

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT
ECONOMIC AND SCIENTIFIC POLICY **A**



- Economic and Monetary Affairs 
- Employment and Social Affairs 
- Environment, Public Health
and Food Safety** 
- Industry, Research and Energy 
- Internal Market and Consumer Protection 

**Food Safety and Public
Health Situation in
Cyprus**

BRIEFING NOTE



DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

FOOD SAFETY AND PUBLIC HEALTH SITUATION IN CYPRUS

ENVI delegation to Cyprus

1-4 May 2012

BRIEFING NOTE

Abstract

This briefing note provides in two separate documents an overview of the Cyprus' situation respectively in the fields of Food Safety and Public Health.

This document was requested by the European Parliament's Committee on Environment, Public Health and Food Safety (ENVI).

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In this paper, the structure of the food safety and control system, and the implementation level of the relevant European legislation are reviewed. In addition, the impact of the island's division on food safety is discussed.

LIST OF ABBREVIATIONS

AHWD	Animal Health and Welfare Division
ARI	Agricultural Research Institute
BIP	Border Inspection Post
BSE	Bovine Spongiform Encephalopathy
CA	Competent Authority
DA	Department of Agriculture
DMPHS	Department of Medical and Public Health Services
DVO	District Veterinary Office
ECDC	European Centre for Disease Prevention and Control
EFSA	European Food Safety Authority
FVO	Food and Veterinary Office of the European Commission
GDP	Gross Domestic Product
GMO	Genetically Modified Organisms
HACCP	Hazard Analysis and Critical Control Point
ISO	International Organization for Standardization
LAH	Laboratory for Animal Health
LCFAO	Laboratory for the Control of Food of Animal Origin
MANCP	Multi-Annual National Control Plan
MANRE	Ministry of Agriculture, Natural Resources and the Environment

MCIT Ministry for Commerce, Industry and Tourism

MH Ministry of Health

NRL National Reference Laboratory

PCB Polychlorinated biphenyl

RASFF Rapid Alert System for Food and Feed

SGL State General Laboratory

TAIEX Technical Assistance and Information Exchange

TCCoC Turkish Cypriot Chamber of Commerce

TSE Transmissible Spongiform Encephalopathies

VS Department of Veterinary Services

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1. EXECUTIVE SUMMARY

This briefing has been prepared to inform the delegation of the Environment Public Health and Food Safety (ENVI) Committee of the European Parliament to Cyprus scheduled for 1 – 4 May 2012.

It reviews the structure of the food safety and control system in Cyprus, considers the level of implementation of the relevant European legislation on food safety and discusses the impact of the division of the island on food safety.

As one of the smaller countries of the EU it has a domestic market of just 800,000 consumers although this increases considerably during the summer months due to tourism. International trade is therefore important and approximately 59% of exports are destined for other EU Member States. The main food exports are Halloumi cheese, potatoes and citrus fruits.

Historically agriculture is an important sector but it has been in gradual decline compared to tourism and other service sectors. Nevertheless Cyprus still has one of the highest densities of both sheep and goat populations per hectare amongst all Member States.

The overarching Food Safety Board is responsible for proposing food safety policies, defining priorities and co-ordinating activities between institutions. The Ministry of Agriculture, Natural Resources and Environment (MANRE) and the Ministry of Health together with their associated control bodies, The Department of Veterinary Services and the Department of Agriculture of MANRE, and the Department of Medical and Public Health Services (DMPHS) of the Ministry of Health, are responsible for almost all the controls on food safety, animal health, animal welfare and plant health. Analytical studies and compliance monitoring are conducted by a wide variety of official control laboratories.

The central legal foundation for food legislation is The Food Act, which is in-line with General Food Law Regulation (EC) No. 178/2002 laying down the General Principles and Requirements of Food Law, establishing the European Food safety Authority and laying down procedures in matters of food safety. Well defined control systems and delegation of responsibility is established in all areas. Cyprus has implemented a national control plan which was significantly updated in 2009. A national food crisis management plan has also been developed. Products originating from Cyprus have been subject to few notifications in the Rapid Alert System for Food and Feed (RASFF).

Recent audit reports by the European Commission verify that official controls take place in accordance with the Multi-Annual National Control Plan (MANCP) and in compliance with Community law. Nevertheless a general audit in 2009 and follow-up audit in 2010 identified a number of non-compliances and the latter included thirteen recommendations for improvement in six areas notably: the designation of competent authorities; resources for performance controls; organisation and implementation of official controls; enforcement measures; verification and review of controls and the Multi-Annual National Control Plan. In their responses to the Food and Veterinary Office (FVO) reports the Cypriot authorities indicated that, as at September 2011, action had been taken to address the majority of the recommendations although a number of items are still in progress.

A recent audit related to Salmonella control programmes (breeders, laying hens, broilers and turkeys) indicated that the Salmonella National Control Plan (SNCP) is implemented in Cyprus and covers all poultry populations. It concluded however that the programme's implementation was weakened by several significant deficiencies, in particular the lack of verification and supervision of the programme's implementation and the lack of official control on laboratories involved, leading to deficiencies in the sampling frequency, type and number of samples taken and the unreliability of test results. Cyprus reported one of the highest proportions of positive samples (43.8%) of Salmonella in fresh broiler meat at the cutting/processing plant but did not report any positive results of Salmonella in table eggs (although the number of samples was small). Cyprus reported an increase in 2010 in the prevalence of *Salmonella enteritidis* in laying hen flocks, as compared with 2009. There were 136 confirmed cases of human salmonellosis in Cyprus in 2010 but the origin of these was unknown.

Cyprus has been reported to have a higher prevalence of Transmissible Spongiform Encephalopathy (TSE) in goats and sheep than any other member state in 2010.

Cyprus is divided between those areas where the Government of Cyprus does and does not (northern part) exercise effective control. The *acquis* is suspended in the areas of Cyprus not under effective control of the Government of the Republic of Cyprus. The border with the rest of the island is referred to as the 'Green Line'. Trade across the Green Line is controlled by Council Regulation (EC) 866/2004 on a regime under Article 2 of Protocol 10 of the Act of Accession (Green Line Regulation). Movement of live animals and animal products is not permitted across the line. Plants, plant products and other objects must undergo phytosanitary checks. The movement of goods must take place at approved crossing points. Surveillance of the line is the responsibility of the Republic of Cyprus. The Turkish Chamber of Commerce (TCCoC) is responsible for keeping a record of trade from the non-government-controlled areas to the Republic of Cyprus and for issuing phytosanitary certificates. Control of the Green Line at the authorised crossing points is considered satisfactory according to the European Commission report on Green Line trade 2011. The majority of trade involves non-food and is not destined for export. Potatoes and fresh fish represent the major food products crossing the Green Line.

CONCLUSION

Cyprus has well established legislation, controls, organisations and responsibilities in place with respect to food safety. A number of recommendations for areas that require further attention have been identified and the Cyprus authorities have indicated they have taken or are willing to take action accordingly.

The *acquis* has not been adopted in the area of Cyprus not under government control. Trade between the two areas is controlled by the Green Line regulation. Control at authorised crossing points is considered to be satisfactory.

A number of programmes are in place to encourage trade between the two areas and to assist the non-government controlled areas to put systems into place to adopt the *acquis* in the future.

2. INTRODUCTION

This briefing prepared for the delegation of the Environment Public Health and Food Safety (ENVI) Committee of the European Parliament to Cyprus scheduled for 1 – 4 May 2012 addresses:

- The structure of the food safety and control system;
- The level of implementation of European legislation on food safety;
- The impact of the division of the island on food safety.

The comments in this report refer to the area of Cyprus under effective government control unless indicated otherwise.

2.1. Method

Sources of information:

European Community and Food and European Commission Veterinary Office (FVO) reports were reviewed to assess the food safety situation in Cyprus. The FVO helps to ensure that Community legislation on food safety, animal health, plant health and animal welfare is properly maintained and enforced. Its inspections assure effective control systems and evaluate compliance with EU standards. Cyprus has been subject to FVO inspections both prior and subsequent to its accession to the European Community in 2004. This report has considered reports since 2009 as reflecting the current situation.

The relevant scientific literature was systematically searched and the websites and publications of relevant regulatory and other authorities were thoroughly examined.

3. CYPRUS, FOOD PRODUCTION AND EXPORTS

KEY FINDINGS

1. Agriculture is an important sector but has been in gradual decline compared to tourism and other service sectors.
2. Approximately 59% of exports are destined for other EU Member States.
3. The main food exports are Halloumi cheese, potatoes and citrus fruits.
4. Cyprus has one of the highest densities of both sheep and goat populations per hectare amongst all Member States.

This chapter provides an overview of the island and status of the Cypriot food industry.

The island of Cyprus is divided between those areas where the Government of Cyprus does and does not (northern part) exercise effective control. This aspect is discussed further in Chapter 6. There are also two areas (Akrotiri and Dhekelia) under UK government control referred to as the Sovereign Base Areas.

3.1. Republic of Cyprus

Cyprus has a small domestic market of 800,000 consumers, although the population increases approximately three fold during the summer months due to tourism. International trade, of all goods including food, is therefore considered important to the economic growth of the island. Total exports accounted for 7% of the country's gross domestic product (GDP) during 2010. The majority of products are exported to other member states (59%) however the Near and Middle Eastern countries (13%) and other Asian Countries (11%) are also important trading partners (Ministry of Commerce, Industry and Tourism, Cyprus: Focus on Foreign Trade 2010).

Agriculture is a vital sector of the economy (Raw and processed agricultural products represented approximately 17% and 15% respectively of exports in 2010). Potatoes, citrus fruit, fish and vegetables were the most important raw agricultural products. Halloumi cheese, fruit and vegetable juices, meat and wines were the main processed agricultural products (Ministry of Commerce, Industry and Tourism, Cyprus: Focus on Foreign Trade 2010). However the importance of agriculture has gradually declined (Eurostat, 2011) compared to industry and the services sector. The service sector, accounts for nearly four-fifths of total GDP of which tourism, financial services, and real estate are the most important sectors. Agriculture represented approximately 2% and industry 16% of total GDP in 2011 (CIA The World Factbook: Cyprus). Most food businesses are small-medium sized enterprises.

Historically Cyprus was recognised for the supply of high quality oranges and other specialised soft citrus fruit. By 2010 however potatoes were the most important agricultural crop representing 6% of total domestic exports whilst citrus fruit represented 5% and fruit and vegetable juices 2.8% (Ministry of Commerce Industry and Tourism, Cyprus: Focus on Foreign Trade 2010). Cyprus also produces table and wine grapes (there are over 30 wineries). There has also been more recent expansion into out of season salads and vegetables and particularly of specialised items such as Coriander, spinach, okra, methi and fresh aromatic herbs (Ministry of Commerce, Industry and Tourism, Cyprus: Focus on Foreign Trade 2010).

Cyprus is renowned for Halloumi cheese, a mixture of goats' or ewes' milk and cows' milk, which represented 8.3% of total domestic exports in 2010 (Ministry of Commerce, Industry and Tourism, Cyprus: Focus on Foreign Trade 2010). This product obtained Protected Designation of Origin status in 2009.

Most farmers raise sheep, goats, cows, pork and chickens although lately there are also ostrich and quail farmers. (Ministry of Commerce, Industry and Tourism, Trade Service). Cyprus has one of the highest densities of both sheep and goat populations per hectare of utilised agricultural land amongst all Member States (EFSA and ECDC, 2012). Meat and fish represent approximately 4% of total exports (Ministry of Commerce, Industry and Tourism, Cyprus: Focus on Foreign Trade 2010).

3.2. Area of Cyprus not under effective Government control

The economy of the non-government controlled areas Cyprus is also dominated by the services sector, including tourism and light industry. The main agricultural products include citrus fruit, dairy, potatoes, grapes, olives, poultry and lamb.

Turkey is the main trading partner of the non-government-controlled areas supplying 60% of imports and absorbing over 40% of exports (CIA The World Factbook: Cyprus).

4. THE STRUCTURE OF THE FOOD SAFETY AND CONTROL SYSTEM

KEY FINDINGS

- There is a well defined, organised system of food safety control and delegation of responsibilities at the central and regional level.
- The Food Safety Board maintains overall responsibility.
- The central legal foundation for food legislation is The Food Act, which is in-line with General Food Law Regulation (EC) No. 178/2002.
- Analytical studies and compliance monitoring are conducted by a wide variety of official control laboratories.

This chapter considers the organisations involved in food control in Cyprus and their inter-relationship.

The most recent general audit by the Food and Veterinary Office (Directorate General for Health and Consumers, 2011a) reviewed the organisation of food safety controls and concluded these are well established with defined areas of responsibility as summarised below.

4.1. Principal Organisations

The Food Safety Board has overall responsibility for proposing food safety policies, defining priorities and co-ordinating activities between institutions. All competent authorities (CAs) are represented on the board. The main issues discussed in the last two years include the multi-annual national control plan (MANCP), specific issues of risk assessment, emerging risks as well as food safety research.

The Ministry of Agriculture, Natural Resources and Environment (MANRE) and the Ministry of Health (MH) together with their associated control bodies, The Department of Veterinary Services (VS) and the Department of Agriculture (DA) of MANRE, and the Department of Medical and Public Health Services (DMPHS) of MH, are responsible for almost all the controls on food safety, animal health, animal welfare and plant health in Cyprus. The State General Laboratory (SGL) of the MH provides many of the laboratory services required by these bodies. Eight of the larger autonomous municipalities (Nicosia, Limassol, Larnaka, Paphos, Strovolos, Lakatamia, Egkomi, Yermasogia and Parmalimni) also perform food hygiene controls. Although the control systems are largely centralised there are also a number of regional offices.

A summary of the organisation of responsibilities is given in Table 1.

4.1.1. Other Ministries and Institutions

The Codex Alimentarius Contact Point for Cyprus is the Cyprus Organization for the Promotion of Quality (CYS-CYSAB), within the Ministry of Commerce, Industry and Tourism (MCIT). The Cyprus Organization for the Promotion of Quality is also responsible for the national system for accreditation and represents Cyprus internationally. The State General Laboratory (SGL) of the Ministry of Health is the national European Food Safety Authority (EFSA) Focal Point and the Medical and Public Health Service (DMPHS) is the contact point for Rapid Alert System for Food and Feed (RASFF).

Table 1: Organisation of Responsibilities

FOOD SAFETY BOARD				
Responsible for proposing food safety policies, defining priorities and co-ordinating activities between institutions.				
Responsibility for almost all the controls on food safety, animal health, animal welfare and plant health lies with:				
Ministry	Ministry of Agriculture, Natural Resources and the Environment (MANRE)		Ministry of Health (MH)	
Department	Department of Agriculture (DA)	Department of Veterinary Services (VS)	Department of Medical and Public Health Services (DMPHS)	State General Laboratory (SGL)
Area of Control	Feedingstuffs; Marketing and use of plant protection products; Plant Health.	Animal health; Food of animal origin; Imports of live animals and products of animal origin; TSEs and animal by-products; Residues of veterinary medicines; Animal welfare.	Food hygiene; GMOs; Pesticide residues in certain foodstuffs; Imports of foods of plant origin; Imports of certain foods of animal origin (honey and ice-cream).	Provision of laboratory services
Regional offices	4	5	5	(19)
Staff	49	440	91	59

Source: Directorate-General for Health & Consumers, 2011a Country Profile: Cyprus DG (SANCO)/2010/8372

4.1.2. Co-operation between competent authorities

In general co-ordination mechanisms function efficiently and effectively. Product recall plans and communication mechanisms ensure prompt removal of non-compliant products from the market place by the relevant responsible authority (VS, DA, DMPHS, Municipalities). The DMPHS of MH is the contact for the RASFF notification system and ensures timely communication of items of interest to other authorities.

A national food crisis management plan has been developed by the Head of DMPHS in cooperation with the other competent authorities.

4.1.3. Resources

The FVO status report (Directorate General for Health and Consumers, 2011a) concluded that in general sufficient, suitably qualified staff are available with access to all necessary equipment and facilities. Staff of all CAs have the necessary control powers and operators are obliged to provide all relevant information and to co-operate during audits/inspections.

4.2. Legislation

The central legal foundation for food legislation in the Republic of Cyprus is The Food Act, which is in line with Regulation (EC) No. 178/2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.

A list of laws and regulations harmonised to the EU *acquis communautaire* is available on the DMPHS website.

Cyprus has implemented a National Control Plan: initially adopted in 2008 it was significantly updated in 2009. This version covers the period 2010 – 2012 and was submitted to the Commission in March 2010.

4.3. Laboratories

A range of analytical and research laboratories are available within the various CAs to monitor compliance and identify issues within the food chain. These are appropriately designated and perform the majority of tests/analyses required. Where analytical methods are not available (e.g. dioxins, dioxin-like PCBs, GMOs, melamine) arrangements are in place to use laboratories in other member states. The Benakeio Institute in Greece and the Food and Environment Research Agency (FERA) in York, United Kingdom provide assistance in relation to the identification of harmful plant organisms.

Accreditation of official control laboratories is mandatory under food law. Most laboratories are accredited to EN ISO 17025 on 'General requirements for the competence of testing and calibration of laboratories' and participate in proficiency tests.

4.3.1. State General Laboratory (SGL)

The SGL, a department of the Ministry of Health, is designated as the official laboratory for monitoring and surveillance of foodstuffs and food controls and the National Reference Laboratory for a number of areas. It comprises of 19 laboratories, each having its own specialism. The scope and function of each laboratory is defined in the SGL Quality Assurance System. Eleven of the laboratories are designated as food laboratories providing relevant services with respect to for example Pesticide Residues; Veterinary Drug Residues; Food Microbiology; Food Composition, Food Quality and Nutritional Value; and Food Additives adulteration & Special analysis of food. All, except one (Food & Environmental Radioactivity), are accredited to ISO 17025 (State General Laboratories).

4.3.2. State Veterinary Laboratories (SVL)

The SVLs report to the Director of Veterinary Services and consist of the Laboratory of Animal Health and the Laboratory for the Control of Foods for Animal Origin which are accredited to ISO EN 17025.

The Laboratory for Animal Health (LAH) performs analysis for the investigation and diagnosis of animal diseases. It is the National Reference Laboratory for animal health.

The Laboratory for the control of food of animal origin (LCFAO) performs analyses on food of animal origin and on food borne diseases and antimicrobial residues and is the National Reference Laboratory for related analyses including salmonella, listeria and campylobacter.

4.3.3. Department of Agriculture (DA)

The DA also has a number of laboratories which conduct analyses in relation to feed and feed additives; plant protection products and pesticide residues. Small diagnostic laboratories have also been set up at Larnaca airport and Limassol sea port.

The Feedingstuffs Quality Control Laboratory is responsible for official analyses of feed samples and for some pesticide residues. It underwent an external audit by the Cyprus Accreditation Body against EN ISO 17025:2005 in July 2011. Accreditation was obtained in October 2011 (CYSAB Accredited bodies).

In addition the Agriculture Research Institute (ARI) of the Department of Agriculture performs some laboratory analyses for genetically modified organisms and for organisms harmful to plant health.

4.3.4. Other

Certain private laboratories are accredited for various analyses according to the Cyprus Organization for the Promotion of Quality. All laboratories performing analyses are required to be accredited and use relevant validated methods.

5. OVERVIEW OF FOOD SAFETY

KEY FINDINGS

- Products originating from Cyprus are the subject of few notifications in the RASFF system.
- Following an FVO General audit a number of non-compliances were raised. Those that relate to Customs warehouses, personal imports of products of animal origin; Staff training; Sampling of live bovines; Sampling frequency and enforcement measures and certain sectors are in progress.
- Several significant deficiencies have been identified in the Salmonella National Control Plan. In addition Cyprus reported one of the EU's highest proportions of positive samples (43.8%) of Salmonella in fresh broiler meat at the cutting/processing plant.
- Cyprus exhibited a statistically significant increase in campylobacteriosis notification rates between 2006 - 2010.
- 291 out of 322 Cypriot cattle herds have been declared officially brucellosis free. Since 2004, the prevalence of sheep and goat herds positive for Brucellosis melitensis has decreased.
- Cyprus was reported to have a higher prevalence of TSE in goats and sheep than any other Member State.

This chapter considers the effectiveness of food safety controls.

5.1. Reported Incidents

The European monitoring system for reporting, recording and exchanging information about measures taken responding to serious risks in relation to food or feed is the Rapid Alert System for Food and Feed (RASFF). Cyprus participates in this scheme via the Ministry of Health.

Products originating from Cyprus have been subject to very few reports in the RASFF system (4 in 2008, 0 in 2009 and 1 in 2010 (RASFF Annual Report 2010) and 0 in 2011 (RASFF portal database). Cyprus actively participates and has been the notifying country in a number of instances (76 in 2011) in relation to products entering or transiting the country (RASFF Annual Report 2010, RASFF portal database).

5.2. FVO General Audit

FVO audits verify that official controls take place in accordance with the multi-annual national control plan (MANCP) and in compliance with Community law. A general audit represents the comprehensive process of evaluating the performance of the competent authorities with respect to the implementation of the MANCP and the EU feed and food legislation.

FVO last carried out a general audit in 2009 (FVO, 2009) and a general follow-up audit in October 2010 (subsequently updated to September 2011 to take account of information received from the Cypriot authorities). The general audits examined compliance with the horizontal aspect of Regulation EC no. 882/2204 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules across different competent authorities and sectors in order to evaluate the official controls put in place.

The 2010 general audit follow-up report included thirteen recommendations in progress in six areas. In response to the General Audit recommendations the Cypriot authorities indicate that action has now been taken to address the majority of these recommendations (Directorate-General for Health and Consumers Affairs, 2011b). Those items still in progress at the time of the report (September 2011) and the action indicated by the Cypriot authorities in their response are indicated below.

5.2.1. Designation of competent authorities

The recommendation of the General Audit related to strengthening the co-operation, co-ordination and dissemination of expertise between competent authorities. The outstanding area concerned customs, pets and passenger luggage. Currently there are no approved custom warehouses where products of animal origin are allowed to be stored prior to veterinary checks. In the event that such warehouses do become approved the Animal Health and Welfare Department (AHWD) of the Veterinary Service (VS) were preparing instructions for divisional veterinary officers (DVOs) on the relevant controls. Instructions were expected to have been disseminated to DVOs by the end of February 2011. Furthermore the VS were working with Customs and Excise to reach a formal agreement on controls of personal imports of products of animal origin (POAO) in personal baggage. This agreement was expected in the first semester of 2011.

5.2.2. Resources for performance controls – Staff training and numbers

An outstanding recommendation related to the availability of staff trained for HACCP assessment within the DMPHS. The assessment of HACCP is part of the overall official controls of food businesses and is based on the nature and size of each business. The frequency of official controls is based on the risk category of each business. The CA indicated that DMPHS staff are adequately trained to carry out efficient and effective official controls of all food businesses and that an annual training programme is developed. The report indicated however that further clarification was necessary about the extent to which training DMPHS staff resulted in more effective assessments.

The Department of Agriculture considers that for controls on feed and plant protection products, the numbers of appropriately trained staff are sufficient. Training of feedstuff inspectors is an ongoing process and includes assessment of operators' HACCP plans. An annual training programme based on training need is being drafted and financed.

5.2.3. Organisation and implementation of official controls – Risk assessment

The continuation of the development of risk-based systems for the prioritisation of controls was recommended particularly in relation to the sampling of live bovines and to animal welfare.

The FVO general audit found that sampling was not carried out on live bovines on farm as required under Chapter 1 point 1 of Annex IV to Council Directive 96/23/EC on measures to monitor certain substances and residues thereof in live animals and animal products. In response to a specific audit report in 2009 the Cyprus authorities indicated that they would make every effort to collect samples on-farm. There were however problems with on-farm sampling and to achieve the goal of sampling live animals, in accordance with the National Residue Plan, increased numbers of samples are taken at the slaughter house. Where a problem is found then sampling on farm is undertaken. The CA contends that the sampling is taking place unpredictably, suddenly and on non-specific days and hours of the week. This issue is subject to ongoing negotiation between FVO and the Cyprus authorities.

Although the frequency of controls for animal welfare were deemed to be inadequate the CA authority indicated that controls would be conducted as follows:

Farms with ruminants (cows, calves, sheep and goats) will be inspected according to the results of a risk assessment. The frequency of audits per farm will vary from annually to biannually (twice per year) to once every three years, depending on the results of a risk assessment. All other farms will be inspected at least annually. All red meat and poultry slaughter houses will be inspected biannually.

Transport: for short distance transports, a goal of inspecting 5% of all movements towards slaughter houses has been set. All long distance transport will be inspected, although the number of consignments of animals arriving from other Member States is low.

In all cases where a deficiency is found a follow-up audit will be carried out and for serious infringements the frequency of audits for particular cases will be increased.

5.2.4. Enforcement measures

A central FVO recommendation was to reinforce the measures available when non-compliance is identified and to ensure that these measures are applied; in particular to ensure that such cases are followed up and that corrective measures are implemented. Additionally to ensure that sanctions applicable to infringements are effective, proportionate and dissuasive and to ensure that administrative arrangements do not impede their use.

Considerable variation was reported between the CAs on the use of sanctions and their effectiveness. Current enforcement measures include: written instructions for taking relevant measures and follow-up audits, retention of suspicious or inappropriate products; seizure and destruction of unsuitable products; suspension of the establishment or premises; cancellation of an establishment licence or cancellation of the registration of registered premises; re-dispatch of products; imposition fines or prosecution.

The VS were intending to introduce a system of extrajudicial fines however this encountered legal problems. In the case of animal welfare the only available actions are written warnings/recommendations and reports to the Police for legal sanctions as well as administrative fines for infringements of the legislation on the protection of animals during transport.

In the case of import controls the VS have reminded all involved importers and agents of their legal obligations for pre-notification of consignment arrivals. Consignments are now notified to both Border Inspection Posts. In case of non compliance action is taken against the owner of the consignment.

The DA indicated they take enforcement action depending on the severity of the non-compliance. They are also considering other enforcement actions before considering suspension or revocation of an establishment. One such measure is the use of administrative fines rather than going through the courts. This is in progress.

5.3. FVO Sectoral recommendations

In addition recommendations were made in relation to a number of sectoral areas.

5.3.1. Food of animal origin

- **Fish:**

The Department of Fisheries and Marine Research has been attempting to identify a suitable site to construct a fish landing facility to cover the needs of the whole island, as well as the needs of the EU and third country vessels. A site has been identified and a proposal has been put forward and is awaiting response from stakeholders and subsequent approval.

- **Small rabbit slaughter houses and cheese producers:**

Recommendations concerned the registration and auditing of small capacity slaughterhouses and cheese producers producing small quantities of cheese. National legislation for both is under development. Registration is complete.

- **Trichinella testing:**

The method for Trichinella testing was accredited in 2009. Trichinella laboratories operate in four slaughter houses and are to become part of the NRL applying the same quality system. Accreditation is expected to be achieved before the end of 2013.

5.3.2. Imports of animals and food of animal origin

- **Customs warehouses**

During an audit in 2009 there were no approved custom warehouses where products of animal origin subject to veterinary checks were allowed to be stored. This issue is ongoing.

- **Annual Monitoring Sampling Plan**

A recommendation to complete the annual monitoring sampling programme including all the relevant risks such as pathogens and other dangerous substances and non-animal protein in fishmeal was made in 2010 and was expected to be completed by the end of October 2010. The annual monitoring sampling programme for microbiological tests had not yet been prepared (September 2011). All Border Inspection Posts however had been notified concerning the sampling of relevant food consignments in relation to mammalian protein.

- **Products of Animal Origin (POAO)**

The recommendation to clarify the responsibility concerning POAO in personal baggage and non-commercial pets between the Customs Authorities and the Veterinary Service is ongoing.

5.3.3. Plant Protection Products and Residues

FVO recommended that the competent authorities should clearly allocate competency for the authorisation of plant protection products and ensure that authorisations are granted and MRLs fully set in accordance with Council Directive 91/414/EEC concerning the placing of plant protection products on the market. The Department of Agriculture indicated that legislation was being drafted and was expected to have been introduced by the end of 2011.

5.4. FVO Recent Audits

Additional specific audits have been carried out since the general audit of 2009.

5.4.1. Animal by-products

An audit was conducted in 2011 (FVO, 2011a) to evaluate the implementation of health rules on animal by-products. The report concluded that the system in place to identify, collect and dispose of animal by-products and derived products and the relevant official controls are largely in line with the requirements laid down by Regulations (EC) No 1069/2009 and no 142/2011, with only some minor deficiencies.

5.4.2. Salmonella control programmes

An audit was conducted in 2011 (FVO, 2011b) in order to evaluate Salmonella control programmes (breeders, laying hens, broilers and turkeys). The report concluded that in general the Salmonella National Control Programme is implemented in Cyprus and covers all poultry populations. Measures taken after positive results of tests on poultry holdings are in-line with SNCP procedures. However the programme's implementation was considered to be weakened by several significant deficiencies, in particular: the lack of verification and supervision of the programme's implementation and the lack of official control of laboratories involved, leading to deficiencies in the sampling frequency, type and number of samples taken and the unreliability of test results.

5.4.3. Transmissible Spongiform Encephalopathy (TSE)

FVO have carried out five audits in relation to TSE and animal by-products since 2005. 47 recommendations were made for which action has been taken. These included improvements to the identification and registration system for sheep and goats; application of movement restrictions where TSE is suspected and breeding programmes for resistance.

During a recent study (Directorate General for Health and Consumers, 2010) no Bovine Spongiform Encephalopathy cases were found in bovine animals in Cyprus. However Cyprus was reported to have a very significantly higher prevalence of TSE in goats than any other of the Member States. Similarly in the sheep sector, Cyprus reported a higher prevalence of TSE than the other member states.

5.4.4. Zoonoses

A recent report (EFSA/ECDC, 2012) on zoonoses, zoonotic agents and food-borne outbreaks in 2010 indicated that there were 136 reported cases of human salmonellosis but that the origin of these was unknown. Cyprus reported one of the highest proportions of positive samples (43.8%) of *Salmonella* in fresh broiler meat at the cutting/processing plant but did not report any positive results of *Salmonella* in table eggs (although the number of samples was small). Cyprus reported an increase in 2010 in the prevalence of *Salmonella enteritidis* in laying hen flocks, as compared with 2009.

The EU notification rate of confirmed cases of campylobacteriosis has shown a significant increasing trend in the five year period 2006-2010, more evident since 2008. This EU trend was observed among 24 Member States (MSs) that reported consistently. Cyprus exhibited a statistically significant increase in campylobacteriosis notification rates.

There were no reported cases in 2010 of *Listeria monocytogenes* in cheese (one reported case of Listeriosis in humans), Verotoxigenic *Escherichia coli* in humans or of tuberculosis in cattle or brucellosis in humans.

Cyprus has received financing for the eradication programmes for bovine brucellosis and for ovine and caprine brucellosis (Commission Decision 2009/883/EC approving annual and multi-annual programmes and the financial contribution from the Community for the eradication, control and monitoring of certain animal diseases and zoonoses presented by the Member States for 2010 and following years). 291 out of Cyprus' 322 cattle herds have been declared officially brucellosis free.

Since 2004, the prevalence of sheep and goat herds positive for *Brucellosis melitensis* has decreased in Cyprus.

Cyprus did not report data relating to investigated food-borne outbreaks.

6. IMPACT OF THE ISLAND'S DIVISION ON FOOD SAFETY

KEY FINDINGS

- The *acquis* is suspended in the areas of Cyprus not under effective control of the Government of the Republic of Cyprus.
- Trade across the 'Green Line' is controlled by Council Regulation (EC) 866/2004 on a regime under Article 2 of Protocol 10 to the Act of Accession (Green Line Regulation).
- Surveillance of the line is the responsibility of the Republic of Cyprus.
- The Turkish Cypriot Chamber of Commerce (TCCoC) is responsible for maintaining a record of trade from the non-government-controlled areas to the Republic of Cyprus and for issuing phytosanitary certificates.
- Control of the Green Line at the authorised crossing points is considered to be satisfactory.
- The majority of trade involves non-food and is not intended for export. Potatoes represent the major vegetable food product crossing the Green Line.
- In 2011 fresh fish was also a major food item crossing the Green Line.

Although Cyprus in its full territory became a member state on 1 May 2004 the *acquis* is suspended in the areas not under effective control of the Government of the Republic of Cyprus according to Article 1(1) of Protocol 10 of the Act of Accession. Council Regulation (EC) 866/2004 on a regime under Article 2 of Protocol 10 to the Act of Accession (Green Line Regulation) defines the terms under which provisions of EU law apply. The application of these rules has also been extended to the boundaries with the UK Eastern Sovereign Base Area (ESBA). Once a Cyprus settlement enters into force it will then be possible for EU rules to apply over the whole island.

The movement of persons and goods across the line is controlled by the Green Line Regulation No 866/2004 which was approved by the Council on 29 April 2004. This is managed by the DG Enlargement Task Force for the Turkish Cypriot community which reports annually to the Council. The Commission has also proposed a special regulation for trade between EU member states and those areas of the Republic of Cyprus in which the Government does not exercise effective control (the direct trade regulation). This proposal remains with the Council for consideration. Trade across the Green Line remains limited.

The line between these areas does not constitute an external border of the EU however special rules are established concerning the crossing of goods, services and persons in order to protect the security of the EU. Trade with the area of Cyprus outside the control of the Government of Cyprus therefore follows the rules applicable to third countries. The European Commission monitors the implementation of the regulation and publishes an annual report (European Commission, 2011).

Regulation No 866/2004 allows goods produced in the northern part of the island to cross the line to the areas under the effective control of the Republic of Cyprus or into the customs territory of the Community provided they meet certain requirements:

- The products to be traded have been wholly produced or manufactured or have undergone their last, substantial economically justified processing or working in the non-government controlled areas i.e. the products must be considered Cypriot products;
- The products must comply with the relevant EU regulations;
- Plants, plant products and other objects are required to undergo phytosanitary checks by duly authorised experts to verify the provisions of EU Phytosanitary legislation (Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community). Such products must be accompanied with a certificate issued by the Turkish Cypriot Chamber of Commerce (TCCoC). The TCCoC carries out checks to ensure that the products originate from the non-government controlled areas and that the specification given by the producer and consignor are accurate.
- Movement of live animals and animal products which are subject to Community veterinary requirements and legislation is not allowed over the Green Line. An amendment (2008) to the regulations allows fresh fish and honey to be traded over the Green Line under certain conditions. The movement of fresh fish (for commercial purposes only), must be accompanied by a valid accompanying document and inspection and approval by the Officials of the Veterinary and Sanitary Services. The movement of fresh fish may be permitted only from the crossing point of Agios Dometios. The pre-conditions to enable honey trade have not yet been completed.
- For food safety reasons the entry of certain products into the Community via those areas not under effective control of the Government of the Republic of Cyprus is also prohibited including: feedingstuffs; figs, hazelnuts and pistachios and other products derived thereof from Turkey; Peanuts and products derived thereof from Egypt or China; Brazil nuts in shell from Brazil; Pistachios from Iran and chilli and chilli products from outside the Community.
- The movement of products takes place at approved crossing points:
 - Agios Dhometios in the Republic of Cyprus
 - Pergamos and Strovilia under the authority of the Eastern Sovereign Base Area
 - A new crossing point between Kato Pyrgos and Karavostasi (also known as Limnitis/Yesilirmak) opened in October 2010.

In 2005, the non-government-controlled areas adopted a new regulation "mirroring" the EU rules and allowing certain goods produced in the Republic of Cyprus to be sold in the northern part. Such products must also be accompanied by an Accompanying document issued by the Cyprus Chamber of Commerce and Industry (CCCI). The buyer in the northern part of the island needs to obtain a permit from the TCCoC for each transaction.

Effective surveillance of the line is the responsibility of the Republic of Cyprus. Goods are subject to the requirements of and undergo checks as required by Community legislation. The Republic of Cyprus treats such goods as not imported provided the goods are destined for consumption in the Republic of Cyprus.

6.1. Crossing of Goods

Commission Regulation (EC) 1480/2004 laying down specific rules concerning goods arriving from the areas not under the effective control of the Government of Cyprus in the areas in which the Government exercises effective control requires the authorities (TCCoC) to maintain a record of trade and report monthly on the type, volume and value of goods for which accompanying documents were issued.

According to the reports of the Turkish Cypriot Chamber of Commerce (TCCoC) the total value of goods for which accompanying documents were issued amounted to 5,312,798 Euros whereas the value of goods traded was 4,503,793 Euro.

Since 2007 potatoes have represented the largest single component of Green Line trade (up to 30%). Due to the very wet weather in spring 2010 and the non-availability of certified seed potatoes only small quantities of potatoes were traded in November 2010 accounting for 4% of trade.

From May to December 2010 96% of the trade was intra-island. The remaining 4% was non-food items for export and required the involvement of a company registered in the government-controlled areas for intra-EU transactions and third party export formalities.

Trade from the government controlled areas to the northern part of Cyprus represented 19% of the trade in the opposite direction during the reporting period 1 May – December 2010.

During 2011 fresh fish (€1,023,056) was the most traded food item from the non-government controlled to the government controlled areas of the Republic Cyprus followed by vegetables (€177,375), fruits (€127,135) and prepared foods (€57,422).

6.2. Irregularities

Nine cases of irregularities were reported by the Republic of Cyprus authorities. Goods were not allowed to cross the line for various administrative reasons (quantity or nature of goods not as described or documents missing). In two cases considerable quantities of pesticides were detected in vegetables intended to be traded across the line. The Turkish Cypriot Chamber of Commerce was informed and measures were to be undertaken to prevent similar incidents in the future.

Smuggling of goods across the line is reportedly widespread. Control operations take place to tackle mainly seasonal issues such as the transportation of game/wild birds to the government controlled areas. Other goods seized include fresh fish and snails. Most goods however were seized at authorised crossing points.

6.3. Obstacles to trade

- Commercial vehicles over 7.5 tonnes in the non-government-controlled areas are prohibited from moving in the Republic of Cyprus due to road worthiness concerns;
- Traders in the non-government-controlled areas experience difficulty advertising their goods in the Republic of Cyprus media or at the point of sale;
- A trade regime is in place in the non-government-controlled areas which “mirrors” the restrictions of the Green Line but this is not consistently applied.

6.4. Future facilitation of trade

The potato trade since 2006 has shown that potatoes produced in the Areas do not pose an undue risk to plant health when introduced in the areas under the effective control of the Government of Cyprus, provided that plant health inspections are conducted by independent experts appointed by the Commission and traceability is ensured (Commission Regulation EU No 531/2011). The lifting of the requirement that potatoes must be grown directly from certified seed potatoes was being considered at the time of the annual report (European Commission, 2011). Accordingly Commission Regulation (EC) No 1480/2004 was amended by Commission Implementing Regulation (EU) No 531/2011 of 31 May 2011 to allow trade of potatoes produced from farm saved seed potatoes grown as the first offspring of certified seed potatoes which were, under the supervision of independent phytosanitary experts appointed by the Commission to provide the necessary assurance with respect to the identity and the health status, as above.

Once the conditions laid down by the assessment missions have been fulfilled trade in new agricultural products, such as dairy products (milk, cheese, yoghurt, whey), may be permitted. Other products the Turkish Cypriot Chamber of Commerce has expressed an interest in are pomegranates, farmed fish and snails.

Control of the Green Line at the authorised crossing points is considered to be satisfactory (European Commission, 2011).

6.5. Trade collaboration programmes

Currently the acquis is suspended in the northern part of Cyprus, but following a comprehensive settlement for re-unification the acquis would apply across the whole island. The area of Cyprus currently outside effective control of the government of Cyprus would then have to implement EU standards.

An EU aid programme has been established (Council Regulation (EC) No 389/2006 of 27 February 2006 establishing an instrument of financial support for encouraging the economic development of the Turkish Cypriot community and amending Council Regulation (EC) No 2667/2000 on the European Agency for Reconstruction) which, amongst other aims, is intended to help the Turkish Cypriot community to be ready to implement EU rules in the case of a comprehensive settlement.

Assistance has been provided by a number of experts from the national Technical Assistance and Information Exchange (TAIEX) contact points to assist in preparing for the future application of the acquis in 13 subject areas, including food safety.

In addition a United Nations Development Programme funded project towards economic interdependence is implemented by the Cyprus Chamber of Commerce and Industry and the Turkish Cypriot Chamber of Commerce. It contributes to reunification through an increase in intra-island trade/business cooperation and the enhancement of economic interdependence, encouraging cooperative planning to benefit the economy island-wide, creating more opportunities for partnerships, and helping the Greek-Cypriot and the Turkish-Cypriot business communities to identify and understand new and existing interdependent economic relationships (Cyprus Chamber of Commerce).

POSSIBLE ISSUES FOR DISCUSSION WITH THE CYPRIOT AUTHORITIES

Zoonoses

- A number of deficiencies were identified in the implementation of the Salmonella National Control Plan including the lack of verification and supervision of the programme's implementation and lack of official control of the laboratories involved. What measures have been adopted to address these deficiencies and to improve the Salmonella National Control Plan?
- Although all EU member states reported an increasing trend in the incidence of campylobacteriosis Cyprus exhibited a statistically significant increase. Is this being investigated and what causes have been identified?
- What steps are taken to investigate and report incidences of food borne illnesses such as salmonellosis and campylobacteriosis?

Animal Diseases

- What measures are being adopted in the area of TSE considering the high incidence in goats and sheep?

Enforcement

- What new measures have been introduced to encourage compliance and to reinforce enforcement?
- Are measures applied consistently across competent authorities?
- Has the training of DMPHS staff resulted in more effective HACCP assessments?

Food of Animal Origin

- What is the planned date for the construction of the fish landing facility?
- Have any warehouses been approved where products of animal origin can be stored prior to veterinary checks? If so have instructions been disseminated to divisional veterinary offices?

Green Line Trade

- What problems, if any, are envisaged if the range of goods allowed to be traded over the Green Line is expanded?

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DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

PUBLIC HEALTH SAFETY SITUATION IN CYPRUS

ENVI delegation to Cyprus
1-4 May 2012

BRIEFING NOTE

Abstract

This paper provides an overview of the situation in the field of health in the Republic of Cyprus. It considers the health status of the population, as well as reviewing data on determinants of health. The current health care system is then presented, together with a discussion of reforms that have been planned since 2001, but subject to considerable delays in implementation.

LIST OF ABBREVIATIONS

- DALY** Disability Life Adjusted Years
- DRG** Diagnosis Related Group
- EU** European Union
- EU27** The 27 Member States of the European Union
- GYTS** Global Youth Tobacco Survey
- HIO** Health Insurance Organisation
- HLY** Healthy Life Years
- IDF** International Diabetes Federation
- NHS** National Health System
- OECD** Organisation for Economic Co-operation and Development
- SHS** Second Hand Smoke
- UNDESA** United Nations Department of Economic and Social Affairs
- UNESCO** United Nations Educational, Scientific and Cultural Organisation
- WHO** World Health Organisation

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EXECUTIVE SUMMARY

This briefing provides an overview of the situation in the field of health in Cyprus. The island of Cyprus is *de facto* divided island and while Cyprus as a whole entered the EU in 2004, the EU *acquis* is suspended in the northern part of the island. This report therefore refers to the situation regarding public health in the Republic of Cyprus.

In 2011, the population of Cyprus reached 838,897. The proportion of young people in the population was 16.9% in 2010, while the share of the elderly was 13.1%. GDP per capita stood at EUR 22,000 in 2011, just below the EU average of EUR 25,100, with annual GDP growth recorded as 0.5%.

In terms of the health status in Cyprus, life expectancy is amongst the highest in the EU27, and Healthy Life Years, the number of years that a person is expected to live in a healthy condition, are above the EU27 average. Typical of developed countries, the majority of the burden of disease falls under the non-communicable chronic disease category, with heart disease, cancer and neuropsychiatric disorders accounting for the majority of Disability Adjusted Life Years. Of particular note, the Republic of Cyprus has the lowest cancer mortality rate in the EU. In common with the EU trend, failure of the circulatory system is the main cause of death in Cyprus. However within this disease class, mortality rates for both ischaemic disease and cerebro-vascular disease are below the EU average. In contrast, the comparative prevalence of diabetes is one of the highest in the EU.

Self perceived health of the adult population is a useful predictor of a population's future health care use and mortality rates. In Cyprus, the self-perception of individual health status amongst the adult population is more positive than the EU27 average, with over 40% of respondents reporting their health as 'very good' against an EU average just over 20%.

Socio-economic indicators that are considered to influence health include income level, educational achievement and employment status. Such indicators of health in the Republic of Cyprus compare quite favourably with the EU27. Unemployment is lower than average, while per capita GDO is slightly below the EU average. Enrolment in education and adult literacy rates are high. In addition, a number of behavioural patterns have been found to impact significantly on health. In the Republic of Cyprus, alcohol consumption patterns are considered to be in the "least risky" category and the prevalence of obesity is lower than the EU average. However, tobacco consumption is relatively high, particularly amongst males.

The Republic of Cyprus does not currently have a universal health care system. Rather free access to public health care is limited to specific categories of the population, which make up approximately 85%. Other categories are obliged to pay charges that vary according to family income. This generates significant inequalities in access to health care across the population.

Health expenditure in the Republic of Cyprus is significantly below that of the EU27 average at 6.4% of GDP, with public expenditure at 2.8% of GDP and private expenditure at 3.4% of GDP. Waiting lists are a problem and overall satisfaction with the public health service is very low. The Ministry of Health has been criticised for its fragmented and inappropriate approach to management of the health care system. As a consequence, a considerable proportion of the individuals with access to public health care turn instead to private services. As a result, private expenditure makes up 60% of health expenditure.

Health reform in the Republic of Cyprus has prioritised the establishment of a National Health System (NHS). The key objectives of the NHS are to provide universal coverage, achieve self-financing and procure high quality health care from both the public and private sectors. Although reform was launched in 2001 with the enactment of a law calling for the creation of the NHS, the process has been fraught with delay and major financing decisions remain outstanding. As such, very little progress has been achieved to date.

The establishment of the Health Insurance Organisation (HIO) tasked with overseeing implementation of the NHS has resulted in limited progress over recent years. Achievements include action on an IT service for the management of patients' data and the piloting of a unified system of accounting for medical practice services. The HIO submitted a proposal for financing the NHS through contributions from workers, employers, self-employed persons and pensioners. This proposal has come under some criticism and has not been finalised.

The Ministry of Health is also a key actor, with responsibility for the re-structuring of hospitals and the establishment of unified service provision by both public and private suppliers on a competitive basis. In addition, the Ministry is tasked with re-organising itself in order to ensure a more coherent approach to managing public health care and to coordinate developments in private health care.

The significant delays in implementing the NHS generate doubts regarding its feasibility and long term sustainability. Significant concerns have been expressed regarding the NHS by social partners and by representatives of relevant associations. At the same time, health care needs in the Republic of Cyprus are expected to increase with demographic ageing over the coming decades. In addition, implementation of Directive 2011/24/EU on the application of patients' rights in cross-border health care is dependent on implementation of the NHS.

In order to allow implementation of the NHS to proceed, there is need for an amendment of the 2001 legal framework, now considered obsolete. An amendment bill has been under debate in the Parliamentary Health Committee since May 2008 and future progress depends on when a new bill will be approved. In particular, decisions regarding funding need to be finalised before substantial progress can be made. According to the Ministry of Health, adoption of the bill is foreseen for the end of May or early June 2012.

1. INTRODUCTION

This briefing responds to a request of the Committee on Environment, Public Health and Food Safety (ENVI) of the European Parliament and aims to provide Members of European Parliament with an overview of the situation in the field of health in Cyprus, in the light of the ENVI delegation to Cyprus from 1 to 4 May 2012.

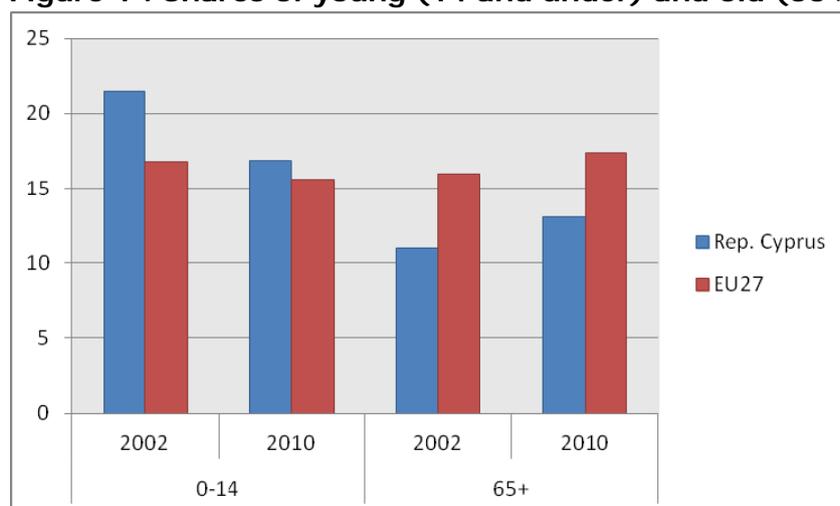
In order to contextualise the discussions on public health, some background information is first provided on the *de facto* division of Cyprus, the population and the economic situation.

1.1. Background information

Cyprus entered the European Union as a divided island on 1 May 2004. While Cyprus as a whole entered the EU, the *acquis* is suspended in the northern part of the island ("areas not under effective control of the Government of the Republic of Cyprus"). In general, the government of the Republic of Cyprus has no access to information concerning the northern part of the island. Moreover, data and information from international sources such as WHO are very limited. Consequently, unless otherwise stated, all figures and discussions in this report refer to those areas of the Republic of Cyprus in which the Government of the Republic of Cyprus exercises effective control.

According to the UN, the population of the island of Cyprus as a whole is about 1.1 million (UNDESA, 2010). According to Eurostat, the population of the government controlled areas of the island in 2011 was about 804,000, and the fertility rate in 2009 was 1.51, just below the EU27 average of 1.59. The proportion of young people (14 and under) in the population has dropped from 21.5% in 2002 to 16.9% in 2010, compared to the EU27 average of 15.6% in 2010. The share of the elderly (65+) in the Cypriot population has risen slightly in the same time period to 13.1% (Eurostat). The relative proportions of young and old people in the population are presented in figure 1 below.

Figure 1 : Shares of young (14 and under) and old (65+) in the EU27 - 2010



Source: Eurostat. Available at:

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjangroup&lang=en

The economy of the Republic of Cyprus grew since the early 1990s until 2009, when it fell by 1.9%. GDP growth was just over 1% in 2010 and only 0.5% in 2011. GDP per capita stood at EUR 22,000 in 2010, just below the EU27 average of 25,100. Unemployment was 9.6% in early 2012, and youth unemployment (defined as workers below the age of 25) stands at 22.4%, slightly higher than the EU27 average of 21.4% (Eurostat).

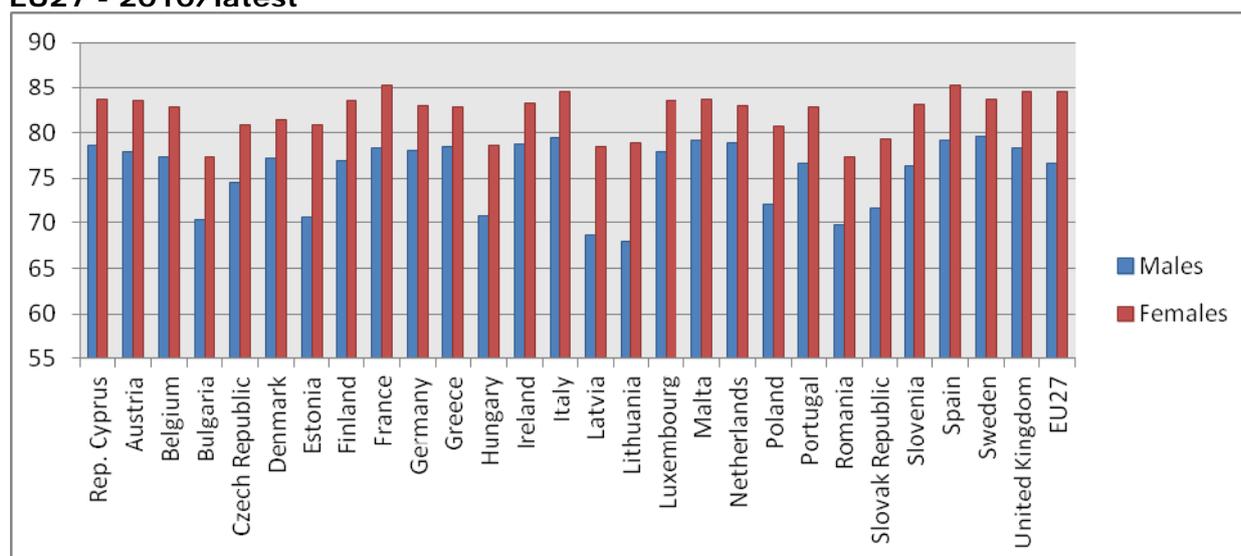
2. HEALTH STATUS

This section provides an overview of the health status of the population of Cyprus by focusing on a number of key indicators, including life expectancy and healthy life years, the burden of disease, mortality rates from specific chronic disease and the self-perceived health status.

2.1. Life Expectancy and Healthy Life Years

The Republic of Cyprus has seen a steady increase in life expectancy over the past two decades, in line with the EU trend. From 2004 to 2009, average life expectancy for males has increased by 2 years to 78.6 years, and for females by 1.7 years to 83.6 years (Eurostat). The Republic of Cyprus compares favourably with the EU27, having higher life expectancies for both males and females than the EU27 average. Figure 2 below presents life expectancy for males and females in the Republic of Cyprus and the EU 27 for 2010.

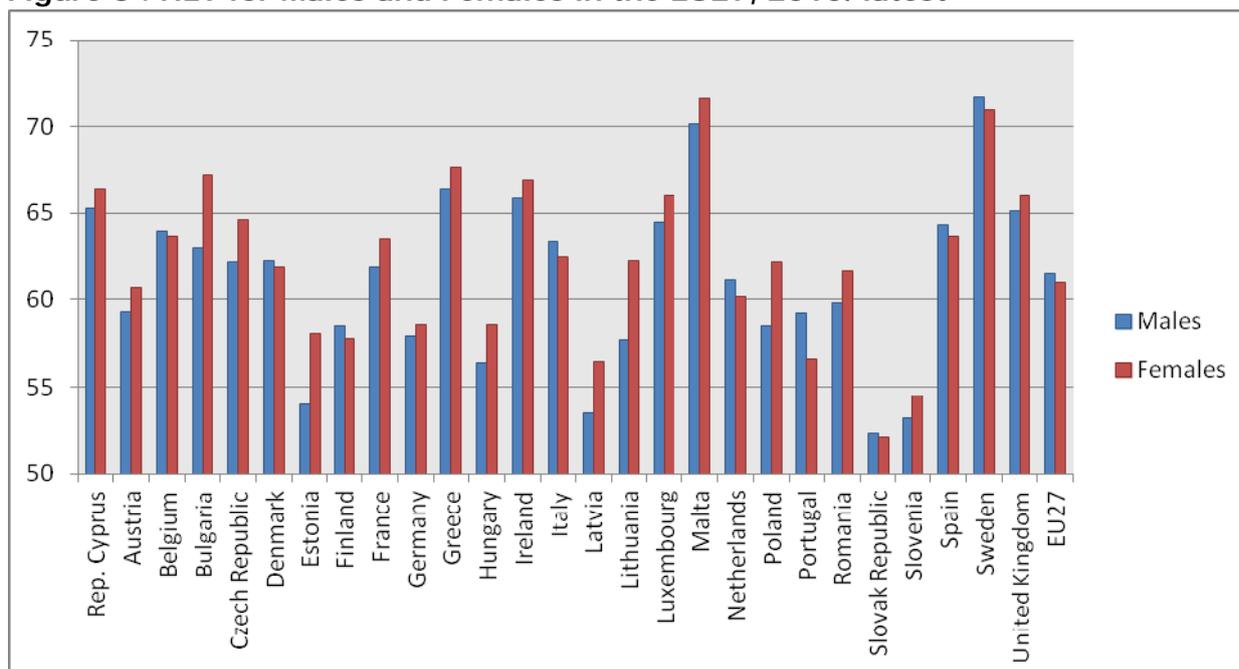
Figure 2 : Life Expectancy for Males and Females in the Republic of Cyprus and EU27 - 2010/latest



Source: Eurostat, available at:

<http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tsdph100&language=en>

The EU Healthy Life Years (HLY) indicator measures the number of years from birth that a person is expected to live in a healthy condition, i.e. without major limitations in functioning or disability. In 2009, HLY for Cypriot males and females was 65.3 and 66.4 respectively, higher than the EU27 HLY average of 61.6 and 61. Figure 3 below presents the HLY indicator for the EU27.

Figure 3 : HLY for Males and Females in the EU27, 2010/latest

Source: Eurostat. Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_hlye&lang=en

2.2. Burden of Disease

The burden of disease in a population is the impact of a health problem, typically measured by Disability Adjusted Life Year (DALY). This time-based measurement combines years of life lost due to premature mortality and years of life lived in states of less than full health. Table 1 presents lists the most prevalent conditions, in descending order, that account for the total burden of disease among males and females in Cyprus. Cardiovascular diseases, neuropsychiatric disorders and sense-organ diseases account for the most DALY among males in the country, while neuropsychiatric disorders, sense-organ diseases and cardiovascular diseases account for the most DALY among females.

Table 2: Leading Disability Groups as Percentage of Total DALY for Males and Females in the Republic of Cyprus, 2008

Rank	Male Disability Groups	% of male DALY	Female Disability Groups	% of female DALY
1	Cardiovascular diseases	22	Neuropsychiatric conditions	23
2	Neuropsychiatric conditions	20	Sense organ diseases	19
3	Sense organ diseases	15	Cardiovascular diseases	15
4	Unintentional injuries	11	Malignant neoplasms	9
5	Malignant neoplasms	8	Diabetes	7
6	Respiratory disease	5	Musculoskeletal diseases	5
7	Musculoskeletal diseases	3	Respiratory disease	4
8	Diabetes	3	Unintentional injuries	4
9	Infectious and parasitic diseases	2	Infectious and parasitic diseases	3
10	Respiratory infections	2	Respiratory infections	2
	Other	9	Other	10

Source: WHO, Global Health Observatory Repository. Available at: <http://apps.who.int/ghodata/>

With regards to neuropsychiatric disorder, it is worth noting that while mortality itself is quite minor (a causal factor in 1% of deaths in 2009 (Ministry of Health, 2010)), the resulting disability affects daily living and places a burden on population health. WHO reported neuropsychiatric conditions as a causal factor in 4.2% of all health related mortality in 2008 (WHO, 2008). The age standardised death rates per 100,000 for neuropsychiatric conditions for 2008 are presented in table 2 below.

In 2009, the main causes of death were: failure of the circulatory system (37%); neoplasms (23%), endocrine, nutritional and metabolic diseases (7%), failure of the respiratory system (8%) and external causes and poisonings (6%) (Ministry of Health, 2010).

Table 3: Age standardised death rates for neuropsychiatric conditions in the Republic of Cyprus, 2008

Neuropsychiatric Condition	Age Standardized death rate per 100,000
Unipolar Depressive Disorders	0.2
Schizophrenia	0.1
Epilepsy	0.8
Alcohol-use Disorders	0.3
Alzheimer's and other Dementias	9.6
Parkinson's	1.9
Multiple Sclerosis	0.3
Drug-use Disorders	0.3

Source: WHO, 2008. Available at: http://www.who.int/healthinfo/global_burden_disease/estimates_country/en/index.html

2.3. Cancer

The Republic of Cyprus has the lowest cancer mortality rate in the EU, with mortality rates of 153 and 99 deaths per 100,000 for men and women respectively. The gender gap in mortality rates is similar to the EU27 average (Eurostat, 2009).

Table 4 provides an overview of the mortality rates per 100,000 for different types of cancer, as well as the contribution of each cancer type to total cancer mortality. As can be seen from the table, lung cancer makes the highest contribution to total mortality from cancer in Cyprus, followed by breast cancer and colorectal cancer.

From 2004 to 2009, the total number of deaths from malignant neoplasms increased by 17 % from 975 to 1140. The percentage increase in the number of deaths by the causal malignant neoplasm is shown in figure 4 below, which demonstrates a significant increase in the number of deaths attributable to neoplasms of the larynx and trachea, bronchus or lung.

Table 4: Deaths from different types of cancer as a percentage of total cancer mortality and mortality per 100,000 for cancer for Cyprus and the WHO European Region

	Percentage of total cancer mortality		Mortality (Age standardised 100,000)	
	Cyprus	WHO European Region	Cyprus	WHO European Region
Lung	16.8	19.8	12.6	24.1
Breast	9.5	7.5	14.5	16.7
Colorectal	8.8	12	5.9	12.8
Prostate	8.7	5.1	11.5	11.7
Leukaemia	4.2	3.2	3.2	4
Stomach	3.7	7.2	2.9	8.4
Bladder	2.7	3	1.7	3
Ovary	2.4	2.4	3.7	5.3
Other	43.2	39.8	44	14

Source: WHO Globocan. Available at: <http://globocan.iarc.fr/>

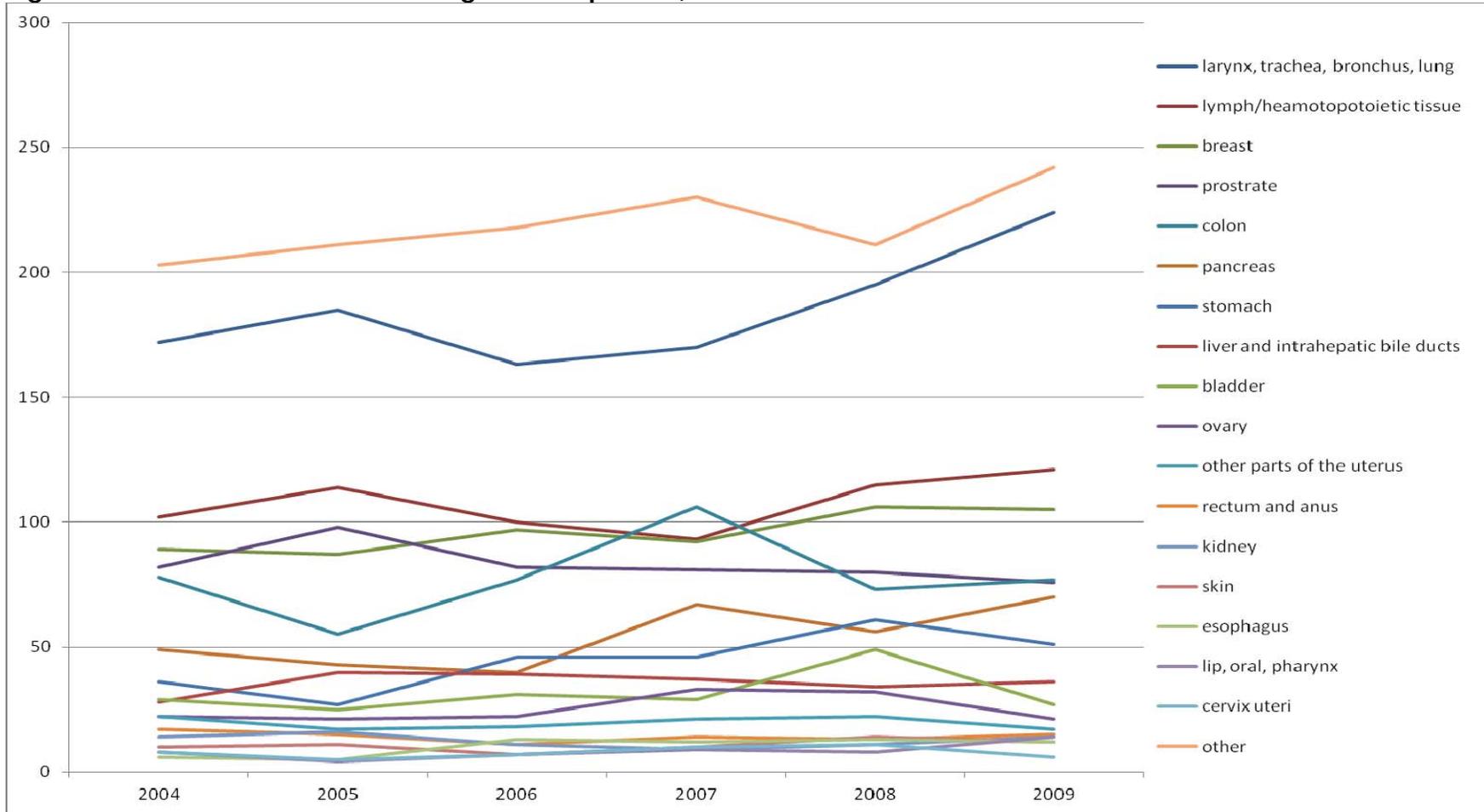
2.4. Heart Disease and Stroke

Cardiovascular disease is a class of diseases that involve the heart or blood vessels and that are the main cause of mortality in almost all European Union countries, accounting for 40% of all deaths in the region in 2008. The class includes a range of diseases related to the circulatory system, such as ischemic heart disease (known as IHD, or heart attack), cerebro-vascular disease (or stroke), heart failure, hypertensive heart disease, inflammatory heart disease and valvular heart disease.

In 2009, Ischaemic heart disease accounted for approximately 13.1% of all health-related mortality recorded in the Republic of Cyprus, compared to the EU27 average of 16.9% (WHO, 2012). Mortality rates are significantly higher for men than women. On average across EU countries, ischaemic heart disease mortality for men is almost double that of women. However the gender gap is exacerbated even further in the Republic of Cyprus with Eurostat data for 2009 showing age standardized death rates at 109 per 100,000 deaths for men as compared with 37 for women (Eurostat, 2009).

In 2009, stroke mortality accounted for approximately 7.3% of all mortality recorded in the Republic of Cyprus, compared to the EU27 average of 10.2% (WHO, 2012). Again, stroke mortality has decreased in most EU countries since 2000 and this trend is reflected in the Republic of Cyprus.

Figure 4: Number of deaths for malignant neoplasms, 2004-2009



Source: Ministry of Health of the Republic of Cyprus, 2010. Available at:

[http://www.moh.gov.cy/moh/moh.nsf/All/B506A4B2792072A44225782B004996D1/\\$file/Στοιχεία%20για%20τη%20θνησιμότητα%20στην%20Κύπρο,%202004_2009.pdf](http://www.moh.gov.cy/moh/moh.nsf/All/B506A4B2792072A44225782B004996D1/$file/Στοιχεία%20για%20τη%20θνησιμότητα%20στην%20Κύπρο,%202004_2009.pdf)

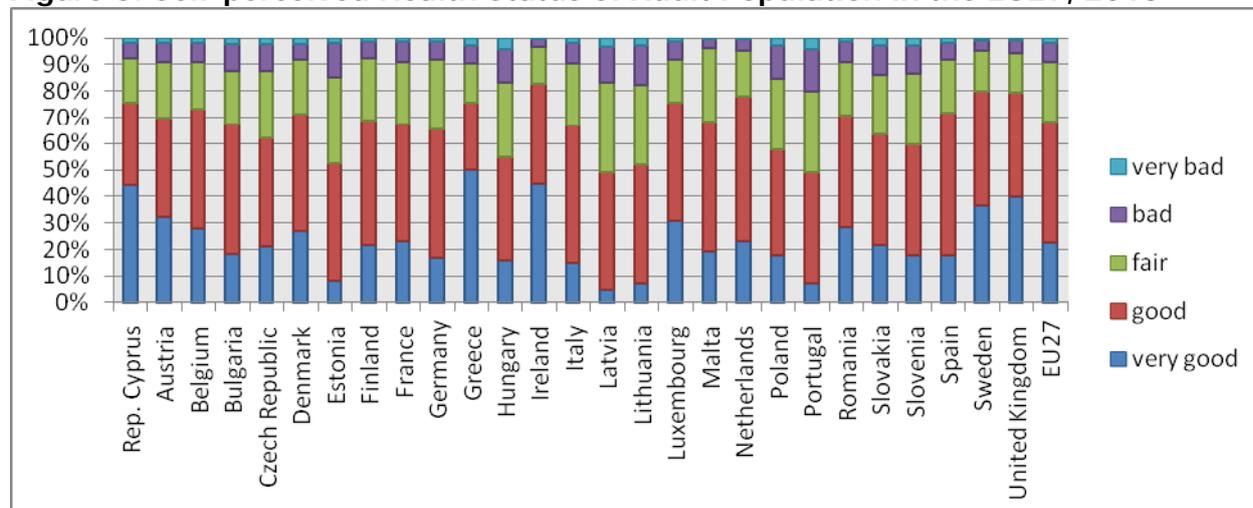
2.5. Diabetes

The comparative prevalence, i.e. prevalence adjusted for the national age profile, of diabetes in the Republic of Cyprus is one of the highest in the EU. As the incidence of diabetes increases with age, further increases in prevalence are expected in the Republic of Cyprus. As such, the number of people living with diabetes is projected to rise from nearly 82,000 in 2011 to approximately 117,000 in 2030, an increase of almost 42% (International Diabetes Federation, 2011). As a result, diabetes is expected to become a growing factor in healthcare expenditures.

2.6. Self-Perceived Health Status

The self-perceived health of the adult population is a good predictor of people’s future health care use and mortality (Miilunpalo et al., 1997). While data are available for the EU27, it should be noted that cross-country comparisons are problematic because responses may be affected by social and cultural factors. Keeping these limitations in mind, the self-perception of individual health status amongst the adult population in the Republic of Cyprus is more positive than the EU27 average; in particular, over 40% of respondents report their health as ‘very good’, compared to an EU average just over 20%. This is shown in figure 5 below, which presents the percentage of the adult population that perceive their health to be: very good, good, fair, bad and very bad.

Figure 5: Self-perceived Health Status of Adult Population in the EU27, 2010



Source: Eurostat. Information from European Union Statistics on Income and Living Conditions (EU-SILC). Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_01&lang=en

3. DETERMINANTS OF HEALTH

While vulnerability to health risk includes obvious factors such as health behaviour, access to clean water and health provision, increasingly socio-economic status is recognised as being highly important (WHO, Acheson et al, 1998). Some key factors include income level, educational achievement and employment status of an individual/population. Although these underlying determinants are not interchangeable, they are intrinsically intertwined with each other, providing valuable aspects of a population's health status. In addition, behavioural aspects influence health, including the consumption of tobacco and alcohol, as well as the influence of diet reflected in obesity. This section provides an overview of data for the Republic of Cyprus regarding a number of determinants of health.

3.1. Income

There is a positive correlation between income level and health (WHO, Benzeval et al, 2001, Michaela et al, 2000), whereby the lower the income is of an individual, the lower the health status. The poor will often suffer from worse health and die at a younger age. Conversely those with a higher income are more able to afford the lifestyle, goods and services that contribute to improved healthy living conditions. In 2011 in the Republic of Cyprus, the GDP per capita, was €22,000 as compared with the EU27 average of €25,100 (Eurostat).

3.2. Legislation

Education level is linked to improved employment opportunities, which in turn links to determining health outcome. Education can also improve access to health knowledge, as well as improving health behaviour. One of the main indicators for educational attainment is the level of school enrolment. Literacy level is also an important factor in health-seeking behaviour. In 2009, the proportion of school-age children enrolled in secondary schools in the Republic of Cyprus in 2009 was 96%, while the adult (age 15+) literacy rate was 97.9% (UNESCO, 2009).

3.3. Employment

Employment levels can play an important role in determining health outcomes (Kroll et al, 2011). With the exception of employment that exposes the individual to health hazards, being employed tends to be better for health than being unemployed. Long-term unemployment, in particular, has been linked to increasing adverse effects on health. The overall reported unemployment rate in the Republic of Cyprus in 2011 was 9% of the total labour force compared to the EU27 average of 9.8%. For the same year, 1.8% of the population is considered long-term unemployed, as compared to the EU27 average of 4.1% (Eurostat, 2012).

3.4. Tobacco

Regular smoking in adolescence has both immediate and long-term health consequences. Establishing smoking habits early in adolescence increases the risk of cardiovascular diseases, respiratory illnesses and cancer. Such individuals are also more likely to experiment with alcohol and other drugs (Currie et al., 2008). Chronic exposure to second hand smoke (SHS) among adults increases the risk of death and illness from cancer and cardiovascular and respiratory diseases. In infants and young children, exposure to SHS increases the risk of sudden infant death syndrome (SIDS), acute lower respiratory tract infections, chronic

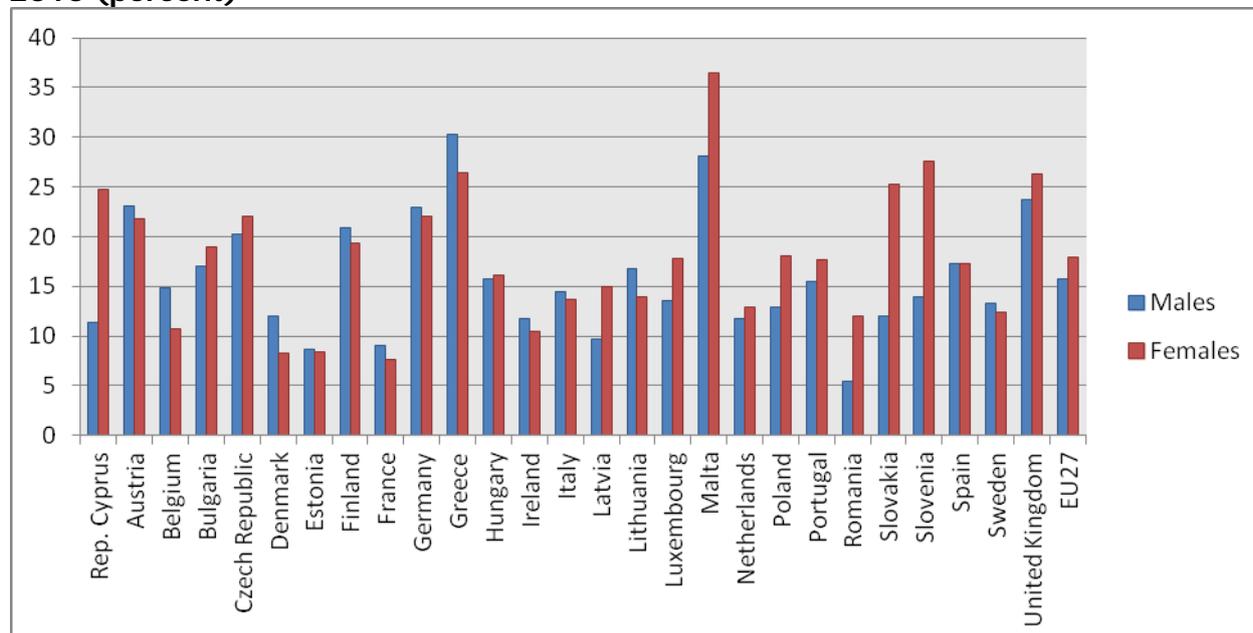
respiratory symptoms, middle ear disease, reduced pulmonary function and asthma. In children with asthma, SHS increases the severity and frequency of asthma attacks. Finally, there is some evidence to suggest that exposure to SHS during childhood may cause lymphoma and brain tumours.

Thirty-eight per cent of adult males and 11% of adult females consume tobacco on a daily basis in the Republic of Cyprus, while 13% of boys and 8% of girls age 13 to 15 years use tobacco (WHO, 2011a). According to the Cyprus Global Youth Tobacco Survey, 51% of youths who smoke in Cyprus buy cigarettes in a store, and 92% of them were not refused purchase because of their age (Centers for Disease Control and Prevention and WHO, 2005). In terms of exposure to SHS, 85% to 90% of 13-15 year olds were exposed to SHS in Cyprus between 2002 and 2007, both inside and outside the home (WHO, 2009).

3.5. Obesity

Obesity is a known risk factor for numerous health problems, including hypertension, high cholesterol, diabetes, cardiovascular diseases, respiratory problems, musculoskeletal diseases and some forms of cancer. Mortality also increases sharply once the overweight threshold is crossed (OECD, 2010c). In Cyprus, the obesity rate is approximately 11% for men and 25% for women. These levels are respectively below and above the EU27 averages of 15.8% for men and 18% for women. Figure 6 below provides an overview of the prevalence of obesity across the EU 27.

Figure 6: Prevalence of Obesity as a percentage of Adult Population in the EU27, 2010 (percent)



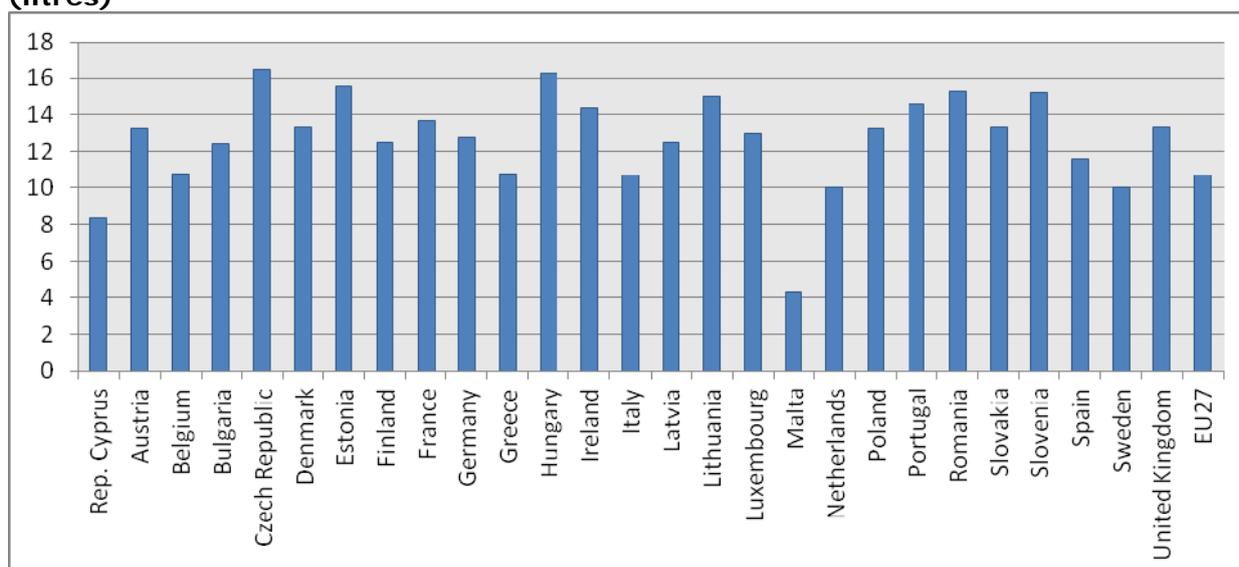
Source: WHO, Global Infobase, 2010. Available at:

https://apps.who.int/infobase/Comparisons.aspx?l=&NodeVal=WGIE_BMI_5_cd.0704&DO=1&DDLReg=ALL&DDLSex=1&DDLAgeGrp=15-www.google.be

3.6. Alcohol

Harmful use of alcohol is a major avoidable risk factor for a range of diseases, for unintentional and intentional injuries, including those due to road traffic accidents, and for suicide. In the Republic of Cyprus, per capita consumption of alcohol is below the EU27 average. Figure 7 provides an overview of per capita alcohol consumption per annum across the EU27. Moreover, in an international comparison of drinking patterns, the Republic of Cyprus was given a score of 1 out of 5, implying that drinking patterns rank among the least risky ones (WHO, 2011b).

Figure 7: Adult per capita consumption of alcohol (pure) per annum in EU27, 2005 (litres)



Source: WHO Global Health Observatory. Available at: <http://apps.who.int/ghodata/>

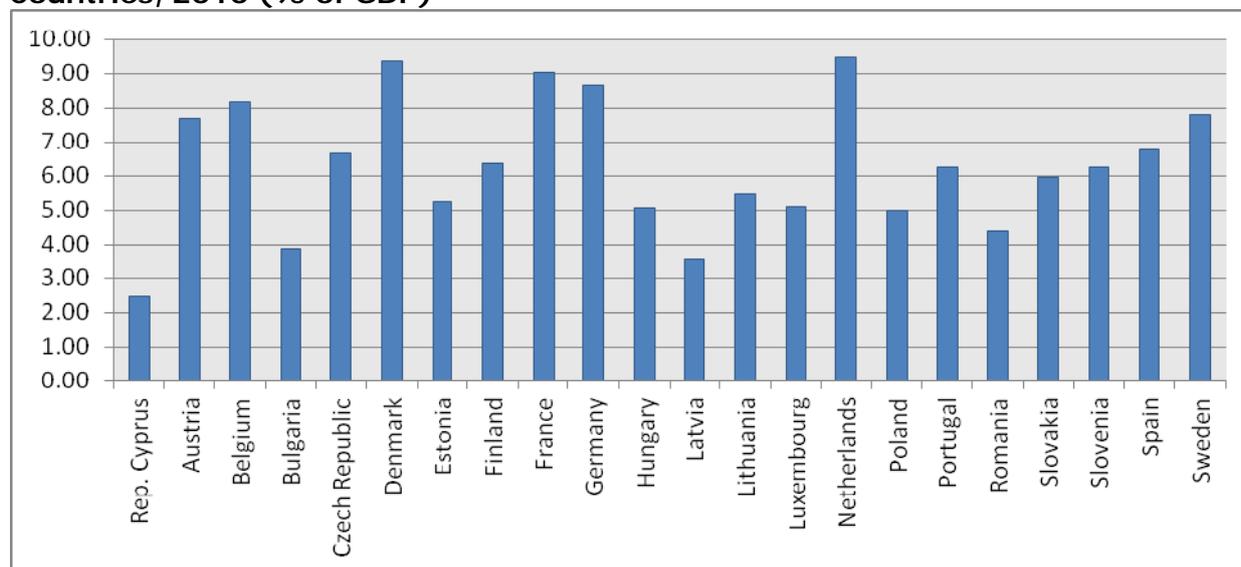
4. THE HEALTH CARE SYSTEM AND REFORM

4.1. Overview of the Health System

Cyprus does not have a universal health care system (Petmesidou, 2009). Rather free access to public health care is limited to specific categories of the population, while other categories are obliged to pay charges that vary according to family income. Estimates of the proportion of the population entitled to public health care for free or at reduced cost vary from 85-90% (Andreou et al, 2010), to 85% (Ministry of Health, 2012¹) to 70% (Petmesidou, 2009).

Total health expenditure in the Republic of Cyprus is significantly below most other EU countries at an average of 6.0% of GDP (World Bank, 2009), with public expenditure at 2.8% of GDP and private expenditure at 3.4% of GDP. As shown in figure 8, public health expenditure as a percentage of GDP in Cyprus drags significantly behind other EU Member States. According to the World Bank, health expenditure has decreased each year from an all time high of 6.75% of GDP in 2003. Factors influencing health expenditure in the Republic of Cyprus include the lack of a fully-fledged national health insurance scheme and the relatively young population demography, since younger people tend to place less demand on a health system (Petmesidou, 2011).

Figure 8: Public Health Expenditure in the Republic of Cyprus and selected EU Countries, 2010 (% of GDP)



Source: Eurostat. Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_sha3p&lang=en

Satisfaction with the public health service is very low, with a considerable proportion of the individuals with access turning instead to private services (Petmesidou, 2011). As a result, private expenditure makes up 60% of health expenditure, one of the highest rates in the EU and an indication of regressive funding (Petmesidou, 2009).

¹ Personal communication

In recognition of the inequities and deficiencies inherent in the public health system in the Republic of Cyprus, a law was enacted in 2001 to establish the NHS, a system aimed at reducing inequalities in the provision of health care and addressing deficiencies. The NHS involves a unified system split into purchasers and provider, operating on the basis of common costing methods and quality assessment requirements (Petmesidou, 2009).

The main characteristics of the proposed NHS as set out on the website of the responsible government agency are:

- i. Financing resources originating in contributions from the Employers, Employees, Self-Employed, Pensioners, Income-earners and the Government;
- ii. Procurement of healthcare services from both the public and private sectors;
- iii. Patient freedom of choosing healthcare service provider;
- iv. Implementation of the Family Doctor concept;
- v. Financial self-sustainability through the establishment of the Health Insurance Fund;
- vi. Global Budgeting (expenses will not exceed contributions) and providers pricing readjustment mechanism; and
- vii. Universal Coverage.

However, despite the original target to have NHS operational by the mid-2000s, successive postponements mean that the system remains in the early stages of implementation with little actual change on the ground.

4.2. Government Institutions

Overall responsibility for the health system in the Republic of Cyprus lies with the Council of Ministers. Several ministries participate in the implementation of health policies, including the Ministry of Health, the Ministry of Finance and the Health Insurance Organisation.

The Ministry of Health is the central agency for organising the health care system, including the provision of state-financed health care systems and coordination with the private sector. This ministry is responsible for formulating national health policies, regulating health care standards and implementing of health legislation.

The Ministry of Finance is responsible for various allowances and grants, including the provision of financial assistance to people with disabilities, child benefits, special grant assistance, mobility allowance and mothers' allowance.

Established in 2001 under Law N.89(I)/2001, the Health Insurance Organisation (HIO) is a legal entity governed by public law that is responsible for implementation of the NHS. The Organisation's main responsibilities include managing the finances of the NHS and acting as a purchaser of health services. As such, the HIO will administer the Fund established by the Law N.89(I)/2001 for financing of the National Health System. In purchasing health services, the HIO is to contract healthcare providers, coordinate and ensure the provision of high quality healthcare services, and collect, analyse and report data relating to the provision of healthcare services. HIO activities towards reform of the health care sector are considered in section 4.3 below.

4.3. Public Provision of Healthcare

Free public health care is provided by the Government Medical Services to certain categories of the population, while other categories pay reduced fees. In addition, certain groups are covered by medical funds, operated by trade unions or employers. These funds provide full or partial coverage of medical expenses incurred by their members. Table 3 provides an overview of the different categories.

Table 5: Categories of the population with different types of access to public health care in the Republic of Cyprus

Persons to whom services are provided free-of-charge	
i.	The President of the Republic, the members of the Council of Ministers, the members of the House of Representatives
ii.	Active and retired civil servants, members of the educational service, of the police force and the armed forces
iii.	The dependants of (i) and (ii) above
iv.	Members of families with 4 or more children
v.	Students of the University of Cyprus and certain other state educational institutions
vi.	War pensioners
vii.	Persons in receipt of public assistance
viii.	Single persons whose annual income does not exceed €15.377,41 and members of families whose annual income does not exceed €30.754,83 increased by €1.708,6 for each dependent child
ix.	Persons suffering from certain chronic diseases.
Persons to whom services are provided at reduced fees	
i.	Single persons whose annual income is between €15.379,12 and €20.503,22
ii.	Members of families whose annual income is between €30.756,53 and €37.589,23 increased by €1.708,6 for each dependent child.
Co-payments by persons entitled to free medical care	
1.	Persons entitled to free medical care pay €2 per out-patient visit.
2.	Recipients of Public Assistance benefit, invalidity pensioners and war pensioners, military personnel, medical personnel and persons over 65 years old, are exempted from any co-payment.
3.	Persons entitled to free care by reason of status (state officials, civil servants etc) pay for each day of in-patient treatment €20.50, €10.25 and €6.83 for stay in 1st class, 2nd class and 3rd class ward, respectively.
4.	Persons entitled to medical care at reduced fees pay 50% of the fees payable by paying patients.

Source: Website of the Ministry of Health, Republic of Cyprus. Available at: http://www.moh.gov.cy/moh/moh.nsf/ehic09_en/ehic09_en?OpenDocument

It should also be noted that Turkish Cypriots from the northern part of the island (i.e. people who were residents of Cyprus prior to the *de facto* division of the island) are entitled to free health care in the Republic of Cyprus.

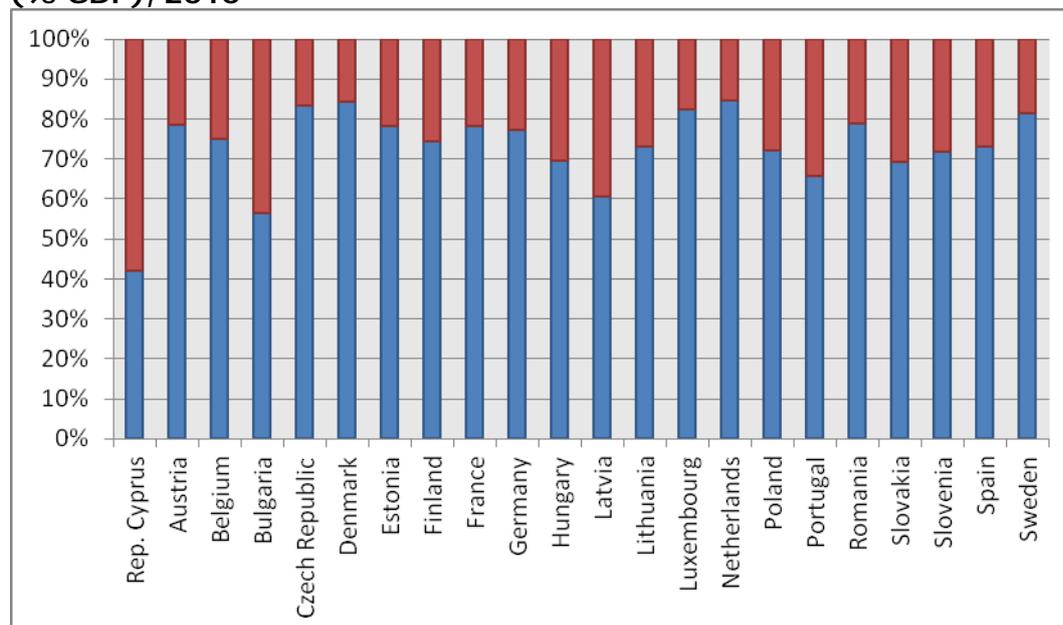
Paying patients that do not fall under these categories can make use of the Government medical services from time to time against payment of the fees prescribed. In addition, paying patients may have the fees for costly in-patient treatment reduced, taking into account the level of their income.

Given the small size of the Republic of Cyprus, geographical access to public health services is not a major problem. However, particularly private health facilities are mostly concentrated in urban centres (Petmesidou, 2011). In terms of the delivery of public health care, concerns regarding waiting lists in public hospitals were addressed by the Ministry Health by the commissioning of services from the private sector and by increasing paid overtime for hospital personnel, with reductions in waiting times attributed to these policies (Petmesidou, 2009). In Nikosia Hospital, doctors' overtime was increased and surgery coordination improved, resulting in an increase of surgical operations by 35% in the Orthopaedics Clinic (Petmesidou, 2010). The problem of waiting lists has been exacerbated in recent years. This may be linked to the fact that the economic crisis significantly increased demand for public health services, with the numbers of patients turning to public hospitals having increased by 20% to 30% between the pre-crisis period and 2011 (Petmesidou, 2011).

4.4. Private Healthcare

Although private health care facilities have developed rapidly over recent years, this growth has been characterised by a lack of coordination with public health care structures (Petmesidou, 2011). Private healthcare accounts for close to 60% of total health expenditure in the Republic of Cyprus (Eurostat), implying that more than half aggregate spending on health services in Cyprus goes to the private section. While total health expenditure in Cyprus has been increasing only slowly, the private sector component has exhibited a faster rate of increase than the public sector component (Andreou et al, 2010). Figure 9 represents the largest share of private funding in healthcare across the European Union.

Figure 9: Government Healthcare Expenditure (blue) versus Private Sector Healthcare Expenditure (red) in the Republic of Cyprus and Selected EU countries (% GDP), 2010



Source: Eurostat Available at:

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_sha3p&lang=en

Private healthcare is available in nearly all areas of health services and many citizens in the Republic of Cyprus choose private healthcare even when they are eligible for free public healthcare. This health-seeking behaviour appears to be due to long waiting times in public health services, as well as a broadly held view that private services are of a higher quality (Andreou et al, 2010).

4.5. Healthcare Reform

While reform of health services has been on the political agenda for over a decade, progress has been very slow. Despite the enactment of legislation in 2001 for the NHS and the establishment of HIO, significant delays mean that actual changes on the ground are limited and major tasks remain. This section provides an overview of key steps that have been taken to date by the body responsible for implementing the NHS, HIO.

A Roadmap is available on the website of the HIO outlining progress to date in implementing the NHS. In managing its tasks, HIO formed eight thematic working teams to plan actions in key areas, including: family doctor; specialist doctor; clinical laboratories; pharmaceutical services; accident and emergency departments; allied health professions; inpatient care; and system financing and global budgeting. These teams assessed the current situation and the challenges in migrating from the existing system to the NHS.

In terms of ongoing activities, HIO is preparing the strategy and the communication plan for the public and other stakeholders. In addition, the HIO reportedly will soon be launching a tender for an IT system, which will have the ultimate aim of increasing transparency, reduce bureaucracy and improving access to patients' information across hospitals. Concerning financing the creation of the IT system, HIO has suggested that the relevant costs are born in their entirety by the contractor.

The winning company will be reimbursed by the OHI through the contributions it will be receiving after the system is set in force (Evripidou, 2012).

It is a goal of the NHS that a unified system of cost accounting be put in place for medical practice services (Petmesidou, 2009). In 2009, HIO engaged a supplier for the implementation of the DRG (Diagnosis Related Group) system as the reimbursement method for inpatient care services in Cyprus. DRG systems group patients according to the consumption of resources required for their treatment and their clinical characteristics, providing valuable inputs for the elaboration of health budgets such as the use of resources, costs estimation and hospital records. In 2010, implementation of the DRG system began on a pilot basis in two public and three private hospitals.

Regarding the financing of the NHS, the recent economic crisis and associated fiscal discipline measures for reducing the public deficit have compounded delays, with the State unwilling to fund the reforms. In late March 2012, the HIO submitted a proposal to the government in order to speed up the overall process and facilitate implementation of NHS within the next two and a half to three years. The HIO proposed that the NHS be self-financed through contributions from workers, employers, self-employed and pensioners. In addition, patients' co-payments will also serve as a source of funding. This way, the contribution of the State budget would not increase (Lysandrou, 2012).

At the same time as unifying accounting, administrative reforms are foreseen to transform hospitals into independently managed units, an essential step towards establishing unified service provision by both public and private suppliers on a competitive basis (Petmesidou, 2009). The Ministry of Health aims to contract-out services to domestic private health care providers and so avoid sending patients for treatment abroad that implies a much higher cost for the public budget. Improving ambulance response times is also a priority, with a new tracking system having recently been introduced in public ambulances. In addition a training scheme for paramedics to staff the new ambulance system (which includes the establishment of new stations) has been agreed by the government (Petmesidou, 2011).

The Ministry of Health is responsible for the re-structuring of public health hospitals and the reorganization of the Ministry itself, a major aspect of the NHS. However, progress remains limited and depends on political aspects, considered below.

4.6. Key Challenges

The organisation and management of the health care system in the Republic of Cyprus has been described in recent years as obsolete and deficient (Golna et al, 2004, Antoniadou, 2005). While Petmesidou argues that the current system generates significant inequalities in access to health care (Petmesidou, 2009). Andreou et al (2010) argue that the system is equitable, since it favours poorer individuals in greater need of free health care. The Ministry of Health has been criticised for its fragmented and inappropriate approach to management of the health care system. Private health care facilities have proliferated without coordination with the public health care, leading to duplication and poor quality services (Petmesidou, 2009).

Designed to deliver comprehensive and equitable access to health care, the significant delays in implementing the NHS generate doubts regarding its feasibility and long term sustainability. From 2010 to 2011, very little progress was made on the organisation and legal changes needed for the introduction of the NHS (Petmesidou, 2011). Access to relatively cheap private health care for the population is cited as a factor reducing the pressure on the government to act, while growth in the private sector and associated private health insurance schemes splinter public interest (Petmesidou, 2009). At the same time, health care needs in the Republic of Cyprus are expected to increase with demographic ageing over the coming decades (Petmesidou, 2011).

Given the long time period that has passed since the 2001 legislation introducing the NHS, there is need for an amendment of the legal framework to allow implementation to proceed fully. An amendment bill has been under debate in the Parliamentary Health Committee since May 2008. Significant concerns have been expressed regarding the NHS by social partners and by representatives of relevant associations. The Sociological Association of Cyprus identified a number of key weaknesses, stating that the gatekeeping system foreseen under the NHS is not appropriate for Cyprus where there is a relatively low number of GPs. They anticipate poor cost-containment and dissatisfaction, with people turning to the private section. Instead, the Sociological Association of Cyprus recommends the adoption of a two-tiered scheme, including a basic compulsory scheme and an optional scheme providing additional services. While the basic scheme could be financed by income-based contributions, a flat fee could be charged for the optional scheme (Petmesidou, 2009).

The Pancyprian Medical Association also identified specific areas of concern, namely that co-payments of approximately 70% of total payment should be introduced for patients who make direct contact with a specialist. The Pancyprian Medical Association insists on free access to specialists. In addition, it disagrees with the requirements that General Practitioners participating in the NHS must have a minimum of 300 registered patients and demands for this to be abolished (Petmesidou, 2009).

The need to accelerate efforts for implementing the NHS is compounded by the requirement to transpose the EU Directive 2011/24/EU on the application of patients' rights in cross-border health care² within the 30 months deadline set for Member States. For this directive to be made operational in Cyprus, a systematic cost-assessment of health services is required, for which the NHS is critical. Furthermore, if Cyprus does not establish a national health care scheme, only those groups of the population who are beneficiaries under the existing system will be entitled to free treatment abroad (Petmesidou, 2011).

Future progress on the NHS depends on when a new bill will be approved. In particular, decisions regarding funding need to be finalised before substantial progress can be made, with the HIO proposal to transfer costs to employers meeting considerable opposition. According to the Ministry of Health³, the Parliament has finished discussing the 2008 amending Act and is now reformulating some of the provisions. Adoption of the bill is foreseen for the end of May or early June 2012.

² Directive 2011/24/EU of the European Parliament and of the Council of 9 March 2011 on the application of patients' rights in cross-border health care, OJ L88, 45-65

³ Personal communication

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