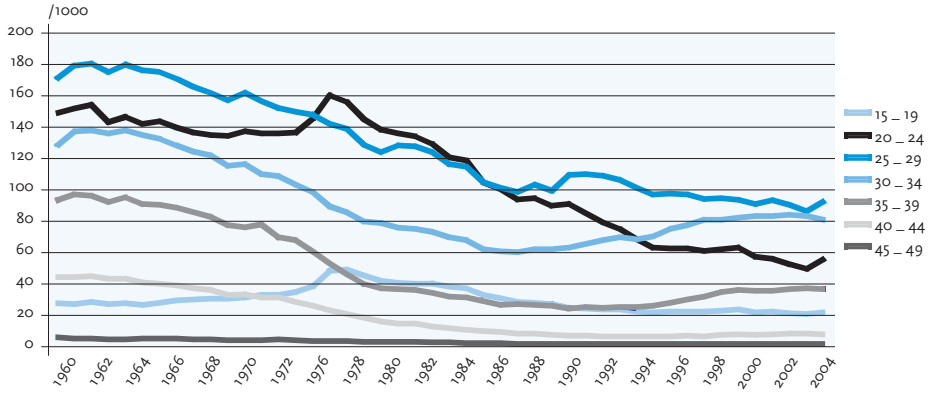


FIGURE 5. FERTILITY RATES

LIFE EXPECTANCY

In the last 40 years there has been a decrease in general mortality. This has been due, in particular, to the reduction of diseases of the circulatory system (as a result of improvements in lifestyle and access to health care); to the accentuated reduction in mortality caused by infectious diseases (due to a larger coverage) and to improvements in the standard of living.

Low levels of formal and general education, prior to educational reforms, have an effect on mortality rates as low levels of health literacy mean that preventative practices are not understood. The difficulty in accident control reflects itself in the potential years of life lost.

The mortality rate due to cancers has increased despite existing programmes of screening and control. The increase is mainly due to tumours caused by exogenous risk factors (e.g. tobacco and alcohol) and exposure to biological, physical and chemical agents in the environment.

The number of deaths from unknown causes expresses a deficient functioning of the certification system.

TABLE 8. STANDARDISED DEATH RATE (SDR) / 100,000 POPULATION

		1961	1971	1981	1991	2001
ALL CAUSES						
	Portugal	**1,260.3**	**1,288.2**	**1,004.0**	**876.1**	**699.3**
	Spain	1,055.0	1,007.5	774.8	695.0	563.8
	France	1,026.1	930.6	800.4	640.5	568.9
Diseases of the circulatory system						
	Portugal	**427.5**	**502.3**	**439.7**	**376.6**	**251.9**
	Spain	398.0	449.4	357,6	269,9	179.7
	France	355.7	338.9	274.0	193.4	153.3
Malignant neoplasms						
	Portugal	**121.2**	**145.3**	**142.2**	**152.7**	**152.7**
	Spain	144.8	152.4	153.8	167.5	162.0
	France	182.5	184.9	193.5	188.0	173.7
Infectious and parasitic diseases						
	Portugal	**54.8**	**48.0**	**13.2**	**9.8**	**16.8**
	Spain	37.5	22.6	9.9	15.1	11.5
	France	26.1	13.4	10.5	14.1	11.0
External causes						
	Portugal	**51.7**	**67.4**	**78.4**	**66.1**	**43.1**
	Spain	39.8	42.7	40.7	44.1	32.8
	France	79.7	89.2	81.4	66.8	52.8
Symptoms and ill-defined causes						
	Portugal	**230.5**	**235.7**	**133.6**	**95.4**	**77.6**
	Spain	145.9	85.4	27.1	13.9	14.4
	France	150.7	90.7	51.2	36.0	35.1

(SOURCE: OECD HEALTH DATE 2006)

Population ageing together with the continuous increase of LE has been one of the most visible demographic phenomena. According to the 1981 Census 11.5% of the population had 65 years of age or more and in 2005 this indicator was 17.1%. In parallel, during the same period the ageing index varies between 44.9 and 110.1. Also LE at birth increased by 9.8 years, going from 67.5 years to 77.3 years, during the period of 1970-2003. For the same period LE at 65 years of age reflects more meaningfully this improvement, translating into an increase by 4.1 years for females and 3.5 for males.

TABLE 9. LIFE EXPECTANCY

	80-84 years			85 and more		
	M/F	**M**	**F**	**M/F**	**M**	**F**
2000/1	**7.64**	7.01	8.05	**5.48**	5.26	5.61
2003/4	**7.60**	6.90	8.10	**5.30**	4.80	5.50

LE in advanced ages has increased as shown in the previous table.

TABLE 10. DEATHS OCCURRED AT 80 YEARS OF AGE AND MORE

	Mortality Rate	**Deaths 80 years and +**	**Population with 80 years and +**	**Total deaths**	**Death % at 80 and +**
1981	15 640.9	27 131	173 462	95 893	28.3
1991	14 355.1	38 615	268 999	104 361	37
2001	12 760.8	44 934	352 125	105 582	43
2005	12 442.9	49 897	401 008	105 837	47

Portugal shows, like other countries, a tendency for elderly deaths to increasingly occur in hospitals.

TABLE 11. DEATHS OCCURRED AT 80 YEARS AND MORE BY LOCAL

	Hospital %	**Residence %**	**Another %**	**Total**
1981	21.1	76.9	2.0	27 131
1991	36.1	60.1	3.8	38 615
2001	46.8	44.5	8.7	44 934
2005	58.1	33.0	8.9	49 897

LIFESTYLES

Self-perceived Health Status

The perception that each person has of their health is one of the main indicators for monitoring health, namely population health quality [7; 8]. As such, given that the individual is better capable of evaluating their own health in the context of their life journey, population health surveys are a good instrument for collecting information.

In Portugal, the National Health Interview Surveys (NHIS) of 95/96[9] and 98/99[10] included the question "In general, how do you consider your state of health?", through which self-perceived health status can be measured (the 4th NHIS 05/06 included the same question, however, data are not yet available).

In general terms, men and women registered a positive improvement in their appreciation of their state health.

A smaller percentage of women were positive about their state of health than men. At the same time, more women had negative feelings about their health than men.

TABLE 12. SELF-PERCEIVED HEALTH STATUS OF THE PORTUGUESE CONTINENTAL POPULATION, WITH 15 YEARS AND MORE (%)

	NHIS 95/96			NHIS 98/99		
	M	**F**	**Total**	**M**	**F**	**Total**
Very Good	3.7	2.1	**2.8**	3.7	2.1	**2.7**
Good	31.9	23.3	**26.6**	34.8	24.9	**28.6**
Fair	41.1	41.5	**41.3**	41.6	43.7	**42.9**
Bad	18.5	25.7	**22.9**	16.2	22.9	**20.4**
Very Bad	4.8	7.4	**6.4**	3.7	6.4	**5.4**

(SOURCE: NHIS 95/96; NHIS 98/99)

The fact that women are much more vigilant about their health and illnesses shows a social difference between men and women.

The percentage of respondents (aged 15 years and more) that considered their health to be very good or good (VG/G) increased even if slightly, from one period to another, as well as the percentage of people who considered their health to be fair. This increase in the positive health category was accompanied by a decrease in those who considered their health to be bad or very bad (B/VB).

The NHIS 95/96 and 98/99 also showed that, with regards to age, the percentage of people with positive self-perceived health status decreases as age increases. In contrast, a negative self-perceived health status was more frequent in people over the age group of 45-54 years [11].

The NHIS 95/96 and 98/99 showed that the population with lower levels of education (fewer than four years of schooling) tends to consider their health to be in the bad or very bad category (B/VB),

despite the documented general improvement in the level of health of this group over time. The mean number of years of education for those people who selected the bad/very bad category was four to six years, with the remainder being made up of those with higher levels of education, particularly those with 13 or more years of schooling. Amongst the respondents with between 7 and 12 years of schooling from 1995 to 1998, an evident increase in the very good or good categories (VG/G) and fair (F) was registered. At the same time, the respondents with 13 or more years of schooling opted preferentially for the very good or good categories (VG/G) having registered an increase from 1995 to 1998.

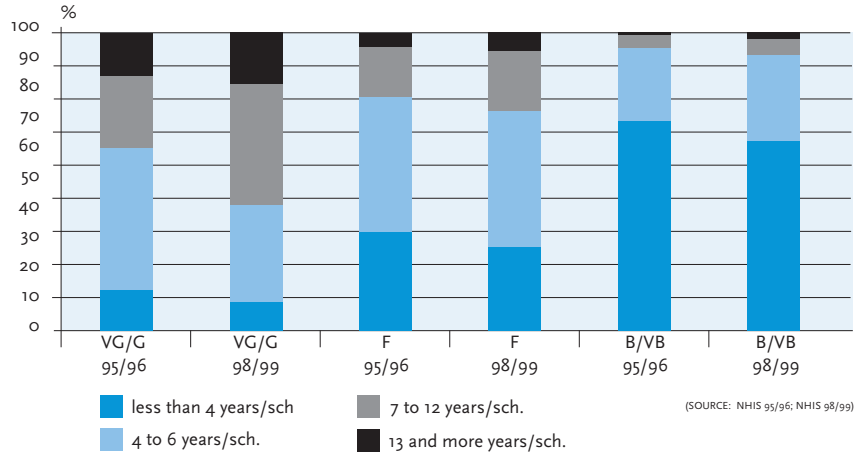


FIGURE 6. SELF-PERCEIVED HEALTH STATUS OF THE POPULATION OF CONTINENTAL PORTUGAL, AGED 15 YEARS AND MORE

In summary, the general results of the NHIS 95/96 and 98/99 show a positive variation in the self-perceived health status the Portuguese population: the percentage of people that considered their health to be very good or good and fair increased, together with the reduction in the percentage of those who considered it bad or very bad.

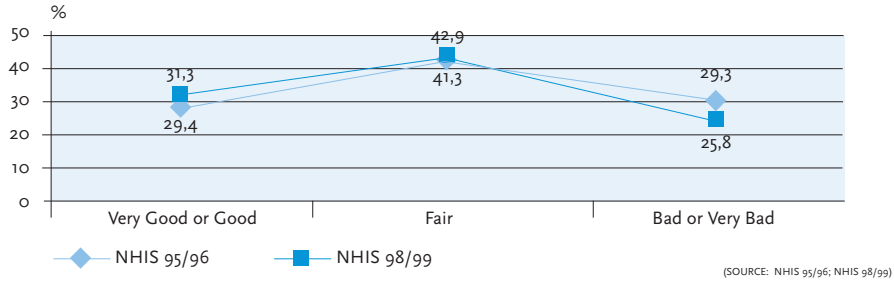


FIGURE 7. SELF-PERCEIVED HEALTH STATUS EVOLUTION IN PORTUGUESE CONTINENTAL POPULATION, AGED 15 YEARS AND MORE

Comparisons between countries are of interest, although the process for collecting information is still not standardised [12; 13]. Cultural and social factors can contribute towards the discrepancies that are seen. Evident differences exist between Portugal and the other EU countries even when countries with relative social-cultural proximity are compared [14].

TABLE 13. SELF-PERCEIVED HEALTH STATUS IN THE SOUTH OF THE EU (%)

	Portugal	Spain	France	Greece	Italy
Very Good	**2.4**	11.4	23.8	45.7	18.9
Good	**25.8**	56.9	45.8	27.1	42.1
Fair	**43.3**	23.0	14.1	17.9	31.7
Bad	**22.5**	6.6	13.7	7.2	6.0
Very Bad	**6.0**	2.2	2.5	2.1	1.3

(SOURCE: HIS ROUND 2004)

Physical activity, inactivity, overweight and obesity

Inactivity, overweight and obesity assume special importance due to the association with other determinant health factors as well as with general and specific morbidity. Their importance is due to the frequency, the growing tendency and the expression in the young age groups. In Portugal, it is estimated that complications associated with obesity are responsible for 5 to 10% of health costs [15].

The research study Health Behaviour in School-aged Children (HBSC), carried out in the school population of several European countries in 2002 revealed that only 25% of the Portuguese boys of 15 years of age had a level of physical activity adequate to their age, the lowest value of the countries studied [16]. At the same time, the results from one of the few comparative studies at the European level regarding this theme revealed that only 30 to 35% of the Portuguese over 15 years of age reported levels of daily physical activity adequate to their age [17].

The Health Inquiry of Adolescents in School carried out by the Directorate-General of Health (DGS) in 2002/3 on adolescents aged between 11 and 19 years regarding free time (outside school) revealed that 39.6% reported that they dedicate themselves to sedentary activities every day of the week. Independently of the number of days with sedentary activities, 83.8% of the adolescents reported a duration for this kind of activity equal to or above an hour a day; 55.8% reported that they did not dedicate any day of the week to practice or training in sports, this value being higher in girls (36.6%) than in boys (19.3%); 32.1% of adolescents declared that they spend less than 15 minutes walking or cycling to school each day and 35.3% declared they do neither [18].

Other studies also carried out in the school environment suggest that less than a third of youth and adolescents, especially girls and the obese, have regular physical activity in accordance with international recommendations [19; 20].

The NHIS carried out in 95/96 and 98/99 revealed a significant increase in the predominance of sedentary behaviours: around 32% of those interviewed reported a predominance of daily activities and free times that required little physical effort, implying that they remained seated for a long time [9; 10].

TABLE 14. SEDENTARY HABITS

	NHIS 95/96		NHIS 98/99	
	%	CI 95%	%	CI 95%
Males	15.8	(14.7;16.9)	19.7	(18.5;20.8)
Females	21.3	(20.2;22.5)	28.0	(26.7;29.2)
M+F	18.6	(17.9;19.4)	23.9	(23.1;24.8)

Sample values standardised for age (direct approach, standard European population), and adjusted for the population of each region.

(SOURCE: NHIS 95/96; NHIS 98/99)

A study carried out in 2002 in the 15 countries of the EU revealed that the level of physical activity reported by the Portuguese, was lower then the average, namely the level of recreational physical activity was lower than 10%, reflecting the general tendency in other South European countries [21].

Excess weight and obesity affect a growing proportion of the Portuguese population. According to studies in representative samples of the population with ages between 18 and 65, the level of excess weight and obesity obtained on the basis of anthropometric measurements, increased from 49.6% (excess weight = 35% and obesity=14%) to 52.4% (excess weight = 39% and obesity=13.8%) between 95/98 and 03/05 [22]. Another study estimated the levels of excess weight to be 34.4%, and of obesity to be 14.5%, while arterial hypertension, responsible to a great extent for the excess of mortality found in Portugal, was more frequent in individuals with excess weight (53%) and obesity (71%) than in individuals with normal weight (31%)[23]. The NHIS 98/99 presented similar results in 98/99, revealing 12.9% obesity and 37.0% excess weight [24].

Information regarding obesity in infants and young people is scarce. In a study carried out in 02/03 with a sample of 4,511 infants aged seven to nine years, the level of obesity was estimated at around 32% [25]. Smaller studies also suggest that in children aged five to nine years, levels of excess weight and obesity over 30% are seen, a concerning fact given the known repercussions of childhood obesity in later life [26; 27].

Health and Substance Use

Tobacco

The prevalence of smokers in the Portuguese population is one of the lowest among the countries of the EU (19.2% according to the last available data)[10; 28]. However, it is estimated that the consumption of tobacco is linked to 12.1% of the total number of deaths in Portugal, a value that is only surpassed by hypertension [29].

According to several population surveys, the decrease in tobacco consumption among the Portuguese population is confirmed by the decrease in the number of smokers aged 15 or over and by the reduction in the number of cigarettes sold in the country (verified in 2001 and which had not occurred in many years)[30; 31]. However, further analysis revealed accentuated sexes differences, not only in level (considerably higher in men) but also in trends (slight decrease in men and significant increase in women, especially at younger ages)[32].

TABLE 15. PREVALENCE OF DAILY SMOKERS

	1987		1995		1998	
	%	CI 95%	%	CI 95%	%	CI 95%
Males	34.9	(33.9; 35.8)	34.4	(33.6; 35.3)	33.8	(32.9; 34.6)
Females	6.1	(5.7; 6.5)	9.3	(8.8; 9.7)	11.1	(10.6; 11.6)

Sample values standardised for age (direct approach, standard European population), and adjusted for the population of each region.

(SOURCE: INSA/ONSA)

At a global level, the prevalence of smokers is generally higher amongst men with lower levels of both education and income [33]. However, in Portugal there seems to exist an inverse association in women, especially with regards to younger age groups [34; 35].

The increase in the prevalence of young smokers revealed by surveys of school pupils has been more noticeable in the last decades: with regards to young people aged 13 years, the prevalence of smokers increased between 1997 and 2002, from 2.0% to 5.3% in girls and from 3% to 8% in boys. In the population aged 15 years, the change was more accentuated in girls (10% in 1997 and 19.5% in 2002) than in boys (13.0% in 1997 and 13.1% in 2002), confirming the trend observed in the NHIS [36].

A study recently carried out in the school environment by the DGS and Regional Centres of Public Health covering the 11-19 age group, showed that 9.4% of males and 9.5% of females were smokers [18].

The age at which young people take up smoking and become regular smokers is getting younger. A total of 40% of students had tried their first cigarette under the age of 13 and 8% had started daily consumption also before the age of 13%. In general, these trends are similar in both sexes [37].

Due to the increasingly larger numbers of women smokers, one can currently observe an increase in mortality due to lung cancer among women in most of the member states [38]. However, Portugal is part of the group of European countries with the lowest rates of mortality adjusted for age, in both sexes [31].

As such, Portugal finds itself in a phase of transition in the evolution of the tobacco epidemic: in women, the level of illness and avoidable deaths linked to smoking is predicted to rise, whilst it is expected to stabilise and subsequently decrease in men.

Alcoholic beverages

Portugal produces alcoholic beverages, in particular wine, and consumes them to excess. In more recent years there has been a documented decrease in consumption by the general population and an increase among young people, especially young women.

This scenario is confirmed by production and commerce indicators that reveal a constant decrease in the annual average of alcohol consumption per capita. Starting from a high of 14.3 litres in 1971, it decreased to 10.6 litres per capita in 2000, when it was the third highest consumer of alcohol in

the world. The level of consumption has since further decreased to 9.4 litres per capita in 2003, resulting in a drop to 8th in the world [39].

The trends and the types of beverages consumed have been undergoing changes as shown by a decrease in wine consumption and the increase in sales of beer and distilled beverages [40;41].

The pattern of consumption during the week reveals a decrease in the percentage of daily consumers and an increase in the percentage of occasional consumers (one or two days a week) [32]. There have been changes in the types of beverages drunk in Portugal:, it has been shown that the average volume of beer consumed annually per person has increased by more than 14 times between 1961 (4.9 litres) and 2000 (65.3 litres)[40; 39].

According to the NHIS 98/99, around 60% of the population aged 15 years and more reported having consumed at least one alcoholic beverage in the 12 months prior to the interview with the frequency in men (82.2%) being much higher than in women (45.8%)[10]. Between 1987 and 1999 this prevalence decreased in males with an increase being observed however, in the extreme age groups (age group 15-17 and 75 years and more); there was a small increase in consumption in females [42].

TABLE 16. CONSUMERS OF ALCOHOLIC BEVERAGES

	1987		1995		1998	
	%	CI 95%	%	CI 95%	%	CI 95%
Males						
Daily	56.4	(55.0; 57.7)	54.0	(52.9; 55.0)	51.4	(50.3; 52.4)
One or two days	7.1	(6.6; 7.6)	8.6	(8.2; 9.1)	9.3	(8.9; 9.8)
Females						
Daily	20.5	(19.7; 21.3)	19.9	(19.3; 20.5)	15.8	(15.3; 16.3)
One or two days	4.5	(4.1; 4.8)	7.8	(7.4; 8.1)	9.3	(8.9; 9.7)

Sample values standardised for age (direct approach, standard European population), and adjusted for the population of each region.

(SOURCE: INSA/ONSA)

Other studies indicate that around a third of the population has never consumed or has stopped drinking alcoholic drinks; a third of the population regularly consumes alcoholic beverages and finally a third consumes alcoholic beverages at all, or almost all meals. On the basis of these data the number of people with alcohol dependence syndrome is estimated at 580 thousand (7% of the population) and the number of excessive drinkers at 750 thousand (9.4% of the population) [43].

Studies carried out on the school population reveal a tendency that increases with age with the level of consumption of alcoholic beverages of least once, at values from 47.2% in teenagers aged 13 years (58.2% in boys and 42.4% in girls) to 93.5% in teenagers aged 18 years (92.4% in boys and 93.1% in girls). The same occurs with the level of consumption within the last 30 days, with a value of 30.0% at 13 years (31.4% in boys and 28.9% in girls) and 68.7% at 18 (76.9% in boys and 62.9% in girls). This tendency is observed for the different types of alcoholic beverages,

confirming within these age groups, an increasingly higher consumption of beer relative to other beverages. Also the percentage of young people that declared to have consumed alcoholic beverages to a state of drunkenness at least once reveals a growing tendency from 7.0% at 13 years to 49.9% at 18, the same being shown for the 30 days prior to the interview (2.4% at 13 years to 19.9 at 18 years) [44].

According to the last data obtained through this survey, the mean annual consumption of alcohol per capita in Portugal is much higher than that recommended by the World Health Organization (WHO), both in the males (47.3 g of alcohol) as well as in the females (17.1 g of alcohol) with the higher values observed in the 35 to 44 age group, in both sexes [42].

One of the impacts of alcohol consumption that has been the subject of increased attention is its relation to driving and road traffic accidents. Portugal has highest rate of mortality related to alcohol in Europe especially in the younger age groups, and this situation is untenable [45]. The few existing studies reveal that around 40% of those killed in road traffic accidents in Portugal have traces of alcohol in the blood [46] and that 24.4% and 18.6% of accident victims admitted to the Emergency Service of a central hospital have blood alcohol levels over 0.2 g/L and over 0.5 g/L, respectively [42].

The mortality rate from chronic liver disease and cirrhosis adjusted to age has significantly decreased in Portugal in the last three decades (20.4/100,000 in 1970; 10.4/100,000 in 2003) and is the 13th highest among the countries of the European region of the WHO with less of half of the average value in those countries (22.8/100,000)[29]. Nevertheless, in 2004 chronic liver disease was responsible for 1.6% of the total of deaths in Portugal with a rate of 15.6/100,000 inhabitants.

Illicit drugs

In Portugal the consumption of illicit substances became visible in the 1970's. Until then it was not significant and was found mainly in some groups of the urban middle class, intellectuals, health professionals and artists and raised few health or criminal problems. This meant that until 1983, the Portuguese legislation did not directly criminalise the consumption of illicit substances despite the fact that Portugal had ratified in 1971 and 1979 the United Nations Conventions of 1961 and 1971 that appealed to consumption control. Up until that time, the import as well as sale of drugs was only regulated within the scope of fiscal Law, with specific legislation regarding consumption existing only for the territory of Macao since 1962.

Until the mid seventies, in the absence of direct indicators, we can conclude from the available information regarding consumers who sought treatment that the main substances consumed were medicines such as morphine, its derivative and amphetamines. Reference to the consumption of cannabis appears after decolonisation and the return of soldiers and civilians to Portugal. As drug circulation increased, so responses at the institutional level were implemented, first in 1976, within the scope of the Presidency of the Council of Ministers and later, but still in this decade, in the Ministry of Justice.

During the eighties with the demographic explosion in urban centres and the degradation of some neighbourhoods the consumption and abuse of psychoactive substances increased and left the sphere of micro-cultural phenomenon. The accessibility to drugs increased particularly smoked

heroine; this became the most common drug abused in problematic consumption circuits, always on a par with cannabis.

This period also corresponds with the beginning of a significant change in society's perception of drug users. In 1983, for the first time, consumption was criminalised although some criminal sentences related to drug consumption were suspended whenever the defendant agreed to undertake a treatment programme. Also in the eighties the National Plan to Combat Drugs was created as well as the first treatment centres for drug addicts within the scope of the Ministry of Health (MS).

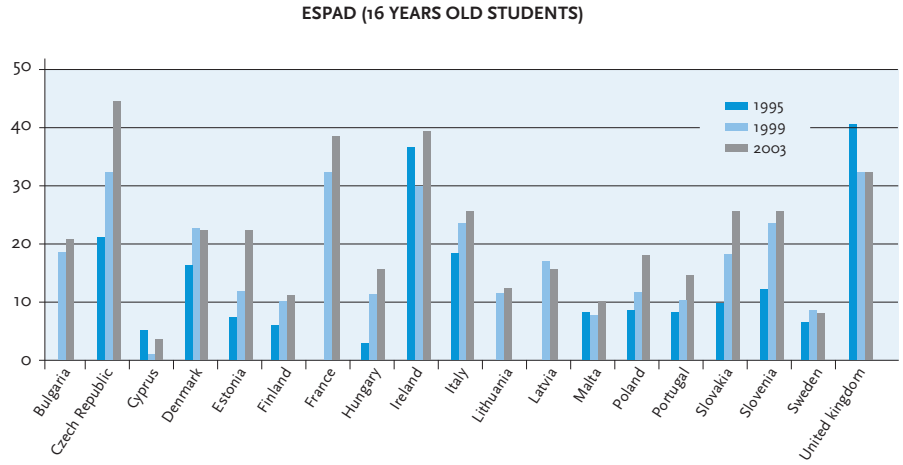
The beginning of the nineties was characterized by an increase in the accessibility of cocaine and its use, mainly in the urban spaces along the coastline. The consumption of cannabis, in particular hashish and heroine arrived in the urban centres of the interior of the country and even in rural areas. In January of 1993, reflecting the concern regarding this situation, a law was passed that addressed the majority of issues related with the control of supply and demand of illicit drugs, and is still in effect today.

It was during the late nineties and now in early years of the 21st century that the health and legal consequences of problematic consumption are being felt more intensely and with greater visibility. The spreading of infectious diseases among population of drug addicts and the increase of crime associated with drug use are some of the factors that led to the elaboration in November 2000, of a National Strategy against Drugs. This was implemented in the following year through the creation of the Commissions for the Dissuasion of drug-addiction and a systemised policy of damage reduction. Drug abuse is increasingly perceived as a health problem and not as criminal behaviour and the consumer as a patient that requires health care, treatment and social reinsertion. The implementation of this public policy between the years of 1999 and 2004 and its internal and external evaluation at the end of this period constitute a landmark at national and European levels.

With the objective of promoting an increasingly coordinated policy and the concentration of resources (within the scope of reducing in demand), a series of integrations of different agencies and departments were approved. This movement ended in 2002 with the creation of the Institute on Drugs and Drug Addiction (IDT), regulated by the MS, with responsibilities within the scope of policy coordination and intervention at the level of prevention, dissuasion, treatment, damage reduction and reinsertion.

The first surveys regarding trends and levels of drug use in the population were carried out in 1989 and were directed to the school population in public schools in the continental territory. These surveys were subsequently repeated and widened to the whole country, complemented by other studies, namely the WHO project of HBSC [47] and the survey about consumption of psychoactive substances in the general population [48].

As such, taking as reference the European study that compares the consumption by 16-year-old students [44] and levels of experimentation (leading to use in later life) of cannabis, it can be seen that Portugal, despite the increase registered since 1995, continues to report values below the European average.



(SOURCE: ESPAD, 1995, 1999, 2003)

FIGURE 8. LIFETIME PREVALENCE – CANNABIS (%)

However, if values from 1999 and 2003 are compared for the experience of illicit substances other than cannabis, the national figure is slightly above the European average.

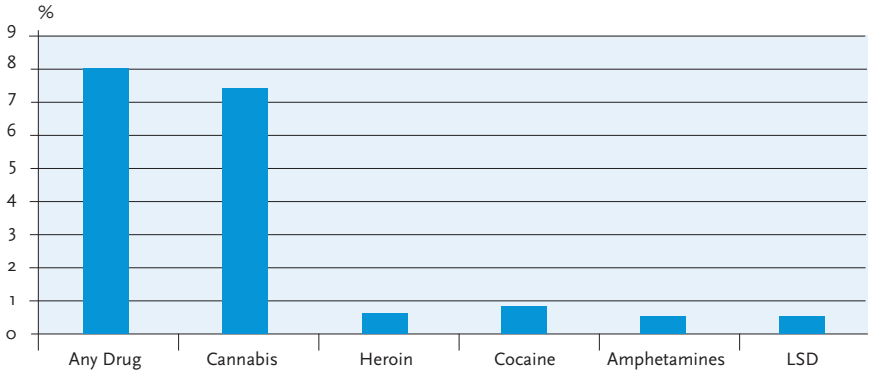
TABLE 17. LIFETIME PREVALENCE OF ANY OTHER DRUGS (EXCEPT CANNABIS)

KIND OF DRUG	1999		2003	
	European Averages	Portugal	European Averages	Portugal
Any Drug	18% (3% – 36%)	12%	22% (3% – 44%)	18%
Any Drug except Cannabis	6% (2% – 13%)	6%	6% (2% – 11%)	7%

(SOURCE: ESPAD, 1999, 2003)

The most recent repetition of another study [49] points to the stabilisation of experience of and regular consumption (last 30 days) in young people of school age.

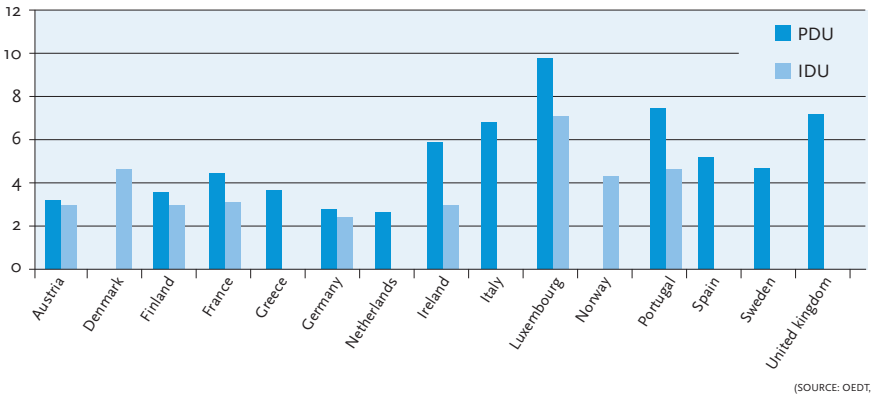
Also in the general population [48] the 2001 values for Portuguese residents aged between 15 and 64 years are below the European averages for all illicit substances.



(SOURCE: BALSA, 2002)

FIGURE 9. LIFETIME PREVALENCE OF ILLICIT DRUGS IN THE PORTUGUESE POPULATION BETWEEN 15 AND 64 YEARS OF AGE, 2001

However, the estimated number of Problematic Drug Users (PDU) and of Injecting Drug Users (IDU) is significantly higher that the majority of countries [50; 51].



(SOURCE: OEDT, 2002)

FIGURE 10. PROBLEMATIC DRUG USERS AND INJECTING DRUG USERS, 2001

This reality becomes a greater concern as the profile of these consumers whose average age has increased over the years is characterised by low levels of education, high unemployment rates and a considerable weight of lawful and health consequences in this population, including HIV/AIDS infection, high prevalence of hepatitis C and repeated contacts with the criminal justice system, as well as imprisonment [52].

In the last few years and in particular since the systemised and continued implementation of policies of damage reduction, there has been a significant decrease in the use of injecting drugs by consumers that seek help within the public network as well as HIV/AIDS notifications from injecting drug users. These are two of the most important indirect indicators of problematic consumption, thus the numbers may be stabilising or even decreasing. Conversely, there has been an increase in smoked or inhaled substance use [53].

On the other hand, there is a continued increase in accessibility and circulation of cocaine and synthetic substances, namely in recreational contexts which has been having an increasingly visible impact in the consumption profiles of individuals that seek treatment and for whom the development of new answers becomes necessary.

Despite the increase observed during the late nineties and the early years of this century, Portugal presents within the European context, low rates of experience and consumption of illicit substances. However, its population of problematic consumers, the majority of whom are heroine-addicts, is high and still demands an adequate intervention level to cope with the inherent public health problems.

HEALTH SYSTEM

HEALTH SYSTEM ORGANISATION

In Portugal the clear improvement in the state of health observed throughout the last three decades is the result of the progress verified in the economic and social conditions of the population but also of the maintained effort to improve the health services and the implementation of health programmes. The consolidation and restructuring of the organising models and management of the NHS resulted from increased financial investment in health, from the improvements to the infrastructures and access to medicines and from investment in new medical and information technologies.

At the beginning of the seventies, within a context of social, economical and of generally unfavourable health indicators, the Reform of Health System took place, the foundation for the future NHS organised in 1979 based on the principle that "everyone has the right to health protection", through a "universal, general and free national health service".

In 1989 the revision of the Constitution altered the principle of free health care services. The NHS is financed by the General State Budget and access to hospital and primary care, characterised by being "tendentiously free", requires that, in some cases, the user make a payment (payment of moderating taxes).

In the early nineties two restructuring processes occurred in the NHS: the establishment of five regions of health – Regional Health Administrations – and the creation of "integrated units" between hospitals and health centres.

The Basic Health Act, established in 1990 and still in effect, defines the health system as the network of participating institutions providing health care services in general, constituted by the NHS and by all the public institutions that develop activities of promotion, prevention and treatment within the health arena, as well as by all the private institutions and all the free professionals that agree to provide one or some of those activities [55].

For the first time in 1998 a strategic document "Health, a Commitment", was published indicating measurable goals and operational instruments for its materialisation.

Between 1994 and 2003 the NHS underwent new re-organisation characterised by new ways of functional organisation in particular the creation of Hospital Centres and Groups, Local Systems of Health, and through new models of hospital management such as contracting services and entrepreneurial management of hospitals. In 2003 the first steps towards the restructuring of the primary health care network and constitution of the new Continued Care Network were taken. In 2004 the National Health Plan 2004-2010 was published. This is a strategic document for health policies in Portugal that sets out a strategic and priority plan for the sector.

At present a restructuring is underway that will include large areas of intervention. Examples

include: health centres will be reconfigured and given autonomy, family health units will be implemented, restructuring of the public health services and the implementation of a Continued and Integrated Care Network.

The Health System is constituted by NHS, by public health subsystems and also by a group of services in the private sector (profit and non-profit) that include among others, admission units, medical consultation rooms, diagnosis and therapeutic centres, a network of ambulances and a network of pharmacies.

In the admission services the public contribution is predominant: in 2005, from a total of 204 hospital establishments, 111 were official and 93 were private. These establishments provide 37,330 hospital beds, of which 28,133 belong to the official network and 9,197 to private sector. The supply of hospital beds is 3.5 beds/1,000 inhabitants, with the number of beds for acute treatments at 2.9/1,000 inhabitants.

There are 2,775 registered pharmacies set up on the basis of an established ratio of 1 per 4,000 inhabitants.

Portugal has an adequate coverage of health establishments resulting from strong investment in the last decades. In 2005, a total of 378 health centres existed in Portugal each one covering on average around 28 thousand inhabitants. In addition, there were 1,943 extra health centres (1,789 in the Continent - each one serving, on average, 5.4 thousand inhabitants).

The degree of differentiation between hospitals is still not the desirable one with inequalities identified in access to some types of care. Without affecting public free access, the general hospitals serve the local area and are also part of a network where patients are referred to alternative hospitals according to their specialities. This model of action is a result of the adoption from 1999 of the "hospital referral networks".

Regarding accessibility, most of the district hospitals can be reached in less than 60 minutes from the town halls of the Continent. Around 88% of the Portuguese population resides less than 30 minutes away from a district or central hospital and only 2.5% of the population, residing in municipalities with under 10 thousand inhabitants, has a journey to hospital in excess of 60 minutes.

HEALTH EQUIPMENT

With reference to health equipment it is noteworthy that in Portugal the "heavy" technology medical equipment tends to be located outside the hospitals. The private sector has driven that process, this being dominant in lithotripsy, magnetic resonance imaging and computerized tomography. Oncology equipment is mainly in the public sector. The amount of equipment continues to grow at an accelerated rate that reflects the investment channelled into new technologies. For example, the number of magnetic resonance imaging machines increased 38% during the period of 2000-2002.

It is a priority to monitor the distribution and acquisition of new technologies based on analysis of benefit and need.

HUMAN RESOURCES IN THE NATIONAL HEALTH SERVICE

In the last 10 years the permanent workforce of the NHS increased significantly showing a total growth of 24%. The more differentiated technical professions grew by more than this average value in detriment of the professions with smaller rank differentiation. The NHS has followed the general health care tendency to foment the development of specialised work.

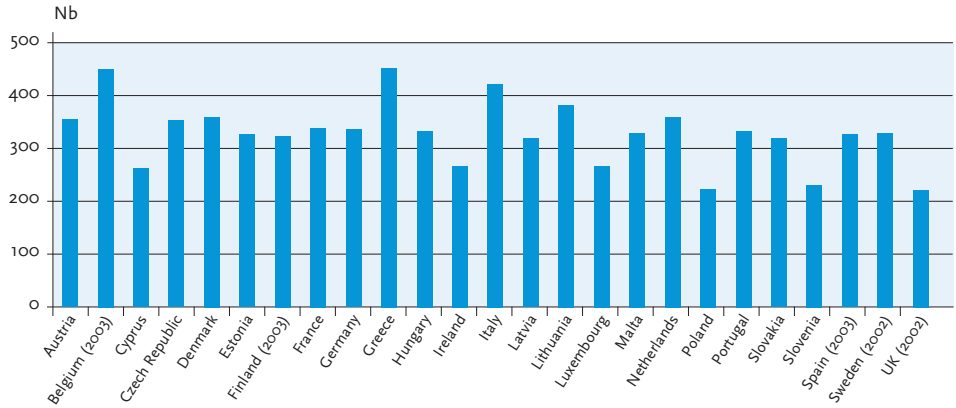
TABLE 18. MINISTRY OF HEALTH WORK FORCE

Professional Groups	1990	1995	2003
TOTAL	**100,870**	**107,950**	**123,962**
Medical Personnel	20,574	22,539	24,830
Other Skilled Technicians (1)	1,649	2,391	4,038
Nurses	24,973	29,685	35,678
Diagnosis and Therapy Technicians	4,738	5,513	7,319

(Source: Department of Human Resources of Health; Health Department for Modernisation and Resources)

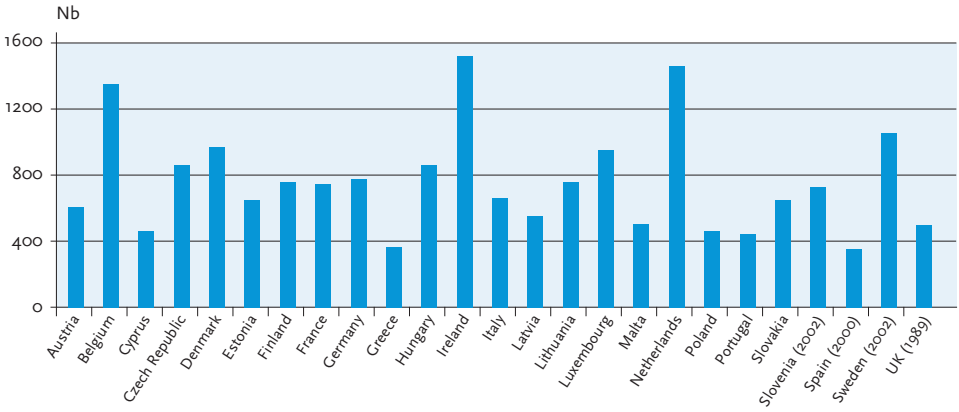
(1) Includes the career of skilled health technicians and the career of skilled technicians.

In 2004 there were 340 doctors /100,000 inhabitants, a value that is very close to the European average. With respect to the number of nurses, the proportion of 436 nurses/100,000 inhabitants places Portugal very far from its European partners, a fact that is particularly aggravated by the uneven distribution of the nurses.



(Source: WHO, European HFA Database, 2007)

FIGURE 11. MEDICAL DOCTORS PER 100,000 INHABITANTS, 2004



(Source: WHO, European HFA Database, 2007)

FIGURE 12. NURSES PER 100,000 INHABITANTS, 2004

The geographical distribution of the main professional groups is uneven with an accentuated concentration of 72.1% of the total (69.4% doctors and 79.1% nurses) in hospitals. Around 28.9% of doctors and 19.8% of nurses are in health centres. It is important to note that much of the activity in private health establishments is performed by the same personnel as in the public sector.

Another indicator of the hospitals greater relative weight in the distribution of resources is the number of personnel in hospital medical careers relative to those in Family and General Practice. Despite the recognised scarcity of medical doctors in general practice, there is a slight decrease in their number, aggravating the limitations of action of health centres. In contrast, the number of medical doctors in hospitals continues to grow.

USE OF NHS HEALTH ESTABLISHMENTS

The main indicators of health service utilisation clearly show an increase of health care demand in NHS establishments. In 2005, the number of NHS appointments surpassed 37 million which corresponds to 3.7 appointments per inhabitant while there were 1.2 episodes using the emergency services per inhabitant. In 1996, around 11 million urgent appointments and episodes requiring the emergency services took place, with this number increasing to over 12 million in 2005.

Since the nineties there has been a continual growth in the number of appointments in health centres (but still insufficient demonstrated by the pressure of demand in the emergency services) having increased from 2.5 appointments per inhabitant in 1990, 2.6 in 1996 to 2.8 in 2005. The break-up of the health centres appointments by intervention area also reveals a strengthening of the mother-infant health services, the progressive growth of general practice, a strong reduction of appointments within other specialties and a weak domiciliary aid service.

TABLE 19. ACTIVITY OF HEALTH CENTRES, 2000-2005

	2000	2001	2002	2003	2004	2005	2005/2000
Appointments (x1,000)	26,734.3	27,283.2	28,292.4	28,065.2	28,118.0	28,262.9	**5.7%**
Emergencies (x1,000)	5,508.5	5,561.4	5,816.8	5,778.1	5,494.2	5,667.1	**2.9%**

Within the context of the hospital, the sectors with greatest growth were outpatient appointments which increased 34.4% between 2000 and 2005. Major surgeries grew 22.3% during the same period.

TABLE 20. NHS HOSPITALS ACTIVITY, 2000-2005

	2000	2001	2002	2003	2004	2005	2005/2000
Inpatients (x1,000)	886.3	903.6	916.2	929.3	920.7	940.5	**6.1%**
Outpatients (x1,000)	6,620.7	7,107.6	7,479.7	7,993.5	8,496.9	8,896.7	**34.4%**
Emergencies (x1,000)	5,976.6	6,218.6	6,318.9	6,466.1	6,210.6	6,446.9	**7.9%**
Major and medium surgeries (x1,000)	414.5	432.4	448.1	482.2	504.5	507.1	**22.3%**

Inpatients admissions take place predominantly in the public sector (around 80%), with a growth of 6.1% in the period 2000-2005.

HEALTH EXPENDITURE AND FINANCING

The NHS is financed almost exclusively by the General State Budget. The private sector, on the other hand, is financed by the users and by third party entities such as insurance and loan companies. The health services are thus strongly dependent on public financing that should set incentives for efficiency and equity.

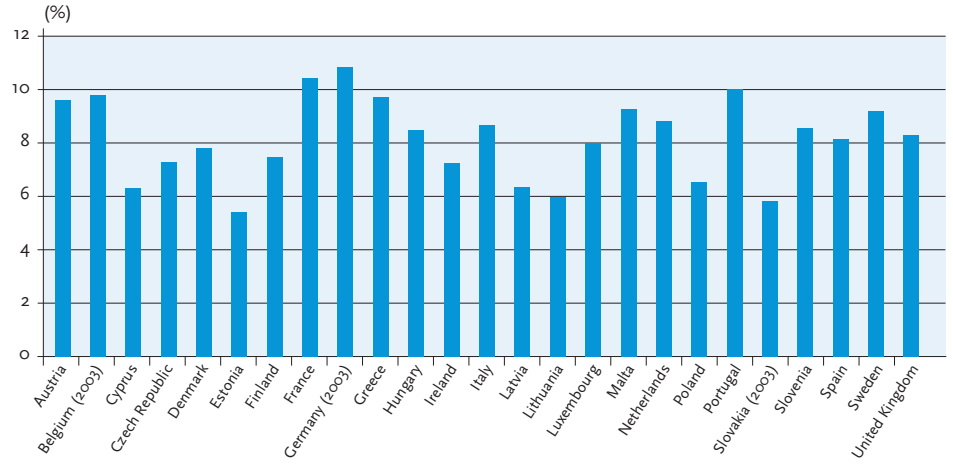
Within the scope of the health system and complementing the NHS, there are furthermore a group of established institutions that contribute to the improvement of the accessibility to healthcare. In addition to the institutions that work within the scope of the NHS there is an important and entirely private high level of activity in specialty appointments and in the area of diagnostic examinations.

TABLE 21. MAIN INDICATORS OF HEALTH EXPENDITURE

Estimated data	2000	2001	2002	2003	2004
Total expenditure (million €)	10,185	11,402	12,181	12,732	13,512
Total expenditure as a share of GDP (%)	9.4	9.3	9.5	9.8	10.0
Public share of total health expenditure (%)	72.5	71.5	72.2	72.6	71.9

(Source: OECD, 2006)

In 2004 health expenditure represented around 10% of the GDP, a value that places Portugal slightly above the European average. In the last two decades there has been a progressive growth in the public expenditure in health as a share of GDP, with values of 3.3% in 1985, 4.1% in 1990, 5.1% in 1995, 6.8% in 2000 and 7.2% in 2004. The private component of financing does not show a definite tendency, with values that oscillate between 2.7% in 1985, 3.1% in 1995 and 2.8% in 2004.



(Source: WHO/European HFA Database, 2007)

FIGURE 13. TOTAL EXPENDITURE IN HEALTH, IN THE EU COUNTRIES, 2004 (GDP %)

The historical financing criteria of hospital establishments did not always allow this instrument of policy and system administration to fulfil its goal. In this sense, the financial budgets of the institutions for 1997 and 1998 were already calculated on the basis of production and "case-mix", creating the conditions for the introduction of significant improvement. In recent years financing has started to take into account the contracting process carried out between the contracting agencies and the hospitals.

The growth of expenditure in health has been higher than the growth of national wealth, essentially due to factors such as population ageing, technological evolution in the medical field and also the increase in medicines costs. In 2004, about 25.8% of the effective expenditure of the State was spent in health. On the other hand the public expenditure in health represented 71.9% of the total expenditure in health.

In summary, one can say that in Portugal, despite the fact that an important slice of the wealth created is being applied to health expenditure, the health expenditure per capita is still relatively low when compared to others countries of the EU-15. In 2004 the public expenditure on health relative to GDP is one of the highest when compared to the available data from the other 14 member states of the EU [14].

The growth of expenditure on the Health sector has been a cause for concern for the relevant politicians. With the aim of containing expenditure and increasing efficiency the MS has implemented measures from which the following stand out:

– preparation and implementation of a National Health Plan (NHP) which aims to develop conducive strategies to control vascular diseases, cancer and emerging infectious diseases and furthermore promote health, especially in the elderly, namely through a network of continued care;

– rationalisation of prescriptions and the use of medicines;

– adoption of new forms of management, namely through the nature of hospital legal statutes.

MEDICINES POLICY

INFARMED (National Medicines and Health Products Authority) is the competent authority of the MS that evaluates, authorises, regulates, inspects and controls the manufacturing, distribution, sale and use of medicinal products for human as well as health products (which include cosmetics and personal hygiene products, medical devices and in vitro diagnostic medical devices).

It furthermore assures the safety, efficacy and quality of medicines. It also performs pharmaco-economical evaluation to support decisions regarding the State's reimbursement of medicines.

Since 2003, reimbursement of medicines is based on a Reference Pricing System. This system established a maximum value for the reimbursement calculation, based on the price of the most expensive generic medicine on the market, for a group of similar medicines.

The introduction of medicines in the reimbursed list depends on the positive decision based on pharmaco-economical evaluation and only becomes effective when INFARMED is notified by the Marketing Authorisation Holders or its representatives that commercialisation as started.

In face of the increasing growth of medicines cost, the Government has been implementing the introduction of generic medicines and negotiating this figure with the pharmaceutical industry.

Recently, measures were also taken to allow the pharmacy ownership by non-pharmacists and the sale of non-prescription medicines outside pharmacies.

MAIN PUBLIC HEALTH PROGRAMMES

ENVIRONMENTAL CONTROL

The monitoring of environmental risk factors, namely ozone concentrations, atmospheric pollutants and biocidal products, has been a regular activity of the DGS, due to their effects on public health.

The Strategic Sector Plan of Hospital Waste aims at the management of waste produced in the health care services, which has been improving as a result of the training of health professionals in the management of adequate handling different classes of waste and the control of their respective final destiny.

The current ionizing radiation protection system is based on the three general principles defined in the recommendations of the International Commission on Radiation Protection (ICRP): justification, optimisation and limitation of radiation doses. The DGS is the responsible entity for authorisation of the use and licensing of installations and equipment that produce ionizing radiation, except for mining activities and other installations of the nuclear fuel cycle.

In 2005 the central register of existing sources of radiation within the national territory was computerised and linked to a system of geographical information that allows for the immediate knowledge of existing resources and their respective location, in accordance with what is required by national legislation. This inventory can be accessed by the supervising entities of the sector.

The Public Administration institutions consider the improvement of public access to the information a priority. As such, information regarding ionising radiation and licensing procedures has been included in "sites" of the MS namely the DGS site. Together with the Portuguese Institute of Accreditation, a programme is being developed to allow for the accreditation of radiation protection services by Portuguese companies.

In recent years non-ionising radiation has equally deserved special attention, a consequence of the rapid proliferation of mobile communication systems. With the development of this technology an increasing concern over the health risks associated to the use of mobile phones and the installation of their respective base stations. The artificial sun-tanning centres, microwave ovens, laser equipment and infrared light bulbs are appliances of non-ionising radiation that deserve special attention. The health authorities' concern has been to apply the legislation and to provide information on this subject to the public. During this period legislative documents were also drawn up in the field of radio frequencies and artificial tanning centres.

Within the scope of the relationship between habitat and health in collaboration with the WHO and town councils, studies have been developed regarding the effects of habitat characteristics on the health of individuals and populations, with the goal of the formulation of guidelines for urban and housing planning, for town councils, to be integrated in their Municipal Director Plans.

WATER QUALITY

The renewed efforts that have been made in the vigilance and monitoring of the water quality parameters, with special emphasis on microbiological indicators, have contributed to the reduction of water-transmittable diseases.

In September 2003, the information system SisAGUA was initiated regarding the monitoring of water quality for human consumption, bathing waters, mineral and spring waters. This application, used by the different health services at a national level, allows for the monitoring and consultation of updated information via the Internet which facilitates decision-making and the sending of replies.

It is Health Authorities competence to coordinate the actions of sanitary surveillance. Within this scope, the Regional Delegates of Health and the Municipal Health Authorities function as focal points at local and regional level, respectively. The activities for sanitary surveillance include:

– characterisation and evaluation of the surrounding areas;

– analyses to monitor and ensure the water quality in bathing zones;

– evaluation of the data resulting from monitoring of standards so as to establish an intervention plan whenever health is at risk;

– development of epidemiologic studies regarding the relationship between health/utilisation of bathing waters;

– development of studies geared towards the risk factors assessment when justified by environmental and/or epidemiologic data, identification of dangers and evaluation of the risks to public health associated to the quality of bathing waters;

– facilitation of communication between the various parties involved.

Bathing can be banned in any situation that the Health Authority considers a risk to the health of potential users. The Regional Delegate of Health bans the use of these zones when on the basis of available information and in the analytic data of standards monitoring, it establishes that water quality places the health of the users at risk. At the beginning of the bathing season the zones that in the last five years failed to meet required standards are banned.

According to the specific conditions of each bathing zone, the Municipal Health Authorities develop the necessary procedures so that those responsible for the management of the water domain, the Ministry of Environment, Territory Order and Regional Development and the Commissions of Coordination and Regional Development, ensure that the information regarding the risks of its use is made known to users.

One of the important aspects of sanitary surveillance consists of the commissioning of studies geared towards the risk factors assessment, when supported by environmental and epidemiologic data, with these studies being promoted at local and/or regional level.

Finally, there has also been an investment in the evaluation of contamination of superficial fresh waters by cyanobacteria.

FOOD SAFETY

Food production is increasingly complex, due to the wide variety of techniques used in all processes of the productive chain.

The growing awareness of the Portuguese regarding food related diseases led to a commitment on behalf of the producers, to the maintenance of high standards of hygiene and guarantee of safety of their products.

Some recent crises such as the Bovine Spongiform Encephalopathy (BSE) and dioxins shook the confidence of European consumers about their food supply. The White Paper of the European Commission on Food Safety (2000) considered that the creation of an independent food authority constituted the most adequate answer to the need to guarantee a high level of food safety. In order to re-establish consumer confidence, the European Food Safety Authority (EFSA) was created in 2002 by the European Parliament and included two main areas of intervention: risk assessment and risk communication.

The legitimate and natural expectations of people with regards to the health and safety of the available food supply thus find support and defence reinforced in the most recent EU legislation.

It is important to promote knowledge related with food hygiene issues to reduce the potential for transmitting risk factors along the production line to the consuming public.

The investment in information is guided on principles such as:

– clarification of the food sector operators as mainly responsible for the security of the food supply;

– the general application of the procedures based on the principles of Hazard Analysis and Critical Control Points associated with the observance of good hygiene practices;

– the need to guarantee the safety of different food produce along the food chain, beginning in primary production.

The food safety control systems are qualified to identify, analyse and respond to emergency situations, with the reinforcement of the importance of the Programme of Epidemic Surveillance of Foodborne Outbreaks. Its implementation has provided an overdue response from the health service, namely with regards to epidemiologic investigation.

In Portugal the Food and Economic Safety Authority (ASAE), a criminal police institution, is the national administrative authority specialised within the scope of food safety.

The Health Authorities are, however, also competent to license industrial establishments, namely in the drawing up of plans regarding installation or alteration projects. It is also their responsibility to intervene in the licensing of restaurants (or similar outlets) and other establishments of food supply, assure conditions of health and hygiene and perform sanitary surveillance of the quality of water for human consumption and its bottling.

The DGS intervenes directly at the level of evaluation of National Guides to Good Hygiene Practices and at the level of labelling and control of pesticide residues, nitrites, patulin, among others, in specialised food.

CLIMATIC CHANGES

Within the scope of environmental safety, there is the important issue of the control of the effects of climate change that constitute a global threat and a new category of danger to health. Currently global warming is unquestionably the result of human activities. According to the European Environmental Agency (EEA), global warming in Europe is going to be higher than the average world value: in the last 100 years the European average temperature increased, on average, 0.95ºC and for this century that increase is estimated at between 2 to 6ºC. The effects of global warming are also estimated to be greater in the southern European countries such as Portugal. The occurrence of storms, floods, droughts and other extreme climatic phenomena such as "heat waves" will be increasingly frequent and intense as a result of the changes taking place.

In Portugal, for the next 50 years the available projections indicate that in the medium and long term, one in every five days may register temperatures above 35ºC and that heat waves such as those recorded in 2006 will become increasingly frequent. The summer of 2006 was considered the 5th hottest since 1931, with five heat waves being recorded during the period of the 24th May to 9th September. With regard to precipitation, the projections point to a dryer climate with a shorter and more intense humid period, followed by a longer hot period. The projections therefore indicate more frequent drought periods affecting essentially the south of the country.

These changes in the frequency and intensity of the extreme meteorological phenomena constitute a severe risk to human health. As a consequence increased potential deaths related to heat, water and food related diseases, as well as problems related with atmospheric pollution and the risk of vector-borne diseases.

In 2003 Europe witnessed a heat wave that was responsible for excessive loss of life; between 27 and 40 thousand people died. In Portugal deaths were estimated at around 2 thousand, 89% of which occurred in individuals aged 75 years and more.

Climate change has come to the particular attention of Public Health with a Contingency Plan for Heat Waves being developed in 2004 by the MS. This plan embraces a group of measures that aim to minimize the effects of heat on human health, paying particular attention to the protection of the most vulnerable groups such as the elderly, young infants and chronic patients.

The Contingency Plan for Heat Waves is based on an information system that is adequately articulated between the institutions that are responsible for the areas of Meteorology, Civil Protection and Health.

For greater efficiency in the prevention of the effects on human health, not only from heat waves but also from other extreme meteorological phenomena it is necessary to develop a concerted strategy of environmental, social and economic policies, both at the national and world levels.

THROUGHOUT THE LIFE CYCLE

At birth, each individual bears a certain level of health that throughout life can be maintained or improved through the adequate management of resources and potentials in the face of opportunities or external constraints. In this sense, an important part of health depends on the way we manage our daily relations, with ourselves, with others and with the environment through our behaviour and capacity to adequately resist stress factors.

Many of those behaviours are learnt in the early ages of life, therefore infancy and adolescence constitute privileged periods for learning a healthy form of self-management of resources and individual potentials.

The acquisition of healthy eating habits and the practice of regular physical exercise can and should occur during infancy. Later, in adolescence, it is important to develop the capacity to manage frustrations and stress without resource to substances such as tobacco, alcohol or other drugs, to follow healthy and safe sexual practices, and to adopt responsible and safe driving habits.

Of these behaviours it's important to highlight:

- those related with non-communicable chronic diseases such as tobacco and alcohol consumption, eating habits, physical activity and stress management;
- those that are found to be related to communicable diseases, such as high risk unprotected sexual behaviour, alcohol consumption, sharing of needles, non-utilization of gloves, not washing hands;
- those related with accidents such as alcohol consumption, excessive speed, driving under the effect of medicines, narcotic or psychotropic substances, inappropriate use of mobile phones, non compliance with traffic regulations, security regulations in domestic, leisure or work context;
- those related to violence.

The promotion of healthy lifestyles must continue throughout life with special attention to the control of tobacco and alcohol consumption, the healthy eating education, the promotion of physical activity and adequate stress management, the most cost-effective and sustainable strategies to prevent the majority of chronic diseases, that are the main cause of disease in developed societies [54].

The Basic Health Act considers the strategies systemised in the Ottawa Charter, by asserting that "the citizens and private and public institutions should collaborate in the creation of conditions that allow for the exercise of the right to health protection and the adoption of healthy lifestyles" and by defining the State's responsibility to "propose the definition of the national health policy,

promote and monitor its execution and coordinate its action with that of the state departments responsible for connected areas", namely, the action of the departments that act in specific areas of security and social welfare, education, employment, sport, environment, economy, the fiscal system, housing and town planning, all of which should be involved in health promotion.

One of the defined priorities of the NHP is to combat the underlying causes to the main diseases related to lifestyle. The National Programme of Integrated Intervention on Lifestyle-related Health Determinants offers an interdisciplinary and cross-sectional integrated approach of these factors.

Health promotion in key organisational and home environments (family, school, workplace, prisons or cities) is a strategy that allows for systemic, comprehensive and continued approaches focused on people, environment and organisational climate. This allows for the creation of structural conditions that facilitate the achievement of healthy options increasing the effectiveness and continuity of the interventions.

Young people and child health

Maternal, young people and child health indicators reveal the favourable development that the country has experienced, in terms of care services and investment that professionals and services have performed to uphold quality. The National Vaccination Programme (NVP), the development of the Maternal and Child Health Care Network, the implementation of the Antenatal and Early Diagnosis Programme and the Child and Adolescent Programme have been prominent factors in the improvement of those indicators.

At the same time as the decrease in the rate of child mortality, there were changes in the causes of deaths, with mortality from infectious diseases decreasing while the relative weight of avoidable deaths, especially accidents, increased. However, accentuated differences between regions, districts and the diverse social-economic sectors of the society persist. Some of these inequalities result from iniquities not attributable to the health service and constitute one of the challenges for the health service and professionals as well for society as a whole.

Between 1992 and 2003 mortality within the 10-24 age group showed a decreasing trend with an approximate 42% decline. The decline was most pronounced in the 15-19 age group, that dropped from 93.4/100,000 to 49.0/100,000. However a significant number of the deaths in this age group were avoidable, considering how many were due to violent causes, particularly accidents, but also natural causes as a result of infectious diseases, with emphasis on HIV/AIDS in the 20-24 age group. It is notable that the mortality rate in males consistently exceeds that of females.

Bearing these phenomena in mind, forms of intervention based on knowledge of the environmental factors and the experience context in these ages must be developed; the aim must be to understand young people representations about life and the relational dynamics that social gender order constrains, in women and men. In that sense and having in mind the articulation of initiatives and the increase of their effectiveness, the National Health Youth Programme was launched in May 2006 representing a significant contribution towards further gains in health for young people.

In 2004, according to a study carried out by the DGS in the majority of the Health Sub-Regions there was an existing specific programme for young people; in 66% of the health centres at least

one specific project for the promotion of adolescent/youth health was underway; in 72% of these situations these initiatives were developed in collaboration or partnership with other agencies; and in 42% of the hospitals specific appointments for adolescents existed, mostly linked to the paediatrics service with support from other specialties [55].

The current challenge is to consolidate these developments and increase the application of good practices within this domain.

School health

For several decades interventions in school health have taken different forms, from health care services to disease prevention and health promotion. Over the last 20 years there has been a bigger emphasis on interventions conducive to the promotion of healthy lifestyles.

In 2005 about 98% of health centres had school health teams covering 361,819 students at 7,819 primary and secondary schools, as well as 151,733 children at 4,553 nursery schools.

The work developed with the educational community included 7,808 teachers and 7,218 infant care providers. At the end of the year 76% of six years of age and 35% of 13 years of age had their general health examined. In the schools covered by the school health teams, 92% of six years of age children were up to date with their vaccinations as per the NVP protocol, and of the children with special health needs, 52% were treated or in treatment by the end of the year. The conditions of safety, hygiene and health were evaluated at 69% of the schools that had a school health team and 25% had improved since the previous evaluation. Health education actions mainly concerned healthy eating habits, sexual education and prevention of alcohol and tobacco consumption. A total of 24% of children in nursery schools and 16% of the students in the 4th year of schooling brushed their teeth.

In 2006 within the scope of the NHP, the National Programme for School Health was launched, reinforcing the conditions conducive for the success of school and community health projects. It advocates a school intervention model developed around four priority areas: individual and collective health, school inclusion, environment and lifestyle.

Oral health

Since 1986, within the scope of the NHS, a defined policy of intervention in oral health has existed. It was reviewed in 1999 and consolidated in 2005 through the approval of the National Programme of Oral Health. Throughout the years a vast and diversified set of activities has been developed to contribute towards the improvement of the oral health of the Portuguese population. The priorities have always been children and young people and the environments in which they spend most of their time – nursery and school.

The target-population of this Programme comprises pregnant women and children from birth to 16 years of age. Integrated in the NHP its objectives are: to reduce the prevalence of oral disease in children and adolescents; improve knowledge and behaviour regarding oral health; promote equity in health care services for children and young people with special health needs.

The Programme allies health promotion to health-care services, in a public-private partnership with defined competences. The public sector is responsible for interventions by various institutions based on the following strategies:

- promotion of oral health within the school and family context, with emphasis on the importance of teeth cleaning with fluoride tooth paste, and on healthy food, with attention to the reduction of sugar intake and the increased consumption of fruit and vegetables;
- prevention of oral diseases with the identification of the most vulnerable individuals and the groups with higher risk of dental caries as well as the implementation of preventive measures;
- early diagnosis and dental care, potentially available in the NHS, by health centre professionals and the stomatology services of the hospital network.

The Programme activities are integrated in the routines of the health centres and Maternal Health, Child and Adolescent Health, and School Health Programmes. The development of the National Oral Health Programme activities is to be carried out by health and education professionals, parents and custodians, as well as by the municipal authorities.

The medical-dental cares not performed by the NHS are provided through contracting private sector dentists and associated professionals. This process initiated in 2000 has allowed for the treatment of dental caries of thousands of children aged 3 to 16 years with the costs being fully met by the NHS.

The direction of these strategies has been reviewed and updated taking into account national studies that Portugal carried out in 2000 and 2005.

The child oral health reference indicators reveals significant improvement: between 2000 and 2005 the percentage of caries-free 6 year old children went from 33% to 51%; the prevalence of permanent teeth dental caries (CPOD index) at 12 years of age changed from 2.95 to 1.47.

Healthy ageing

A comprehensive strategy for healthy ageing through a positive approach continues to be focused on the following fundamental aspects: promoting health; preventing disease, incapacity and dependence; reinforcing the person's competences and capacities; intervention in social, environmental and economic conditions; promoting participation; basing intervention on the right to and on equality of opportunities; and developing partnerships and win-win strategies.

The goals of the active ageing advocated by the WHO are promoting increased autonomy, stimulating competences, and increasing adaptation capacity and reducing dependence levels. Its fundamental components are: learning throughout life; employment for more years; gradual and later retirement; maintenance of activity after retirement; promoting self-care, fitness, support and preservation of health. This is fundamental to guarantee the sustainability of social security systems.

Therefore the aim is to promote and stimulate sufficient, adequate, timely and comprehensible information; to optimise the available resources; to improve compensatory measures and social support; to decrease obstacles and barriers; and stimulate the individual capacities, taking into

account the environment in which the elderly person is included.

The promotion of elderly health requires interventions in aspects such as safety, mobility, transport, leisure, lifestyle, social relations, and environment, but without the paternalism of merely "top down" actions that exclude the citizens from constructing their own autonomy, making it mainly the responsibility of the agents and available services.

The goal is to increase LE, disability-free life, and quality of life, to decrease health costs, to improve elderly social status and act in the prevention of stereotypes.

It is necessary to reduce inequalities, to give particular attention to different cultures that require different interventions due to ethnic, cultural, social and geo-demographic reasons, and to prioritise actions directed to the most vulnerable elderly groups, retired and elderly women.

Knowing the evolution of elderly behavioural standards in a gender perspective implies knowing the particularities that more frequently affect elderly women. Increased poverty risk, increased risk of death by cancer, increased disabled and unaccompanied longevity, increased use of the health service, increased alcohol consumption than that observed in previous generations and increased frequency of psychological problems.

The aim is to integrate healthy ageing in growth and prosperity policies. This reflects the emphasis that was made on integrating health in all the political areas of intervention, as promoted during the Finnish EU Presidency.

There is the intent to include the promotion of elderly health in policies for all ages through comprehensive, integrated, coordinated, intersectoral models, adequate to a realistic evaluation of the resources at a local level, preventing isolation and discrimination, and involving the voluntary service with the inclusion of the people themselves in the decision-making process. As such, the National Programme for the Health of the Elderly published by the DGS in 2006 is in accordance with the concerns and orientations described previously, and settles on three fundamental pillars: promoting an active ageing throughout life; higher adequate health care for the specific needs of the elderly; and intersectoral promotion and development of environments that facilitate elderly autonomy and independence.

The Programme recommends giving special attention to the most vulnerable and fragile elderly; it intends to contribute to the consolidation of strategic thinking of elderly health policy, and be capable of inducing change and innovation in the health system at the various levels of intervention; it also intends to direct actions at a local level, including the areas of information, training and good practice and to generate synergies and intervention methodologies in other sectors that strive for the health and welfare of this population, promoting projects and existing national programmes. It has a prospective vision capable of anticipating emerging social realities, in a fast and progressive way, both in European and national contexts.

FACING HEALTH PROBLEMS

Diseases of the circulatory system

Diseases of the circulatory system, namely strokes, coronary disease and ischemic heart disease are the main causes of mortality in Portugal.

TABLE 22. DISEASES OF THE CIRCULATORY SYSTEM (SDR/100,000 POPULATION)

	1961	1971	1981	1991	2001	2003
TOTAL	**427.5**	**502.3**	**439.7**	**376.6**	**251.9**	**242.0**
Cerebrovascular diseases	190.2	260.3	252.2	202.5	124.9	111.2
Ischemic heart diseases	142,3	91,6	81,5	78,2	58,7	59.4
Acute myocardial infarction	–	–	55.2	58.3	42.6	43.1

(Fonte: OCED Health Data 2006)

The National Programme for Prevention and Control of Cardiovascular Diseases was launched in 2003 and updated in 2006 with the goal of reducing cardiovascular risk in five fundamental areas: improve epidemiologic surveillance of cardiovascular pathologies and risk factors; promote cardiovascular prevention acting specifically on each of the risk factors; encourage citizens to be responsible for their own health; improve the organisation of health care services especially with regards to periodic health exams and the approach to precordial pain and stroke; promoting respect for good clinical and therapeutic practices.

In 2006 the implementation of Referencing Networks for Cardiovascular Emergencies was defined as a main priority with a greater involvement of emergency Fast Tracks for myocardial infarction and stroke so as to improve accessibility of emergency patients to the most suitable hospitals.

Hypertension is a recognised risk factor in brain and cardiovascular disease. This pathology constitutes the highest cause of mortality and morbidity with a severe social impact.

Portugal is still the EU country with the highest mortality rate due to stroke caused by the high prevalence of hypertension, insufficiently diagnosed and treated, by the deviation of our traditional Mediterranean diet and by the uncontrolled nicotine addiction in middle-aged men and women, with an evident increase in young women.

TABLE 23. CEREBROVASCULAR DISEASES (SDR/100,000 POPULATION)

	2001	1971
France	**35.9**	125.3
Netherlands	**51.5**	102.9
Spain	**51.6**	148.8
Sweden	**53.1**	92.5
Germany	**53.5**	165.5
Denmark	**56.9**	97.1
Italy	**57,1**	140.8
Austria	**58.3**	170.6
Ireland	**58.9**	157.1
Finland	**60.4**	169.7

	2001	1971
United Kingdom	**63.7**	144.6
Luxembourg	**65.0**	104.0
Slovakia	**83.7**	–
Poland	**100.6**	57.1
Greece	**109.9**	127.8
PORTUGAL	**124.9**	260.3
Czech Republic	**127.6**	–
Hungary	**133.6**	178.4
Belgium	–	148.4

(Fonte: OCED Health Data 2006)

According to the most recent indicators, around 17% of the Portuguese population is described as being hypertensive (approximately 30% in the screenings performed); around 19% of the population over 10 years of age is reported as consuming 20 cigarettes or more daily and 50% of the population presents itself with excess weight with Portugal being the EU country with the highest consumption of daily calories and in which people walk the least.

The early detection of hypertension, in particular in individuals with increased cardiovascular risk, the correct therapeutic pathway (pharmacological and non pharmacological) and accomplishing the objectives of blood pressure control has long constituted the intervention priorities of the health care service providers. These are accompanied whenever possible, by screening campaigns that fit with local and regional planning and realities as well as awareness campaigns.

In 2004 the DGS published a Directive with the main objective of improving the efficacy of treatment of the hypertensive patient and achieve, in the long term, maximum reduction of kidney and cardiovascular morbidity and mortality through the lowering of high blood pressure levels and treatment of changeable risk factors and associated diseases.

Oncologic diseases

Oncologic diseases are the second main cause of death in Portugal.

TABLE 24. MALIGNANT NEOPLASMS (SDR/100,000 POPULATION)

	2001	1971
Finland	**143.5**	195.5
Sweden	**151.6**	176.8
PORTUGAL	**152.7**	145.3
Greece	**156.8**	131.7
Austria	**160.1**	215.2
Spain	**162.0**	152.4
Germany	**167.3**	206.4
Luxembourg	**168.4**	220.5
Italy	**172.4**	181.5
France	**173.7**	184.9
United Kingdom	**183.0**	202.8
Netherlands	**185.9**	209.0
Ireland	**190.5**	191.7
Poland	**202.0**	170.5
Slovakia	**208.0**	–
Denmark	**209.3**	209.9
Czech Republic	**221.3**	–
Hungary	**246.9**	211.3
Belgium	–	214.1

(Source: OCDE Health data 2006)

Malignant neoplasms have a strong impact on patients and their families with significant repercussions for social and economic structures, which is why they constitute one of the priorities of the NHP. Therefore the National Programme for Prevention and Control of Oncologic Diseases has been created.

The aim of this Programme is to reduce the incidence and mortality rate of cancer through a set of measures that include education and health promotion; screening and early diagnosis; improved quality in diagnosis; and correct and timely treatment.

It also intends to enable the continuity of care in different geographical locations and by multiple professionals. This will enable better adapted care that will meet the needs and maximize the efficacy and ease of utilisation, thereby increasing the satisfaction and comfort of oncologic patients.

Muscular-skeletal diseases and osteoporosis

Rheumatic diseases should be considered an important social and economic problem, whose negative impact, with regards to public health, has a growing tendency taking into account the current lifestyles and increased longevity of the population.

In Portugal, the magnitude of the problem caused by rheumatic diseases is not rigorously known, however it is recognized that although mortality is low, at least 30% of the population reports muscular-skeletal symptoms, with: 20% at a stage of illness; 7% restrained from some of their daily life activities; and 0.5% dependent on others.

Epidemiologic studies carried out in Portugal since 1976 show similar results that confer consistency, confidence and scientific value. These combined results show that, in Portugal, rheumatic diseases:

– are the cause of 16% to 23% of general clinic appointments;

– are expensive: in the table of expenditure on pharmaceuticals, they occupy the 2nd or 3rd highest position;

– are the primary cause of temporary incapacity;

– cause 26% of the cases that require wheelchair use, 30% of limited mobility, confined to the home and 40% to 60% of situations of prolonged incapacity for certain daily life activities;

– are responsible for 17% of the cases of total dependence on others for care;

– are also responsible for 43% of work days lost to illness and are behind the greatest number of anticipated retirements from illness, i.e., 35% to 41% of its total.

In 2004 the National Programme against Rheumatic Diseases was launched by the MS. This marked Portugal's involvement with the international movement "The Bone and Joint Decade 2000-2010", created by an initiative of the United Nations with the support of the WHO. It has the objective of inverting the increasing tendency of rheumatic health problems and demands a comprehensive and global approach by the health services to reduce the risk of contracting these diseases and achieve their adequate treatment and rehabilitation in Portugal.

Asthma and chronic obstructive pulmonary disease

Asthma constitutes an important public health problem, because it is one of the most frequent diseases in children and young people. For diverse etiopathogenic and epidemiological reasons, there has been a growth of the incidence and prevalence of asthma in the developed countries calculated at between 20% and 50% in each decade. This chronic disease is responsible, at the world level, for the avoidable death of 100 thousand individuals *per annum*.

TABLE 25. BRONCHITIS, ASTHMA AND EMPHYSEMA (SDR/100,000 POPULATION)

	2001	1971
Greece	**0.4**	24.4
Finland	**1.9**	28.2
Spain	**3.7**	44.2
France	**3.7**	10.4
Sweden	**4.0**	11.1
United Kingdom	**4.0**	48.7
Czech Republic	**4.3**	–
PORTUGAL	**4.4**	43.5
Germany	**5.0**	33.5
Ireland	**5.7**	58.2
Denmark	**7.0**	23.5
Netherlands	**7.1**	27.1
Austria	**8.2**	24.4
Slovakia	**8.2**	–
Hungary	**10.6**	24.5
Luxembourg	**10.7**	26.6
Belgium	**–**	26.8
Italy	**14.7**	34.8

(Source: OCDE Health data 2006)

In Portugal the prevalence of asthma will reach more than 11% of 6-7 years of age; 11.8% of 13-14 years of age, and 5.2% of the 20-44 years of age. In the year 2000, the total number of patients estimated surpassed 600 thousand. The estimates thus indicate that one in every 15 Portuguese will probably suffer from asthma.

In 1999 the National Programme for Asthma Control was created, based on the Global Initiative for Asthma, with the aim of reducing the prevalence of asthma in Portugal, as well as reducing the resultant morbidity and mortality and improving the quality of life and welfare of asthma patients. This programme aims to promote measures not only directed to health professionals but also to patients and their families, since greater self-control of the illness will promote substantial health gains.

Chronic Obstructive Pulmonary Disease is one of the main causes of chronic morbidity, loss of quality of life and mortality. In the next decades, the incidence of this disease is predicted to increase, turning it into one of the main causes of death of this century. This public health problem is responsible for a high volume of medical appointments, emergency admissions as well as for a significant number of long-term inpatients, a high requirement for medicines and long term at-home oxygen therapy and ventilator use.

In Portugal, the estimated prevalence of Chronic Obstructive Pulmonary Disease in active adults is 5.3%.

In order to concert the efforts of all the health care services in favouring evident benefits in respiratory health and quality of life, the National Programme of Prevention and Control of Chronic Obstructive Pulmonary Disease was created in February of 2005. This Programme advocates a comprehensive approach by the health care services towards the population at risk or the ailing, promoting early diagnosis and adequate treatment and rehabilitation.

Obesity

The control of obesity, a chronic disease with multifactorial genesis, requires continued efforts since it constitutes a threat to health and a prominent risk factor for the development and worsening of other diseases.

Currently, the elevated prevalence of obesity in Portugal, its high annual growth rate, the morbidity and mortality that directly or indirectly ensue, the decrease in quality of life and the high costs it causes, as well as its difficult treatment, constitute a concern and a priority for the MS.

In 2004 the National Programme against Obesity was launched and aims to lower the prevalence of pre-obesity and reduce the growth of obesity in Portugal. This Programme intend to contribute to weight-loss in the obese and in those with particular risk of developing obesity, namely people with type 2 diabetes and cardiovascular disease. It also discourages habits that are likely to result in excess weight gain and aims to contribute to the development of a culture that promotes healthy weight, involving intersectoral cooperation.

The health sector, conscious of the difficulty of addressing this problem alone, organised the National Platform against Obesity, a strategic measure adopted politically with the aim of creating intersectoral synergies both at the level of the government and civil society.

This Platform, in addition to the National Programme against Obesity, integrates the National Programme of Integrated Intervention on Lifestyle-Related Health Determinants of the MS as well as other strategic initiatives driven by others sectors of society, defining in a cross-sectional perspective, the approach to problems connected to obesity.

Diabetes

Diabetes shows variations in its incidence and prevalence throughout the various regions of the world, showing progressive growth. The incidence of diabetes has been increasing in its main subtypes 1 and 2 for which genetic (family history) and environmental (obesity and sedentariness) factors have concurred in the last decades despite the increased attention on early diagnosis and pharmaco-therapeutic advancements. According to a study carried out by the WHO, in the nineties, the incidence of type 1 diabetes in Portugal was between 5 and 9.9 cases for every 100 thousand inhabitants/year.

TABLE 26. DIABETES MELLITUS (SDR/100,000 POPULATION)

	2001	1971
Greece	**4.4**	22.9
Finland	**7.1**	17.6
United Kingdom	**7.5**	8.9
Czech Republic	**9.4**	–
Ireland	**9.5**	10.6
Luxembourg	**9.6**	34.6
Sweden	**11.1**	10.0
Austria	**11.2**	14.8
France	**11.5**	13.1
Poland	**12.1**	11.1
Hungary	**13.2**	8.4
Slovakia	**13.6**	–
Spain	**14.0**	18.7
Germany	**15.6**	26.4
Denmark	**17.1**	12.9
Italy	**17.2**	23.3
Netherlands	**19.5**	20.2
PORTUGAL	**25.6**	14.0
Belgium	–	26.8

(Source: OCDE Health data 2006)

Portugal was one of the subscribing countries to the St. Vincent Statement, resulting from the meeting that took place in 1989 in Italy under the aegis of the WHO and the International Diabetes Federation.

In 1998 the MS restructured the Programme in order to achieve the integrated management model of diabetes and establishment of partnerships with all of the participants in the disease surveillance circuit, a fact that deserved the expressed praise of the WHO.

TABLE 27. DRUGS FOR DIABETES (DEFINED DAILY DOSAGE/1,000 INHABITANTS/DAY)

	2003
Germany	61.1
Greece	58.3
Finland	58.0
Hungary	52.3
PORTUGAL	**48.0**
Czech Republic	42.9
Sweden	42.2
Luxembourg	38.1
Belgium	37.7
United Kingdom	36.5
Slovakia	35.0
Denmark	28.6

(Source: OCDE Health data 2006)

Since then the National Diabetes Control Programme has been subjected to successive updates in order to reduce the main complications resulting from diabetes, i.e., blindness, non-traumatic amputations of lower limbs, end stage renal disease and cardiovascular diseases.

Kidney disease

Kidney disease patients are followed in nephrology appointments at NHS hospitals and kidney function substitute therapies are accessible to everyone.

The Registering Office of the Portuguese Nephrology Society annually sends a questionnaire to all dialysis units (105 in total) and to all transplants units (10 in total), with a response rate of 100% (of answers having been obtained) in 2005. According to the last data from this Office and with a resident population of 10,569.6 individuals, there were: a total of 4,408 live patients with a functioning kidney transplant, a total of 8,382 live patients on dialysis and a total of 437 patients on peritoneal dialysis, making a total of 13,227 kidney patients in kidney function substitution therapies in Portugal, on 31st December 2005.

Continued care

Foreseeing a substantial increase in the need of health care services for the elderly population over the next decades, and in parallel an accentuated increase in the prevalence of diseases with prolonged progression and high degree of incapacity, the Continued and Integrated Care Network was created in June 2006 within the scope of the Ministry of Health and the Ministry for Labour and Social Solidarity.

The Continued and Integrated Care Network is made up of continued care health units and teams, and/or by community based social services (as well as palliative care and actions), including hospitals, the health centres, district and local Social Security services, the Solidarity Network and the local public authorities.

The Continued and Integrated Care Network is included in the NHS and in the Social Security System and based on the aims of general rehabilitation and maintenance of the quality of life. The conceptual basis of the long-term or continued care system is based on the principle of approaching the elderly or dependent individual from a harmonious, fair, interdisciplinary, holistic and integral perspective including insertion in the community.

Palliative care

In June 2004 the National Programme of Palliative Care was launched taking into consideration palliative care as an essential element of health care not only as an ethical imperative that promotes fundamental rights but also as a social obligation in terms of public health. Integrated in the NHP, this Programme is considered to be a contribution from the MS to the international movement of palliative care. The latter is viewed as the institutionalisation of health care services and active and organised treatments to people whose diseases are irreversible especially when they are suffering intensely and in the final phase of life.

Within the scope of the Programme, palliative care is provided by interdisciplinary teams and specific palliative care units, in accordance with differentiation levels. The essential components are: the relief of symptoms; emotional, spiritual, and psychological support; support to the family and support during mourning.

Pain

Pain, in its biophysiological, biochemical, psycho-social, behavioural and moral angles can and should be treated with the perspective of success proportional to the understanding that we possess. Services and treatments based on scientific understanding must be provided with properly trained staff, using all available technical and human resources.

To this end, in 2001 the National Plan against Pain was launhed with the recognition of pain as the 5th vital sign and the systematic register of its intensity instigated.

Vision health

Vision should be preserved throughout life; either, it is imperative to prevent and treat visual diseases. In addition to causing elevated social costs, visual disease always provokes a decrease in

the quality of life with negative repercussions at personal, family and professional levels.

It is known today that more important than visual acuity is the way in which each person uses the vision they have, in other words, their functional vision, and that measures of susceptible improvement exist.

Several studies carried out in Portugal allow the following statements:

- approximately half of the population suffers from alterations of vision, from decrease of visual acuity to blindness;
- approximately 20% of infants and half of the Portuguese adult population suffers from significant refractive errors;
- around half of the blind are within full productive age;
- around 170,000 people suffer from cataracts, with six in every 10 people over 60 years of age presenting signs of this disease.

Although Ophthalmology in Portugal has recognised traditions and is characterised by high scientific quality, the creation of a National Programme for Vision Health became necessary. It was launched in January 2005 with the aim of forming an ophthalmic referencing network that facilitates excellence.

The Programme has the following general objectives:

- reduce the incidence and the foreseeable prevalence of legal blindness;
- reduce cases of vision loss associated with treatable pathologies;
- reduce the proportion of undiagnosed vision health problems in children, young people and adults;
- reduce the proportion of vision health problems that determine the loss of functionality and independence in people aged 55 and more.

Mental health

The mental health statistics point towards a higher risk of psychological suffering in females, in people aged 65 years and more and those that are poverty-stricken [56]. The prevalence of depression in primary health care is 21.5%. In mental health services, schizophrenia represents the main cause of admission, depression is the most frequent motive for resorting to external appointments and the morbidity associated to alcohol consumption is the primary cause of psychiatric emergency services [57].

The SDR of under 65 years of age from diseases that could be attributed to alcohol decreased from 15.8 per 100,000 inhabitants in 2001, to 5.9 in 2004. The SDR from suicide under 65 years of age increased from 5.0 in 2001 to 11.5 per 100,000 inhabitants in 2004.

Mental health problems are one of the priorities of the NHP with the prediction of three national programmes: The Programme for the Fight against Depression, The Programme for Post-

-traumatic Stress Disorder and the Programme for the Prevention of Alcohol-Related Problems. In order to support these initiatives, training has been instigated at a national level for professionals in mental health, primary health care, public health, in other MS areas and in other sectors.

Despite the existing obstacles and the stigma associated with mental illness, multiple projects and programmes exist, namely in the promotion of mental health and prevention of mental illness in certain phases of life (pregnancy, the first years of life and old age). There are being prepared manuals of good practice that intent to consolidate the articulation between mental health services and psychiatry within primary health care and hospital context, respectively; the creation of a system for information and definition of mental health indicators and problems related to alcohol; as well as performing the first study on psychiatric morbidity in the community in Portugal.

Diagnosis and early intervention in the first episode of schizophrenia and other psychotic disturbances as well as psychosocial rehabilitation and community integration of affected individuals have been and continue to be developed.

The re-organisation of the mental health service is underway with the aim of moving care closer to the community and greater social inclusion.

Portugal is a partner in diverse European projects such as:

– implementing Mental Health Promotion Action;

– European Alliance Against Depression;

– primary Health Care European Project on Alcohol;

– pathways for Health Project;

– European Mental Health Implementation Project;

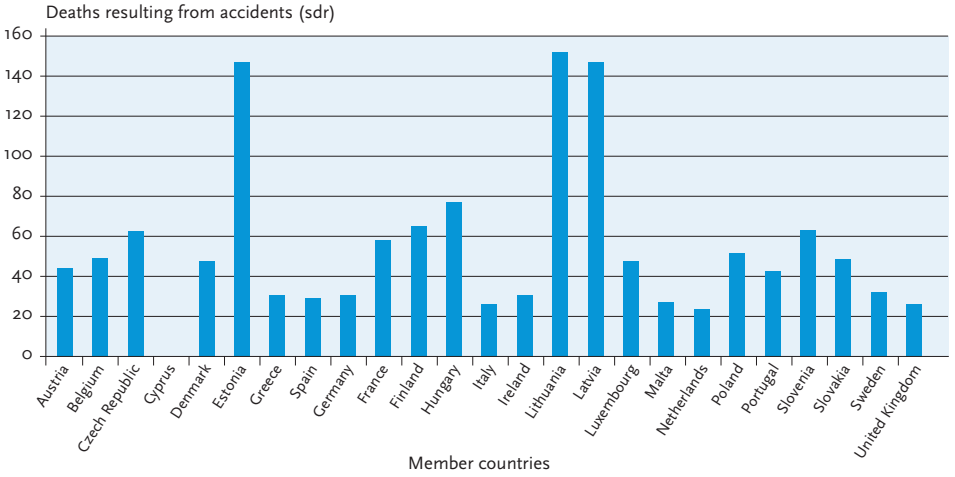
– enforcement of National Laws and Self-Regulation on the Advertising and Marketing of Alcohol.

Portugal has actively contributed to the preparation of the Green Paper for Mental Health in the EU and the Helsinki Conference, having signed and endorsed the WHO Statement and the Action Plan for Mental Health in Europe.

The evaluation of the impact of policies in other sectors on the mental health of the Portuguese population and on the health system is one of the research areas in the preparation phase, within a cross-sectional and intersectoral point of view. On the basis of scientific evidence, it aims to inform the political decision-makers of the best measures to be implemented directed towards the most vulnerable groups and to the population as a whole.

Accidents

Accidents and their consequences continue to be a big problem. They are one of the main causes of premature mortality and morbidity, also generating incapacities among a high number of citizens.



(Source: Injuries in the EU, 2006)

FIGURE 14. DEATHS RESULTING FROM ACCIDENTS SDR IN THE EU COUNTRIES (AVERAGE 2002-2004)

Among the countries of the EU, Portugal has one of the highest SDR with regards to work-place accidents (rate per 100,000 – 3.2) and road traffic accidents (rate per 10,000 – 17.0 [58]).

Regardless of the problem's dimension, we do not have enough statistical data to reveal the reality, particularly with regards to morbidity and incapacities resulting from accidents.

As for home and leisure accidents, for several years there has been a systematic data collection from a set of hospital emergency services and health centre permanent services through which it has been possible to estimate the frequency of these kinds of events.

In an attempt to counter these registered tendencies some ample initiatives have been undertaken, namely in what regards law changes, and the results are starting to be seen, particularly regarding road traffic accidents. Also within the scope of the NHP, the National Programme for Injury Prevention and Control was created. The Programme aims to decrease the number of accidents and the weight of their consequences, through the development of a comprehensive action plan within the scope of health.

NATIONAL VACCINATION PROGRAMME - A SUCCESS PROGRAMME

The NVP was initiated in 1965 with a vaccination campaign against polio, which led to the virtual disappearance of the disease as shown in the following figure.

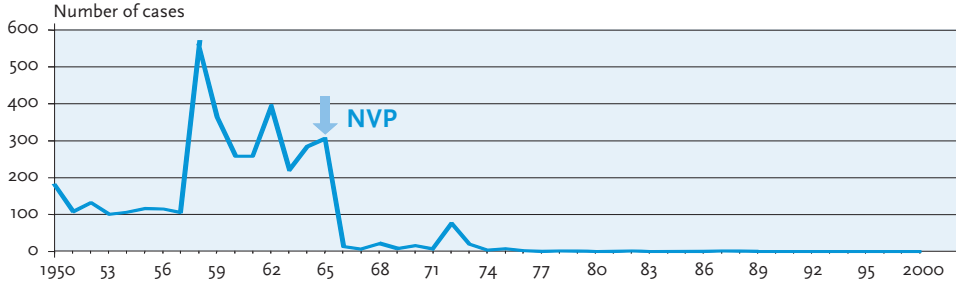


FIGURE 15. NUMBER OF POLIO CASES NOTIFIED (PORTUGAL*, 1950 -2000)

*The cases referred for the years 1950 to 1956 do not include the Autonomous Regions
Note: the outbreak in the beginning of the 1970's was reported in the Autonomous Region of Madeira

The NVP is universal and free, and currently includes vaccines against 11 diseases: diphtheria, tetanus, whooping cough, polio, tuberculosis, measles, mumps, rubella, hepatitis B and infections by *Haemophilus influenzae* type b, and Meningococcal type C infections.

TABLE 28. UNIVERSAL VACCINATION – RECOMMENDED PLAN

	AGE										
VACCINES AGAINST	Birth	2 months	3 months	4 months	5 months	6 months	15 months	18 months	5-6 years	10-13 years	All life 10/10 years
Tuberculosis	BCG										
Polio		IPV 1		IPV 2		IPV 3			IPV 4		
Diphtheria - tetanus pertussis (whooping cough)		DT_aP 1		DT_aP 2		DT_aP 3		DT_aP 4	DT_aP 5	Td	Td
Haemophilus influenzae b		Hib 1		Hib 2		Hib 3		Hib 4			
Hepatitis B	HBV 1	HBV 2				HBV 3				HBV(b) 1, 2, 3	
Measles, Epidemic Parotiditis (mumps) and rubella (German measles)							MMR 1		MMR 2 (a)		
Meningococcal C			MenC 1		MenC 2		MenC 3				

(a) MMR: children born in 1993 that didn't receive the 2nd MMR dose should have been administered an MMR2 at 13 years of age
(b) HBV: applicable to those born before 1999, which didn't receive the vaccine at birth, one month and 6 months of age

The Programme is managed by the DGS, advised by a Technical Commission. It is performed, mainly by the NHS services, health centres and hospitals, and also by other public or private institutions, by means of following protocols laid down by the competent authorities of the NHS. Evaluation of the NVP is performed at local, district, regional and national levels.

The Programme's success is reflected in the confidence that citizens and health professionals have in it, due to its fundamental principles: free, universal and accessible.

In general, "vaccination opportunities are not lost" and it is always possible to adapt vaccination plans to situations in which the protocol was not followed, in a permanent catch up practice.

The rates of vaccine coverage have been consistently high and these data, together with the efficiency of the vaccines and information about the incidence of the respective diseases, show the impact of adopted vaccination strategies. The proportion of the population that has been immunised was recently verified through the 2nd National Serologic Survey of 2001-2002 [59]. The following figure shows the high rate of tetanus immunisation. Considering that immunity against the tetanus toxin is induced only by vaccination, the presence of antibodies against tetanus is accepted as an indicator of vaccine coverage.

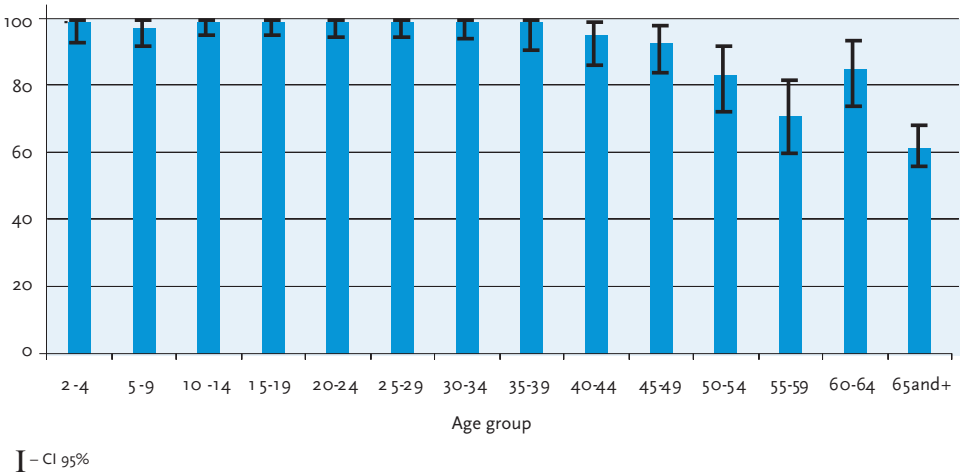


FIGURE 16. AGE DISTRIBUTION OF INDIVIDUALS WITH POSITIVE RESULT (CONCENTRATION OF ANTIBODIES IGG ≥ 0.1 UI/ML) FOR THE TETANUS TOXIN, BY AGE GROUP (%)

The diseases covered by the NVP have been controlled or eliminated in the country, with the exception of some sporadic outbreaks. The NVP, in its 40 years of existence, has constituted a success since it has avoided thousands of cases of disease and death, especially in children.

COMMUNICABLE DISEASES OF MANDATORY NOTIFICATION

Until the mid 20th century, communicable diseases were a very important cause of morbidity and mortality in Portugal. Today, these are under epidemiologic surveillance with the aim of their control and eventual elimination or eradication.

The disease notification system is, in its essence, an information system for surveillance of a group of communicable diseases.

The system of mandatory notification was changed in 1998, 2003 and 2005. In 1999, the list of communicable diseases of mandatory notification was established for the first time including descriptions, and an instruction manual for the completion and sending of the notification forms was compiled. The diseases under notification, as well as their descriptions are now being updated.

This system targets 46 communicable diseases spread across several pathology groups including those preventable by vaccination, those that are zoonosic and anthropozoonosic in origin, and sexually transmitted infections (STI). Of the emerging or re-emerging diseases, the list also includes Creutzfeldt Jakob disease (CJD). Infection by HIV/AIDS, despite being a disease of mandatory notifcation, has its own system, without going through the Municipal Health Authority, its notifications being made at a central level to the management of the specific programme.

All medical doctors, in their public or private activity, having diagnosed a disease of mandatory notification, should report it to the Municipal Health Authority within 48 hours, so as to allow, where necessary, procedures of epidemiologic surveillance and/or control to be put into place. In turn, these authorities should report received notifications to the National Health Authority, sending them via the DGS.

At a national level, there has been a decrease in the incidence of the majority of diseases under notification. This decline has been, however, more noticeable in the diseases targeted by the NVP.

The last notified case of acute polio was in 1987, after diagnosis in December 1986. In June 2002, the WHO certified Portugal as a polio-free country. For this reason, the Post-Elimination Plan of Action was developed and implemented in Portugal in 2002 and replaced the National Programme for Polio Eradication.

The last cases of diphtheria occurred in 1992. A low incidence rate of whooping cough has been maintained for several years, however in 2004 (38 cases) and 2005 (78 cases) there was a considerable increase in cases, especially in infants under 12 months, which is similar to other EU countries. Notifications of tetanus have also decreased significantly. In 2005, eight cases were notified. Since 1996, no cases of neonatal tetanus have been notified.

Since the vaccines against measles, epidemic mumps and rubella were introduced in the NVP in 1987, these three diseases have shown different tendencies. Rubella has decreased steadily, since its notification was initiated, except for 1989, when 2,305 cases were notified, coinciding with an outbreak of measles. In 2005, four cases of rubella were notified. Congenital rubella was last notified in 1998.

There have been two outbreaks of measles since the initiation of vaccination: one in 1989, of considerable size (11,791 cases) and another smaller (3,230 cases) in 1994. Since then, the number of cases has shown a marked decline. In 2005, seven cases were notified, six of them imported.

Epidemic mumps initially showed a decrease in the number of cases notified, after vaccination was started. However, from 1994 there was an increase in the number of cases, which peaked in 1997 with 19,415 cases in full epidemic. In that same year, the vaccine strain used was studied and found to have a low immunogenic profile, and for that reason, a new strain of vaccine was introduced straight away. As a result, the notified cases began to decrease in 1998, with a separate outbreak in 2000 (6,493 cases). Since then, the number of notifications has decreased considerably, with 227 cases in 2005.

Hepatitis have shown a slightly different pattern depending on the transmitting virus. The vaccine against hepatitis B was introduced in 1993 only for at-risk groups, in 1995 for all adolescents between 11 and 13 years of age and, in 2000, it was integrated in the NVP and administered to all newborns. Until 1993, the number of notifications had been increasing, but then started to decrease. However, this decrease has not been so marked as for other diseases targeted by vaccination.

Hepatitis A and hepatitis C have presented different numbers of notification. In the case of hepatitis A, the number of notifications decreased sharply until 2003, when only 38 cases of this disease were notified. In the last two years there has been an increase in the number of cases (144 cases in 2004 and 280 in 2005).

Hepatitis C became of autonomous notification in 1993 and, since then, a relatively constant number of cases have been recorded.

The diseases provoked by *Haemophilus Influenzae* type b were placed under surveillance when vaccination was initiated. In 1999, the vaccine was not integrated in the NVP (introduced in 2000) but it was already used by medical prescription. Since then the number of cases has been small and presents a decreasing tendency.

The notification of meningococcal disease, in the form of meningitis, became mandatory at the beginning of the last century, there being registers of the number of cases notified since 1939. The highest number of notified cases was in 1986 however the annual number of existing cases does not present a well-defined tendency. From 1987, meningitis and sepsis began to be studied separately. There were an increased number of notifications in 2000 and 2002. The vaccine against meningococcus C was integrated in the NVP in January 2006 along with a campaign to individuals until 18 years old inclusively.

TABLE 29. PREVALENCE OF DISEASES PREVENTED BY VACCINATION IN THE 1ST YEAR OF VACCINATION AND IN 2005

	Number of notified cases	
Disease	**N.º/1st year**	**2005**
Diphtheria	1,512 (1965)	0
Polio	297 (1965)	0
Tetanus	373 (1965)	8
Whooping Cough	858 (1965)	78
Measles	813 (1987)	7
Epidemic Parotiditis	2,197 (1987)	227
Rubella	671 (1987)	4
Hepatitis B	1,234 (1993)	97
***Haemophilus Influenzæ* type b**	24 (1999)	12

There are still a high number of tuberculosis (TB) notifications, Portugal having the highest incidence rate in Western Europe despite the decreasing tendency in the last decade (around 5% per year).

On the other hand, with seasonal and regional characteristics, brucellosis and escaro-nodular fever (or Mediterranean Spotted Fever) continue to be highly notified diseases.

More than one thousand Brucellosis cases were notified each year in the first half of the nineties. In 1995, it fell to below one thousand, and continued to fall abruptly to 111 cases registered in 2004. The number of reports in 2005 (170 cases), however, was caused by an outbreak of around 60 cases, traced to a single cheese manufacturer using non-pasteurised milk.

Escaro-nodular fever has shown a decreasing trend over recent years, however approximately 400 cases have continued to be notified each year since 2003.

Leptospirosis, after years of very limited case notification, has shown a significant increase since 1989 with numbers of around 20 cases per year. In 1997 and 1998, there were 67 and 92 cases, respectively. From then on, they decreased again, but not very consistently. In 2005, a total of 32 cases were notified, almost all in the Autonomous Region of the Azores.

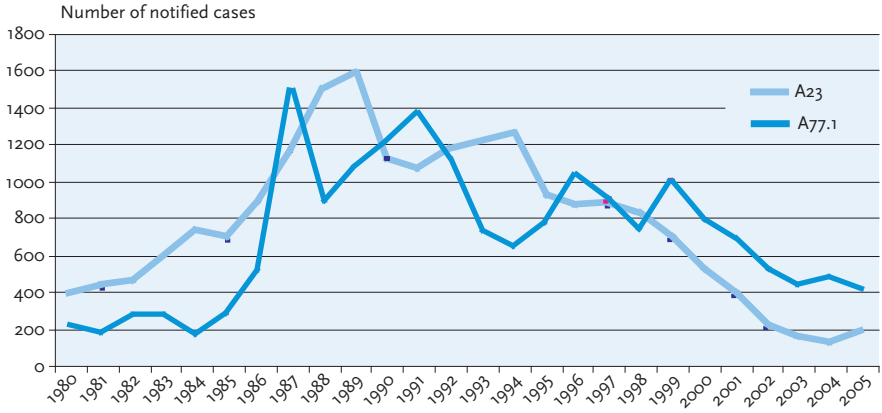


FIGURE 17. NUMBER OF NOTIFIED CASES OF BRUCELLOSIS (A23 - ICD.10) AND ESCARO-NODULAR FEVER (A77.1 - ICD.10) IN PORTUGAL 1980-2005

Among STI, syphilis, both congenital and early onset, and gonorrhoea are of mandatory notification. However, for procedure reasons, they are not often notified.

With regards to salmonella, oubreaks of the *salmonella typhi* and *paratyphi* strains have shown a decreasing trend (in 2005, 92 cases were notified), whereas those caused by the other strains have shown the inverse tendency, with 93 cases notified in 1987 and 514 cases in 2005.

The notification of Legionnaires' disease was started in 1999 with 5 cases, and since then, the number of cases notified has been increasing. In 2005, a total of 55 cases were notified.

In 2003, the Integrated Programme of Epidemiological Surveillance of Legionnaires' Disease was launched. The Programme involves the construction of a database with reference to all the environmental and clinical bacterial strains detected in Portugal, so as to allow for a better association between the infected patient and the contamination focus, aiding a swifter action.

Portugal is part of the European Working Group for Legionella Infections whose objective is to prevent Legionnaires' disease in Europe. This makes it mandatory that any case detected (in travellers), in Portugal or abroad, that is suspected to have originated in Portugal, should be monitored. Epidemiologic studies must involve both environmental and clinical components.

Training programmes have been given to health professionals and those responsible for the operation and maintenance of water networks and NHS hospital equipment regarding the presence of Legionella in water as well as preventive and response measures to be taken in the various regions of the country.

A Surveillance Programme of Legionnaires' Disease was implemented for water quality control in thermal spas, making it mandatory to screen for *Legionella pneumophila* and non-*pneumophila* prior to the beginning of the thermal spa season, and at multiple points and multiple places throughout the season. Whenever it is detected in the water, the affected zone must be closed, and subsequently cleaned and disinfected, only reopening when there is no risk of contamination. In the short-term, it is foreseen that *Legionella* monitoring will take place in establishments that possess jacuzzis and other aerating equipment.

INFLUENZA

In human beings, influenza usually presents itself as an acute viral infection with mild symptoms and is responsible for seasonal epidemics, with a wide range of influenza activity, regarding overall intensity and geographical spread. Occasionally, avian influenza virus cross the species barrier to infect humans – zoonotic transmission. Very rarely, influenza virus are responsible for pandemics, associated with high morbidity, excess mortality and social and economic disruption.

Since 1953, Portugal participates, through the National Influenza Centre of National Institute of Health Dr. Ricardo Jorge (INSA), in the world seasonal influenza surveillance system. Other indicators are important in influenza surveillance, such as mortality and demand on health services (hospital and primary care emergency services). On the other hand, DGS produces annual guidelines concerning the use of seasonal flu vaccine.

Since 1997, with de emergence of H5N1 virus in Hong Kong outbreaks, the DGS has been working on the national pandemic preparedness plan. The most recent version of the Portuguese National Pandemic Plan (March 2007) follows the WHO guidelines, protocols, strategies and influenza activity periods and phases. It has four major functional areas: health information systems, prevention, containment and control, communication and evaluation. Associated with these areas, there are the following Operational Plans: Health Information Systems Operational Plan; Public Health Measures Operational Plan, Ambulatory Care Settings Operational Plan, Hospital (Resident Settings) Care Operational Plan, Vaccine and Antivirals Operational Plan, Communication Operational Plan and Evaluation Operational Plan.

Some of the preparatory measures required for pandemic preparedness are already done, such

as the antivirals stockpiling and the development of the Information System for Influenza Patient Care and Prescription (SIAPC-G). This is a new system to be operational during the pandemic, developed with the goal to establish direct and immediate informatics communication between health care services assisting and treating patients. The goal is to improve management of the health services, mainly regarding clinical assistance and antiviral treatment during the pandemic, avoiding the duplication of the antiviral prescriptions (it only permits one prescription per each flu episode). The system was conceptualised in order to facilitate the estimates of incidence, identify possible geographical clusters, assure equal access to the health services and treatment to all population and control the management of the national stockpile of antivirals.

HIV/AIDS

The global pandemic of HIV infection is perhaps the first, but certainly not the last, of the new emerging diseases whose spread is inevitably associated with the accelerating processes of globalisation.

Since the HIV/AIDS epidemic began 25 years ago, the complexity and diversity of the social responses and policies generated by this epidemic have been the object of extensive research in several domains, such as medicine, public health and the social sciences.

In Portugal, according to the Communicable Disease Surveillance Centre of INSA, a total of 29,461 HIV/AIDS infection cases in different stages of disease had been notified by 30th June 2006.

Within the context of the 52 European countries, Portugal has the second highest incidence rate (251.1 cases per million inhabitants).

Although HIV transmission associated with injecting drug use represented 45.5% of the total worldwide number of notifications, a growing rate of sexually transmitted HIV has been reported since 2002. In 2002, the categories of heterosexual and homosexual transmission contributed 43.3% and 6.9%, respectively, whilst in 2005, these transmission categories were respectively reported to be 47.6% and 8.5% of the total cases notified.

In 1993, through the National Commission for the Fight against AIDS, in partnership with the National Association of Pharmacies, Portugal launched the national programme" Say no to a second hand syringe", directed towards injecting drug users. This Programme provided the exchange of syringes and used needles which took place in pharmacies. Between May 1993 and 2001, approximately 25 million syringes were exchanged.

The evaluation of the results of this Programme, performed using studies of mathematical modelling in 2002, estimated that more than 7 thousand new infections by HIV were avoided during the almost eight years of the programme.

Combined anti-retroviral therapies contributed to the decrease in mortality, the reduction in the frequency and duration of admission episodes and to an increase in longevity and restoration of autonomy of a significant number of HIV-infected patients.

In order to prevent the further spread of the disease in Portugal, more than antiviral power of therapeutic regimes, it is essential to promote open-access to assistance projects.

The false dichotomies – prevention or treatment – and the inconsistent arguments about cost-effectiveness of anti-retroviral therapy continue to be common in Portugal.

Although many proposed intervention policies for the control of HIV/AIDS infection emphasise their distance from the early concept of "the unique nature of AIDS". An analysis of the most recent strategies confronts us with surprising evidence that past trends are continuing. In Portugal, the situation of HIV/AIDS infection in prisons is the best example of that continuity with the "unique" concept of the past.

According to the National Programme for Prevention and Control of HIV/AIDS Infection, it is estimated that the prevalence of infection in the prison population is 10.2% and that infection with the hepatitis C virus is 29%, with it being known that 56.8% of the in-mates infected by HIV are co-infected by hepatitis C virus.

Although the evaluation of the syringe and needle supply programmes in some prisons in Spain, Switzerland and Germany, indicates that use of drugs in prisons has not increased. There has been a decrease in the sharing of materials used for the preparation and consumption of drugs as well as a decrease in the use of needles as aggressive weapons. The non-implementation of these infection control measures in Portuguese prisons, contributes to the perpetuation of the transmission risk of HIV, hepatitis C or hepatitis B within this population.

The debate over preventive measures, such as the supply of condoms or the exchange of the necessary paraphernalia for drug preparation and consumption in the prison environment, reflects philosophical differences as well as uncertainties regarding the frequency of HIV infection inside prisons.

Independently of personal opinions on this matter, the current epidemiologic reality requires the adoption of effective measures to reduce the risk of infection of HIV and other blood and STI among in-mates.

Epidemics such as HIV/AIDS infection are not simple medical events, but complex social processes that reflect underlying political, economic and cultural factors.

TUBERCULOSIS

The United Nations had predicted the eradication of TB in about 2025, but it did not foresee the global spread of HIV infection and the increase of anti-biotic multi-resistance. Currently, the WHO considers it a global emergency, uncontrolled in many parts of the world, with 8.8 million cases every year, 1.7 million of whom die, affecting predominantly young adults.

Within the global context, Portugal has a very particular position, since it has an incidence approximately 10 times higher than the countries that are clearly below the threshold of re-infection and 10 times lower than the countries with the highest incidence rates. The situation in Portugal is favourable considering the global panorama.

Portugal has an incidence of 31/100,000 (new cases in 2005), which contrasts with the EU average incidence of 12.8 (total cases in 2004). The current incidence rate indicates that the risk of contracting TB in Portugal has been reduced by half in the last 17 years, as is shown in the following figure.

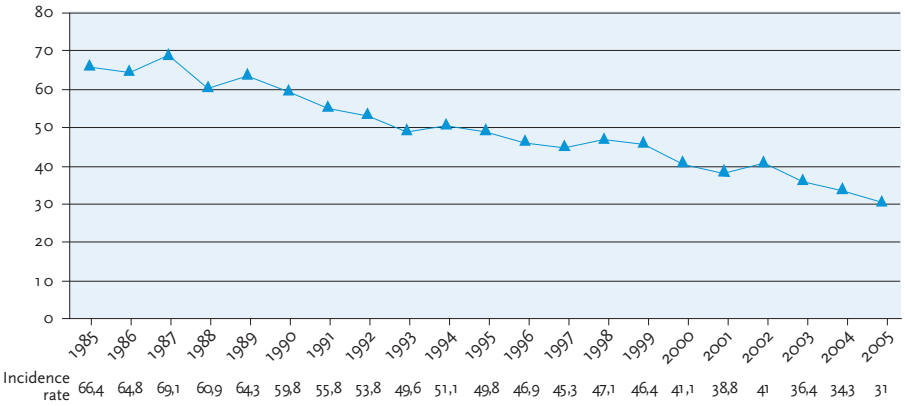
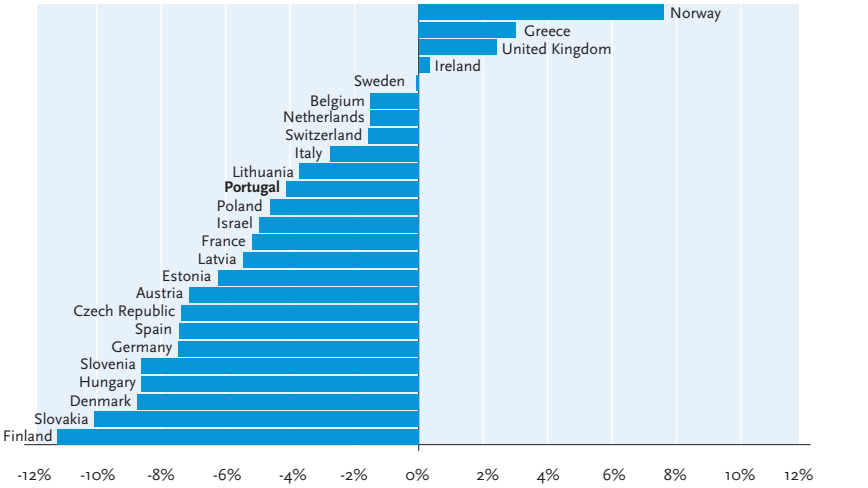


FIGURE 18. NEW CASES OF NOTIFIED TB PER 100,000 (ALL FORMS AND ALL AGES)

The incidence of notified cases in Portugal is only exceeded by the incidence in three of the Baltic countries: Lithuania (73/100,000), Latvia (69/100,000) and Estonia (45/100,000).

On a positive note the decline of incidence in the EU group has been consistent (- 4.8% annually between 2000 and 2004).



(Source: EC, Euro TB, 2006)

FIGURE 19. PERCENTAGE VARIATION OF TB PREVALENCE IN THE EU AND WESTERN EUROPE, 2000-2004 (ANNUAL AVERAGE) *

* Excluding countries with <60 cases/year in 2000-2004 (Andorra, Cyprus, Iceland, Luxembourg, Malta, Monaco, San Marino)

The Portuguese variation rate figure of -4% per annum over the last five years, albeit far from the desired, compares reasonably favourably with the rest of the EU. The main difference between the pattern of decline compared to that of the EU is the fact that the decline in Portugal has been uniform across all of the age groups, whereas in the EU, there was no appreciable variation during the last decade in the under 34 age group, leading to the assumption that there has not been a better control of re-infection risk.

Statistics from the National Programme against Tuberculosis, show that the rate of detection of new cases in Portugal has always been above the WHO target (70%) but, from 2002 to 2004, it has gradually decreased, from 95% to 78%.

The rate of successful treatment affects both the subsequent incidence rate and is a major factor in controlling the emergence of drug-resistant strains. While the DOTS strategy target is 85%, a total of 84% of all cases in the 2004 cohort were successfully treated (86% excluding cases of drug-resistant TB).

A further indicator of progress is the very significant decrease in multi-resistant TB cases in the last decade, mainly by means of a dramatic decrease in resistance in re-treatment cases (Table 31). However, primary resistance was also reduced, reaching 1.4% in 2004, a value that is very close to that of other Western Europe countries.

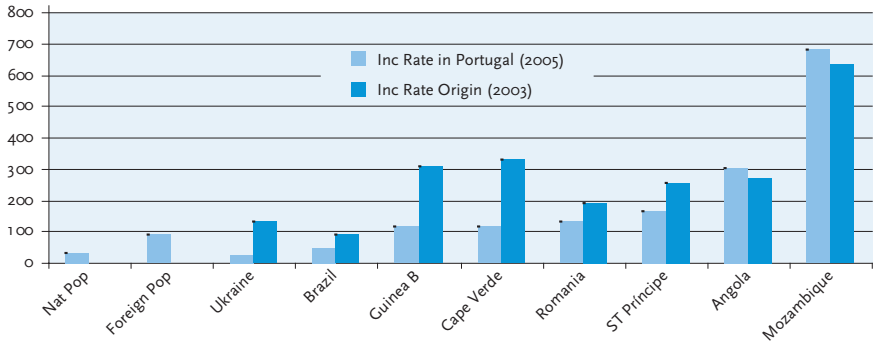
TABLE 30. PROPORTION OF RESISTANT CASES TO ANTI TUBERCULAR AGENTS (%)

Evaluation with 65% of the coverage rate of the standard sensitivity test

Patterns	Study DGS/WHO 1994-97	SVIG-TB 2000-03	SVIG-TB 2004-05
Total Resistance	17.7	12.6	16.2
Primary H Resistance	7.7	6.5	7.5
Primary R Resistance	1.9	2.5	1.9
Primary Multi-resistance	1.8	2.1	1.7
H Resistance in re-treatments	31.1	12.6	12.3
R Resistance in re-treatments	20.9	8.4	8.5
Multi-resistance in re-treatments	20.9	7.8	7.5

H Resistance: any resistance to Isoniazid;
R Resistance: any resistance to Rifampicin;
Multi-resistance: at least H and R resistance simultaneously.

The proportion of TB cases in immigrants in Portugal, important to determine TB demographic profiles in receiving countries, is 12% which is lower than that in the EU group (28% in 2004), where eight countries record an infection rate of more than 50% among immigrants: Belgium, Cyprus, Denmark, Luxembourg, Malta, Holland, Sweden and the United Kingdom. In the EU, the rate of incidence of TB is 12 times higher among the immigrant population, whereas in Portugal it is only three times higher, reflecting the incidence in the national population.



(Source: WHO,2005; DGS, 2006)

FIGURE 20. INCIDENCE RATE IN THE NATIONAL POPULATION, IN THE FOREIGN POPULATION AND BY COUNTRIES OF ORIGIN

HIV infection, which has a dramatic affect on the reactivation risk of TB, is currently a decisive demographic factor. Portugal is the country with the highest proportion of TB/HIV cases (15% in 2005) in the EU, which is related to the higher incidence of AIDS (9.9/100K in 2004). In Portugal, the absolute number of cases has been reduced by 30% in the last five years. However, the risk of TB infection amongst the HIV infected population is estimated to be 15 times higher than the risk for the general population.

In Portugal (2004), in 11.6% of the cases of TB, this disease was the first indicator of AIDS (versus 2.9% in the EU).

The burden of HIV/TB co-infection is particularly high in the immigrant population (26%) and in the districts of Lisbon (23%) and Setúbal (24%).

Other demographic factors affect TB epidemiology in well-defined populations, leaving its true route of transmission in the general population unclear. Important examples are: prison in-mates (risk estimated to be 26 times higher than the general population), drug addicts (risk estimated to be 15 times higher), health professionals (risk estimated to be 1.5 times higher), the homeless and residents in communes (lacking estimates of relative risk).

The proportion of cases of pulmonary TB in Portugal is 73% (similar to the EU rate of 77%) with 64% confirmed in the laboratory, above the EU group (60%). The most commonly reported extra-pulmonary localisation in Portugal is pleural (13%), followed by extra-thorax lymphatic (7%). The meningeal (1.3%) and disseminated (3%) forms are mainly concentrated in the age group 25-44 years and are linked with HIV in 50% and 65% of the cases, respectively.

SEXUALLY TRANSMITTED INFECTIONS

STI continue to be one of the most important problems of public health, both in industrialised countries as well as in developing countries, with unsafe sexual relations (i.e. without the use of condoms) being the main cause of the spread of these infections all over the world.

Currently, more than 25 sexually transmitted micro-organisms are known, that, when left untreated, are responsible for acute disease, infertility, diverse levels of incapacity in the long term and death. In general, almost all STI increase HIV transmission risk.

In Portugal, the exact scale of the incidence of STI is unknown because a high number of these infections are asymptomatic, and only a small proportion of symptomatic patients seek medical assistance and, finally, because the rate of notification is low.

Some studies suggest that, in Europe, the incidence of STI began to increase in the late 1990s, in the male population that practices sexual intercourse with other men, after more than a decade of continuous decline in new infections. Syphilis, gonorrhoea and Chlamydia are spreading with at an alarming rate worldwide, mainly in Europe.

The infection raised against the human papillomavirus is responsible for genital pre-malignant and malignant uterine cervix lesions, depending on having or not oncogenic potential. Whenever the virus has oncogenic potential, pre-malignant lesions can evolve to cancer of uterine cervix being estimated, in Portugal, about a thousand new cases per year and more than 300 deaths due to this pathology.

The vaccine against the human papillomavirus, available in Portugal since February 2007, efficiently prevents infections that can cause pre-malignant and malignant uterine cervix lesions, the result of the sexual transmission of some of the oncogenic serotypes of that virus (16 and 18). The DGS, in collaboration with the Vaccination Technical Commission and other experts, included this vaccine in the NVP, after an evaluation process based on its benefits, risks, costs and the public health interest.

Similar attitudes and risky sexual behaviours are found across all age groups. According to the study "Young Portuguese of Today" by the Permanent Observatory of Portuguese Youth, 70% had had sexual intercourse by 18 years of age and 25% between 15 and 17 years of age [60]. In the age group 15-19, 39% of girls and 41% of boys did not use any contraceptive method in their first sexual encounter, resulting in a high risk of STI and unwanted pregnancies in adolescence. Similarly, the conclusions of the Focus/Metris study on the use of condoms reveal that 54.4% of adults never or rarely use condoms.

Investment in sexual education about infection prevention, at all levels of schooling and in the community, is the only way to combat the new challenges of behavioural changes in this era of communication without barriers.

Some surveillance studies raise the issue of Internet communication as a facilitator in the search/encounter for sexual partner(s), breaking the traditional differences between rural and urban population risk behaviours. The internet not only makes it easier to search for new partner(s), but it can also allow for a more effective selection according to sexual preferences, HIV status and the desire to opt for less safe sexual practices.

Multiple windows of opportunity for controlling the high rates of STI have been lost. In the 1970s, if effective programmes of public health had been adopted, and had the correct antibiotherapy for the treatment of STI been implemented, it would have been possible to control diseases with high morbidity and prepare the community to face new and more severe infections such as

HIV in the eighties. These programmes would have helped modify risky sexual behaviours and educate the community about partner(s) notification.

HUMAN PRION DISEASES - CREUTZFELDT JACOB DISEASE

The high number of BSE cases diagnosed in Portugal in the 1990s, raised the possibility of a high probability of variant CJD (vCJD) cases occurring. In contrast to expectations created after a number of cases were reported, especially in the United Kingdom, by the end of 2004, no probable or confirmed case with that pathology had been diagnosed. With the specific objective of the early identification of cases, the Programme of Epidemiological Surveillance of Human Prion Diseases was revised at the end of 2004. In June 2005, the diagnosis of the first probable case of vCJD was declared in Portugal, in a 12-year-old young boy. In the beginning of 2007, a second case of possible vCJD was diagnosed, this time in a young girl, who also had a suggestive clinical history and positive tonsil biopsy.

The number of notified cases (54) and deaths (45) due to Sporadic CJD have remained stable and within expected values (see following figure).

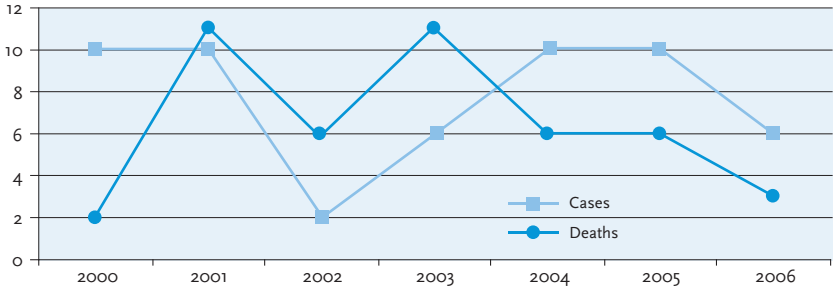


FIGURE 21. CJD DIAGNOSED CASES AND DEATHS IN 2000-2006

Taking into consideration the fact that clinical autopsies are not mandatory in Portugal, confirmation of the diagnoses, which depends on neuropathologic study of the encephalon and performed in three reference hospitals, despite being recommended, was done in only 50% of the diagnosed cases. Through the Programme of Epidemiological Surveillance of Human Prion Diseases, protocols for epidemiological surveillance were established and resources provided for the performance of a set of complementary exams that include Electroencephalogram, Nuclear Magnetic Resonance, dosing of the protein 14-3-3 (Neurochemistry Laboratory of the University Hospital of Coimbra) and genetic studies (Centre of Human Genetics of INSA), among others.

Those responsible for this surveillance remain attentive to research developments, at international level, related to all forms of CJD, especially to the possible transmission of the disease through blood transfusions, surgical interventions and growth hormone treatments.

ANTIMICROBIAL RESISTANCE

Microbial resistance to antimicrobials is one of the most relevant health problems in Portugal and in the world, due to its increased incidence and its negative impact both with regards to the health and quality of life of the population, as well as to related economical aspects.

At the last EU conference on this theme, "The Microbial Threat ", which took place in Copenhagen, in September 1998, "all of the EU member states unanimously agreed that antibiotic resistance was no longer a national problem, but an international matter of great importance that needed a common strategy of control at European level".

It is now recognised at a worldwide level that antimicrobial resistance is a multifactorial phenomenon, which requires a multidisciplinary approach and interventions at several levels. The European Centre for Disease Prevention and Control (ECDC), the WHO and the Centres for Disease Control and Prevention (CDC) have addressed this issue and established some joint strategies to respond to this challenge. The need to implement an instructive and concerted national policy is recognised, approaching this problem at the health unit level (measures directed to health professionals) as well as at the community level (measures directed to the population).

In Portugal, surveillance of antimicrobial resistance began to be organised in 1993 by a group of laboratories, under the coordination of INSA. In 1998, Portugal joined the European Antimicrobial Resistance Surveillance System with the collaboration of INSA, INFARMED and the Microbiology Laboratory of the University of Lisbon. Several studies carried out in Portugal point to the inadequate use of antimicrobials, at the hospital level as well as in the community.

The problem of microbial resistance has deserved special attention from the MS and the DGS, who monitored the development of the situation at national and European levels.

The data obtained through the current network of hospital infection registers identify a serious problem of multi-resistant microorganisms. Outbreaks with multi-resistant agents such as *Staphylococcus aureus*, resistant to methicillin, *Enterococcus* resistant to vancomycin, *Acinetobacter baumannii* and *Pseudomonas aeruginosa*, occur frequently. The rising numbers of immunosuppressed elderly patients and the increased use of invasive devices, lead to a higher rate of health care associated infections (HCAI) with the consequent rise in antimicrobial prescriptions and resistance to these pharmaceutical medicines.

PREVENTION AND CONTROL OF HEALTH CARE ASSOCIATED INFECTIONS

HCAI are today considered a relevant problem with impact on the quality of life of the population, due to associated increases in morbidity and mortality and in the costs involved (inpatient increased length-of-stay, more resources for diagnosis and therapy). According to the CDC, these infections are avoidable in around a third of cases so the ability to prevent them should constitute an indicator of the quality of care.

HCAI is one of the most serious problems to patients' safety in health units and requires a preventive intervention. The WHO launched the World Alliance for Patient Safety in October

2004, with the fundamental objective of increasing the awareness and political commitment to improve health care safety and promote the development of safety policies and practices for patients and health professionals in all the WHO member states.

A study on the prevalence of infection carried out in March 2003, involving 67 hospitals and including 16,373 patients, revealed that 8.4% of the inpatients acquired an infection during their hospitalisation and that approximately 22.7% were carriers prior to admission. Thus, around 31% of hospital patients constitute a risk of infection transmission to other patients, professionals and to the community.

The DGS launched in 1999 the National Programme for Prevention and Control of Health Care Associated Infections. Its main objectives are: to measure the true dimension of health unit infections and promote the necessary measures for their prevention through the identification and modification of risky practices.

Through this Programme, integrated in the Division of Clinical Safety of DGS, Portuguese health units have been involved in international programmes of epidemiological surveillance. Working in multi-centred and networked collaborations, the Portuguese units have adopted the programmes proposed by Hospitals in Europe Link for Infection through Surveillance in Intensive Care Units and Surgery Units.

This Programme also considers epidemiological surveillance at the national level, taking into account other programmes already underway, such as monitoring hospital infections in the blood stream, infections in neonatal units and in dialysis units.

The strategic lines of action and support for the present Programmes attempt to endow the health units with facilitating instruments for the improvement in the organization of services, provision of health care and measurement of results. The Programme, coordinated by the DGS, is based on four main strategic aims:

– organisation;

– individual and organisational development;

– monitoring and recording cases;

– communication.

CONTINGENCY PLANS

The problem of world-wide health threats has been a cause for great concern amongst international organisations and respective governments, in particular in the EU and in the WHO.

Diseases spread rapidly across continents. Increased levels of mobility accentuate the risk of rapid spread of infectious diseases, such as avian influenza and the Severe Acute Respiratory Syndrome (SARS). Chemical, biological and nuclear terrorism are must also be taken into account in health policies.

Climate changes also constitute a new danger category for health, especially the changes prompted by man's affects on the natural world that lead to the emergence and re-emergence of new diseases.

Whenever phenomena that can have a significant impact on public health are identified, contingency plans should be created to lessen its effects on populations.

These plans are made up of instruments that permit the evaluation and management of public health risks, allowing for efficient and appropriate answers.

Within this context, Europe should promote these types of plans so as to reinforce the capacity to fight against potential threats through well developed, responsive health systems.

Portugal has contingency plans, based on that formulated for the important threat of Influenza. This robust and complex strategic plan has been developed so that it may be adapted to other diseases or events that constitute a threat to public health.

In Portugal, contingency plans have also been developed to respond to environmental problems (already described in chapter IV), such as heat waves.

PUBLIC HEALTH EMERGENCY UNIT

The DGS has developed, in 2005, a special unit to support the public health emergencies. Its main objective is to detect signals that may become, after proper validation, public health alerts.

After detection of such alerts, the DGS unit related to the specific alert triggers the necessary measures do risk management. The Public Health Emergency Unit (UESP) also helps achieving effective means of communication to achieve the adequate response. So, UESP gives an essential contribution to the development of the Epidemic Intelligence concept and to the early detection of public health threats.

A VISION TOWARDS THE FUTURE

The political democratisation triggered on 25th April 1974, the economic growth caused by the integration into the EU and the consolidation of a democratic and supportive society, of which the NHS is emblematic, provided the improvement in the quality of life and of the health of the Portuguese.

Today, in a globalised world, submitted to an economic crisis with repercussions mainly in the relatively more vulnerable economies of geographically peripheral countries, integrated in the European single currency system, Portugal faces deep challenges also in the health sector.

Portugal must continue to ensure gains in health to a population with increasing longevity, guarantee the sustainability of the NHS, and respond efficiently to new threats.

HEALTH GAINS

In this century, the development of a citizenship for health is indispensable for obtaining gains in health. It is necessary to evolve from consumerism of medical goods and services and adopt more innovative approaches, based on a process of empowerment and citizen participation that will increase the capacity of taking informed decisions on health protection and prevention of disease, of each individual and of the community. Furthermore, to evolve from models founded in free and universal access to intervention models that reduce inequities privileging people and communities of increased vulnerability. Therefore, it is important to invest in health promoting strategies: effective health education programmes, partnerships for health and community-based coalitions.

In recent years, significant efforts are being developed to improve health planning. These include the agreement in the definition of goals, the programming of several activities and the introduction of innovative techniques in the management of the health services. The National Health Plan 2004-2010 is a guide for action that defines the strategic orientations that all of the system partners should adopt to ensure or contribute to the achievement of gains in health. The NHP establishes consensual priorities, points to objectives and presents programmes according to the adopted policies, the selected interventions and the resources available.

Under the direction of the High Commissariat for Health (ACS), responsible for conducting its implementation, continued assessment and evaluation, the NHP pursues three main strategic goals:

- achieving health gains, by raising the standard of health and by reducing the burden of disease in the different stages of the life cycle;
- using the appropriate methods, namely by centring change on the citizen, qualifying the health system for change, and refocusing the health care system;
- guarantee the mechanisms for carrying out the plan, by bringing together resources and promoting intersectoral activities, ensuring the adequacy of the legal reference framework and creating mechanisms to follow-up and update the plan.

The majority of health professionals demonstrate exemplary competence and social commitment. However, the development of human resources should continue to be a priority. As such, the Portuguese Nurses Association, together with the International Council of Nurses, is developing a training programme in management and leadership that aims to endow those professionals with knowledge and competences indispensable for operating within constantly changing contexts of health.

In Portugal, the phenomenon of migration has particular importance; for that reason Portugal is promoting the European Conference "Health and Migration in the EU: better health for all in an inclusive society" (September 2007). The main goal is to discuss health and migration with the focus on health promotion, disease prevention and better health care access for migrant populations.

The WHO emphasises the importance of gender among the health determinants and appeals to the member states to develop health policies that promote gender mainstreaming [61]. In Portugal, as in other European countries, gender issues in health are clearly linked to sexual and reproductive health. These contextual factors were indeed justified by the need to raise the health status of women as a way to reduce social inequities that primarily penalise women's health. These social movements contributed, in fact, to remarkable improvements in the majority of health indicators.

Nowadays, men's sexual and reproductive health continues to be an incipient field, despite some erratic theoretical efforts. Some health statistics show that there is an unambiguous pattern that places men at a disadvantage in terms of health results. Despite the lowering of mortality rates, when considering men and women separately, it becomes obvious that there is an outstanding and persistent higher mortality rate in men. In order to discuss these issues, Portugal took part in the "Men and Gender Equality" Conference, organised by the Gender Equality Unit of the Finnish Ministry of Social Affairs and Health, during Finnish EU Presidency.

Promoting gender mainstreaming in health policies is a current challenge. The burden of preventable deaths demands these efforts. To be effective, gender mainstreaming must involve the work of other relevant sectors, such as education, welfare and justice, among others.

GUARANTEE NHS SUSTAINABILITY

The NHS, financed through the State Budget, should continue to ensure universal and typically free access since co-payment is of small significance and broad groups of the population are exempt from it, and to emphasise primary health care. Within the current context, its Administration should maximise public investment, rethink its structural characteristics and the benefits it provides, and contain expenditure whose tendency will be to increase due to population ageing and to development of medical technologies.

Three main priorities are delineated in the political plan: to continue to reform primary health care, to create the Continued and Integrated Care Network for Elderly and People in a Situation of Dependence and to ensure the control of expenditure. As an example of decisions that outline the future, the following are pointed out:

With regards to the network of primary care (Family Health Units conception and implementation) and to the network of continued care, the strategic sense is to guarantee the proximity of the System towards the citizens and improve the quality of response through organisational changes expressed in the adoption of innovative solutions centred on the patient. The current initiatives secure access to infrastructures adequate to the patients' needs. In 2007 the goal is to double the existing supply (to reach the defined goal of making available three thousand specialised beds in continued care) and to reinforce domiciliary care, reducing the number of patients readmitted after release from hospital. In 2008 the existence of 5,182 beds is predicted, distributed by: 2,720 for long-term inpatients, 1,139 for mid term admittance, 997 for convalescence patients and 326 for palliative care.

The construction of new hospitals and the activation of a call centre, in April 2007, will reinforce the accessibility and universality of health care and will consolidate the referencing networks. The recent re-organisation of the emergency services reduces the number of citizens who reside more than 45 minutes away from an emergency service from the current 450 thousand to 100 thousand. The re-organisation and re-qualification of maternities national network, currently with 42 birth units, should be in better operational conditions.

The 2007 Budget reinforces the health centre component enabling more than 300 thousand Portuguese to register with a family doctor, reducing inequalities of access.

In February 2007 the decriminalisation of the voluntary interruption of pregnancy within the first 10 weeks, by woman's choice and in authorised establishments, was approved in a national referendum. Upon alteration to the law by the Republic Assembly, it is up to the NHS to answer to this new challenge.

New technologies

The adoption of new technologies will increasingly facilitate the raise of efficiency and efficacy of the System: the diffusion of information via the Internet; telemedicine with the abolishment of distance and borders; epidemiological vigilance supported by tools that allow spatial analysis; as well as the call centre of the NHS. Another example of development based on technological innovation is the establishment of a computerised system of medication prescription (namely of oseltamivir in the case of an eventual pandemic influenza), that allows the monitoring of the respective distribution and consumption, avoiding repeated supplies and keeping under surveillance the propagation of the infection.

To guarantee real time information will allow decision makers to deliberate more accurately since it promotes a better and quicker response, as well as to define more appropriate strategies and priorities.

The Finnish EU Presidency (2006) addressed the issue that data protection should allow for the collection of informative elements in health and its use, namely in research. The resulting information system is based on three pillars: patient records, interview surveys and observation studies HIS and HES. In Portugal, initiatives are underway with the goal of strengthening the reliability and comparability of the adopted health indicators.

The "new" ministry of health

The Portuguese Public Administration is currently undergoing a process of reform towards its modernisation that involves a broad restructuring of all the ministerial departments. This is essential for the development strategy of the country. Within this context, the Decree-Law that reorganises the MS services was published in October 2006 and already in 2007, all of its institutions have been restructured.

At the central level, the direct Administration of the State is insured by the following agencies: High Commissariat of Health, General-Inspection of Health Activities, General-Office, Directorate-General of Health and Authority for Blood and Transplant Services.

In the Continental territory (as the two autonomous regions of Madeira and the Azores possess their own Administration), the indirect Administration of the State is sustained by the following agencies that are found under the supervision of the Minister of Health: Central Health System Administration, National Medicine and Health Products Authority, National Institute of Medical Emergency, Portuguese Institute of Blood, Institute of Drug and Drug Addition, National Institute of Health Dr. Ricardo Jorge, besides the Regional Health Administrations (North, Centre, Lisbon and Tagus valley, Alentejo and Algarve). There is also an independent administrative entity denominated as Regulating Entity for Health. The consultative body, denominated as National Health Council, was also reformed.

The NHS integrates all public health care services institutions providing, namely the hospitals, the health centres and the family health units supervised by the Minister of Health.

It is the Minister of Health's responsibility to define the direction of the state-owned health sector businesses, as well as to ensure that these directions are followed closely.

In the future, health care must become a personal and social investment, and ends to be considered a commodity. The Government's function will increasingly be to regulate the Health market and progressively cease to be the main provider of health care services.

ANSWER TO NEW THREATS

In previous pages, we succinctly described what is planned as a response to new threats to public health. In a prospective view, we also mention:

Patient Safety

The Luxembourg Statement clearly states that access to quality health care is a fundamental right that should be recognised and valued by the Commission, by the member states and by their citizens. The movement towards patient safety, as an element of quality in health and with the goal of reducing negative effects on patients as a consequence of care provided, including HCAI, errors and side effects of medication, must be expanded in the EU. There are issues of Ethics and Responsibility, necessarily involved, which have been defended by the WHO, EU, OECD and by the European Council, and are being increasingly developed in Portugal. In the United Kingdom, it is estimated that the probability of patients suffering an incident is 10%, 1% of which will be moderate or serious; furthermore, they calculate that 50% of those incidents can be avoided.

Analysis of patient safety requires the existence of a notification system of adverse events on behalf of health professionals (non-punitive, but non-exempt). For this purpose, a new department for the promotion of clinical quality has recently been established, with the responsibility of creating evidence-based guidelines and promoting clinical excellence.

Within the scope of the National Programme for Prevention and Control of Health Care-Associated Infections, epidemiologic surveillance will be expanded and an increased adherence of the health units to the Protocol will be fomented, which will adopt a common European protocol. These Programmes will allow for the impact assessment of these infections on the provision of health care and will also allow for the collection of data on the problem of antimicrobial resistance and to compare it to other member states, as well as to obtain clinical information complementary to the laboratorial approach of the European Antimicrobial Resistance Surveillance System Network.

At the level of health units, it is important that Antibiotics or Pharmacotherapeutic Commissions are operational and dynamic. Their functions will essentially be: to disseminate an internal policy on the basis of the local epidemiological reality and supported by evidence of national and international recommendations; to define prescription control strategies; and institute a channel of communication and interaction between the microbiology laboratory, the clinic, the infection control commissions and the pharmaceutical services, so as to co-ordinate knowledge and implement efficient strategies in the prevention of antimicrobial resistance.

The role of health professionals in patient education, both within the hospital environment as well as in community health services, is essential. In parallel, the investment in informing the public regarding the safe and responsible intake of antimicrobials will be intensified, exploring the diverse areas and domains where this information can be spread, namely through media.

The National Program of Hospital Accreditation continues to be developed within the scope of the Central Administration.

Cooperation for development

Throughout the years, Portugal has developed programmes of international cooperation within the health domain, especially with Portuguese speaking countries – Angola, Brazil, Cape Verde, Guinea-Bissau, Mozambique, S. Tomé and East Timor. These agreements include giving hospital medical aid to evacuated patients; technical missions to be carried out in the respective countries by Portuguese health specialists, doctors, nurses and others, for example in the area of the medical imaging, public health, cardiology, paediatrics, pneumology and immunoallergenics; missions to support the organisation and operation of the health services in those countries; training of health professionals of these respective countries through training periods in Portuguese institutions; and projects of scientific research.

In the future, this cooperation should continue, although apt in the acquisition of different modalities, a reflection of the perception of changing needs. An example with a promising future is health professional training in PALOP, which is being developed in a project promoted by the Portuguese Nurses Association and by the International Council of Nurses, denominated the Mobile Library in Portuguese. The objective is to make available updated information and reference works in the fields of Medicine and Nursing.

It is essential to establish a sustainable balance between financial stability and investments, both at society level as well as at families and individuals level. Among the social investments, health and education must continue to merit special attention. It is difficult but absolutely necessary to reconcile the need for budget contention with the maximising of social investment, the continuation of which is imperative, since education and citizen participation will make the difference.

Along its nine centuries of History, Portugal has revealed an unrivalled capacity to face great challenges. The nation has solidarity and is firm in the prosecution of causes that recognises as its own. As such, despite of difficulties that cannot be flinched, we believe in the favourable evolution of Health in Portugal, one of the most enjoyable countries in the World in which to live.

The excellence of the climatic and geographical conditions; the cordiality and the welcome of citizens and the safety, reflexes of an ancestral culture and social harmony that express a deep respect for the person; and the quality of the health care are factors that motivate an increasing number of Europeans to live their golden years of retirement and leisure times in mainland Portugal, in Madeira or in the Azores.

WELCOME TO PORTUGAL

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