

SECOND EDITION

Diabetes

The Policy Puzzle: Is Europe Making Progress?

F E N D
Federation of European Nurses in Diabetes



International Diabetes Federation
Europe

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FOREWORD



Nearly 20 years ago, European governments meeting under the aegis of the World Health Organisation unanimously agreed a series of recommendations to tackle the diabetes epidemic – the St Vincent Declaration. Over the last two years, evidence has continued to attest to the disease taking on epidemic proportions and extending into particularly vulnerable populations of children and immigrants. Against this background, both the European Parliament and the Council of Ministers have called for a coherent pan-European strategy to take up urgently the disease as an EU public health priority.

IDF Europe and FEND have now published this audit – an update of the 2005 edition – to document further the epidemic and the disparate national policies and practices that in Europe are contributing to the disease's continued growth. I would like to applaud IDF Europe and FEND on this initiative. As an MEP and former Health Minister, I have always advocated that the basis for action lies in an objective and factual assessment of a situation. This audit provides just that.

The EU and individual Member States (and even many developing countries) already have the scientific knowledge and medical understanding of the causes of diabetes. We are also learning to share information on what constitutes best practice in both the prevention and treatment of this disease. Unfortunately, this audit reveals the continuing gap between our knowledge and the healthcare that our citizens receive in most EU countries.

As an individual dealing daily with the burden and risks of diabetes, I believe that concerted political action now, can improve our lives, and make best practice a reality across the EU. I therefore urge the European Commission to take rapid action to shape a coherent EU-wide strategy on diabetes awareness, prevention, treatment and care. Our citizens deserve this, and as the European Parliament and Council of Ministers have already shown, they will support such an initiative.

A handwritten signature in blue ink that reads "John Bowis". Below the signature is a long, horizontal blue line.

John Bowis
Member of the European Parliament

PREFACE

In presenting this audit, the International Diabetes Federation-European Region (IDF Europe) and the Federation of European Nurses in Diabetes (FEND) have again joined forces based on a shared conviction that providing sustained and comparative documentary evidence on the epidemic levels of diabetes across Europe will help to maintain momentum towards finding a solution – at least in the European Union (EU).

This update of our 2005 report on national policies and practices regarding the prevention, screening and management of diabetes¹ is published amidst an explosion in diabetes incidence, not only in the EU, but throughout the industrialised world. At present, diabetes affects around 246 million people worldwide, and the International Diabetes Federation estimates that by 2025 this figure will increase to over 380 million.

In the European Union, prevalence estimates now stand at 8.6% of the population aged between 20 and 79 years - up from 7.6% in 2003. This means that over 31 million people are now living with diabetes in the EU – equal to the combined populations of Spain, Portugal and Lithuania! Despite this background, our audit reveals striking differences in the relative priority that the countries surveyed place on the prevention, treatment and management of this often preventable chronic disease.

We believe that this audit represents a vital contribution to our common fight against diabetes by compiling data and national practices in a way that helps to promote best practice and facilitates the task of national and European policy makers to make diabetes an effective national, European and global priority. The excellent state of knowledge and consensus about risk factors, prevention and treatment of diabetes argue for an intense campaign and coherent EU strategy to combat diabetes. While national practices do vary and comparable data may be imperfect, the report tells a compelling story about the need for coordinated action.

Next year marks the 20th anniversary of the St Vincent Declarationⁱⁱ, which sets out diabetes recommendations for Europe, which, we regret, remain unfulfilled today. FEND and IDF Europe remain convinced that part of the solution lies in the adoption an EU Council Recommendation urging Member States to follow widely recognised best practice in the prevention, care and management of diabetes and setting out how they can do this. Indeed, in view of the urgency required, we believe that rapid adoption of such an EU Recommendation represents the best way to finally see implementation of the 1989 Declaration.

Only by acting together can we begin to have an impact on the diabetes pandemic.



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EXECUTIVE SUMMARY

THE SPIRALLING EPIDEMIC

- The increasing prevalence of diabetes mellitus, a chronic metabolic disease resulting in serious complications, ranging from cardiovascular disease to kidney failure, therapeutic amputation and blindness, shows no signs of slowing down. Now a global epidemic, the situation in Europe has continued to deteriorate over the last three years, further exacerbated by the growing obesity problem across the region.
- In the European Union (EU), there are now over 31 million people living with diabetes aged between 20-79. This signifies an average EU prevalence rate of 8.6% of the adult population – up from 7.6% in 2003 – a figure which is expected to grow to over 10% by 2025.
- Diabetes prevalence rates in the EU vary widely from 4% in the UK to 11.8% in Germany. There are at least 13 countries with rates of over 9% of the adult population, the majority of which are new EU Member States.
- Although the problem is largely due to the growing prevalence of Type 2 diabetes, the increasing number of patients with Type 1 diabetes is also a contributing factor.
- There exists only a few diabetes registers throughout Europe and there is a lack of clear criteria for definition as well as for data collection, presumably resulting in an underestimation of the size of the diabetes problem – at both the national and European level.

A GROWING COST BURDEN

- Even on the basis of the scarce cost data available, some clear conclusions on the growing costs of diabetes in Europe can still be drawn.
- The cost burden of diabetes in the EU is significant and growing – in most EU Member States diabetes is responsible for over 10% of healthcare expenditure and, in some cases, this figure is as high as 18.5%.
- Since the CODE-2 Study in 1999, carried out in 5 EU Member States, there have been no pan-European studies carried out on the costs of diabetes. This prevents any meaningful comparisons on the cost burden being made across the EU.

- Current estimates of the costs of diabetes are, however, considered to be underestimates – especially due to the lack of consideration for both direct and indirect costs associated with the disease and its extremely expensive complications such as stroke, myocardial infarction, amputation, blindness and renal replacement therapy.
- The absence of reliable data remains a barrier to assessing the true cost burden of diabetes on individuals, healthcare systems and economies in Europe. It also prevents governments from assessing the impact and effectiveness of national diabetes policies and programmes.

SLOW POLICY PROGRESS

- Despite the growing diabetes prevalence rates and increasing cost burden of the disease, as well as the repeated calls for action from the European and international health community, the progress made by European governments in introducing national diabetes plans remains frustratingly slow.
- Only 13 (less than half) of the EU's 27 Member States have introduced a national diabetes plan or policy framework for diabetes. Austria, Cyprus, Czech Republic, Denmark, Finland, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Spain and United Kingdom are reported to have such a national plan in place.
- Of the remaining 14 EU Member States, several of these countries have among the highest prevalence rates in Europe with growth rates which are predicted to rise significantly by 2025 – namely Bulgaria, Estonia, Germany, Hungary, Latvia and Slovenia.
- Seven EU Member States have indicated their intention to introduce national diabetes plans in the near future – namely Bulgaria, Germany, Ireland, Italy, Lithuania (the renewal of an existing 1-year plan), Malta and Slovenia.
- Existing national plans show marked differences in many aspects e.g. only a few countries have introduced specific policies targeted at risk groups including children, women and immigrants.
- Among those Member States with national diabetes plans, there are varying levels of implementation as well as monitoring and evaluation. There is also little evidence in these countries of the definition of measurable targets to assess the impact and cost-effectiveness of their plans.

PATIENT ACCESS

- In general, there is good access to basic diabetes treatment in countries across Europe, however, access to more advanced treatments and technologies e.g. insulin-pump treatment, professional foot care, fast/slow (long) acting insulin analogues, is more restrictive in a number of EU Member States.
- Government budget reforms are beginning to affect the availability of prescribed treatments offered free of charge to diabetes patients. There is also a growing debate in some countries around the use of health technology assessments and their potential negative impact on patient access to treatment.
- In some countries, differences between a government's official reimbursement policy and the reported level of access for individual diabetes patients, amongst others, suggest an overall lack of available information on diabetes treatments.

DIABETES MELLITUS

Diabetes Mellitus is a chronic disease, which occurs when the pancreas does not produce enough insulin (the hormone that regulates blood glucose), or alternatively, when the body cannot effectively use the insulin it produces. Uncontrolled diabetes results in hyperglycaemia (raised blood glucose), which over time causes serious damage, especially to the nerves and blood vesselsⁱⁱⁱ. Combined with dislipidemia, hypertension, and smoking, this often leads to serious complications such as cardiovascular disease, retinopathy (blindness) and nephropathy (kidney disease).

Diabetes currently affects approximately 8.6% of the adult population of the European Union, which means around 31 million people across the current 27 EU Member States. Individual country prevalence rates range from 4% in the United Kingdom to 11.8% in Germany.

In several EU countries, diabetes and its complications are the cause of death which has shown the greatest increase over the past 20 years. Diabetes is ranked among the leading causes of cardiovascular disease, blindness, renal failure and lower limb amputation. About 75-80% of people with diabetes die of cardiovascular events - the number one cause of death in Europe. People with Type 2 diabetes have a 2-4 times higher risk of coronary heart disease than the rest of the population.

Of great concern is that children and adolescents are also now developing Type 2 diabetes due to increasing levels of childhood and adolescent obesity. Estimates suggest that 1 in 5 children in Europe are overweight and that each year 400,000 children become overweight.

While diabetes is reported to be the fourth main cause of death, these statistics underestimate the total number of people with diabetes in Europe. Diabetes-related deaths are based on death certification, which only records deaths directly attributable to diabetes rather than to its long term complications and other associated co-morbidities such as cardiovascular disease.

The public health challenge posed by diabetes is considerable. Only by substantially increasing public awareness of diabetes and its complications, and through primary prevention measures, early detection and evidence-based management of the disease, will the growing epidemic and its financial costs be minimised.

TYPE 1 DIABETES

Characterized by a complete deficiency of insulin production. Without regular and reliable access to insulin, people with Type 1 diabetes will die.

Symptoms include excessive excretion of urine, thirst, constant hunger, weight loss, vision changes and fatigue. Onset of symptoms is rapid.

TYPE 2 DIABETES

Results from the body's relative lack, or ineffective use of insulin (insulin resistance). Type 2 diabetes represents 90% of all cases of diabetes around the world, and is largely the result of being overweight, excess abdominal obesity and physical inactivity.

Symptoms may be similar to those of Type 1 diabetes, but are often less marked. As a result, the disease may be diagnosed several years after onset, once complications have already arisen.

Until recently, this type of diabetes was seen only in adults, but it is now also occurring in obese children/adolescents. Type 2 diabetes is a largely preventable disease, the complications of which can also be delayed through evidence-based interventions.

INTRODUCTION

The International Diabetes Federation – European Region (IDF Europe) and the Federation of European Nurses in Diabetes (FEND) publish this report at a time when, despite considerable political awareness of the health risks of diabetes and the knowledge that the disease is largely preventable, Europe is faced with epidemic growth of the disease. This comprehensive audit of diabetes policies across the European Union serves as an update of the first edition, published in 2005, which was the first EU benchmarking exercise to be undertaken in the area of diabetes policy.

AIMS AND OBJECTIVES

By providing a snapshot of the current situation in the European Union, the report aims to furnish strong evidence to EU and national decision makers of the urgent need to address diabetes through targeted policy action. It does this by highlighting the growth in diabetes prevalence, the cost burden to governments and, crucially, the status of national diabetes policies, which provide the framework for the prevention, early diagnosis and control of the disease. This latest report also aims to measure progress in the development of national diabetes policies across the EU since the first report carried out in 2005.

The existence of a national diabetes framework or plan is understood to be an indication that diabetes has been made a government priority, and that measures (with appropriate allocated funding) will be put in place to address the growing disease burden and its costly complications.

The importance of national plans was widely recognised 19 years ago in 1989, when most of the countries surveyed in this audit signed the St Vincent Declaration^{iv}, supported by WHO Europe, and thereby committed themselves to multiple initiatives to combat diabetes. Unfortunately, many of the countries have failed to fulfil one of the key requirements stipulated by the Declaration, namely the introduction of national plans to combat diabetes.

Subsequent declarations from the EU Council of Ministers^v, Members of the European Parliament^{vi} and, most recently, UN Resolution 61/225^{vii} signify the global consensus on the importance of national diabetes plans and raise the question of why there has been so little progress to date.

While the report carries a warning of the epidemic burden of diabetes for individuals, their families and governments, it also carries a message of hope in that some countries are succeeding in at least curbing the growth of the disease. Where possible, the report tries

to highlight best practice across Europe, together with the priorities and recommendations of stakeholders, with the aim of raising standards of care for people living with diabetes.

METHODOLOGY

This audit report was researched, drafted, reviewed and finalised during the period September 2007 to February 2008, based on a combination of desk research, direct contact with national diabetes stakeholders and expert review.

Desk Research

In the first phase, information was gathered from each country on diabetes prevalence, the cost of diabetes, and on relevant policies, guidelines and practices through a range of sources including government and patient association websites, published scientific literature and media reports.

Stakeholder Interviews

In the second phase, between October 2007 and January 2008, interviews were carried out in each country with three to four national stakeholders representing health ministries, patient organisations and the medical community. Based on a pre-defined questionnaire, additional information was gathered on the burden and cost of the disease, the development and implementation of country policies and the outlook for future diabetes initiatives.

Stakeholder representatives were identified with the support of IDF Europe and FEND's national members based on the individual's knowledge of and/or involvement in national diabetes policies and initiatives. A list of organisations participating in the interviews is provided in the annex.

The information provided during interviews has not been attributed to individual stakeholders. However in some cases, interviewees agreed to provide on-the-record comments, which have been included in the

report. Where possible, interviews were carried out in the interviewee's mother tongue (in two thirds of interviews).

Expert Review

Finally, in February 2008, the draft report was submitted to an Editorial Review Board of European experts in the field of diabetes for review. A list of the members of the Board is provided in the annex.

It should be noted that this audit is not a scientific report; rather it provides a description to the best of our knowledge of the current diabetes policy environment on the basis of the best available factual information and stakeholder opinions.

Significant efforts were made to consult a range of diabetes stakeholder groups in the preparation of each country report. Information was provided by the majority of groups, however, where no responses were received within a given time period, including from health ministries, reports were written on the basis of the best information available.

Recognising that there may have been new developments in some countries since this audit was carried out, or that there may be need for further explanation and clarification of some country chapters, IDF Europe and FEND welcome feedback on the latest report. Please send any comments to the following email address: info@idf-europe.org.

STRUCTURE AND SCOPE

The report which follows comprises 30 individual country reports, an analysis of key findings and, in conclusion, a series of national and EU policy recommendations.

This second edition of the audit has been extended to include Bulgaria and Romania, the two new Member States to join the EU since 2005, and three other countries – Croatia and Turkey, both of which have applied for membership of the EU, and Kazakhstan, a neighbouring country and emerging economy that may look to the EU for guidance and best practice in policy making.

Each country report is set out according to the following sections:

- *Country Overview* – key diabetes statistics and highlights of the national policy framework

- *Diabetes Prevalence* – overview of the latest diabetes prevalence rates from international and national data sources
- *Cost of Diabetes* – estimates, where available, of the cost burden of diabetes
- *Government Health Priorities* – overview of current health priorities, including diabetes
- *National Diabetes Plan/Framework* – detailed summary of existing policies targeted at diabetes prevention, screening, and management
- *Policy Focus on Children, Women and Immigrants* – focus on national diabetes policies and initiatives targeted at high risk groups
- *Patient Access* – overview of the reimbursement status and access to essential diabetes treatments and technologies
- *Outlook* – expected diabetes developments and recommendations for the future from key stakeholders

DATA SOURCES

For comparisons, this audit relies on the diabetes prevalence rates reported in second and third editions of the International Diabetes Federation “Diabetes Atlas” published in 2003 and 2006 respectively. This is currently the only comparative data source available for Europe regarding diabetes. As a result, the figures quoted in this report may not fully correspond with prevalence estimates from the national health authorities or from professional and patient associations.

Concerning the cost burden of diabetes, there are also very few comparative data sources available. In many cases, there is even an absence of national cost estimates. Where available, national studies are referenced, however it remains difficult to make significant and/or relevant comparisons across the EU based on this information.

FUNDING

This report and the research contained therein was carried out by Burson-Marsteller Brussels, an EU public affairs and public policy consultancy, on behalf of IDF Europe and FEND. The work was supported by unrestricted educational grants from Bayer, Eli Lilly, Novartis, Pfizer and Roche. The project has been carried out with full transparency and independently from its funding sources.

COUNTRY REPORTS

AUSTRIA

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.6%	11.1%
Estimated number of people with diabetes	576,000	682,300
Estimated cost of diabetes	€1 million (Ministry of Health estimate)	

POLICY FRAMEWORK

National plan

- Yes – Austrian Diabetes Plan (2005)

Guidelines

- Yes – Austrian Diabetes Association's Guidelines for Diabetes (2007)

Developments (since 2005)

- Implementation of the 2005 national diabetes plan

Planned actions

- Further implementation of disease management programmes
- Guidelines in the planning stage

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Austria is 11.1% of the adult population, representing 682,300 people. The Atlas forecasts an increase in prevalence to 13.2% by 2025.

The Austrian Federal Ministry of Health, Family and Youth (*Bundesministerium für Gesundheit, Familie und Jugend*), however, estimates the rate at 5% of the population, representing some 350,000 people.

According to the Austrian Health Survey 2006-2007 (*Österreichische Gesundheitsbefragung 2006/2007*)¹, 6% of respondents were reported to have diabetes (a combined average of 5% of men and 6% of women), 94% of which were diagnosed in the last 12 months. The survey also revealed that 16% of people over the age of 60 have diabetes.

COST OF DIABETES

There are few cost estimates available regarding the burden of diabetes in Austria.

While the Ministry of Health estimates that the annual cost of diabetes at the federal level is €1 million,

a 2006 report by the Upper Austrian Regional Health Fund (*Oberösterreichische Gebietskrankenkasse*) estimates the cost of diabetes at approximately €11 million per year.²

GOVERNMENT HEALTH PRIORITIES

Diabetes is identified as a government priority along with disease prevention, and has been since 2005 with the publication of its national diabetes plan. Austria's Presidency of the European Union (January–June 2005) also identified diabetes prevention as its health policy priority.

NATIONAL DIABETES PLAN/Framework

During the first half of 2005, the Federal Ministry of Health, Family and Youth drew up the Austrian Diabetes Plan (*Österreichischer Diabetesplan*)³ with contributions from different healthcare experts.

The Plan is the responsibility of the Federal Ministry and the Association of Social Insurance Companies (*Hauptverband der Sozialversicherungsträger*), with significant involvement from the Austrian Diabetes Association (*Österreichische Diabetes Gesellschaft, ÖDG*).

The main priorities of the national diabetes plan are:

- Primary prevention
- Care and services for people with diabetes
- Education of people with diabetes for improved self-care
- Guidelines, protocols for standards of care
- Information systems
- Supply of medication
- Supply of equipment
- Research
- Diabetes and complications
- Prevention of Type 2 diabetes
- Development of community awareness

One component of the plan included the introduction in 2006 of the Disease Management Programme (DMP) for Type 2 diabetes. Based on the US and German DMPs for diabetes, the Programme provides patients with access to and reimbursement for diabetes treatment. Diabetes education programmes are also offered in all of the regional states.

In the plan, a target is set to reduce the number of newly diagnosed cases of diabetes by 30% by 2020 through focusing on lifestyle factors. Information campaigns developed to raise awareness, as well as the introduction of an invitation system to encourage people to receive a medical check-up, are also included.

The plan also sets out three principle goals for future research:

- Primary goals involving diagnosis to identify diabetes, with a focus on Type 2, especially with regard to gender and social background
- Secondary goals focusing on information by way of an ongoing review (1-5 years) with regard to estimates of incidence rates and changes in the gender structure of the disease as well as regional and social divisions
- Tertiary goals focusing on the impact of a diabetes register and registers of complications

While the national plan has been adopted, it is not yet fully implemented, due in part to regional competences for health which allow each region to implement the DMP in its own way. The other main difficulty identified is the availability of financial resources, with deep concern that there is not enough funding for the healthcare system to address diabetes.

In 2004 and 2007, the Austrian Diabetes Association published diabetes guidelines (*Diabetes mellitus-Leitlinien für die Praxis*)⁴, and the Ministry of Health indicates that official government guidelines are also in the planning stages.

POLICY FOCUS

The Austrian Diabetes Plan (2005) has a special focus on obesity in children and gender issues. The focus is on promoting healthy lifestyles, specifically with the objective of reducing obesity rates in children. For women, the focus lies on gestational diabetes.

PATIENT ACCESS

Reimbursement in Austria is considered complex as it is dependent on the federal state, regional governments and the social insurance system. Reimbursement frequently depends on the needs of the patient and participation in diabetes educational programmes.

The Ministry of Health has, however, highlighted its 'open-door' policy for GPs, where patients can ask to be checked for diabetes. A large percentage of these screenings result in the first diagnosis of diabetes.

Full reimbursement is available for:

- Injectable insulin and pens
- Insulin pumps and accessories
- Retinopathy screening
- Blood glucose monitoring strips/meters
- Lancets

Restricted reimbursement is available for:

- Lipid testing (only in hospital)
- Micro/macro albuminuria (only in hospital)
- Structured education (one-to-one/group) - in certain regions (Styria, Salzburg, Carinthia and Vienna)

No reimbursement is available for:

- Self-monitoring blood pressure meters
- Psychologists

OUTLOOK

Further implementation of the Austrian Diabetes Plan is ongoing, including the roll-out of the Disease Management Programmes by the regional authorities.

The Austrian Diabetes Association suggests that numerous improvements to the plan, namely additional information and education for school children and adolescents about the consequences of being overweight and the need for a healthy lifestyle, are needed. The Association also stresses the need for additional data collection on diabetes and calculations of the costs of complications.

For its part, the Health Ministry recognises the need for additional action to promote healthy eating to avoid obesity and metabolic syndrome, which are leading risk factors of Type 2 diabetes.

BELGIUM

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	4.2%	7.9%
Estimated number of people with diabetes	315,100	600,000
Estimated cost of diabetes	10-15% of total healthcare expenditure (2005)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – ‘Recommendations for Good Medical Practice in Diabetes Mellitus’ (2005)

Developments (since 2005)

- Update of 2005 Guidelines by Flemish Diabetes Association and the Scientific Association of Flemish GPs (2007)

Planned actions

- Revision and extension of 1998 objectives on Nutrition and physical activity
- Guidelines to be updated by the Francophone Belgian Diabetes Association

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Belgium is 7.9% of the adult population, representing 598,800 people. The Atlas forecasts a rise in prevalence to 9.7% by 2025.

In Belgium, there are more than 2,070 cases of Type 1 diabetes and 23,500 cases of Type 2 diabetes diagnosed each year. Belgium is experiencing a rise in diabetes among children; over the last 15 years, the Belgian Diabetes Registry (*Belgisch Diabetes Register/Registre Belge du Diabète*) has recorded an 8.2% increase of diabetes in boys under the age of ten.⁵

The latest figures from the study ‘Diabetes - Current situation in Belgium and elements for a health policy’ (*Diabetes - Huidige toestand in België en elementen voor een gezondheidsbeleid*)⁶ reveal that 15 in 100,000 inhabitants die from diabetes each year in Belgium. Nearly 46% of the Belgian population over the age of 15 is overweight, with 11.5% considered obese. It is estimated that if obesity were to diminish by 10%, there would be a 20% decrease in the mortality rate from diabetes and a 30% decrease in the prevalence rate of diabetes.⁷

COST OF DIABETES

The CODE-2 study⁸, carried out in 2005, revealed that the total cost of diabetes care in Belgium amounted to 10-15% of total healthcare expenditure.

The general healthcare cost per person with diabetes without complications in Belgium is estimated at €1,500 per year. The cost of Type 2 diabetes patients with complications, however, may be up to €5,000 per person per year.

GOVERNMENT HEALTH PRIORITIES

While diabetes is an important issue for the Belgian government, there is broad consensus among stakeholders that it should be given a greater priority.

Diabetes is currently addressed in the government’s National Food and Health Plan 2005-2010 (*Nationaal Voedings- en Gezondheidsplan 2005-2010/Plan National Nutrition Santé 2005-2010*)⁹ which is targeted at fighting physiological disorders linked to inappropriate food and lack of physical activity, i.e. obesity, cardiovascular diseases, hypertension, Type 2 diabetes and certain types of cancers. The health programme is currently being implemented.¹⁰

In addition, the Flemish and French communities each have their own health programmes:

Flemish communities - Nutrition and Movement Pattern (Vlaanderen “Voedings –en Bewegingspatroon”)¹¹

Stimulating good nutritional habits and physical activity is central to the prevention policy of the Flemish community in the fight against obesity. Flanders formulated health objectives on healthy eating in 1998, and has conducted a number of prevention campaigns on nutritional habits and physical activity. An updated programme is planned for 2008 to deal with both subjects.

French communities - Eating and Exercise (Le Gouvernement de la Communauté Française “MangerBouger”)¹²

The French community also promotes healthy lifestyles as set out in its "Strategic project plan for the promotion of healthy eating in the French Community", November 2004. The plan's most important recommendation with regard to diabetes is the focus on promoting healthy eating and attitudes in schools. To supplement this plan, on 20 July 2007, the French Community proposed a policy to promote healthy eating and physical activity for children and teenagers. This is currently going through the approval process.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Belgium.

The main obstacle to developing such a plan appears to lie in the multiple layers of government resulting from the country's federal structure where all competences are divided between federal, regional and linguistic or so-called community levels.

While treatment is a national competence, prevention is regional, and diabetes requires both. This division of responsibilities has led to the current fragmented situation where there is no national diabetes programme providing a coherent structure for the entire country. Already in 2005, GPs and patients were calling for one spokesperson and one official group of experts to represent them and advise the health authorities representing patients, universities, doctors. No steps appear to have been taken to improve this situation.¹³

In October 2005, the two diabetes associations, in collaboration with other health institutes, published voluntary diabetes guidelines targeted at GPs. These guidelines, ‘Recommendations for good medical practice for Diabetes Mellitus’

(Aanbeveling voor goede medische praktijkvoering/Diabetes Mellitus/Recommendations de bonne pratique Diabète: messages-clés)¹⁴

set out recommendations for good medical practice for the care of Type 2 diabetes and include all aspects of the diabetes care from early detection through to treatment.

With the help of the Scientific Association of Flemish GPs, the Flemish Diabetes Association (*Vlaamse Diabetes Vereniging*, VDV) updated the guidelines in 2007.¹⁵ The French-speaking Belgian Diabetes Association (*Association Belge du Diabète*, ABD) has announced similar plans for 2008.¹⁶ The recommendations are designed to help practitioners take the best diagnostic or therapeutic decisions, and summarise the best policy for the GP and patient.

“We need a better structure for the prevention and treatment of diabetes. The structure must no longer be shattered between the several divisions of responsibilities. Diabetes must be recognized officially in Belgium.”

*Viviane Delaveleye
Belgian Diabetes Association*

POLICY FOCUS

In Belgium, GPs pay close attention to gestational diabetes. Prevention projects for this particular type of diabetes exist and include testing and follow-up for women who develop gestational diabetes.

Despite the Flemish Diabetes Association's acknowledgement that immigrants are at higher risk of developing the disease¹⁷, there is no special focus on them in either of the diabetes prevention programmes in Belgium.

PATIENT ACCESS

All medicines for people with diabetes are fully reimbursed in Belgium as they are listed in the Reimbursement Category A¹⁸ which refers to medicines for the treatment of chronic diseases (including diabetes) or other serious diseases (such as cancer).¹⁹

The National Institute for Sickness and Invalidity Insurance (*L'Institut National d'Assurance Maladie-*

Invalidité, INAMI) is responsible for the specific restrictions and criteria governing medical prescriptions including those for diabetes patients. Health insurance reimburses treatment supplied by licensed dieticians and podiatrists subject to certain conditions. For insulin-dependent patients requiring a minimum of two injections per day, all self-monitoring material (test strips, glucose meters), education, external administration and quality control are fully reimbursed.

Individuals with diabetes who are covered by health insurance carry a diabetes passport which gives the holder the right to two visits each year to a dietician and two visits to the chiropodist (for patients presenting a risk of diabetic foot) at the expense of the health insurance system. Fully implemented since 1 February 2006, the passport also provides for full reimbursement of visits to the general practitioner.

The Flemish Diabetes Association still expresses its concern at the premiums paid by people with diabetes when applying for life and/or hospitalisation insurance. Indeed, they still have trouble finding an insurance company and are sometimes required to pay three times the price for hospitalisation or life insurance.²⁰

OUTLOOK

The 2005 diabetes guidelines and the campaigns to promote healthy eating are raising awareness about diabetes, particularly among politicians. Belgium's diabetes associations hope this awareness will make diabetes a priority at federal level and lead to the creation of a single national diabetes programme with one spokesperson and one official diabetes expert group to advise the government and health authorities.

BULGARIA

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	10.0%	10.1%
Estimated number of people with diabetes	591,200	595,700
Estimated cost of diabetes	€34.8 million (Lev 68,068,788, 2006)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Bulgarian Association for Endocrinology's guidelines 'Endocrinology and metabolic disease' (2005)

Developments (since 2005)

- Introduction of medical guidelines (2005)

Planned actions

- Adoption of a 'National programme for prevention, early diagnosis and treatment of diabetes and its complications'

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Bulgaria is 10.1% of the adult population, representing 595,700 people. The Atlas forecasts a rise in the prevalence rate to 11.5% by 2025.

Figures from the Bulgarian Ministry of Health (*Министерство на здравеопазването*) show that, in 2006, the national health insurance system provided treatment to 237,231 people, or 2.5% of the population.²¹

A 2006 study by the Bulgarian Association of Endocrinology (*Българско дружество по ендокринология*) revealed that, in 2000, the prevalence rate for diabetes was approximately 8.3%, but that another 2.3% of the population had pre-diabetes. The same study revealed that approximately 40% of the people with diabetes in Bulgaria are unaware of their condition, and that approximately 70% of those diagnosed are poorly treated or not treated at all.²²

COST OF DIABETES

The Bulgarian Ministry of Health quotes the 2006 cost of treating registered diabetes patients under the National Health Insurance Fund (*Национална здравноосигурителна каса*, NHIF) as €34,000,000. However, medical professionals explain that an estimated overall cost of diabetes, taking into account the disease and death burden, is not available.

GOVERNMENT HEALTH PRIORITIES

Current government health priorities in Bulgaria focus on the fight against cancer and infectious diseases, and due to the limited financial resources allocated to health, diabetes is not a priority in this framework.²³

A draft 'National Health Strategy 2007-2013' (*Национална здравна стратегия 2007-2013*)²⁴ also identifies as its general priorities: the promotion of disease prevention; raising awareness about the importance of healthy lifestyles; and limiting environmental and behavioural risk factors.

The government is also focusing on the ongoing healthcare reform aimed at tackling major challenges such as the need to increase the healthcare budget, improve standards of medical education, combat brain drain in the healthcare sector, combat corruption

in hospitals and deal with the state health insurance monopoly.

In January 2008, Bulgaria's Minister of Health announced that funding for the country's healthcare system will increase by almost 19% to Lev 2.3 billion (\$1.9 billion) in 2008.

“Type 2 diabetes, both known and so far undetected, is very common in the adult population in Bulgaria and requires urgent activities to improve healthcare through the prevention, early detection and treatment of these cardio-metabolic diseases in the country.”

*Dr. Theodora Temekova-Kurktschiev
Association for Early Prevention and Treatment of Socially Relevant Diseases, Bulgaria*

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Bulgaria.

The Ministry of Health has stated that prevention is Bulgaria's current priority with regard to diabetes. With respect to this, it is currently developing a 'National Strategy for Prevention of chronic non-communicable diseases' (*Проект на Национална програма за профилактика на хроничните незаразни заболявания*) which will cover diabetes, among other non-infectious chronic diseases. This strategy is also expected to include a 'National programme for prevention, early diagnosis and treatment of diabetes and its complications' (*Проект на „Национална програма за профилактика, ранна диагностика и лечение на диабета и неговите усложнения*). This programme has been developed over the last two years and is expected to be adopted by the government in 2008.²⁵

Overall, the Ministry of Health has reported that there is a need to improve care for diabetes patients through coordinated actions at national level, by improving outpatient care and secondary prevention, setting up effective screening programmes for diabetes and creating an electronic registry of patients, as well as improving the training of general practitioners with regard to diabetes and increasing public awareness.²⁶

In 2005, the Ministry of Health endorsed the Bulgarian Association for Endocrinology's guidelines,

which are addressed to health professionals and remain the principle guiding instrument for diabetes treatment in Bulgaria.²⁷ The guidelines stipulate that general practitioners should carry out annual examinations of all people over the age of 18 years covered by the national health insurance. These examinations should include the analysis of blood glucose levels and other possible diabetes indicators (e.g. protein, glucose, ketone bodies, urobilinogen/ bilirubin and pH levels in urine).²⁸

Pilot programmes for diabetes prevention, screening and treatment are currently in place in a limited number of academic institutions (such as university hospitals and research institutes); however, they are functioning outside governmental policy provisions.

POLICY FOCUS

Bulgaria does not target women, children or immigrants for special prevention and treatment initiatives.

The country has defined a high-risk group for developing diabetes.²⁹ Individuals meeting the definition and covered by the national health system benefit from specific preventive measures and annual check-ups with specialists in endocrinology and metabolic diseases.

PATIENT ACCESS

General practitioners are responsible for the outpatient supervision and care of all registered patients with diabetes, according to the National Framework Agreement 2006 (*Национален рамков договор 2006*) which is a type of standard contract for all insured Bulgarians. In addition, insulin-dependent and paediatric patients benefit from additional care by endocrinologists, through regular examinations at intervals depending on the status of their disease. People included in the risk group are also entitled to a preventive annual check-up with a specialist. The National Health Insurance Fund fully covers the expenses for the basic treatment of insulin-dependent patients, the oral drugs for non insulin-dependent patients and the drugs necessary for the treatment of diabetes complications. According to the Ministry of Health, treatment with insulin analogues is also available (criteria for this type of treatment have been developed to respond to the medical guidelines on diabetes of the Bulgarian Association of Endocrinology³⁰).

The National Health Insurance Fund reimburses the following treatments and technologies:

- Injected conventional and analogue insulin
- Glucometers
- Blood-glucose test strips/measuring instruments – only for insulin-dependent patients
- Tests for lipids – cholesterol, HDL-cholesterol and triglycerides
- Instruments for measuring blood pressure
- Retinopathy screening – once per year
- Outpatient treatment

The aforementioned treatments and services are only available to insured registered patients and, according to clinicians, budgetary constraints mean that they are not always fully reimbursed. The main complaint is that some higher priced oral treatments are not reimbursed at all.³¹

In addition, access to a number of treatments and technologies is restricted due to limited or no availability, or they are not reimbursed. Insulin pumps and inhaled insulin are not available, while structured education (one-to-one groups) for patients is limited to some university hospitals. There is no reimbursement of lancets, self-monitoring blood pressure meters, micro/macro albuminuria tests and psychological support to diabetes patients.

OUTLOOK

The Bulgarian Ministry of Health reports that a working group has been set up to draft a 'National programme for the control of cardiovascular, cerebrovascular diseases and diabetes 2007-2011' (*Проект на Национална програма за контрол на сърдечносъдовите, мозъчносъдовите болести и диабет 2007-2011*), although no legislation has been adopted to date. Along with the development of national strategies and action plans, this initiative could help meet medical professionals' aim, which is to see Bulgarian health policies starting to focus on prevention.

These initiatives should also be seen in the light of the ongoing reform of the healthcare system, where changes to the ownership of medical services and budgetary allocation will impact national health strategies, including access to and quality of prevention, diagnosis and care for people with diabetes.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	5.8%	9.5%
Estimated number of people with diabetes	199,100	328,700
Estimated cost of diabetes	€120-227.5 million	

POLICY FRAMEWORK

National plan

- Yes – National Programme of Diabetes Care with Particular Initiative in Prevention and Early Detection (2007)

Guidelines

- Yes – Croatia's professional guidelines for diabetes treatment (1994)

Developments (since 2005)

- Implementation of the national diabetes plan (2007)
- Healthcare reform, updated insurance system

Planned actions

- Health study of the general population
- Upcoming electronic register for GPs

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Croatia is 9.5% of the adult population, representing 328,700 people. The Atlas forecasts an increase in prevalence to 10.6% by 2025.

According to WHO data, diabetes is one of the top ten disease-related causes of death in Croatia with approximately 2% of the population dying from diabetes each year.³²

COST OF DIABETES

In Croatia the spending on healthcare is relatively high compared to other European countries. In 2005, Croatia spent 8.7% of its GDP on health related issues, although there is no available data to suggest how much of this was spent on diabetes.³³

GOVERNMENT HEALTH PRIORITIES

Diabetes is identified as a government health priority in Croatia along with cardiovascular disease and breast and colon cancer.

However, at present, the Ministry of Health's main priority is to further implement the ongoing healthcare

reform involving the introduction of a diagnosis-related group (DRG) system. As with some other European countries, Croatia has decided not to develop its own DRG system, but rather to import and modify the Australian Refined-DRG system (*Dijagnosticko terapijske skupine, DTS*).³⁴

Since February 2006, the system has been piloted in four Croatian hospitals. In April 2007, it was introduced into all Croatian hospitals by the national health insurance system (*Hrvatski zavod za zdravstveno osiguranje, HZZO*). However, according to the new DTS schedule, hospitals were not obliged to monitor cases until after the April 2007 introduction.³⁵

NATIONAL DIABETES PLAN/FRAMWORK

Croatia has a comprehensive framework for diabetes prevention and care involving both a framework plan and guidelines.

Introduced in 2007, the 'National Programme of Diabetes Care with Special Emphasis on Prevention and Early Detection' (*Nacionalni program zdravstvene zaštite osoba sa šećernom bolešću s posebnim ciljem prevencije bolesti*) falls under the responsibility of the Ministry of Health, the National Public Health Institute, Patient Associations and the Vuk Vrhovac University Clinic-Reference Centre.

The main priorities of the programme include:

- Early detection
- Care and services for people with known diabetes
- Education of people with diabetes for improved self-care
- Guidelines, protocols for standards of care
- Information systems
- Diabetes and complications
- Development of community awareness
- The evaluation of the diabetes programme itself

In September 2007, Croatia's professional guidelines for diabetes treatment (*Standardi racionalne dijagnostike, praćenja i liječenja*), initially implemented in 1994, were updated.

In addition to this policy framework, Croatia is currently building a diabetes database through its national registry, which is intended to improve prevention, treatment and care for people with diabetes. The register is managed by Vuk Vrhovac University Clinic-Reference Centre. Apart from keeping track of the number of patients with diabetes, the register is also used as a tool for analysis of the quality of care. It provides basic data for planned actions aimed at increasing the quality of care.³⁶

Recently, the government has decided to transfer the care of people with Type 2 diabetes from specialists to general practitioners (GPs). As a result, it is now planning to set up an electronic diabetes register for GPs, entitled 'CroDiab GP', to collect data. It is also thought that the data collected from GPs will be included in the national diabetes registry.³⁷

POLICY FOCUS

A reference centre for 'diabetes in pregnancy' is currently being set up and will be run by the Vuk Vrhovac University Clinic where expectant mothers will be treated. The Clinic will also be in charge of keeping a register of 'diabetes in pregnancy', as well as coordinating the work for regional centres.³⁸

Croatia has organized summer educational-recreational camps and weekend workshops for children to give them the opportunity to meet peers with diabetes while educating them to take over the responsibility for their treatment.³⁹

PATIENT ACCESS

Access to new and existing diabetes treatments is handled by the national insurance agency.⁴⁰ Currently, all diabetes treatment in Croatia is reimbursed with the exceptions of thiazolidinediones, acarbosis and benzoic acid derivatives which are only partially covered.⁴¹

The following treatments are fully reimbursed:

- Injectable insulin and pens, inhaled insulin, insulin pumps and accessories
- Blood glucose monitoring strips/meters (for patients with two or more insulin applications per day)
- Lancets (for patients with two or more insulin applications per day)
- Lipid testing
- Micro/macro albuminuria
- Retinopathy screening
- Structured education (carried out in small groups)
- Psychologists

Restricted reimbursement is available for the following treatments:

- Self-monitoring blood pressure meters
- Thiazolidinediones acid derivatives
- Acarbosis acid derivatives
- Benzoic acid derivatives

OUTLOOK

The Croatian Ministry of Health is planning to expand the national programme on the prevention of diabetes mellitus.⁴²

A health study of the general population is tentatively scheduled for 2008.⁴³

Stakeholders believe that the best way of improving prevention, screening and treatment of diabetes in Croatia is through continuous education of physicians. They also believe that the best way to stimulate the government's interest in diabetes prevention and treatment is through a comprehensive effort including joint actions with the government, reference centre (Vuk Vrhovac University Clinic) and patient associations in accordance with a potential EU Council Recommendation on diabetes.⁴⁴

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	5.1%	10.3%
Estimated number of people with diabetes	27,700	62,100
Estimated cost of diabetes	€3.5 million of national budget	

POLICY FRAMEWORK

National plan

- Yes - Cyprus National Diabetes Plan (2003)

Guidelines

- Yes - Translated IDF Global Guidelines (2008)

Developments (since 2005)

- Translation and distribution of IDF Global Guidelines to GPs and private doctors

Planned actions

- Review of diabetes plan underway
- Results of a study on the costs of diabetes
- Introduction of a New General Medical Scheme

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Cyprus is 10.3% of the adult population, representing 62,100 people. The Atlas forecasts an increase in prevalence to 11.3% by 2025.

Official data from the Ministry of Health of Cyprus (*Υπουργείο Υγείας της Κυπριακής Δημοκρατίας*) states that 6.8% of the adult population has been diagnosed with diabetes while there is an estimated 3.5% of the adult population who remain undiagnosed.⁴⁵

COST OF DIABETES

Currently, there are no official figures on the estimated cost of diabetes in Cyprus. Research on these costs is underway with results expected in 2008. The Cyprus Diabetes Association (*Παγκύπριος Διαβητικός Σύνδεσμος*) estimates the minimum cost per person with diabetes to be €3,900 per year, while the annual cost for the Government is thought to be around €3.5 million per year.⁴⁶

GOVERNMENT HEALTH PRIORITIES

The Ministry of Health identified diabetes prevention as its top priority for the period 2007-2008,

establishing a new Committee to raise public awareness about diabetes covering prevention, diagnosis and treatment.

The Committee is composed of representatives of the Ministry of Health, the Cyprus Diabetes Association, the Cyprus Medical Association, the Cyprus Associations of Dietetics and other stakeholders. Over the two-year period, the Committee will organise a series of events and activities in cooperation with local and national authorities to raise awareness among the country's general population.

The healthcare system in Cyprus is currently undergoing a fundamental reorganisation with the intention that a new General Medical Scheme will become operational in 2008. Currently, stakeholder comments about the new General Medical Scheme are being submitted to Parliament. The new system will be universal and will be financed by contributions from the state, employers, employees, the self-employed, pensioners and those with non-work related incomes.

NATIONAL DIABETES PLAN/Framework

The Cyprus National Diabetes Plan (*Εθνικό Πρόγραμμα για το Διαβήτη*)⁴⁷ was first developed by the National Coordinating Committee for Diabetes in 2003.

The plan’s main priorities include:

- primary prevention
- early detection
- prevention of diabetes complications

One of the plan’s key tools for achieving its objectives is the training of general practitioners. Under the existing policy framework, it is also intended that every state hospital operates a specialised Diabetes Clinic which is staffed by diabetologists and other trained medical staff.

The Ministry of Health is in the process of publishing the translated IDF Global Guidelines for the prevention, diagnosis, and treatment of Type 2 diabetes which should be distributed to all doctors (both general practitioners and specialists) over the course of 2008. The publication and distribution of these guidelines, together with the training of general practitioners, is a central component of the Cyprus National Diabetes Plan.

An evaluation of the National Diabetes Plan is currently being carried out by stakeholders, notably the Cyprus Diabetes Association, in cooperation with the Ministry of Health, which is coordinating the process.

POLICY FOCUS

In Cyprus, there are specialised clinics for children with diabetes where psychological and behavioural support is available for both children and their families. There is, however, a shortage of psychologists and social workers, according to the Cyprus Diabetes Association.

PATIENT ACCESS

Under the current medical scheme, patients with an annual income of less than €38,000 are eligible for free medical treatment and medication, while those with a higher income are eligible for free medication only.

At state hospitals, people with diabetes are entitled to free insulin (all types with pen injector), tablets for monitoring diabetes and any other drugs for complications caused by diabetes, as well as lancets and strips for blood glucose analyses. In addition, lipid testing, micro/macro albuminuria tests and retinopathy screening are all offered without charge by state

laboratories. Self-monitoring blood pressure meters are not available for free but are provided at low costs by the Cyprus Diabetes Association.

Since 2005, the Committee for the Inclusion of New Drugs (Επιτροπή Έγκρισης Φαρμάκων)⁴⁸ has included long-acting insulin in the state pharmaceutical list. In 2007, the Ministry of Health introduced a new system of co-payments for analogues (short-acting insulin) which is currently under evaluation.

“I hope that in the future all European diabetes patients will enjoy the same standards of care.”

*Mr Sotirios Yiangou
Chairman of the Cyprus Diabetes Association*

OUTLOOK

With the implementation of the new General Medical Scheme, the Ministry of Health of Cyprus expects that people with Type 2 diabetes will receive a higher quality of healthcare. The translation, publication and distribution of the IDF Guidelines is also expected to improve the quality of care offered.

The Cyprus Diabetes Association has proposed the creation of a Diabetes Registry for Complications,⁴⁹ as a step towards improving care in Cyprus.

COUNTRY OVERVIEW

KEY STATISTICS		
	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.5%	9.7%
Estimated number of people with diabetes	734,900	756.800
Estimated cost of diabetes	€178 million (11.26% of the total healthcare budget)	
POLICY FRAMEWORK		
National plan		
<ul style="list-style-type: none"> • Yes - Second National Diabetes Programme (2000) 		
Guidelines		
<ul style="list-style-type: none"> • Yes - Czech Diabetes Society's comprehensive diabetes guidelines 		
Developments (since 2005)		
<ul style="list-style-type: none"> • Ongoing reform of the healthcare system 		
Planned actions		
<ul style="list-style-type: none"> • Better implementation of the National Diabetes Programme • Planned guidelines on psychological care 		

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in the Czech Republic is 9.7% of the adult population, representing a total of 756,800 people. The Atlas forecasts an increase in prevalence to 11.6% by 2025.⁵⁰

National statistics indicate that there were 749,000 diabetes patients registered either in diabetes consultation centres or with general practitioners in 2006⁵¹; this represents an increase of more than 10,000 since 2005.⁵² Of registered diabetes patients, 346,000 are male and 403,000 are female.⁵³

Incidence rates for both Type 1 and Type 2 diabetes are growing. The rates have tripled since 1975.⁵⁴ If this trend continues, the number of diabetes patients in the Czech Republic will double to 1,500,000 in 25 years.⁵⁵

COST OF DIABETES

The current cost of diabetes in the Czech Republic is estimated at €178 million per year representing 11.26% of total healthcare expenditure.⁵⁶

GOVERNMENT HEALTH PRIORITIES

Currently, the Czech government's health priorities focus on smoking prevention and combating cancer and cardiovascular diseases. Diabetes is not seen as a priority despite the emphasis on prevention in the national health programme, 'Health for all in the 21st Century' (*Dlouhodobý program zlepšování zdravotního stavu obyvatelstva ČR - Zdraví pro všechny v 21. století*)⁵⁷ and despite the existence of a National Diabetes Programme since 2000. In fact, in 2007, there was no dedicated official working specifically on diabetes in the Ministry of Health.

In January 2007, a revised healthcare system took effect, which aims to resolve the chronically under-funded health system and the resulting problems of over-crowding and low standards of healthcare services. The reform includes a new system of fees for visits to a doctor or other health facilities, which requires a symbolic payment of €1 for each visit.

The Czech diabetes community views this reform as an opportunity to improve the situation of diabetes patients and has been working closely with the government. In November 2007, the Czech Diabetes Society (*Česká diabetologická společnost*), supported by one of its Members of the European Parliament, Milan Cabrnok, presented its major concerns and priorities to the Czech Senate.⁵⁸

NATIONAL DIABETES PLAN/Framework

The country's second National Diabetes Programme (*Národní Diabetologický Program, NDP*)⁵⁹ dates from 2000 and is being rolled out over a ten-year period subject to periodic reviews.

Prepared by the Czech Diabetes Society, the NDP is based on the St. Vincent Declaration and covers treatment and prevention, education of healthcare workers, social and legal aspects and science and research. The programme emphasises primary prevention, early detection, guidelines, research and diabetes complications.⁶⁰

The text of the NDP stipulates that implementation is the shared responsibility of the Czech Diabetes Society, the Ministry of Health and insurance companies, but in effect, the Czech Diabetes Society is solely responsible.⁶¹ The programme does not specify who is responsible for the evaluation/control of the programme and only national statistics provide any information about its ongoing implementation. Due to a lack of an efficient monitoring system, it is difficult to assess the effectiveness of the programme or progress made in fighting diabetes.

Equally problematic for the diabetes community is the discrepancy between the actual cost of diabetes treatment and the amount reimbursed by the insurance system.⁶² There is also a lack of relevant economic studies on cost-effectiveness of diabetes care.

In order to highlight this problem, in January 2008, the Czech Diabetes Society launched 'MOET 2'⁶³, a one-year pilot programme on better diabetes treatment. The aim is to prove that a more complete and properly funded programme of daily care for patients (e.g. regular standard check ups) will bring about cost savings in the long-term by reducing complications and disability pensions, etc. The annual pilot project will cover 13,000 diabetes patients and is supported financially by pharmaceutical companies.⁶⁴

The NDP is complemented by a comprehensive set of diabetes guidelines (*Standardy*)⁶⁵ drafted by the Czech Diabetes Society and implemented nationwide. These guidelines, which are updated every two years, set out multiple standards for the diagnosis and care of Type 1 and Type 2 diabetes. They also cover gestational diabetes, self-control standards for blood sugar, care of diabetic nephropathy, diabetic foot, treatment of diabetic retinopathy and its complications, nutrition recommendations

for people with diabetes and educational recommendations.

Practitioners view the guidelines as unrealistic due to the lack of sufficient funding for prevention and the provision of standard treatments.⁶⁶ The Czech Diabetes Society is currently preparing a set of guidelines on psychological care for diabetes patients.

POLICY FOCUS

The needs of specific patient groups, such as children and pregnant women, are recognised both in the national guidelines and in daily practice. Currently, both of these groups have privileged access to diabetes treatment and benefit from specific reimbursement rules.⁶⁷

Due to the small number of immigrants in the Czech Republic, no special set of provisions has been set aside for them in particular.⁶⁸

PATIENT ACCESS

The quality of diabetes treatment in the Czech Republic is generally considered to be high; however, a clear distinction exists between treatment provided by diabetes centres and by general practitioners or private diabetes specialists. Reimbursement restrictions set by the health insurance administration mean that patients treated by the latter have limited access to the best standardised diabetes care.⁶⁹ In contrast, diabetes centres provide wider access to new technologies and educated professionals due to better financial support.⁷⁰

Almost all prescribed diabetes treatments, technologies and services are fully reimbursed in the Czech Republic:

- Patients pay a minimal contribution for some drugs.
- Insulin pens, insulin pumps and their accessories are fully reimbursed.
- Blood glucose monitoring strips/meters are free up to a certain ceiling: up to 1,000 per year for insulin-dependent patients, up to 100 free for those taking hypoglycaemic drugs and 50 for patients relying only on diet to keep diabetes under control.
- Self-monitoring blood pressure meters are not covered by reimbursement.
- Patients have a right to 100 lancets per year.⁷¹

Lipid testing, micro/macro albuminuria and retinopathy screening belong to standard treatments. However, due to limited financial resources for reimbursements, doctors are restricted in the number of prescriptions they can write for these treatments (especially in the case of patients treated by general practitioners or private diabetologists).⁷² Diabetes education, however, is rarely reimbursed at all, and in the majority of cases is provided by nurses who carry out this role on top of their regular nursing duties.⁷³ Psychologist care is not currently funded.⁷⁴

One of the most important achievements of the Czech Diabetes Society in recent years is the foundation of 24 specialised outpatient foot clinics for diabetes patients located throughout the country. This network aims to reduce the number of amputations.

“Everyone in the system is responsible, but nobody ensures control.”

*Hana Kusova
Diabetes Specialist Nurse, Diabetes Centre,
University Hospital, Pilsen*

OUTLOOK

The focus now lies in improving implementation of the National Diabetes Programme which is currently fragmented and not enforced. Achieving this objective will require better cooperation between legislators, the insurance authority, health professionals and patient organisations. The results of the pilot project on cost-effectiveness should also help to improve diabetes care.

Additional funding for both primary and secondary prevention and provision of structured education for diabetes patients are also priorities, if the Czech Republic is to prevent a diabetes epidemic. The ongoing reform of the healthcare system and actions at EU level (diabetes campaigns, politicians' engagement, etc.) are seen as an opportunity to stimulate government engagement in the field of diabetes.

COUNTRY OVERVIEW

KEY STATISTICS		
	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	6.9%	7.5%
Estimated number of people with diabetes	264,900	290,600
Estimated cost of diabetes	€1.74 billion (14% of the total healthcare budget)	
POLICY FRAMEWORK		
National plan		
<ul style="list-style-type: none"> • Yes – Diabetes Action Plan (2003) 		
Guidelines		
<ul style="list-style-type: none"> • Yes – National Board of Health Diabetes Guidelines (1994) 		
Developments (since 2005)		
<ul style="list-style-type: none"> • 2006: Denmark established a National Diabetes Register • 2007: Structural and regional healthcare reform 		
Planned actions		
<ul style="list-style-type: none"> • Development of a multi-disciplinary diabetes management program • Development of a quality register for diabetes 		

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Denmark is 7.5% of the adult population, representing 290,600 people. The Atlas forecasts a rise in this figure to 11.4% by 2025.

Figures from the Danish Ministry of the Interior and Health (*Indenrigs-og Sundhedsministeriet*) and the National Board of Health (*Sundhedsstyrelsen*) estimate the number of people with diagnosed diabetes in Denmark to be about 220,000 representing a 100% increase over the last nine years.⁷⁵ Of this total, 200,000 people have Type 2 diabetes.

In 2006, Denmark set up a national diabetes registry (*Det Nationale Diabetesregister*) to monitor incidence and prevalence rates in the country. In the last two years, the registry has shown that the number of newly diagnosed cases per year has averaged between 20,000-23,000, an incidence rate of 4%.⁷⁶

The Danish government highlights that, on average, a patient has had diabetes for 6-10 years before being diagnosed. As a result, the number of people with Type 2 diabetes may be as high as 300,000.⁷⁷ The risk of dying from diabetes is also twice as high in Denmark as in Sweden.⁷⁸

COST OF DIABETES

The current estimated cost of diabetes in Denmark is 0.6% of GDP (of which one-third represents actual healthcare costs and two-thirds reflects productivity loss). This is equivalent to €1.74 billion, representing approximately 14% of the total healthcare budget.⁷⁹

GOVERNMENT HEALTH PRIORITIES

The Interior and Health Ministry explains that health promotion and prevention will be given increasing priority in the coming years. Indeed, the Ministry's name will be changed to the Ministry for Health and Prevention (*Ministeriet for Sundhed og Forebyggelse*). The Danish Diabetes Association also views disease prevention related to lifestyle as a key government priority.⁸⁰ In Denmark today, there is also a particular focus on chronic diseases.⁸¹ Responsibility for these diseases, including diabetes, is at regional and communal level.

Structural and regional healthcare reform, introduced on 1 January 2007, reduced the country's 13 counties into five regions. At the same time, the 270,000 municipalities have been merged into 98 larger units, most of which have at least 20,000 people. These new municipalities are responsible for preventive healthcare and rehabilitation.⁸² As part of this responsibility,

many regions are setting up health clinics, operating training courses in healthy lifestyle, diet and physical activity, etc., for diabetes patients, as well as for other chronic diseases.⁸³

In early 2008, the government will establish a new prevention commission to prepare, before end-2009, proposals to strengthen health promotion and prevention activities in Denmark. These proposals will feed into the development of a new action plan on prevention which is also expected before the end of 2009. Denmark is currently evaluating which diseases or risk factors will receive particular focus. The action plan will be a follow up to the Danish government's plan on national health, 'Healthy all your life' (*Sund Hele Livet*), which included diabetes as a particular area of focus.⁸⁴

NATIONAL DIABETES PLAN/Framework

In 2003, Denmark launched the Diabetes Action Plan (*Handlingsplan om Diabetes*)⁸⁵. While the National Board of Health (*Sundhedsstyrelsen*) is responsible for its overall implementation, a majority of the actions are carried out by the regions.⁸⁶

The plan prioritises prevention of Type 2 diabetes and the reduction of complications. It also seeks to guarantee optimal care for diabetes patients to improve quality of life and life expectancy. The plan focuses on actions related to primary care, patient-oriented prevention and care.⁸⁷ The goal of the Danish Diabetes Action Plan is to stop the rise in the number of people with Type 2 diabetes.

The national plan also provides for a special course of treatment for diabetes (*Forløbsprogram for diabetes*), a newly developed model for securing continuous treatment for diabetes patients.⁸⁸ A cross-sectoral effort, the programme is intended to ensure the use of evidence-based practice in the healthcare sector as well as communication and collaboration between all involved parties.⁸⁹

The National Diabetes Register⁹⁰, set up in 2006, will contribute to improving the monitoring of the national diabetes situation. The register contains data on people diagnosed with diabetes, and it aims to provide an overview of the increase in the prevalence of the disease, quality control of diabetes healthcare, and to create a research base. There are also plans to develop a quality register for diabetes in 2008.⁹¹

A national diabetes steering group (*styregruppe*) is responsible for monitoring the implementation of the

national plan, and regions have recently been asked to provide status reports on implementation to the National Board of Health.

Although diabetes has been recognised as a priority, the Danish Diabetes Association believes that a considerable number of the proposed actions included in the national plan have not yet been implemented. It is thought that over the last few years, the National Board of Health has not pushed for their implementation.⁹²

The National Board of Health is responsible for developing diabetes guidelines in Denmark.⁹³ Activities of the regional authorities are currently based on the set of guidelines (*Sundhedsstyrelsens diabetesredegørelse*) developed in 1994. These guidelines focus on achieving prevention of late complications through: education to promote self-care and better monitoring of blood sugar, organisation of diabetes clinics and communication between primary and secondary carers.

POLICY FOCUS

Diabetes has recently been chosen as a case study to pilot a new model created for chronic diseases.⁹⁴ To some extent, immigrants are a focus of these pilot projects.⁹⁵

PATIENT ACCESS

Denmark's health insurance scheme provides for the reimbursement of approved diabetes medicines, including insulin. Individuals must also pay a contribution themselves and for people with chronic diseases, this sum is restricted to a maximum of €458 per year.⁹⁶

Insulin needles and pens are free of charge. Blood glucose strips are free of charge for insulin-treated diabetes patients, who also get 50% reimbursement on blood glucose meters. For those treated with oral tablets, the maximum number of reimbursable strips is set at 150 per year.

Insulin pumps and accessories are currently free of charge, but the situation is problematic, according to the Danish Diabetes Association. Since there is no budget specifically allocated for insulin pumps, neither at national nor regional level, hospitals are forced to cover the costs, and must therefore prioritise between different treatments. The number of pump users in

Denmark has, therefore, been relatively low (both for children and adults) compared to other Nordic countries, e.g. Sweden. For the period 2007-2010, it is expected that additional money will be set aside in the national state budget for insulin pumps.

Monitoring of blood pressure, cholesterol and micro/macro albuminuria is carried out by healthcare professionals free of charge. There is no reimbursement for self-monitoring equipment bought by patients. Treatment by doctors and specialists (including eye screening) is free of charge.

In most cases, diabetes patients must cover the costs of psychologists, unless they are referred, in which case they have a better chance of receiving reimbursement. Education and advice (one-to-one) are free of charge both with the general practitioner and at patient treatment wards.

In primary care, general practitioners have a new, voluntary economic incentive to carry out more systematic monitoring of people with diabetes in their care. This scheme also enables quality data to be collected. This new economic incentive is currently being evaluated.⁹⁷

OUTLOOK

The Ministry of the Interior and Health is now planning several actions in the field of diabetes, including the development of a multi-disciplinary national disease management program for diabetes, as well as the merging of the national quality registries for children, adults and retinopathy into one registry.

The Danish Diabetes Association hopes that the 'continuous course of treatment of diabetes' (*Forløbsprogram for diabetes*) initiative will be fully implemented over the next two years and would welcome an implementation plan for regions and municipalities. The Association also believes that more coordination in the development of different guidelines would be helpful.⁹⁸

At the European level, the implementation of European guidelines on diabetes and CVD, lowering VAT on healthy foods and beverages and raising VAT on unhealthy products would be welcomed. The Danish Diabetes Association believes that a ban on advertisements for unhealthy food and beverages to children in all mass media, including the internet, would also help the situation.⁹⁹

ESTONIA

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.7%	9.9%
Estimated number of people with diabetes	96,300	97,300
Estimated cost of diabetes	13.7% of healthcare budget (2006)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Estonian Society of General Practitioners and the Estonian Society of Endocrinologists' guidelines on Diabetes Type 1 Treatment (1998), Type 2 Treatment (1999), Diabetic Ketoacidosis Treatment of children (2003)

Developments (since 2005)

- 2006: Introduction of a bonus system for family physicians to monitor chronic diseases with a focus on Type 2 diabetes and hypertension

Planned actions

- Improvements in diabetes education and psychological support

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Estonia is 9.9% of the adult population, representing 97,300 people. The Atlas forecasts a rise in prevalence to 10.8% by 2025.

Estonia's Ministry of Social Affairs (*Sotsiaalministeerium*) estimates that the diabetes prevalence rate is much lower at only 3% of the total population or 3.8% of the adult population above 20 years old.

COST OF DIABETES

The 2006 Annual Report of the Estonian Health Insurance Fund (*Eesti Haigekassa*) estimates that the cost of diabetes represents 13.7% of total healthcare benefits.¹⁰⁰

GOVERNMENT HEALTH PRIORITIES

Diabetes is not currently identified as one of the Estonian government's health priorities, which focus on the prevention of cardiovascular diseases, cancer and HIV.¹⁰¹

Estonia has launched several programmes with the aim of promoting health at both national and local levels.

Programmes for the prevention of high blood pressure and cancer, are currently being developed, both of which will run until 2009.

The reform of the Estonian healthcare system was successfully completed in 2003. Among the main objectives of the reform were: reorganising the public funding system and the over-extended hospital system; improving the quality and accessibility of general medical care; and a more efficient use of resources, including reform of primary care. The training and introduction of family doctors was also central to this reform.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Estonia.

A programme on the prevention of cardiovascular diseases is in place and includes a number of health promotion measures, including nutrition and physical activity, also relevant for the prevention of diabetes.¹⁰²

Estonia has established a daycare centre for overweight children and young people aged 7-18 years at the children's hospital of Tallinn, where they receive specific examinations for disease risk factors.

Small groups are cared for by an interdisciplinary team consisting of a physician, nurse, dietician, psychologist and kinesiologist. They also benefit from various educational measures. Follow-up examinations are scheduled after one, three and six months.

Since 2006, the Estonian Health Insurance Fund, in cooperation with the Management Board of the Estonian Society of Family Doctors (ESFD), has introduced a bonus system for family physicians. One of the objectives of this system is to monitor chronic disease patients with the main focus on Type 2 diabetes and hypertension.¹⁰³

In the late 1990s, the Estonian Society of General Practitioners and the Estonian Society of Endocrinologists issued practice guidelines for Type 2 diabetes which are based on IDF's 1991 guideline and which are still respected today. These guidelines include a description of diabetes risk groups, diagnostic criteria, principles for treatments and monitoring, and suggestions for referral to a specialist. They also list the tests, analyses and procedures that need to be carried out at certain intervals. General practitioners make suggestions for treatment and renew prescriptions which are issued every six months at most, thus making it possible for general practitioners to see their diabetes patients at least twice a year.¹⁰⁴ The latest guidelines in use include: Guideline on Diabetes Type 1 Treatment (1998), Guideline on Diabetes Type 2 Treatment (1999) and Guideline on Diabetic Ketoacidosis Treatment of children (2003).

POLICY FOCUS

There are currently no specific policy provisions for different segments of the population living with diabetes in Estonia.

PATIENT ACCESS

The 2001 Health Services Organisation Act provides for the organisation and conditions for the provision of health services including the procedures for the management, financing and supervision of healthcare in Estonia.¹⁰⁵ The Estonian Health Insurance Fund finances medical care and treatment for patients covered by the national health insurance system.

The Fund reimburses diabetes treatment. Data from 2006 reveal that it reimbursed treatment for 39,441 diabetes patients in Estonia.

The Fund currently reimburses the following treatments and technologies for diabetes:

Full reimbursement

- Injectable insulin and pens
- Micro/macro albuminuria - through GPs and different specialists
- Retinopathy screening - through ophthalmologists
- Structured education (one-to-one/group) - one-to-one with a diabetes nurse. Group education possible through different centres - covered by medical companies

Restricted reimbursement

- Insulin pumps and accessories - 100% for children (0-19 years)
- Blood glucose monitoring strips:
 - Type 1 - 600 test-strips per year reimbursed 90%
 - Type 2 on insulin therapy - 300 test-strips per year reimbursed 90%
 - Type 2 on oral medication - 100 test-strips per year reimbursed 95%
- Children, pregnant and breast feeding women - 1200 test-strips per year reimbursed 90%
- Lipid testing - possible through GPs and different specialists - covered by Health Sick Fund with different % reimbursement for different groups
- Psychologists - possible, but lack of human resources

No reimbursement

- Blood glucose monitoring meters (often sponsored by insulin companies)
- Self-monitoring blood pressure meters (often sponsored by insulin companies)
- Lancets

OUTLOOK

According to the Estonian Ministry of Health, changes to be expected over the next two years include both improvements to diabetes education, especially for those people who are dealing with diabetes, and better psychological support, including for relatives.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	7.2%	8.4%
Estimated number of people with diabetes	273,500	321,700
Estimated cost of diabetes	€857.8 million (11.1% of total healthcare costs, 1997)	

POLICY FRAMEWORK

National plan

- Yes – Development Programme for the Prevention and Care of Diabetes and Programme for the Prevention of Type 2 diabetes 2003-2010

Guidelines

- Yes – Multiple guidelines (Duodecim Handbook for GPs)

Developments (since 2005)

- 2005: Implementation of the action plan, 'Dehko Proceeds 2005-2007'
- 2005: Publication of first Diabetes Barometer
- 2006: Publication of 'Diabetes in Finland: Prevalence and Variation in Quality of Care'
- 2007: Guideline on nephropathy
- 2007: Guideline on overall treatment of diabetes (2007)

Planned actions

- Publication of second mid-term review of the Dehko programme
- Registry and benchmarking of diabetes prevalence, complications and mortality
- Comprehensive study on the cost of diabetes

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Finland is 8.4% of the adult population, representing 321,700 people. The Atlas forecasts a rise in prevalence to 10% by 2025.

The Finnish Diabetes Association (*Diabetesliitto*), however, reports that diabetes already affects 10% of Finland's adult population.¹⁰⁶ There are approximately 250,000 people with Type 2 diabetes and 40,000 people with Type 1 diabetes. According to population studies, at least 200,000 Finns have Type 2 diabetes without knowing it.¹⁰⁷ Moreover, at least a third, and possibly up to half, of the Finnish population have a genetic predisposition to Type 2 diabetes.¹⁰⁸

According to the latest population survey by the National Public Health Institute, if current trends continue, Type 2 diabetes will affect more than half a million people in Finland.¹⁰⁹

COST OF DIABETES

A comprehensive study on the cost of diabetes in Finland is currently underway with results expected by the end of 2008.

Until then, the only available data dates from 1997, when a controlled cross-sectional study of Helsinki was extrapolated to the whole country. That study estimated that the total annual cost of care for people with diabetes was €875 million, with direct costs of diabetes and its complications accounting for 58% of this total (about €505 million).

Of the €505 million cost of treating diabetes, 90% is spent treating the complications. As diabetes complications often require expensive inpatient care, these complications can cause 24-fold and 12-fold increases in the care costs of Type 2 diabetes and Type 1 diabetes respectively.

If Finland fails to stop the increase in Type 2 diabetes, annual expenditure on diabetes care and its complications could rise from the present figure of €505 million to €841 million by the year 2010.¹¹⁰

GOVERNMENT HEALTH PRIORITIES

In 2007 the Finnish Government introduced a programme on health promotion¹¹¹ which aims to advance awareness and practice of its 'health in all policies' approach, which was showcased during the 2006 Finnish Presidency of the EU. The programme focuses on prevention of lifestyle diseases, such as Type 2 diabetes, which are increasing due to obesity, poor diet and physical inactivity.

NATIONAL DIABETES PLAN/Framework

Since the launch of its national plan 'Development Programme for the Prevention and Care of Diabetes' (*Diabeteksen ehkäisyn ja hoidon kehittämissuunnitelma*, Dehko) for the period 2000-2010, Finland has been considered a model for the prevention, management and treatment of diabetes.

The programme is endorsed by the Ministry of Social Affairs and Health and most of its funding comes from Finland's Slot Machine Association (*Raha-automaattiyhdistys*, RAY). The Finnish Diabetes Association is responsible for coordinating the implementation of the programme.

Dehko is a comprehensive 10-year programme for primary prevention of Type 2 diabetes and for the prevention and care of diabetes complications in people with Type 1 and Type 2 diabetes. Dehko's implementation focuses on three main areas:

- Primary prevention of Type 2 diabetes
- Improvement of diabetes care (both Type 1 and 2 diabetes)
- Supporting self-care of people with diabetes

The Dehko programme sets out eight objectives and 25 recommendations for action for 2010. The objectives include:

- Creation of a quality system of diabetes care in each care unit, including regular and comprehensive diabetes training within primary healthcare.
- Measures aimed at the prevention of Type 2 diabetes will become a permanent function of primary healthcare.

- Establishment of a computerised diabetes registry in each care unit and in each district, as well as a national diabetes registry.
- The care organisation for people with diabetes will be based on smooth-running care chains, shared responsibility for care between primary healthcare and specialized medical care, and flexible consultation practices.
- Each person with Type 1 diabetes will have access to individual, high-quality self-care.
- All people with Type 2 diabetes will receive sufficient education in self-care, and their cardiovascular risk factors will be treated along with hyperglycaemia.
- People with diabetes will have the skill required for self-care and have a high level of satisfaction with their care.
- Cooperation between the healthcare system and diabetes associations in supporting self-care will become established as a permanent activity.

Practical implementation of Dehko has been regularly reported and monitored. By 2004, five external assessments had been made of Dehko. The second mid-term review was published in the beginning of 2007.

Basic information materials, development projects, research studies and reports have resulted in more than 40 publications.¹¹² These different assessments have concluded that the objectives set in 2000 are still valid. Progress has already been made in all recommendations for action which were set in 2000. Some have already been achieved and have proceeded to the next stage; others are in the middle of the implementation process; and the rest are beginning their implementation. Together with prevention, the key challenge is to improve the glycaemic control of people with Type 1 diabetes, building a care quality monitoring system and increasing healthcare providers' diabetes know-how at all levels of healthcare.¹¹³

A monitoring system for the quality of diabetes care is in the implementation stage while a registry of diabetes prevalence, complications and mortality is already operational. At the end of 2005, the first Diabetes Barometer¹¹⁴ was published and included data on the frequency of diabetes and related diseases, diabetes deaths, quality of treatment and its results and resources. The intention is to revise the Barometer every three-years.

PROGRAMME FOR THE PREVENTION OF TYPE 2 DIABETES (2003-2010)

This specific prevention programme is based on research from the Finnish Diabetes Prevention Study (DPS)¹¹⁵ which demonstrated that Type 2 diabetes can be prevented by lifestyle modifications. The programme seeks to develop preventive healthcare so that the prevention of obesity, Type 2 diabetes and cardiovascular disease becomes a broad-based, systematic activity.

The objectives are pursued through three strategies:

- The **Population Strategy** is primarily aimed at preventing obesity in the entire population by means of nutritional interventions and increased physical activity.
- The **High-Risk Strategy** provides a systematic model for the screening, education and monitoring of individuals at risk of developing Type 2 diabetes.
- The **Strategy of Early Diagnosis and Management** is directed at individuals with newly diagnosed Type 2 diabetes by bringing them into the sphere of systematic treatment.

The programme, conducted in five hospital districts, covers a population of 1.5 million people. Primary healthcare providers, both public and employer-provided, implement the project in cooperation with municipal authorities, non-governmental organizations and other players who can provide support. The results for the project districts will be compared with those for all hospital districts in Finland and used to prepare a diabetes prevention programme that will eventually serve the entire country. In 2010, the population-level effects of the programme will be studied in terms of coverage, effectiveness, rate of adoption, feasibility and permanence¹¹⁶. In conjunction with the project, municipalities have launched various activities aimed at preventing obesity and increasing physical activity.

For more than 20 years, the Finnish Diabetes Association has published recommendations for diabetes prevention, treatment and care for health professionals. Over 15 recommendations have been issued including the latest recommendations on dietary guidelines for diabetes patients¹¹⁷ and diabetes, drivers and traffic safety.¹¹⁸

The Finnish Medical Society (*Duodecim*) has also developed guidelines using the latest evidence-based data for Type 2 diabetes, including guidelines on

retinopathy, nephropathy and overall treatment of diabetes. Forthcoming guidelines will include diabetes during pregnancy and foot care.¹¹⁹

POLICY FOCUS

The Finnish diabetes plan does not include any specific focus or particular initiative with regard to children, women or immigrants. Women and children, like other sub-groups do benefit from the Finnish initiatives, but immigrants are not mentioned as a separate group probably due to their limited numbers in Finland.

PATIENT ACCESS

In Finland, access to diabetes medication and treatment is generally fully reimbursed.

Full reimbursement:

- Injectable insulin and pens
- Insulin pumps and accessories
- Blood glucose monitoring strips/meters
- Lancets

Full reimbursement (included in the annual primary healthcare fee):

- Micro/macro albuminuria
- Retinopathy screening
- Lipid testing
- Structured education (one-to-one/group)
- Psychologists

No reimbursement:

- Self-monitoring blood pressure meters (in certain cases meters are loaned to patients)

OUTLOOK

Finland is considered to be the first country in the world to have introduced a comprehensive diabetes programme. Its effectiveness reflects continuous monitoring, evaluation and revision in line with national developments. Finland's prevention programme and its implementation are frequently quoted and referred to in international meetings and publications.¹²⁰

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	6.2%	8.4%
Estimated number of people with diabetes	2,653,600	3,616,600
Estimated cost of diabetes	€1.8 billion (2005)	

POLICY FRAMEWORK

National plan

- No – previous national programme ended in 2005

Guidelines

- Yes – French Health Authority (HAS) and French Medicines Agency's guidelines for the treatment of Type 2 diabetes and HAS guidelines on the management of Type 1 and 2 diabetes targeted at doctors and patients

Developments (since 2005)

- 2007: National plan to improve the quality of life of chronic disease patients 2007-2011
- 2007: Updated guidelines for the treatment of Type 2 diabetes (2006) and management of Type 1 and Type 2 diabetes for doctors and patients
- 2007: Launch of second survey of diabetes patients (ENTRED)
- Early-2008: Pilot programme on diabetes patient guidance by the CNAMTS

Planned actions

- Results of ENTRED study
- Continued implementation of National Nutrition and Health Programme
- Measures to improve the quality of life of patients suffering from chronic disease

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in France is 8.4% of the adult population, representing 3,616,600 people.¹²¹ The Atlas estimates a rise in prevalence to 10.4% by 2025.

National figures indicate lower prevalence rates. The French Diabetes Association (*Association Française des Diabétiques, AFD*)¹²² suggests a prevalence rate of 7%. The French Institute for Public Health Surveillance (*Institut de veille sanitaire, InVS*)¹²³, the National Health Insurance Fund for Salaried Employees (*Caisse Nationale d'Assurance Maladie des Travailleurs Salariés, CNAMTS*)¹²⁴ and the French National Health Authority (*Haute Autorité de santé, HAS*)¹²⁵ refer to figures from a recent CNAMTS study published beginning 2007.¹²⁶ This study puts the prevalence of pharmacologically-treated diabetes (Type 1 and Type 2) at 3.8%, compared to 2.9% in 2000, a total of 2,325,000 people with diabetes treated in metropolitan France beginning 2006.

COST OF DIABETES

A 2007 study by the National Health Insurance Fund for Salaried Employees shows that in 2005, the annual cost of diabetes treatment per patient was €760 compared to €539 in 2000.¹²⁷ In 2005, this represented a total of €1.8 billion in health spending - twice the amount in 2000. Another CNAMTS study in 2006¹²⁸ ranked diabetes fourth in terms of the most costly long-term diseases calculating that average annual treatment costs were €5,910 per patient, representing a total of €9 billion in 2004. Of these totals, hospitalisation accounts for 46.1% of the cost and pharmaceutical costs for 23%, according to the study.

GOVERNMENT HEALTH PRIORITIES

Cancer prevention and the fight against HIV/AIDS are the main health priorities of the current government, but the focus is increasingly turning towards Alzheimer's disease and palliative care.

Despite the considerable level of activity on diabetes in France in previous years, many diabetes stakeholders believe that the government's failure to renew the three-year national programme for the prevention and management of Type 2 diabetes¹²⁹, which ended in 2005, reflects its decision to no longer prioritise diabetes prevention.

The Government, however, has also sought to tackle diabetes within a broader context, through initiatives focused on better nutrition and chronic diseases.

Second National Nutrition and Health Programme (Deuxième Programme National Nutrition Santé 2006-2010 – P.N.N.S 2)¹³⁰

In recognition that lack of physical exercise and the breakdown in traditional eating habits have led to a continuous rise in obesity and diet-related diseases including Type 2 diabetes and cardiovascular diseases, the government has identified nutrition as a major public health challenge. In September 2006, on completion of the first National Programme for Nutrition and Health 2001-2005¹³¹, the Ministry of Health launched the Second National Nutrition and Health Programme 2006-2010.

With regard to diabetes, the plan outlines new measures focused on patient education and mobilisation including the development of personalised diabetes prevention programmes. These programmes, which would be the responsibility of the Health Insurance Fund (CNAMTS), would have a special focus on the related nutritional and obesity problems and would be linked to the chronic disease plan.

For the National Health Authority (HAS), it is important to highlight that, when compared to other chronic diseases, diabetes ranks high as a priority. Moreover, the CNAMTS points out that today, diabetes cannot be disconnected from cardiovascular diseases, particularly Type 2 diabetes.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in France following the expiration in 2005 of the 'national programme for the prevention and management of Type 2 diabetes (2002-2005)' (*Le programme d'actions de prévention et de prise en charge du diabète de Type 2 (2002-2005)*).

In October 2007, the government launched the second survey of diabetes patients (*Echantillon national témoin représentatif des personnes diabétiques, 2007-2010, ENTRED*).¹³² The Institute for Public Health Surveillance and its partners¹³³ believe that this second survey is necessary to update the initial study from 2001-2003 in order to understand the

evolution of the disease; to mark progress made in combating diabetes and to identify upcoming challenges.¹³⁴ According to the InVS, results will be available in autumn 2008.

The French health authorities are also tackling diabetes in the broader framework of the fight against chronic disease and promoting better nutrition, both of which are the subject of national framework plans.

Plan to improve the quality of life of chronic disease patients 2007-2011 (Plan Amélioration de la qualité de vie des personnes atteintes de maladies chroniques 2007-2011)¹³⁵

On 24 April 2007, the government launched a national plan to improve the quality of life of people living with chronic diseases in view of the fact that 15 million French people (20% of the population) are estimated to have a chronic disease.

The plan, worth €727 million over the five-year period 2007-2011, identifies four objectives:

- Help patients understand their disease better to help them better manage it
- Extend medical care to prevention
- Facilitate patients' daily life
- Better understand the consequences of the disease on quality of life

To achieve these objectives, the plan focuses on the provision of therapeutic education and disease management.

As only about 5% of diabetes patients currently benefit from medical education, according to HAS, the plan also seeks to:

- Inform and educate patients to help them understand their disease, detect the initial symptoms of potential complications, acquire the right reflexes, better cooperate with health professionals and improve their quality of life
- Integrate therapeutic education into medical training
- Train doctors and medical students in therapeutic education

With regard to disease management, the Plan seeks to foster better coordination and to develop further personalised disease management programmes. These programmes will include prevention and patient education activities as well as information on the disease, its treatment and available medical and paramedical care options. A first patient guidance programme¹³⁶ will focus on diabetes with funding of €20 million per year with a first pilot phase to begin in 2008.

In November 2006, the national health authority (HAS) and the French Medicines Agency (*Agence française de sécurité sanitaire des produits de santé*, AFSSAPS)¹³⁷ updated the 1999 good practice guidelines for the treatment of Type 2 diabetes.¹³⁸ These recommendations encourage a holistic approach to therapeutic management of Type 2 diabetes tailored to each patient and to be introduced as early as possible. They also encourage the patients to fully engage in the treatment of their disease.

In June 2007, HAS published guidelines on therapeutic education for patients suffering from chronic diseases¹³⁹ in collaboration with the National Institute for Prevention and Health Education (Institut national de prévention et d'éducation pour la santé, Inpes).¹⁴⁰

In early 2006, HAS developed three guidebooks for doctors which describe the optimal management and care of a diabetes patient benefitting from treatment under a special system for long-term diseases. They cover management of Type 2 diabetes¹⁴¹, management of Type 1 diabetes in children and adolescents¹⁴², and management of Type 1 diabetes in adults¹⁴³. In 2007, these guidebooks were followed by HAS published guidebooks on the same three issues directed at diabetes patients.^{144 145 146}

POLICY FOCUS

InVS and INSERM studies from November 2007¹⁴⁷ call for improved screening and treatment for the most vulnerable populations such as immigrants and the homeless.¹⁴⁸ The investigations show a higher cardiovascular risk and diabetes prevalence, as well as poorly controlled diabetes in the study population. Variations according to the country of origin and socioeconomics will be further examined through the second ENTRED study.

The second ENTRED study will also include an additional survey "Entred-ADO"¹⁴⁹ focused on adolescents aged 12-18 years.

Diabetes networks under the ANCRE banner (National association for the Coordination of Diabetes Networks)¹⁵⁰ have developed regional programmes targeting women, according to AFD.

PATIENT ACCESS

France is in the midst of a major reform of its generous healthcare reimbursement system¹⁵¹ designed to reduce overspending and the mounting founding deficit. If approved, the reform will introduce

a franchise or minimum payment for all treatments – including for people with diabetes – which the government hopes to have in place during 2008. As currently envisaged, the franchise would not exceed a limit of €50 per patient, per year.

The reform will affect people with diabetes. Under the previous scheme, a person with diabetes (including non-insulin dependent) registered under the special regime for long-term chronic diseases (*le régime des affections de longue durée*, ALD), was entitled to 100% reimbursement for all treatments. Non-ALD people with diabetes currently benefit from 65% reimbursement for all treatments.

However, due to a very broad and generous interpretation of the qualifying criteria by doctors, 8 million people are classified for the ALD regime resulting in significant costs to France's health insurance system (60% of the total annual expenses reimbursed¹⁵²). The French Diabetes Association is concerned that the government is now exploring ways to reduce access to the ALD regime.¹⁵³

OUTLOOK

The French Diabetes Association states that diabetes is becoming more of a socioeconomic problem than a public health priority in France.

Continued roll-out of nutrition and chronic disease plans is expected to improve medical education, disease management and patient guidance and help move prevention beyond the prescription of medical care towards greater patient autonomy and improved quality of life.

Publication of the second ENTRED study in September-October 2008 will provide the opportunity to assess the effectiveness of French initiatives.

The InVS identifies several areas for improvement notably the need for:

- Better coordination between stakeholders to apply the HAS recommendations
- More patient willingness to learn, via medical education, to manage their disease and respect the recommendations
- More effort by doctors to promote their patients' autonomy
- Greater effort to reduce the cost of diabetes and thereby stimulate the government's interest in the disease and ensure that diabetes is regarded again as a public health priority rather than a socio-economic problem

COUNTRY OVERVIEW

KEY STATISTICS		
	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	10.2%	11.8%
Estimated number of people with diabetes	6,294,300	7,379,200
Estimated cost of diabetes	€40 billion	
POLICY FRAMEWORK		
National plan		
<ul style="list-style-type: none"> • No – in preparation 		
Guidelines		
<ul style="list-style-type: none"> • Yes – Group of the Scientific Medicine Association's National Care Guidelines (2000), German Healthcare Professional Diabetes Association's guidelines for the treatment and care of diabetes 		
Developments (since 2005)		
<ul style="list-style-type: none"> • The National Diabetes Action Forum continues to prepare its National Diabetes Programme, 'Diabetes Agenda 2010' 		
Planned actions		
<ul style="list-style-type: none"> • Completion of National Diabetes Programme 		

DIABETES PREVALENCE

The IDF Global Atlas 2006 estimates that the diabetes prevalence rate in Germany is 11.8% of the adult population, representing nearly 7.4 million people. The Atlas forecasts an increase in prevalence to 13.3% by 2025.

Over 5% of the population, approximately 4 million people, is estimated to have diabetes according to the Federal Ministry of Health's 2007 Health Goals (*Gesundheitsziele*)¹⁵⁴, and the Federal Statistics Office/Robert Koch Institute 2006 report 'Health in Germany' (*Gesundheit in Deutschland*)¹⁵⁵.

The German Diabetes Union (*Deutsche Diabetes Union*, DDU) 'Health Report 2007' (*Gesundheitsbericht 2007*)¹⁵⁶ states that the national prevalence rate is 6.91% but has suggested that the rate is as high as 8.5-9% (7.4 million) and increasing at a rate of 350,000 people per year.¹⁵⁷

COST OF DIABETES

The 2007 Health Report¹⁵⁸ of the German Diabetes Union states that the exact cost of diabetes cannot be calculated due to the large number of people who remain undiagnosed and the difficulty in deciding what

to include in cost calculations e.g. insurance costs, cost of care and all complications resulting from diabetes (e.g. new shoes). Nevertheless, a representative of the DDU has suggested that the estimated cost could be as high as €40 billion per year¹⁵⁹.

GOVERNMENT HEALTH PRIORITIES

German public health policy is focused on disease prevention and addresses horizontal issues such as healthy living and active lifestyles. Diabetes has been prioritised under Germany's Disease Management Programme (DMP) established by the Federal Ministry of Health in 2002, and is included in the Ministry's 'Health Goals' launched in September 2007.

The German healthcare system is currently undergoing a major reform focusing on four areas, two of which include health insurance (and social security) and financing structures.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Germany. In October 2004, the German Ministry of Health launched the 'National Health Report on Diabetes' (also known as the Action Plan) as a

precursor to the national plan. While the Ministry of Health has primary responsibility, implementation is being overseen by the National Action Forum for Diabetes Mellitus (*Nationales Aktionsforum Diabetes Mellitus*, NAFDM), an umbrella organisation, comprising representatives of Government institutions, healthcare specialists and diabetes organisations.

The Action Plan seeks to influence the public's behaviour when it comes to maintaining a healthy lifestyle, and increasing prevention for 'high-risk' groups through early detection, screening, diabetes care and therapy (including psychological support), early detection of diabetes complications and the provision of clinical research.

Several parts of the plan have already been implemented and its effectiveness is currently under evaluation to ensure that it reaches its final goals by 2010.

Currently, Germany has implemented structured treatment programmes for Type 1 and Type 2 diabetes under the national Disease Management Programme (DMP). The DMP provides for patient education, treatment and care for all insured people with diabetes, and currently covers an estimated 2 million people with diabetes. Every six months, doctors record and update treatment results for their patients as each DMP disease area has specific quality targets which must be reached within 1-2 years of the launch of the programme.

Although the DMP is widely supported, some healthcare professionals question the effectiveness of the programme due to the individual style and standard of implementation among Germany's Länder and even between healthcare practices. According to the DDU report, the success of treatment and care for a patient depends on a properly functioning DMP, but this varies across the country.

Concerns have also been expressed over the future of the DMP due to the large and increasing number of people being treated under the programme and the resulting strain on the healthcare system. The considerable bureaucracy and paper work needed to manage this programme by healthcare professionals is also said to be undermining the advantages of the system. For example, every six months, doctors are expected to update results on the patient's condition which must then be sent on to the patient. The time spent on paperwork is said to be outweighing the time spent attending to patients.

The Ministry of Health has identified diabetes as a priority by including prevention of the disease in its

'Health Goals' launched in September 2007. The goals seek to improve diabetes treatment, in part by drafting diabetes-specific guidelines which will cover three areas: primary prevention, secondary prevention/early diagnosis and treatment and rehabilitation.

The Ministry also intends to translate these goals into a national diabetes plan by 2010 and in this regard is working with the NAFDM¹⁶⁰, representatives of Government institutions, healthcare specialists and diabetes organisations to achieve this.

In 2000, the Working Group of the Scientific Medicine Association (*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften e.V.*) launched 'National Care Guidelines'¹⁶¹ which are supplemented by 'practice' versions for use within the DMPs. The current government treatment guidelines are the responsibility of the National Clearing Institute for Guidelines (*Deutsches Leitlinien-Clearingverfahren*). In addition, the German Healthcare Professional Diabetes Association (*Deutsche Diabetes Gesellschaft*, DDG) has published specific guidelines for the treatment and care of diabetes, with the support of the NAFDM.¹⁶²

"There is a tidal wave of diabetes rolling towards Germany - and Germany seems to have a specific problem in terms of numbers. This tidal wave has the intrinsic power to ruin the total healthcare system. Effective measures to prevent this tidal wave are yet to be implemented in Germany."

Representative of the German Diabetes Union

POLICY FOCUS

The new National Diabetes Plan is expected to address children as a specific focus. The current text does not make specific reference to women and immigrants although the DDU Health 2007 Report does emphasise that immigrants require special attention due to the lack of educational and treatment opportunities available to them.

PATIENT ACCESS

German patients who are covered by national health insurance have access to treatment and care through the Disease Management Programme. The current reimbursement status of diabetes treatments can be summarised as follows:

Full reimbursement:

- Injectable insulin and pens, insulin pumps and accessories
- Lancets
- Lipid testing
- Micro/macro albuminuria
- Retinopathy screening
- Structured education (one-to-one/group)

Restricted reimbursement:

- Blood glucose monitoring strips/meters
- Self-monitoring blood pressure meters – special certificate needed
- Psychologists – only by special referral

No reimbursement:

- Inhaled insulin

Germany's healthcare reforms appear to be giving a bigger role to regulatory authorities such as the Institute for Quality and Efficiency in Health Care (IQWiG) and statutory health insurance providers in making reimbursement decisions. Medicines used to treat diabetes appear to have been particularly affected.

While the majority of diabetes treatments are currently reimbursed, there is growing controversy surrounding the reimbursement decisions for many of the new treatments. In 2006, the agency responsible for determining reimbursement, IQWiG, ruled against the reimbursement of analogue insulin.¹⁶³ These developments are of increasing concern to the diabetes community and those who represent patients in particular.

OUTLOOK

The German Ministry of Health has announced plans for new legislation on prevention and the continued development and implementation of the Diabetes Action Plan, specifically with regard to prevention through nutrition, physical activity and the fight against obesity and related diseases.

Further restrictions on the reimbursement of diabetes treatments are expected over the next two years. In this regard, the DDU would welcome initiatives at both national and European level to improve prevention, screening and treatment of diabetes.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	6.1%	8.6%
Estimated number of people with diabetes	493,000	736,7000
Estimated cost of diabetes	Not available	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Joint Hellenic National Centre for the Research, Prevention and Treatment of Diabetes Mellitus and its Complications (HNDC), Greek Diabetes Federation and others' guidelines

Developments (since 2005)

- Communications strategy for informing patients and the public on diabetes

Planned actions

- In 2006, a nationwide diabetes network with a database for the exchange of information between medical staff was announced. It is expected to become operational soon.

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Greece is 8.6% of the adult population, an estimated total of 736,000 people. The Atlas forecasts that the prevalence will rise to 9.7% of the adult population by 2025.

The Hellenic National Centre for the Research, Prevention and Treatment of Diabetes Mellitus and its Complications (*Εθνικό Κέντρο Έρευνας, Πρόληψης και Θεραπείας του Σακχαρώδη Διαβήτη και των Επιπλοκών του, Ε.ΚΕ.ΔΙ, HNDC*)¹⁶⁴ estimates diabetes prevalence in Greece to be around 10%, while an additional 20% of the population have impaired glucose tolerance.¹⁶⁵

COST OF DIABETES

There are currently no available cost estimates on the burden of diabetes in Greece.

A WHO survey estimates that, in 2002, Greece's expenditure on health amounted to 9.5% of GDP, of which 4.5% was accounted by private health expenditure.

GOVERNMENT HEALTH PRIORITIES

In late 2007, the Greek Minister of Health announced the new national health strategy where the main priority is to promote disease prevention in general, rather than focusing on any individual disease.

With regard to diabetes mellitus, Greek authorities do recognise the disease's implications for life expectancy, as well as for healthcare costs, are too important to ignore. After the Vienna Diabetes Declaration in 2006, diabetes appears to have been placed somewhat higher on the national health policy agenda. The Greek government is prioritising prevention, information and education of patients and medical staff and treatment.

Healthcare reform in Greece has been ongoing for several decades, yet there has been little progress made in achieving significant change. Disease specific initiatives, including those targeted at diabetes, have subsequently failed to receive sufficient attention in order to appear on the national health policy agenda.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Greece. Diabetes is addressed within the framework of the general national health policy aimed at disease prevention.

The government has established two main public authorities to oversee initiatives to combat diabetes. Since 1993, the HNDC, working under the supervision of the Greek Ministry of Health (*Υπουργείο Υγείας και Κοινωνικής Αλληλεγγύης*)¹⁶⁶, is the main body responsible for the programming, coordination, and supervision of diabetes services. Since 1980, the National Task Force (*Επιτροπή για τον Διαβήτη*)¹⁶⁷ is responsible for issuing opinions on the guidelines on diabetes.

According to some diabetes specialists, initiatives in Greece stem mainly from the private sector and in most cases are targeted at providing information on diets and exercise for the prevention of Type 2 diabetes. Some responsible bodies, like the National Task Force, are said not to be very active.¹⁶⁸

The Hellenic Centre for Infectious Diseases Control (*Κέντρο Ελέγχου και Πρόληψης Νοσημάτων, ΚΕΕΛΠΝΟ HNDC*)¹⁶⁹ and the Diabetes Task Force are responsible for drafting national guidelines for healthcare professionals. The Greek Diabetes Association (*Ελληνική Διαβητολογική Εταιρεία*)¹⁷⁰ has also issued guidelines. For example, HNDC has translated and issued the guidelines from the European Association for the Study of Diabetes (EASD) on 'evidence-based nutritional approaches to the treatment and prevention of diabetes mellitus'. In 2003, the Greek Endocrinology Society adopted scientific guidelines for diabetes diagnosis and monitoring of Type 2 Diabetes, which are based on the 1999 IDF guidelines for diabetes care, the 1999 WHO Consultation report on the definition, diagnosis and classification of diabetes and the 2002 American Diabetes Association standards of medical care.

The HNDC regularly co-organises, along with the Ministry of Health and other bodies, seminars and symposia for the training of medical staff in addition to offering scholarships for post-graduate training abroad that amount annually to €40,000.

A new nationwide diabetes network with a database for the exchange of information between medical staff has also been programmed for launch.

POLICY FOCUS

There are currently no policy actions targeted specifically at children, women or immigrant groups in Greece.

PATIENT ACCESS

Access to treatment for people with diabetes in terms of reimbursement remains satisfactory according to practitioners working in the field of diabetes.¹⁷¹ Medicines and medical appliances for diabetes are provided free of charge and patients are covered for all new insulin injections.

After a doctor's referral, patients can also receive an insulin pump and medicines free of charge. For the rest of the treatment they are expected to co-finance 25% of the cost. Medical tests are also free.

There are several specialised centres for diabetes in many state and private hospitals. In Attica, the wider Athens region, there are about 28 centres and every main Greek city has at least one. There are approximately 79 centres in total, representing considerable progress since the 1990's when only four centres operated in the two main cities of the country.

In response to the lack of a nationwide patients' registry, the Ministry of Health has launched a new system of electronic patients' cards containing information about their medical history. The programme, announced in 2006, is expected to be operational shortly.

Information to patients is provided by the HNDC, as well as specialised hospitals and clinics, associations and different private initiatives, e.g. pharmaceutical companies. The Ministry of Health has also made attempts to raise interest about diabetes in the general media.

In 2006, the government implemented a new pricing and reimbursement system, which has led to reduction in prices for some off-patent medicines.

“People will get increasingly sensitised to diabetes only thanks to private initiatives but not State action. I still do not know what could motivate the Greek State in order to take action.”

*Dr. Marianna Benroubi
Director, Diabetes Centre,
General State Hospital Polyclinic, Athens*

OUTLOOK

Some progress has been made in Greece during the last few years. The initiatives which are currently being put in place tend to be seen as one-off actions which do not fall into a broader coordinated action plan. It is questionable whether these ad hoc measures are sufficient enough to be effective.

For the last decade, modernisation of the Greek national health system has remained a key unresolved issue for the country. Having failed to solve this deadlock, successive Greek governments have neglected to prioritise the prevention and treatment of specific diseases, including diabetes.

HUNGARY

COUNTRY OVERVIEW

KEY STATISTICS		
	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.7%	9.8%
Estimated number of people with diabetes	711,400	741,500
Estimated cost of diabetes	Approximately €60 million (HUF 15 billion)	
POLICY FRAMEWORK		
National plan	<ul style="list-style-type: none"> No 	
Guidelines	<ul style="list-style-type: none"> Yes – 2002 Advisory Board of Internal Medicine Guidelines (Types 1 and 2) 	
Developments (since 2005)	<ul style="list-style-type: none"> 2005: Pilot project on diabetes screening 	
Planned actions	<ul style="list-style-type: none"> Hungary is undergoing a comprehensive reform of its healthcare system 	

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Hungary is 9.8% of the adult population, representing approximately 741,500 people. The Atlas forecasts a rise in this figure to 11.2% by 2025.

In 2007, mortality rates show that diabetes accounted for 8.9% of all male deaths and nearly twice that figure (16.6%) for female deaths.¹⁷²

The Hungarian Diabetes Association (*Magyar Diabetes Társaság*) estimates the prevalence rate of Type 2 diabetes in the overall population to be around 7-8%. The Ministry of Health (*Egészségügyi Minisztérium*) estimates the prevalence rate to be 8% in the female population and 7% in the male population.

COST OF DIABETES

According to the Hungarian Ministry of Health, the estimated cost of diabetes is approximately HUF 15 billion, or roughly €60 million.

Other sources believe that the cost of diabetes in Hungary cannot be estimated accurately due to the life-threatening complications arising from diabetes, such as cardiovascular diseases. These complications are not taken into account as a direct consequence of diabetes in official data sources, thus making any potential estimation incomplete.¹⁷³

GOVERNMENT HEALTH PRIORITIES

Since 2003, and the publication of the strategic programme Johan Béla National Programme for the Decade of Health (*Johan Béla Nemzeti Programja*)¹⁷⁴, the Hungarian Government has focused on tackling the significant differences in life expectancy between Hungary, the lowest in Europe, and the EU average. The programme prioritises cardiovascular disease and cancer. Cardiovascular disease is reported to be the number one killer in Hungary.¹⁷⁵

Hungary is currently undergoing radical healthcare reform to improve the country's general finances. Hungary's Health Minister advocates extensive structural reform of the healthcare system in part to reduce Hungary's budget deficit which is among the highest in the European Union (representing 9.2% of the country's GDP in 2006).

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Hungary. The Ministry of Health explains that diabetes prevention is managed under the Johan Béla National Public Health Programme, which prioritises prevention in general. They also consider that diabetes is covered by the national policy on nutrition and physical activity.¹⁷⁶ The Ministry has a Diabetes Screening Working Group.

Although cardiovascular disease is one of the main priorities of the national programme, its link to diabetes is not highlighted. The programme refers to Type 2 diabetes as a disease caused by unhealthy nutritional habits together with cardiovascular disease and hypertension. The programme notes that over the past decade, effective prevention has significantly reduced cholesterol and blood pressure levels in Hungary, although the rate of obesity and diabetes has continued to rise. It, states that “it appears realistic for Hungary to focus on reducing high cholesterol levels and hypertension, while only focusing on keeping obesity and Type II diabetes prevalence from rising”.¹⁷⁷

The national health programme has worked towards developing professional and organisational methods to better diagnose hypertension and diabetes, and to improve the quality and efficiency of care. In 2005, at a cost of €32.9 million, a pilot project on diabetes screening was carried out involving 543 practitioners. The pilot revealed that the average number of patients screened by a family doctor was 76, exceeding the optimal goal of 60 screenings.¹⁷⁸

Following this project, in 2005, diabetes stakeholders and patient groups prepared a draft diabetes plan, which was submitted to the Hungarian Health Ministry. However, according to the Hungarian Diabetes Association, the government has neither discussed nor taken the plan forward.

Key components of the draft 2005 plan include:

- improvement of diabetes healthcare services
- establishment of diabetes education programmes
- establishment of diabetes guidelines
- increase in primary prevention

In the absence of a national plan for diabetes, diabetes prevention and care are not centrally organised with screening and care usually in the hands of individual doctors. Type 1 diabetes is mainly the responsibility of diabetologists, while the majority of Type 2 patients are treated by their general practitioners.¹⁷⁹

Since 1996, the Hungarian Diabetes Association has played an important role in the improvement of diabetes prevention and care and has encouraged the creation of diabetes outpatient clinics, which are recognised by the Hungarian healthcare insurance system. Since 2005, the accreditation and administration of diabetes outpatient clinics is carried out online via the Association’s website.

“In spite of the fact that we still don’t have a National Diabetes Plan, a lot of activities relating to diabetes care and prevention do take place, but they are still not centrally organised, and are implemented by different regional diabetes centres. Financial support comes either from the local municipalities, hospital owners, pharmaceutical companies and, rarely, from the Ministry of Health.”

Prof Tamás Halmos Ph.D. D.sc. med.

Former President of the Hungarian Diabetes Association

Esther Halmos

Organiser of the Diabetes-Specialised Postgraduate Nursing Course, Budapest

As well as offering consultation opportunities and laboratories, these clinics are well equipped in terms of infrastructure, equipment and personnel such as diabetologists, specialised nurses and dieticians.¹⁸⁰ At present, there are 134 accredited diabetes outpatient clinics dealing with adult patients and 22 clinics treating paediatric patients, which are distributed across the country. These diabetes clinics treat all Type 1 diabetes patients and Type 2 diabetes patients with complications. As a result of the work of the outpatient clinics, the incidence of diabetic blindness and end-stage renal insufficiency has decreased significantly in the past years. Amputation has also diminished markedly over the last twenty years.¹⁸¹

Although highly specialised, the outpatient clinics are unable to accommodate all people with diabetes. General practitioners continue to treat the majority of those living with diabetes. For this reason, the Hungarian Diabetes Association considers it very important to provide better training for doctors.

Psychological care, on the other hand, is far less effective and widespread, which is attributed to the increasing number of people with diabetes, as well as the lack of expertise of doctors and insufficient reimbursement for this kind of treatment.¹⁸²

In Hungary, there are professional guidelines for the prevention, screening and treatment of diabetes – ‘Advisory Board of Internal Medicine Guidelines’. The Ministry of Health reports that these guidelines were prepared by the professional chamber of family physicians in cooperation with the Ministry. Each year these guidelines are updated. The current guidelines remain valid until 31 December 2008.

POLICY FOCUS

There are currently no provisions targeting specific segments of the population living with diabetes such as children, women or immigrants.

PATIENT ACCESS

The Hungarian Health Insurance System reimburses the majority of diabetes treatments and technologies to varying degrees:¹⁸³

Full reimbursement:

- Injectable insulin and pens up to 100% for children and adults who require multiple daily injections; up to 70% for other adults
- Lipid, urine, haemoglobin testing twice a year for all people with diabetes
- Retinopathy screening and regular control for all people with diabetes

Restricted reimbursement:

- Insulin pumps at 90% for children and about 85% for adults
- Blood glucose monitoring strips at 100% for children and 50% for adults
- Lipid testing once a year, as well as micro/macro albuminuria
- Glucometers up to 70% for those who require more than three shots of insulin per day
- Oral diabetes medicines from 50% to 90%
- Special consultations e.g. nephrology /neuropathy at the minimum fee of €12

No reimbursement:

- Self-monitoring blood pressure meters
- Structured education (partially according to the Ministry of Health)
- Psychologists (partially according to the Ministry of Health)

“Presently, there is a National Health Programme, but unfortunately diabetes as a main health risk remains in the background. The main priorities are cardiovascular (but without mentioning diabetes as a main cause) and oncological diseases (...) diabetes does not seem to be a government priority itself.”

Prof Tamás Halmos Ph.D. D.sc. med.

Former President of the Hungarian Diabetes Association

Esther Halmos

Organiser of the Diabetes-Specialised Postgraduate Nursing Course, Budapest

OUTLOOK

The Hungarian health system is currently undergoing a comprehensive reform designed to reduce reimbursement costs; decrease the costs of healthcare services; and to introduce a private insurance system. The changes are likely to become effective in 2008. The state will own 51% of the shares in each health fund and 49% will be available to private investors.¹⁸⁴

These changes are one component of a budget reform package aimed at drastically reducing Hungary’s budget deficit over the next four years.¹⁸⁵ Obligatory payments for doctor and hospital visits and a reduction in medicines reimbursement have already been implemented.

The Hungarian Diabetes Association hopes that the negative impact of these changes on the care of diabetes will not be substantial, but it is difficult to assess at this stage. Many also hope that in the very near future, the National Diabetes Plan, in its revised form, will be accepted by the Government and implemented across the country.

As a means to improve treatment and care, the Ministry of Health recommends more exchange of best practice with regard to implementation at EU level.

I R E L A N D

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	3.4%	5.6%
Estimated number of people with diabetes	89,800	169,700
Estimated cost of diabetes	€580.2 million (6.4% of the total healthcare budget, 2006)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Irish College of Practitioners ‘Guidelines on Diabetes Care’ (2003)

Developments (since 2005)

- 2006: report by the Department of Health and Children (DOHC) recommended a series of measures aimed at preventing diabetes and improving care for patients
- 2007: the Health Service Executive (HSE) established an Expert Advisory Group (EAG) on diabetes, whose findings should feed into the national health service plan

Planned actions

- Strategic review of the provision of diabetes treatment and services
- Diabetes policy framework
- The Royal College of Physicians of Ireland and the Irish Endocrine Society are preparing common guidelines

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Ireland is 5.6% of the population, representing an estimated 169,700 people. The Atlas forecasts that prevalence will rise to 6.4% by 2025.

A 2007 report by the Institute of Public Health in Ireland (IPHI) estimated the prevalence rate in the Republic of Ireland to be 4.7% (141,000 adults) in 2005.¹⁸⁶ It also estimates that this prevalence will increase by 37% by 2015.

The Diabetes Federation of Ireland, however, has estimated the number of people with diabetes in the country to be as high as 250,000, including approximately 100,000 people who have not yet been diagnosed. A further 100,000 people are thought to have pre-diabetes.¹⁸⁷

The IPHI report makes a number of recommendations regarding data collection, calling for an Irish system to monitor the prevalence of overweight and obese people in addition to the factors that influence these conditions, in order to introduce high-quality data registers and to take into consideration ethnicity.¹⁸⁸

COST OF DIABETES

A 2006 study on the cost of treating Type 2 diabetes in Ireland (CODEIRE) estimated the cost of diagnosed diabetes to be €377.2 million and the combined cost for both diagnosed and undiagnosed diabetes to be €580.2 million. These figures represent respectively 4.1% and 6.4% of total healthcare expenditure.¹⁸⁹

According to the report, hospitalisations represented over half of the expenditure due to the fact that 60% of patients develop complications. This compares with out-patient and primary care costs which accounted for 27% of overall costs. Currently, 15% of hospital beds are said to be taken up daily by patients with Type 2 diabetes-related complications at a significant cost to the health service.¹⁹⁰

The Department of Health and Children (DOHC) does not currently collect its own data on the cost of diabetes care, but uses figures cited in the CODEIRE study, as well as international reference data. The DOHC will shortly commence work on collating diabetes cost data within the Health Service Executive (HSE).

GOVERNMENT HEALTH PRIORITIES

Within the Health Service Executive (HSE), a series of Expert Advisory Groups (EAGs) are reviewing specific issues related to the delivery of health services in Ireland. The only one of these groups looking at a specific disease is the multi-stakeholder Diabetes EAG, which was established in 2007.

Based on the findings of a working group chaired by the Chief Medical Officer, the DOHC published a report, 'Diabetes: Prevention and Model for Patient Care' in 2006.¹⁹¹ The report advocates the development of diabetes services as a priority at national level, as well as greater investment phased in over six years.

NATIONAL DIABETES PLAN/Framework

Ireland has no national diabetes plan, a situation described by the Diabetes Federation of Ireland as a "national scandal"¹⁹², and said to be causing unnecessary complications in people living with uncontrolled Type 2 diabetes.

Recommendations from the 2006 DOHC report include:

- a register of all diabetes patients
- better shared care schemes
- more specialised hospitals
- timely and equitable access to primary care and regional specialist services

Better integration of these services would help to create multidisciplinary 'primary care teams' as well as 'diabetes networks', which would plan services for each region. The use of management plans for each patient, including an annual review, and better patient education were also promoted.

The report also highlighted the need for improved prevention and screening, including health promotion, public education, and targeted screening of at-risk groups. A particular emphasis was placed on retinopathy screening as well as the urgent need for podiatry services, better management of cardiovascular problems, improved consultation with dieticians following diagnosis, and more access to services providing psychological support and help with smoking cessation.

In line with the report, preliminary steps are now being taken by the Diabetes EAG on six main issues: retinopathy; standards of care; paediatrics; education and patient empowerment; podiatry; and the model of care. EAG sub-groups are looking at these issues in the context of international and national best practice, and of the overall provision of health services. Some

sub-groups (e.g. retinopathy) have completed their work and provided recommendations, whilst others are still deliberating. The podiatry group is developing an action plan for the next five years.

Critics of the EAG argue that the group focuses too much on current problems without proper attention to future planning which should ultimately result in a national strategy. The Diabetes Federation of Ireland has warned that unless the government provides substantial funding to implement the EAG recommendations, there will be little impact from the current work.¹⁹³

*"While the diabetes community broadly welcomes the recent setting up of an Expert Advisory Group on Diabetes by the HSE, unless there is substantial funding from the next government to implement its recommendations, I am afraid that it will be just another huge amount of effort wasted on another fruitless report."*¹⁹⁶

*Professor Seamus Sreenan
Consultant Endocrinologist, Connolly Hospital, Dublin and
Medical Director of the Diabetes Federation of Ireland*

POLICY FOCUS

Pregnant women who experience a significant illness, including diabetes, as a result of their pregnancy are currently entitled to up to five additional visits to their doctor. In terms of childhood disability, a home care allowance is granted for diabetes sufferers when a high degree of additional care and attention is required.

The 2006 DOHC Report highlighted the need for diabetes services to focus on reduction of health inequalities resulting from diabetes, with particular attention on young people, ethnic groups and pregnant women.

The Diabetes EAG is now looking at the issue of paediatrics, particularly in terms of the standards and the planning of care given to children. This also forms part of a wider policy that is looking at the regionalisation of paediatric hospitals.

Immigrants with diabetes are not a target of government health policy, but work is being carried out by diabetes groups, including the Diabetes Federation of Ireland, on translating information on the disease into minority languages.

PATIENT ACCESS

Patient access to diabetes treatments is considered to be good in Ireland as the disease is one of 16 conditions covered by the Long-Term Illness Scheme¹⁹⁵, which provides medicines and medical appliances free of charge to the patient, regardless of income. The scheme pays automatically and fully for most treatments, including insulin, meters and strips. Insulin pumps are reimbursed on the basis of clinical need, requiring a referral from a doctor.

Diabetes education and psychological support is usually found in hospitals with diabetes specialists which means that there are shortfalls in this type of care in some remote areas. Making such services more widespread is a key goal of Ireland's primary care strategy, which is currently being rolled out as part of ongoing reform of the health system.

“Diabetes has been dismissed by repeated governments as an insignificant health hazard to warrant major investment.”¹⁹⁴

*‘The Way Forward 2006-2010’
Diabetes Ireland policy paper*

OUTLOOK

In October 2007, the Diabetes EAG sent its first report to the Chief Executive Officer of the HSE where it is part of a strategic planning review. The review will look into the report's recommendations and determine whether and how to implement them in the health service plan for 2008. Priorities will include implementation of retinopathy screening across the country. Although this plan will only determine funding for 2008, it is likely to have an effect on spending in future years.

In 2008, the HSE will change its focus from the implementation of 'concrete' steps in the national service plan to drawing up a more 'strategic' document. EAG will contribute notably through a new sub-group exploring how to set up a diabetes registry with a greater focus on paediatric and adolescent diabetes.

A separate disease policy framework is scheduled for development in early 2008 with a view to addressing criticisms about the current lack of preventive measures and screening for diabetes and other chronic diseases. It will cover diabetes, but will also look at upstream prevention of diseases and disease management, particularly the delivery of treatment in the most appropriate environment.

The Royal College of Physicians of Ireland and the Irish Endocrine Society are also currently developing joint professional guidelines to replace existing separate guidelines.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	6.6%	8.7%
Estimated number of people with diabetes	2,880,100	3,850,200
Estimated cost of diabetes	€ 5.5 billion (6% of the total healthcare budget, 1999)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – SID /AMD clinical guidelines, IGEA recommendations on disease management

Developments (since 2005)

- Development of education and training for professionals at regional and local level
- Increasing involvement of local stakeholders in the law-making process

Planned actions

- National Plan on Diabetes
- National Prevention Plan
- New guidelines

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Italy is 8.7% of the adult population, representing 3,850,200 adults. The Atlas forecasts a rise in prevalence to 10.4% by 2025.

Italy's National Centre for Disease Prevention and Control (*Centro Nazionale per la prevenzione e il controllo delle malattie*, CCM) at the Ministry of Health, however, has reported the 2005 prevalence rate to be only 3% (of which 90% have Type 2 diabetes, and 10% Type 1).¹⁹⁷

The CCM estimates that between 2.5-3 million people have Type 2 diabetes; however, given the number of people living with the disease without being aware of it, this estimate could be as high as 6 million people. For adults over 65 years old, it is reported that 12% of Italians have diagnosed Type 2 diabetes.¹⁹⁸

According to the National Health Plan 2006-08 (*Piano Sanitario Nazionale 2006-08*)¹⁹⁹ the prevalence of Type 1 diabetes is 0.4-1 case per 1,000 inhabitants.

In 2006, the National Institute for Statistics (*L'Istituto nazionale di statistica*, ISTAT) reported that 4.5% of the Italian population was affected by diabetes (4.6% women and 4.3% men)²⁰⁰. For the 45-74 year old age group, the prevalence is higher among men, while for those over 75 years old, the rate is higher among women. Concerning the geographical distribution, the south of Italy is most affected by diabetes with 5.2% prevalence, followed by the centre with 4.5%, and the north at 3.9%.²⁰¹

COST OF DIABETES

The latest available data estimating the cost of diabetes care in Italy is the CODE-2 study²⁰², which put the figure at €5.5 billion in 1999. This figure has been confirmed by the CCM. The study found that 59.8% of diabetes costs are due to hospitalisation while treatments represent approximately 21.7% of the total.

In 2006, the National Agency for Medicines (*Agenzia Italiana del Farmaco*, AIFA), published its annual report on the use of medicines in Italy which estimated an 8.1% increase in the use of cardiovascular drugs in 2006, which are frequently administered for diabetes complications.

GOVERNMENT HEALTH PRIORITIES

Italy has recently decided to extend the implementation of its National Prevention Plan 2005-2007 (*Piano Nazionale della prevenzione 2005-2007*) to 2008. The Plan, which was created by Ministerial Decree in July 2004, focuses on diabetes complication prevention and cardiovascular risk prevention, as well as addressing issues relating to infectious diseases, vaccination, cancer screening and accident prevention.

The National Prevention Plan, agreed in the State-Regional Conference (*Conferenza Stato-Regioni*), which coordinates policy between national and regional level, sets out a national framework for implementation by the regional authorities. This implementation is overseen by the CCM and in order to support the harmonised delivery of national priorities, CCM has produced operational recommendations. Between 2005 and 2006, CCM received the Plans from the regions, which are currently in the process of being implemented according to local needs.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Italy although a draft plan is now in preparation, according to the Italian Health Ministry.

Recently, the Health Ministry established a permanent committee for diabetes (*Commissione permanente per il diabete*) which is composed of diabetologists, paediatric diabetologists, GPs, nurses, representatives of scientific societies, patients' associations and delegates of the regions. The Committee is responsible for drawing up a new National Plan for Diabetes. This Plan will assess the current gaps in prevention and early detection strategies, the prevention of complications and the social impact of diabetes. It will also take into consideration the recent international guidelines on diabetes. The Plan is intended to be finalised in 2008 and is expected to be implemented by the regional authorities.

Diabetes currently benefits from the National Prevention Plan including the project for the "Integration, Management and Assistance of Diabetes" (*Progetto di Inegrazione, Gestione e Assistenza al Diabete*, IGEA)²⁰³. There are also national recommendations for obesity prevention, where diabetes is referred to as one of the main consequences of obesity.

"More clinical research in the field of evidence of the prevention of complications, and more evidence about the cost-effectiveness and cost-utility of primary diabetes care are required to further stimulate government interest in diabetes prevention and treatment."

Association of Medical Diabetologists

As implementation of the National Plan is almost entirely dependent on the regions, budget constraints often undermine implementation. For example, while targeted training and education of professionals is now improving across the country, the use of information technology to store and share clinical data varies greatly depending on the individual region.

In 2007, the Association of Medical Diabetologists (*Associazione Medici Diabetologi*, AMD) and the Italian Diabetes Society (*Società Italiana Diabete*, SID) produced the 'Italian standard for the treatment of diabetes' (*Standard italiani per la cura del diabete*), which provides guidelines for health professionals to achieve therapeutic effectiveness. New guidelines on disease management will also be published in 2008 by the Centre for the Evaluation of Effectiveness of the Health System (*Centro per la Valutazione dell'Efficacia dell'Assistenza Sanitaria*, CEVEAS) together with the National Health Institute (*Centro superiore sanità*) and the CCM.

POLICY FOCUS

The forthcoming National Plan on Diabetes is expected to have certain provisions directed at people living with diabetes in the immigrant population.

Currently, immigrants holding a "carte de séjour" in Italy are entitled to receive the same treatments as an Italian citizen. According to the Italian section of the Diabetes Attitudes Wishes and Needs (DAWN) study,²⁰⁴ among immigrants, diabetes is more common in those under 44 years while almost absent in those over 65 years. Healthcare professionals face linguistic obstacles in treating immigrants as well as compliance problems related to cultural and religious convictions.

PATIENT ACCESS

In Italy, national framework legislation on ‘Provisions to prevent and treat diabetes mellitus’²⁰⁵ provides for, among other things, free treatment for people with diabetes. A personal card exempts patients from incurring any costs related to diabetes.

Depending on its implementation at regional level, however, some patients may be responsible for partial costs. These are often related to the newer technologies. Some regions, for example, do not provide reimbursement for insulin pumps and accessories. Some regions have also introduced an income threshold above which patients pay part of the costs. Self-monitoring blood pressure meters are not reimbursed.

Italian legislation also sets out the criteria for ‘Specialist Centres for Diabetes’ which must be established by the regional authorities. Currently, Italy has over 600 of these Specialist Centres.²⁰⁶

“Better integration among all of the relevant healthcare actors is essential to tackle diabetes. Changing the medical approach to the disease is the first step in order to create the necessary alliance between doctor and patient.”

*Italian National Centre for Disease Prevention and Control*²⁰⁷

OUTLOOK

According to the CCM, notwithstanding improvements achieved to date, one of Italy’s main challenges lies in improving the poor average level of health awareness and education about diabetes. As a result, many people with diabetes do not pursue a healthy lifestyle and medical compliance is also still low.

In general, patient associations would like to see a more constant flow of information and dialogue with the relevant national and regional institutions. At European level, they advocate further commitment to prevention policies.

The main problems observed by the associations are long waiting-lists and the lack of both specialised personnel and proper medical equipment. However, all of the above mentioned issues affect every Italian region differently.

Further integration between primary and secondary care is expected to increase over the next two years as well as the network for diabetes care. Adoption of the national diabetes plan is now expected during 2008.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	5.5%	5.6%
Estimated number of people with diabetes	558,900	550,700
Estimated cost of diabetes	Not available	

POLICY FRAMEWORK

National plan

- No

Guidelines

- No - International Diabetes Federation (IDF) and other international guidelines are consulted

Planned actions

- Not available

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Kazakhstan is 5.6% of the adult population, representing approximately 550,700 people. The Atlas forecasts a rise in this figure to 7.0% by 2025.

A National Diabetes Register, established in 2000, is updated monthly by endocrinologists in each of the country's regions. While regional endocrinologists may access their local data, country-wide data collected in this national register is confidential and only available to senior officials in the Ministry of Health.

Unofficial information estimates that there are about 140,000 individuals with diabetes in Kazakhstan. Of these, 15,000 people have Type 1 diabetes and 40,000 are insulin-dependent. An IDF report on Kazakhstan estimates that 33% of individuals who have had a heart attack also suffer from diabetes.

COST OF DIABETES

There is currently no publicly available information on the cost of diabetes in Kazakhstan. However, the IDF global working group for the study of economic impact and the Diabetes Association of the Republic of Kazakhstan (DARK) are currently discussing a pilot study to evaluate the impact of diabetes on the family and community.

Approximately, 2% of the national budget is currently allocated to healthcare expenditure. This amount is expected to rise to 4% by 2010.

GOVERNMENT HEALTH PRIORITIES

The President of Kazakhstan set out broad health goals for the country in the report Kazakhstan 2030 and Health of the Nation. At present, the Government's health priorities include diabetes, tuberculosis, AIDS and cancer.

The healthcare system in Kazakhstan is currently in transition,²⁰⁹ and viewed widely as reactive, i.e. focused on treatment with few prevention or screening programmes in place. Policy in the area of health is developed mainly on an ad hoc basis and according to budgetary limitations. Health services are administered by regional authorities who have considerable autonomy in running their local health services.

While the national government has ultimate control over policy making, the Committee of Health is the highest government agency addressing health issues. The Committee lacks the capacity and power to implement a comprehensive national health strategy.

There is currently no system for collecting feedback on the effectiveness of legislation or for regularly improving the legislative framework.

NATIONAL DIABETES PLAN/Framework

There is currently no national plan for diabetes in Kazakhstan.

A draft national plan developed by the national diabetes association in 2001 is no longer in use following the adoption in 2003 of a general health strategy covering diabetes among other diseases.

This legislation provides for the inclusion of diabetes medication in the essential drug list, the provision of funding for insulin and a request for local governments to fund glucose lowering medicines, glucometers and test strips. Officials explain that, in this context, the national government has adopted three priorities for action which could bring benefits to people with diabetes among others. These include special provisions for mothers and children, reform of the medical system and the procurement of up-to-date medical equipment.

Following pressure from the DARK, the government has also made a legal provision to supplement endocrinologists' salaries by 25% if they perform training activities.

Although diabetes guidelines and medical protocols for endocrinologists exist in Kazakhstan, developed on the basis of international guidelines from e.g. the International Diabetes Federation (IDF), they are not widely consulted in practice.

POLICY FOCUS

There are dedicated services for children with diabetes in Kazakhstan. Children are sent to special regional clinics and hospitals because local clinics do not have paediatric endocrinologists who can prescribe fully reimbursed insulin. If parents cannot afford either to travel to these clinics or to purchase insulin directly from pharmacies, children may remain untreated for long periods. In extreme cases (such as a severe winter or in remote regions without easy access to regional centres), health authorities may arrange for special shipments of medication to these regions able to last three to four months.

PATIENT ACCESS

In Kazakhstan, the medical system ensures basic services for people with diabetes. Most of the services and insulin treatment are provided free of charge, and diabetes medication is included on the essential drug list.

The national government funds insulin and testing materials (glucometers and 300 test strips/year) for insulin-dependent patients. Treatment for people with non-insulin dependent diabetes is partially reimbursed by public funds anywhere from 0 to 50%, depending on the region.

For people with diabetes, only endocrinologists may prescribe fully reimbursable treatments such as insulin or glucose-lowering drugs. There is, however, said to be a current shortage of endocrinologists in the country.

Many patients with diabetes do not take advantage of the free quarterly medical check-ups provided by law. Additionally, newly diagnosed patients are provided with ten hours of education and training to manage their disease, but most people with diabetes do not feel that this training is adequate to ensure proper self-management. Moreover, people with diabetes located in rural regions often have difficulties accessing medical services and essential medication.

Foreign private companies have played a role in advancing the quality of treatment for people with diabetes and providing funding for diabetes training. Health promotion activities in schools are performed only by private organisations.

OUTLOOK

There are currently no plans for additional health legislation following the adoption of the health framework in 2003.

The 2008 work plan of the national diabetes association calls for an increase in the percentage of reimbursed medication for patients, particularly for treatments for Type 2 diabetes. Patients more widely are calling for more information and free testing for diabetes.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.9%	10%
Estimated number of people with diabetes	173,600	170,300
Estimated cost of diabetes	18.59% of total healthcare budget (2006)	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Latvian Diabetes Association and Latvian Association of Endocrinologists' guidelines, 'Prevention, Diagnosis and Treatment for Type 2 diabetes' (2007)

Developments (since 2005)

- Pilot project, METABOLAT, dedicated to diabetes prevention and treatment (Latvian Association of Endocrinologists/Ministry of Health)
- 2007: New Guidelines for Prevention, Diagnosis and Treatment of Type 2 Diabetes

Planned actions

- Review of the Public Health Strategy with an evaluation of diabetes healthcare services followed by a policy planning document

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Latvia is 10% of the adult population, representing some 170,300 people. The Atlas forecasts an increase in prevalence to 11.0% by 2025.

National statistics, however, suggest a lower prevalence rate with 2.4% of the population diagnosed with diabetes as of 1 January 2007. This figure corresponds to 53,997 registered diabetes patients, of which 15,000 are said to be insulin-dependent.²¹⁰ Of this total of registered diabetes patients, 3,636 people have Type 1 diabetes and 49,707 have Type 2 diabetes.²⁰¹¹

According to the Latvian diabetes association, the prevalence rate for Type 2 diabetes is increasing steadily at 7,000-10,000 new patients every year.

COST OF DIABETES

According to the Latvian Health Ministry (*Latvijas Republikas Veselības ministrijas*), in 2006, the expenditure on diabetes represented approximately 18.59% of the total healthcare budget.

GOVERNMENT HEALTH PRIORITIES

The main priorities of the Latvian Health Ministry are outlined in the strategy of the Ministry of Health (*Latvijas Republikas Veselības Ministrija*)²¹² and include the introduction of health promotion measures as well as bringing the healthcare system closer to patients.

According to the Ministry, diabetes is included in the Public Health Strategy (*Sabiedrības Veselības Stratēģija*)²¹³ as well as in a Ministerial policy document on 'Health Nutrition 2003–2013' (*Plāns pamatnostādņu Veselīgas Uzturs 2003 - 2013*)²¹⁴.

Adopted in 2001, the Public Health Strategy is based on the WHO strategic document "Health to All in the 21st Century".²¹⁵ One of the goals of this strategy refers to "reduction of the spread of non-communicable diseases" which included actions to reduce diabetes morbidity.

The promotion of healthy diet and physical activity are top priorities for health promotion and chronic disease prevention in Latvia. The policy document on 'Health Nutrition 2003–2013', adopted in 2003, aims at informing the public on issues related to healthy

nutrition with an emphasis on children. Guidelines for healthy catering in schools were developed in October 2007 as a follow up to the regulations restricting marketing of soft drinks, sweets and salty snacks in educational institutions, adopted in 2006.

Regarding physical activity, several campaigns have been carried out with the aim of informing the public on how to spend leisure time in an active way. It is also planned to elaborate and integrate a special physical activity programme in schools for children with health problems.

“The new Guidelines are an acknowledgement of the political responsibility and will of the Latvian Association of Endocrinologists as well as diabetes patient organizations following the appeal of the UN in 2006 to all the members of the UN and the world community, politicians, health care professionals, non-governmental organizations and private sector to pay much more attention to solving diabetes-related problems.”²²⁰

*Dr Ingvars Rasa
President of the Latvian Diabetes Association*

NATIONAL DIABETES PLAN/Framework

There is currently no national plan for diabetes in Latvia.

According to the Latvian Health Ministry, diabetes is a mid-term priority. There are intentions to evaluate current healthcare services provided to people with diabetes to assess ways to develop and improve them. Following this evaluation, the Ministry is planning to draft a policy document aimed at reducing diabetes and related complications.

In parallel, the Latvian Association of Endocrinologists and the Ministry of Health are jointly developing METABOLAT, a programme dedicated to diabetes prevention and treatment. The project is part of two large EU projects, namely IMAGE and D-Plan Phase II and will develop and implement strategies for assessment, prevention and communication to respond to the increasing threat of non-communicable diseases, particularly Type 2 diabetes. The aim is to decrease the burden of Type 2 diabetes in Latvia.

The overall objectives of METABOLAT are to:

- Assess the prevalence of glucose metabolism disorders
- Assess the impact of lifestyle interventions according to baseline lifestyle habits and biomarkers related to glucose metabolism disorders
- Develop and implement the new IDF Guidelines on Type 2 diabetes prevention
- Train health professionals in Type 2 diabetes prevention

The main element of the project is to screen for Type 2 diabetes, followed by implementation of primary prevention among high risk individuals. According to the national diabetes association, the main problems in diabetes care in Latvia include an insufficient level of public information about diabetes resulting in delayed diagnosis; a lack of state funds to provide diabetes patients with self-control equipment; and the small number of patient education centres and specialists. The lack of state funding for treatment is considered as an obstacle to the prevention and treatment of diabetes complications.²¹⁶

On 29 August 2007, the Latvian Diabetes Association, in cooperation with the Latvian Association of Endocrinologists, issued a set of new Guidelines for the Prevention, Diagnosis and Treatment of Type 2 Diabetes²¹⁷ addressed to endocrinologists, general practitioners, nurses, foot care specialists, as well as to specialists involved in diabetes treatment.

The associations of both diabetes patients and endocrinologists stress that the new Guidelines, are broader and more detailed than compared to the first National Guidelines for Type 2 Diabetes issued in 2000. Specifically, they include a new focus on the social and psychological aspects of diabetes patients' care.

POLICY FOCUS

There is no specific focus in Latvia on children, women or immigrant populations.

PATIENT ACCESS

All Latvian citizens are entitled to state-funded healthcare.²¹⁸ For most diabetes treatments, patients are fully reimbursed by the social security system. In practice, this means that patients receive insulin and oral medication without charge, although certain advanced treatments are either not yet reimbursed or are unavailable in Latvia. The current reimbursement status of diabetes treatments can be summarised as follows²¹⁹:

Full reimbursement:

- Injectable insulin and pens
- Micro/macro albuminuria (depending on available budget)
- Structured education (one-to-one/group)

Restricted reimbursement

- Blood glucose monitoring strips (100% for pregnant women and children up to 18 yrs; 75% for patients treated by insulin; 50% for patients treated with oral medication only)

No reimbursement:

- Insulin pumps and accessories
- Retinopathy screening
- Glucose meters (usually provided through donations from companies)
- Self-monitoring blood pressure meters
- Lancets
- Lipid testing (sometimes reimbursed by GPs according to the severity of disease)
- Psychologists

It is said that not all people with diabetes have access to an endocrinologist, mainly because some regional centres do not employ such a specialist. The situation in the capital, Riga, is considered to be better as there are endocrinologists in nine out of 16 out-patient clinics. In addition, the public transport system is also said to create problems for those people with diabetes trying to reach the neighbouring region or capital city in order to access treatment.

Following the introduction of a reference pricing system of state-reimbursed medicines in July 2005, the Latvian Diabetes Association continues to express publicly its concerns that this system could have a negative impact on the interests of diabetes patients.

OUTLOOK

In January 2008, the Latvian Health Ministry will discuss the Public Health Strategy and will look at possible next steps in the area of diabetes treatment and prevention.

The Latvian Diabetes Association insists that the main improvement needed at national level is the development of a national diabetes plan. At EU-level, the Association also believes that the EU could help to encourage the Ministry of Health of each EU Member State to both introduce national programmes and also to ensure regular follow-up.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.4%	9.7%
Estimated number of people with diabetes	248,900	239,900
Estimated cost of diabetes	€18.5 million (12% of Compulsory Health Insurance Fund budget, 2006)	

POLICY FRAMEWORK

National plan

- Yes – Lithuanian Ministry of Health's National Programme for Diabetes Control (2006-2007)

Guidelines

- Yes – Ministry of Health guidelines on diagnostic and treatment methodology (2002), review 2005

Developments (since 2005)

- Adoption of a National Programme for Diabetes Control (2006-2007)
- 'Programme of the Government of the Republic of Lithuania: Priorities of the Health Policy 2006-2008' identified diabetes as one of the most common diseases in Lithuania

Planned actions

- Extension of the diabetes plan for another three years to 2010
- Formation of a new diabetes working group to prepare this extension

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Lithuania is 9.7% of the adult population, representing 239,900 people. The Atlas forecasts a rise in this figure to 10.7% by 2025.

The Lithuanian Diabetes Association (*Lietuvos Diabeto Asociacija*) suggests that of a total population of 3.4 million people (in 2006), only 1.7% are registered as having diabetes. However, the Association estimates that at least 5% of the population are living with the disease.

According to data from the Lithuanian Health Information Centre (*Lietuvos Sveikatos Informacijos Centras*)²²¹, using data from the SVEIDRA information system of the Compulsory Health Insurance system, there were 55,721 people with diabetes in 2005, with the number growing to 59,212 people in 2006.²²²

COST OF DIABETES

Information from the State Patients' Fund²²³ in 2006, indicates that expenditure on diabetes medication and self-monitoring glucose tests from the Compulsory

Health Insurance Fund (CHIF) budget was €18.5 million, which is approximately 12% of the CHIF budget for reimbursed treatments and medical accessories for ambulatory treatment.

GOVERNMENT HEALTH PRIORITIES

Diabetes does not rank amongst the major health priorities of the Lithuanian Government, according to the Lithuanian Diabetes Association. These priorities are currently said to focus on communicable diseases such as HIV/AIDS and tuberculosis as well as cardiovascular diseases. In this context, however, the Association believes that the United Nations Resolution on diabetes, adopted in December 2006, has served to increase the attention paid to the disease by the Government, particularly the Health Minister.

The Lithuanian Ministry of Health (*Lietuvos Respublikos Sveikatos Apsaugos Ministerija*) has recently published a 'Programme of the Government of the Republic of Lithuania. Priorities of the Health Policy 2006-2008' (*Nutarimas Dėl Lietuvos Respublikos Vyriausybės Programos*)²²⁴ in which diabetes is specifically mentioned. The Programme stipulates among its priorities the need to ensure the early detection and effective treatment of the most common diseases, identified as cardiovascular disease, cancer and diabetes.²²⁵

In 2006, the Ministry of Health also published a policy document, "Implementation Strategy of Health Care Reform's Aims and Objectives"²²⁶ which includes the following diabetes-related targets:

- Reduction in the incidence of diabetes mellitus-related blindness by 30% by 2010
- Reduction in the number of people with limb amputations from diabetic gangrene by 30% by 2010
- Significant improvements in the detection of undiagnosed disorders of carbohydrate metabolism by 2010
- Improvements in the pregnancy result indicators of females suffering from gestational diabetes to the level of healthy females

The Lithuanian Diabetes Association is now encouraging the government to take a more active role in financing prevention and promoting early diagnosis of diabetes.

NATIONAL DIABETES PLAN/Framework

In May 2006, the Lithuanian Ministry of Health adopted the National Programme for Diabetes Control for the period 2006-2007 (*Cukrinio Diabeto Kontrolės (2006-2007) Metų Programa*).

In December 2007, the government announced its intention to extend the Plan for another three years to 2010. The main goal of the plan is to improve primary prevention and the diagnosis of Type 2 diabetes. The Plan also seeks to prevent complications of people with diabetes.

The total budget for this programme is €260,000 (LTL 900,000) which has been allocated as follows:

- 50% - early diagnosis of people with risk factors and high glucose levels in pregnancy
- 12% - information to the public
- 11% - preparation and publication of standards for doctors and nurses
- 8% - qualification of doctors
- 4.4% - qualification of nurses
- 4.4% - conferences for doctors
- 1% - conferences for nurses
- 9% - child education in summer camps

In January 2008, it is also expected that the Lithuanian Health Ministry will create a Working Group in preparation for an extension of the Programme for Diabetes Control from 2008-2010.

In 2002, Lithuania introduced national guidelines on diagnosis and treatment of diabetes, developed by the Ministry of Health which were revised in 2005. The guidelines stipulate that diabetes is

diagnosed according to the level of hyperglycemia. For Type 1 diabetes, symptoms also include weight loss and vision disorders. Risk factors for diabetes are obesity, pregnancy and cardiovascular diseases. Patients with risk factors are submitted to a glucose tolerance test, which permits the separation of patients into different risk categories for treatment.

POLICY FOCUS

The National Diabetes Plan for 2006-2007 identifies both women and diabetic foot care as priorities for special attention under the programme. It includes additional funding for the early diagnosis of women with high glucose levels in pregnancy in order to achieve improvements in the results of women suffering from gestational diabetes.

For pregnant women, the Health Insurance Fund also reimburses 600 additional blood glucose monitoring strips per year and, in 2007, the State Insurance Fund reimbursed four blood tests per year.

PATIENT ACCESS

National guidelines from the Lithuanian Ministry of Health²²⁷ for reimbursement and diabetes treatment stipulate that drugs and treatments for diabetes are fully reimbursed. This includes insulin and oral treatments.

Additionally, the guidelines provide for a restricted, annual allocation of self-monitoring blood strips although, according to the National Diabetes Association, this allocation is often insufficient to meet the needs of many diabetes patients.

Full reimbursement:

- Injectable insulin and oral tablets (companies often give free pens and needles to patients)

Restricted reimbursement

- Blood glucose monitoring strips (1,800 strips per year for children up to 18 yrs, 600 strips for adults with type 1 diabetes; 300 strips for adults with type 2 diabetes (insulin), 150 strips for adults with type 2 diabetes (tablets), 600 strips for pregnant woman during pregnancy, 150 strips for women with gestational diabetes)
- Lipid testing and microalbuminuria free in hospital (tertiary level), in clinics only total cholesterol (without Tg, HDL, LDL) once per year

No reimbursement:

- Insulin pumps and accessories
- Glucose meters
- Self-monitoring blood pressure meters (provided free by some companies through doctors)
- Psychologists, dieticians
- Structured education (one-to-one/group)

The national diabetes association hopes that, in early 2008, the Ministry of Health will approve the reimbursement of insulin pump accessories for children and young people under the age of 19 years and pregnant women. The pumps themselves remain funded by private diabetes foundations or individuals in Lithuania.

OUTLOOK

In December 2007, the Lithuanian Government expressed its intention to extend the current National Diabetes Plan for a further three years (2008-2010) and is expected to initiate the creation a working group in January 2008 to develop this plan.

The Lithuanian Diabetes Association continues to advocate a minimum 10-year programme for diabetes in order to provide a long-term strategy for the prevention, diagnosis and treatment of people living with diabetes.

The National Association also believes that an EU Recommendation on diabetes could be very helpful in encouraging the Ministry of Health to adopt a longer term perspective for diabetes prevention, treatment and care.

“We hope that based on the recommendations of the European Parliament and the United Nations Resolution on Diabetes we can join efforts with all partners to achieve a national policy for the prevention, treatment and care of diabetes in Lithuania in the near future.”

*Vida Augustiniene, President,
Lithuanian Diabetes Association*

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	3.8%	6.9%
Estimated number of people with diabetes	12,500	23,600
Estimated cost of diabetes	Not available	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – Diabetes-specific clinical guidelines, based on IDF Global guidelines

Developments (since 2005)

- Awareness campaigns by diabetes stakeholders

Planned actions

- Publication of a national diabetes plan
- A report containing new diabetes prevalence data

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Luxembourg is 6.9%, which represents 23,600 people. The Atlas forecasts a rise in prevalence to 8.2% by 2025.

National statistics indicate a prevalence rate of 3.95%. However, this rate corresponds only to diagnosed cases of diabetes and patients who are registered with the national sickness reimbursement fund (*L'Union des Caisses de Maladies*) as receiving diabetes treatment.

According to the national diabetes patient association (*Maison du Diabète*), the national prevalence rate of confirmed cases is 3.5%, representing 16,000 cases in the country.

COST OF DIABETES

There are no reliable figures available on the cost of diabetes in Luxembourg. However, healthcare professionals suggest that this will be the next step in improving data collection in Luxembourg after prevalence and incidence data have been adequately and systematically registered.²²⁸

GOVERNMENT HEALTH PRIORITIES

Luxembourg's Ministry of Health is currently active in the area of improving lifestyle factors, in particular promoting healthy eating, physical activity and implementing new legislation on nutrition. Other health-related priorities include cardiovascular diseases (CVD), mental health, AIDS, cancer and the monitoring of children and teenage health.

Diabetes is not a priority in itself for the government, and healthcare professionals warn that the disease does not currently receive the attention it requires.

Consultation with diabetes stakeholders does appear to be increasing in Luxembourg. The government is currently meeting informally with diabetes experts in preparation for a status report on diabetes which is expected to be published by the end of 2007. The report is likely to include data on the disease collected through an initiative of healthcare professionals.²²⁹

NATIONAL DIABETES PLAN/Framework

There is currently no national plan for diabetes in Luxembourg.

It is suggested by some groups that, as Luxembourg is a small country with a relatively small number of patients, there are difficulties in implementing disease-specific national plans. However, it is also stressed that without more commitment and concrete actions from the government, healthcare professionals remain at the forefront of the battle against this disease.

Diabetes is currently tackled indirectly through a non-binding national health programme ‘Health for All’ (*Santé pour Tous*)²³⁰, which runs for the period 2004-2010 and includes a short section on diabetes.

The programme calls for:

- The establishment of a data collection system
- Action on lifestyle factors and nutrition to encourage primary prevention of diabetes
- Early-screening of risk groups, notably the systematic screening by GPs for gestational diabetes in pregnant women and retinopathy
- Dissemination of diabetes information to doctors and patients
- Special assistance services for people suffering from diabetes complications

Despite the absence of a national programme, the national diabetes association appears satisfied with the current provisions for diabetes, which they believe benefits from the “spill-over effects” from other government priorities, notably the emphasis on preventive medicine.²³¹

The association has organised a number of diabetes awareness campaigns with the aid of the Ministry of Health which also provides support for the diabetes association’s activities on World Diabetes Day under the ‘Inter-Régional’ project. These activities include the promotion of diabetes screening. This project expired in December 2007 and there are currently no plans for its extension. The national diabetes patient association is also responsible for the communication of diabetes guidelines to patients, but these are currently neither monitored nor their impact evaluated.

Although clinical guidelines for diabetes have been published, based on international guidelines, there is currently no monitoring system in place to measure their implementation and impact. The general national health programme has set up a national multi-disciplinary and multi-sectoral committee to discuss general health guidelines (e.g. on nutrition) the relevance and value of which is questioned by some stakeholders.

POLICY FOCUS

Under the ‘Health for All’ national health programme, Luxembourg has prioritised the early-screening of at-risk groups, notably systematic screening for gestational diabetes in pregnant women.

“Luxembourg is a small country. It will be difficult to have diabetes tackled specifically by the MoH. However, we are already satisfied with the attention we benefit from other national programmes.”

*Ms. Sylvie Paquet,
National Diabetes Association*

PATIENT ACCESS

In Luxembourg, the reimbursement of treatments, overseen by the national sickness reimbursement scheme (*Union des Caisses de Maladies*) is, in general, considered to be quite comprehensive. Nevertheless, changes in the current reimbursement scheme for diabetes treatments and products for children are now under discussion.²³²

Injectable insulin and insulin pens and pumps, as well as other accessories, are currently 100% reimbursed, as are blood glucose monitoring strips and lancets. Lipid testing is reimbursed only if performed at a hospital, although children receive 80-100% reimbursement regardless of where it is carried out. Blood glucose monitoring meters are distributed to each family every five years. Micro/macro albuminuria and retinopathy are screened during medical consultations and are reimbursed as such, i.e. at the standard consultation reimbursement rate of 90%.

Self-monitoring blood pressure meters are not reimbursed, nor are psychological care, educational activities and nutritionist consultations. Structured education (one-to-one/group) and psychological support are performed by patient associations and doctors, who are not paid for that type of care.

OUTLOOK

In the next two years, considerable activity is expected to take place with a view to improving the prevention of diabetes complications, general care in transitional groups (i.e. teenagers) and the establishment of a data collection system to monitor people with diabetes and disease trends.

At national level, all diabetes stakeholders are calling for the Ministry of Health to acknowledge the importance of psychological support and education in reducing the impact of the disease by reimbursing these types of follow-up care. Healthcare professionals would also like to see consultations with nutritionists reimbursed for Type 2 diabetes.

Interviewees for this audit expressed general support for a harmonisation at EU-level of diabetes indicators and definitions, so as to facilitate comparison of diabetes data amongst Member States. Healthcare professionals also believe that the EU should promote the exchange of best practices amongst Member States as well as work towards general European treatment guidelines.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.2%	9.7%
Estimated number of people with diabetes	25,800	28,600
Estimated cost of diabetes	Not available	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – European Diabetes Policy Group guidelines for diabetes treatment (1998-1999) and international guidelines from EASD, IDF and ADA

Developments (since 2005)

- Identification of health priorities, including disease prevention, for the period 2008-2013

Planned actions

- Development of a Non-Communicable Disease Strategy which includes diabetes

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Malta is 9.7% of the adult population, representing 28,600 people. The Atlas forecasts a rise in prevalence to 11.6% by 2025.

The National Diabetes Association (*Għaqda Maltija Kontra id-Dijabete*) states that there are over 30,000 diagnosed persons with diabetes in Malta and that they expect this number to double by 2010²³³. Furthermore, 84% of people with diabetes in Malta are either overweight or obese.²³⁴

Diabetes accounts for one in every four premature deaths occurring before the age of 65. In addition, the leading cause of death in Malta, cardiovascular disease, kills nearly two-thirds of all diabetes patients²³⁵.

Malta has one of the world's highest rates of childhood obesity and diabetes²³⁶ and gestational diabetes is also a particular problem in the country where it affects 1.81% of all pregnant women and remains an important cause of miscarriages.²³⁷

COST OF DIABETES

There is currently little available data on the costs associated with the prevention, screening and treatment of diabetes in Malta. The high incidence of chronic conditions like obesity and diabetes, together with

increased drug and device costs and an ageing population are, however, reported to be putting a significant financial burden on the Maltese healthcare system. The question has been asked how Malta will sustain its high quality system in the face of these increasing costs.²³⁸

GOVERNMENT HEALTH PRIORITIES

The Maltese Ministry of Health, in line with the WHO, has identified a number of priority areas for the period 2008-2013. These include: health promotion, disease prevention, and environment and health.²³⁹ The 2006-2007 Biennial Collaborative Agreement (BCA) between WHO and the Ministry of Health focuses specifically on supporting the implementation of national health objectives through:

- Quality of care: development of a national quality of care strategy.
- Health policy: functional review and possible reorganisation of the Ministry of Health; development of a national health strategy to set the framework for disease prevention and health promotion.
- Pharmaceutical policy: implementation of the national medicines policy; building capacity for selecting reimbursable medicines and updating the essential medicines list; review of medicine supply mechanisms.

Priorities for 2008-2009 are expected to include²⁴⁰:

- The promotion of health, and the prevention and reduction of risk factors for health conditions associated with tobacco, alcohol, the use of drugs and other psychoactive substances, unhealthy diet, physical inactivity and unsafe sex.
- The prevention and reduction of non-communicable diseases, mental disorders, violence and injuries and of the associated disability and death.

In 2008, the Maltese Ministry of Health is also planning to develop a strategy on Non-Communicable Diseases with a wide consultation process expected to take place during the course of 2008.²⁴¹ Diabetes will be included in the scope of this planned strategy.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in place in Malta.

Government health officials have recently stated that diabetes is a health priority in Malta and that several policy changes should be expected in the next few years. The Maltese Ministry of Health has specifically indicated that there are plans to formulate a national policy aimed at tackling diabetes.²⁴²

The plan will aim in part to recruit more doctors to specialise in diabetes and endocrinology in order to better cope with an increasing workload and thereby improve the provision of diabetes prevention and care. Also, the government intends to upgrade foot care services and to recruit the services of vascular surgeons with a specialisation in diabetes. A new, larger and better equipped hospital, Mater Dei Hospital, is also under construction.

A National Steering Committee on Diabetes operates within the Ministry of Health. Tasked with overseeing and improving diabetes prevention and care, the Committee functions as an informal network between health professionals, the Maltese Diabetes Association and the national authorities.

Malta uses the guidelines of the European Diabetes Policy group of 1998-1999 as the basis for diabetes treatment. Practitioners also commonly refer to international guidelines such as those of the European Association for the Study of Diabetes (EASD), International Diabetes Federation (IDF) and the American Diabetes Association (ADA).

POLICY FOCUS

According to a World Health Organization (WHO) report on Malta, 14% of pregnancies produced babies weighing over 4 kilograms suggesting a genetic predisposition to diabetes.²⁴³

The Maltese Health Vision 2000 programme identified genetic screening services for pregnant women as a priority and together with establishment of special diabetes clinics, this continues today.²⁴⁴ The screening programme for pregnant women in Malta involves glucose tests carried out at the beginning of the third trimester and a special treatment programme for pregnant women with diabetes is also in place.

PATIENT ACCESS

According to the national patient association, Malta has developed a good system of care to deal with diabetes, including good access to high quality treatments which are mostly free of charge.

Full reimbursement is restricted to those treatments which are included in the Maltese government's list.²⁴⁵ Over the age of 35, certain treatments (e.g. lancets and blood glucose monitoring strips/meters) are not refunded and routine screening stops.

Full reimbursement:

- Injectable insulin and pens
- Insulin pumps and accessories (from 2008)
- Lipid testing
- Micro/macro albuminuria
- Retinopathy screening
- Structured education (one-to-one/group)
- Psychologists

Restricted reimbursement:

- Blood glucose monitoring strips/meters (only for Type 1 diabetes and for people under 36 years of age)
- Lancets (only for Type 1 diabetes and for people under 36 years of age)

No reimbursement:

- Self-monitoring blood pressure meters

OUTLOOK

The Ministry of Health has announced plans to formulate a specific national policy on diabetes although no timing has been specified. In the meantime, the Ministry reports that it is also in the process of drafting a Non-Communicable Disease Strategy which will also include diabetes. A wide consultation process on this document is planned and it is hoped that it will be finalised towards the end of 2008.

The Ministry of Health has indicated that the following developments would help in fighting diabetes:

- Routine screening for people over 35 would improve prevention, screening and treatment of diabetes.
- Local data on cost savings associated with early diagnosis and tight control of diabetes (prevention of complications, less absenteeism from work etc.) would also help to further stimulate government action on diabetes prevention and treatment.
- Further lobbying from patient organisations is also required to further stimulate government interest in diabetes prevention and treatment.
- An EU Recommendation on the right of every patient to specialist care and a recommendation on routine screening of high-risk groups (including certain ethnic groups) would improve the prevention, screening and treatment of diabetes in Malta.

Stakeholders would welcome greater activity on diabetes at EU-level as a way to share best practice and provide impetus for further government action in the area of diabetes.

“We firmly believe that prevention is better than cure. Adequate diabetes prevention can minimise hospitalisation due to complications and ease the financial burden on the government – we see the money spent on diabetes prevention and care as an investment towards a better healthy lifestyle.”

*Anna Zammit McKeon
President of the Maltese Diabetes Association*

NETHERLANDS

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	3.7%	7.3%
Estimated number of people with diabetes	432,200	872,000
Estimated cost of diabetes	2.5% of the total healthcare budget (2005)	

POLICY FRAMEWORK

National plan

- Yes – Ministry of Health, Welfare and Sport's 'Diabetes Action Programme 2005-2009'

Guidelines

- Yes – Dutch College of General Practitioners' guidelines (revised in 2006), Government guidelines on diabetes and pregnancy (2006), Dutch Institute for Healthcare's guidelines (1998)

Developments (since 2005)

- 2006: Launch of diabetes prevention campaign
- 2006: Revised guidelines for Type 2 diabetes from Dutch College of General Practitioners
- 2006: Government guidelines on diabetes and pregnancy

Planned actions

- Diabetes Prevention Programme is in preparation

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in the Netherlands is 7.3%, representing 872,000 people. The Atlas forecasts a rise in this rate to 9.6% by 2025.

According to the National Public Health Compass (*Nationaal Kompas Volksgezondheid*), developed and coordinated by the National Institute of Public Health and the Environment (RIVM), in 2003, more than 600,000 people had diabetes, a number which is thought to be increasing by 70,000 each year. There is also an estimated 250,000 people living with undiagnosed diabetes.²⁴⁶

COST OF DIABETES

The RIVM is expected to carry out an analysis and assessment of the impact of the aforementioned diabetes programmes with regard to cost effectiveness, research and data.

The latest information concerning cost data from the 'Code 2 Study' (Costs of Diabetes in Europe, Type 2) stated that diabetes represented a modest 2.5% of the total healthcare budget in the Netherlands, one of the lowest spending levels recorded at that time.

GOVERNMENT HEALTH PRIORITIES

In 2006, the Ministry of Health, Welfare and Sport (*Ministerie van Volksgezondheid, Welzijn en Sport, VWS*) introduced a new prevention policy, 'Opting For a Healthy Life' (*Kiezen voor een gezond leven*)²⁴⁷ for the period 2007-2010. The policy document identifies five specific national public health priorities, including diabetes, smoking, obesity, alcohol abuse and depression.

The objectives outlined under the diabetes priority section are as follows:

- the number of people with diabetes should not rise by more than 15% between 2005-2025
- 65% of people with diabetes should not develop complications

To achieve these objectives, the Health Ministry intends to target prevention in those groups with a higher risk of developing diabetes, namely overweight young people; underprivileged people; immigrants; pregnant women; and people with undiagnosed diabetes. The Ministry has also set out plans for legislation, information campaigns and a new pharmaceutical pricing policy, while encouraging better cooperation across the government at both national and local levels.

NATIONAL DIABETES PLAN/Framework

In 2005, the Netherlands introduced the 'Diabetes Action Programme 2005-2009' (*Het Diabetesactie-programma 2005-2009*)²⁴⁸ to improve the care for people living with diabetes.

It is now expected that this national programme will be further implemented and expanded, including the addition of a new National Diabetes Prevention Programme (*Nationaal Diabetes Preventie-programma*, NDPP). The programme is currently being developed by the Dutch Diabetes Federation (*De Nederlandse Diabetes Federatie*, NDF), although it is not known when it will be published.

The programme is expected to include information aimed at the general public, as well as a longer-term campaign aimed at high risk groups, such as overweight people older than 45, people with a low socio-economic status and immigrants.

The programme will also focus on developing lifestyle interventions and is based on the information campaign 'A Healthy Look at Diabetes' (*Gezonde Kijk op Diabetes*), which was launched in April 2006 and runs through to April 2010.²⁴⁹ Also aimed at people with a high risk of developing diabetes, it focuses on prevention, care and increased awareness. The campaign also aims to identify people who have diabetes, or are at increased risk of the disease, as early as possible. The campaign is conducted jointly by the NDF, National Institute for Health Promotion and Sickness Prevention (*de Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie*, NIGZ) and the Dutch Institute for Sport (*de Nederlands Instituut voor Sport en Bewegen*, NISB). It is financed by the Institute of Health Research and Innovation (*de Nederlandse organisatie voor gezondheidsonderzoek en zorginnovatie*, Zonmw).

The RIVM is expected to carry out an analysis and assessment of the impact of the aforementioned diabetes programmes with regard to cost effectiveness, research and data.

Long-standing guidelines from the Dutch College of General Practitioners (NHG)²⁵⁰ are still widely used and respected by most GPs and specialists. Revised in 2006, key changes included recognition of Metformin as the first step in treatment and a limited place for thiazolidinedione. Since 2006, there have also been government guidelines on diabetes and pregnancy. 1998 guidelines from the

Dutch Institute for Healthcare are also still extensively used.²⁵¹ There is currently no indication that the guidelines will be revised in the near future.

POLICY FOCUS

The new diabetes prevention programme will be aimed at high risk groups including immigrants in order to raise awareness of the importance of healthy lifestyles.

Government guidelines on 'diabetes and pregnancy' are addressed to GPs, and focus on three main patient groups: women with diabetes mellitus Type 1 who either are or want to become pregnant, women with diabetes mellitus Type 2 who are or want to become pregnant, and women with gestational diabetes.²⁵²

PATIENT ACCESS

Diabetes treatment is generally very well reimbursed by the national health insurance scheme. The Health Insurance Act (*De Zorgverzekeringswet*) gives everyone the right to a basic reimbursement package.²⁵³

People with diabetes are entitled to full reimbursement for treatment for Type 1 diabetes and, as of 2007, for Type 2 diabetes if they are insulin-dependent. If people with Type 2 diabetes are not taking insulin, they are only reimbursed for blood glucose monitoring and strips/meters.

Additionally, almost all medicines for diabetes are reimbursed in the basic package, except for Rosiglitazone and Pioglitazone.²⁵⁴

Fully reimbursed treatments²⁵⁵:

- Injectable insulin and pens
- Insulin pumps and accessories
- Lancets
- Blood glucose monitoring strips/meters (for all people with Type 2 diabetes)
- Self-monitoring blood pressure meters

Physiotherapy is no longer reimbursed as part of the standard package. People with diabetes must take supplementary insurance to be reimbursed.

“Diabetes should remain a spearhead within the Department of Healthcare. Diabetes patients have more difficulties to function normally at their work. This increase of diabetes patients has a severe consequence on the economy. The authorities should bear this in mind to encourage further actions.”

C. Brinkman

Diabetes Federation of the Netherlands

Another important development regarding diabetes is the launch of the Diabetes Care Chain Programme (*Diagnose Behandelend Combinatie – Keten, DBC,*)²⁵⁶. This programme aims to ensure that people with diabetes receive good care at the lowest price through a contract between a chain of care providers and the patient’s insurer. Once the contract is signed, the DBC follows the medical progress of the patient. An evaluation of the programme was presented on National Diabetes Day, 20 March 2008.

A new health insurance system took effect on 1 January 2006, which introduces an income-related healthcare premium and allowance.²⁵⁷ Under the revision, an individual who pays an excessive premium will receive compensation from the healthcare allowance. However, the healthcare allowance will not be based on the actual premium paid by the insured to their health insurer, but on the average of the nominal premiums in the marketplace.

OUTLOOK

The NDF is now in the process of developing a new national diabetes prevention plan to run alongside the existing diabetes action programme. The plan will focus on providing information to the public, particularly targeted at groups at a high risk of developing diabetes.

The Netherlands is also expected to expand the current diabetes care chain programme.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.0%	9.1%
Estimated number of people with diabetes	2,506,500	2,607,700
Estimated cost of diabetes	€655 million (8.1% of the total healthcare budget, 2002)	

POLICY FRAMEWORK

National plan

- Yes – Diabetes Prevention and Treatment Programme in Poland 2006-2008

Guidelines

- Yes – Polish Diabetologists Association's Clinical Guidelines for Diabetes Treatment (2007)

Developments (since 2005)

- 2006: Adoption of national diabetes programme
- 2007: Third edition of guidelines on diabetes treatment

Planned actions

- Implementation of the national diabetes programme

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Poland is 9.1% of the adult population, representing 2,607,700 people. The Atlas forecasts this rate to rise to 11% by 2025.

The Ministry of Health (*Ministerstwo Zdrowia*) has reported that there are over two million people living with diabetes in Poland, which equates to about 5% of the population.²⁵⁸

According to the national diabetes association (*Polskie Stowarzyszenie Diabetyków*), the prevalence rate in Poland has grown consistently from 6.3% in the 1970s to the current estimated rate of 9.3%.²⁵⁹ According to some predictions, the rate could reach 10% by 2015.²⁶⁰ Diabetes remains undiagnosed in about 30-40% of all cases.²⁶¹

COST OF DIABETES

The last comprehensive study of the estimated cost of diabetes in Poland, CODIP, dates from 2002²⁶² and was based on the CODE-2 study (Cost of Type 2 diabetes in Europe). In 2002, the total direct cost of Type 2 diabetes in Poland was calculated at nearly €655 million or 8.1% of total healthcare spending.²⁶³ The study showed that indirect costs (e.g. early pensions, absence from work, transport) are much higher than direct costs (medical appointments,

diagnosis, treatment, hospitalisation). The cost of pharmaceuticals represented the major share of direct costs (insulin represented two-thirds of the total followed by hospitalisation).

Since 2002, no updated study on the cost of diabetes has been carried out. However, the National Health Fund estimates that its expenses for diabetes have increased by 10-15% over the last two years.²⁶⁴

GOVERNMENT HEALTH PRIORITIES

Despite the adoption of a national diabetes programme in May 2006, diabetes is not considered as one of the strategic health priorities in Poland's National Health Programme 2007-2015 (*Narodowy Program Zdrowia 2007-2015*).²⁶⁵ Cancer, CVD and mental health issues are, however, prioritised.

The National Health Programme, which has the general aim of trying to 'improve health, and consequentially, the quality of life as well as to reduce health inequalities' mentions diabetes only in passing, calling for improvements in:

- healthy eating habits as one of the operational ways to combat illnesses such as diabetes
- earlier diagnosis and care of patients who are at risk of diabetes complications

NATIONAL DIABETES PLAN/Framework

In May 2006, Poland adopted the Diabetes Prevention and Treatment Programme (*Program Prewencji i Leczenia Cukrzycy w Polsce na lata*) for the period 2006-2008.²⁶⁶

The programme was drafted by a group of experts (the Council) chaired by Professor Krzysztof Strojek, the National Consultant for Diabetes. The Programme is currently considered as a pilot, but the diabetes community hopes that its implementation and positive evaluation will lead to new, stronger commitments by Polish decision makers.²⁶⁷

The main objectives of the Programme are the reinforcement of preventative measures, optimisation of diabetes treatment and its complications and a reduction of the financial burden for both patients and the national budget. Specific objectives include:

- reduction of the most serious diabetes complications
- implementation of primary prevention measures aimed at early recognition of metabolic risk factors in high risk groups
- implementation of secondary prevention measures for patients with recognised cardiovascular problems
- provision of relevant diagnostic aids and support in the organisation of preventive interventions
- development of common standards for diabetes prevention and treatment
- creation of a system to guarantee patients access to relevant equipment and medication
- education and information

The Programme underlines the fact that a holistic and coordinated approach is needed with a particular emphasis on health promotion and the prevention of Type 2 diabetes.

The Ministry of Health is responsible for management of the Programme; however, the Council, acting as an advisory body, plays an important role in its implementation.²⁶⁸

The Programme became operational in November 2006 and €250,000 was allocated to the first pilot tasks which included preparation for:

- creation of a 'Diabetes Patients Registry' (including information on diabetes complications)
- creation of a 'Registry of Age of Majority' (children's diabetes registry)
- training programme for family doctors

Although these initial tasks were successfully undertaken by the relevant institutions²⁶⁹, the entire 2007 programme received only half of the allocated funding (€125,000)²⁷⁰ meaning that implementation of the Programme has been limited to the creation of the 'Diabetes Patients Registry' and 'Registry of Age of Majority' only.

Plans for 2008 are still under consideration. However, at the end of November 2007, it was decided that rather than the anticipated sum of €1 million for implementation of the national programme in 2008, only €150,000 is now envisaged.²⁷¹ According to the National Diabetes Consultant, this will unquestionably limit the proper implementation of the programme.

With regard to guidelines, the Polish Diabetes Association recently issued the third edition of its guidelines on diabetes treatment.²⁷² The recommendations are targeted at specialists who use them in daily medical practice. The guidelines are respected and implemented nationwide and are subject to annual revision and update. The recommendations cover, *inter alia*, criteria for diagnosis of diabetes (targets for glycaemia control, glycosolated haemoglobin); measures for prevention of Type 1 and Type 2 diabetes; gestational diabetes; medical care of people living with diabetes; nutritional recommendations; use of oral medicines and insulin as well as diabetes complications.

In addition, in 2006, the Polish Federation of Diabetes Education together with the national nursing consultant published on its website a set of diabetes guidelines addressed mainly to nurses and midwives.²⁷³

"There are great ideas, but more money is needed."

*Prof. dr hab.med Krzysztof Strojek
National Consultant for Diabetes*

POLICY FOCUS

The needs of specific patient groups such as children and adolescents as well as pregnant women are recognised both in the national programme and in daily practice. Currently, these groups have privileged access to diabetes treatment and care, and are covered by so called 'integrated care' and take advantage of special reimbursement rules.

Due to the small number of immigrants in Poland, no special set of provisions has been made.

PATIENT ACCESS

Reimbursement for diabetes treatments can range from full reimbursement, via a lump sum, to a 50% patient contribution.²⁷⁴ All conventional treatments are fully reimbursed. A large proportion of the costs of short acting insulin analogues and blood glucose monitoring strips/meters is also reimbursed. Long-lasting analogues and GLP-1 are not reimbursed.²⁷⁵

Children and pregnant women benefit from free access to insulin pump accessories (needles and infusion sets) although a monthly limit is indicated.²⁷⁶ While insulin pumps are not reimbursed by the central government, the majority of children get them free via paediatric clinics or via nationally organised campaigns such as the Great Orchestra of Christmas Charity (*Wielka Orkiestra Świątecznej Pomocy*).²⁷⁷

Lipid testing, micro/macro albuminuria and retinopathy screening belong to standard annual treatments. However, strict annual financial limits mean that implementation in this respect is quite weak. For the same reasons, access to psychologists is also very limited.²⁷⁸

The introduction of new contract rules by the National Health Fund, in January 2008, will give some people with diabetes the opportunity of full and free coverage in so called 'complex care' in specialised clinics²⁷⁹. This new form of care will be directed at both Type 1 and Type 2 diabetes patients who are under insulin treatment and for women whose diabetes was diagnosed for the first time during pregnancy.

OUTLOOK

The adoption of the national diabetes programme in 2006 is considered as a great advance over previous policy. However, the programme's implementation remains fragmented and has been described as 'a small light in the tunnel'²⁸⁰. The diabetes community has specifically underlined the need for increased financial resources.

Among the suggested areas for improvement are the need for an increased number of diabetes specialists, integrated care and better coordination, improved consultation with the diabetes community on reimbursement rules and additional financial resources for educational activities (e.g. training for primary care doctors, creation of a special post of the 'educational nurse').²⁸¹ With regard to reimbursement, greater access to insulin pumps and access to long-lasting analogues is also strongly advocated.

Successful implementation of the national diabetes programme is a prerequisite for further and stronger commitment in the fight against diabetes. The Polish diabetes community hopes that its implementation will lead to the classification of diabetes as one of the country's health priorities.

PORTUGAL

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	7.8%	8.2%
Estimated number of people with diabetes	584,500	648,300
Estimated cost of diabetes	Not Available	

POLICY FRAMEWORK

National plan

- Yes – National Programme for Diabetes Prevention and Control (2007)

Guidelines

- Yes – ‘Diabetes Dossier’ for practitioners and ‘Diabetics’ Guide’ for patients

Developments (since 2005)

- 2007: The National Programme for Diabetes Prevention and Control (final ministerial approval)

Planned actions

- Epidemiological study on national and regional prevalence
- Figures on the incidence and cost of diabetes
- Review of The National Programme for Diabetes Prevention and Control

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Portugal is 8.2% of the adult population, forecasted to rise to 9.8% by 2025.

National figures suggest a lower prevalence for the period 2005/2006 as contained in the National Health Institute’s (*Instituto Nacional de Saúde*) ‘Fourth National Health Enquiry’ (*4º Inquérito Nacional de Saúde*) and the National Institute of Statistics (*Instituto Nacional de Estatística*)²⁸². These data reveal that diagnosed cases of diabetes include 6.5% adults from the mainland of Portugal, 6.7% of adults from the Azores and 4.6% of adults from Madeira²⁸³.

In addition to these diagnosed cases, an estimated 300,000 Portuguese remain undiagnosed, putting the national prevalence rate at roughly 9%. Of this total, it is estimated that 90% suffer from Type 2 diabetes²⁸⁴.

The new national diabetes plan addresses the lack of data collection and also provides for a nation-wide study on prevalence for 2009 that will detail the regional spread of the disease.²⁸⁵

COST OF DIABETES

There is currently no reliable data or estimates of the cost of diabetes in Portugal. The National Programme for Diabetes Prevention and Control (*Programa Nacional de Prevenção e Controlo de Diabetes*, PNPCD) asserts that the initiatives undertaken to improve access to care and patients’ self-management have saved around €1 million and reduced the number of emergency cases by roughly 3,000 since 2003²⁸⁶. However, these estimations do not cover indirect costs.

The Health Ministry has indicated that figures on the cost of diabetes should be available in 2009.

GOVERNMENT HEALTH PRIORITIES

Cancer, cardiovascular diseases, HIV/AIDS, ageing and mental health are the current health priorities in Portugal.

The National Health Plan 2004-2010 (*Plano Nacional de Saúde 2004-2010*, PNS)²⁸⁷ also identifies diabetes as the disease with the highest increase in mortality over the past 20 years.

NATIONAL DIABETES PLAN/Framework

In November 2007, the Portuguese Ministry of Health launched the PNPCD²⁸⁸ as a key element of the National Health Plan. Replacing the previous National Programme of Diabetes' Control (*Plano Nacional de Controlo da Diabetes*, PNCD), the new plan is based on the Finnish diabetes prevention model, and integrates the preventive dimension into the existing policy framework to establish a comprehensive health policy on diabetes.

The PNPCD seeks to ensure a coherent framework and details 27 steps for government action over the period 2008-2010 that are incorporated in strategies of intervention, training and data collection which target healthcare institutions, professionals and patients. The new plan integrates all levels of disease management (primary, secondary and tertiary care) and follows every step of a potential patients' life cycle (preventive care, early-diagnosis and treatment, and rehabilitation). The PNPCD reinforces mechanisms for its monitoring, implementation and evaluation (namely of the quality of the clinical follow-up of people with diabetes). Of particular relevance, is the appointment of a national coordinator in the Health Ministry who will oversee implementation of the plan by the different regional health administrations (*Administrações Regional de Saúde*, ARS). The coordinator is also responsible for the publication of an annual progress report²⁸⁹.

The programme's overall objectives include the reduction of diabetes prevalence, morbidity and mortality, delay in the development of 'major' complications (i.e. CVD, neuropathy, nephropathy, amputation and retinopathy), and the management of the programme in an integrated manner. Specifically, the PNPCD will address the following challenges in line with objectives of the overall National Health Plan.

Improved Data Collection

- To improve monitoring and the targeting of risk groups, the plan foresees systematic and computerised data collection supported by the establishment of a National Observation Centre.

Improved Patient Education and Training of Practitioners

- The systematic distribution of the Guide of the Person with Diabetes (*Guia da Pessoa com Diabetes*) as well as its promotion to patient organisations.²⁹⁰

- Moreover, the plan sets out six action points to improve the training of both practitioners (e.g. improve academic recognition of diabetes care, elaboration and distribution of the "Manual of therapeutic education", etc.) and patients (e.g. dissemination of information on diabetes to both patients and their families).

Implementation of a national screening programme for the treatment of diabetic retinopathy, diabetic foot disease and micro-albuminuria

- Targeted diabetes screening of at-risk groups, identified by healthcare professionals according to defined criteria with monitoring of implementation of regional and national programmes.

The development and application of new classification and diagnosis methods of diabetes decided at the international level and approved by the Portuguese Diabetology Society (Sociedade Portuguesa de Diabetologia, SPD)

- The publication and distribution of a Manual of Best Practices of Diabetes Vigilance (*Manual de boas práticas na vigilância da diabetes*) to healthcare professionals responsible for primary, secondary and tertiary care²⁹¹.

Finalisation of a endocrinology and reference network (Rede de Referência e de Endocrinologia)

- The preparation and distribution of a brochure of useful information such as contact points and the schedule for consultations for screening and treatment of diabetes and its subsequent complications.

Additionally, to further improve diabetes prevention and treatment, the PNPCD calls for the creation of small diabetes care units within medical centres²⁹² to ensure better proximity of treatment. Collaborators of the National Diabetes Association (APDP) have suggested that these units should include multi-disciplinary teams (i.e. nutritionists, nurses, etc) in order to respond in an efficient way to the needs of the diabetes patient²⁹³. However, this would involve employing additional specialised healthcare professionals with significant cost implications.

The Plan is scheduled for review in 2010.

POLICY FOCUS

The PNPCD is addressed to the Portuguese population as a whole, and provides for general awareness campaigns on diabetes and lifestyle factors.

It nonetheless identifies target populations including people with diabetes, pregnant women and other high risk groups. The plan provides for a questionnaire in order to help healthcare professionals to identify risk groups.

During its 2007 EU Presidency (July–December), Portugal also highlighted the link between health and migration with specific reference to diabetes.

“The Portuguese Programme on Diabetes is one of the best programmes in Europe, but there are still some serious problems at the implementation level.”

Dr Luis Gardete Correia

President of the Portuguese Society of Diabetology

PATIENT ACCESS

Portugal, like many other EU countries, is striving to contain and even reduce its healthcare costs.

- Currently, insulin products and accessories remain 100% reimbursed²⁹⁴.
- From 1 January 2008, insulin pumps will also be reimbursed.
- Some self-monitoring products are still not reimbursed (e.g. lipid strips).
- Reimbursement of oral medication has also recently been cut from 100% to 85%.
- Lipid analyses are reimbursed under the same conditions as other medical analysis.
- Micro/macro-albuminuria testing is completely free of charge.
- Retinopathy screening has currently only been implemented in one of Portugal's regions, *Região Centro*, but the PNPCD is designed to improve screening availability.

“Now it is time to build on the full potential of the UN Resolution, by encouraging and supporting the difficult fight [against diabetes] at the national and international level.”

Prime Minister José Sócrates

OUTLOOK

The new diabetes plan has given a new impetus to the fight against diabetes in Portugal and has been welcomed by the diabetes stakeholders involved in its development. The challenge now lies in its implementation.

Portugal's patient organisations believe that Europe has a major role to play in improving diabetes prevention and care. The APDP and the SPD suggest that existing disparities amongst Member States could benefit from the centralisation of marketing authorisations and reimbursement decisions for new drugs through the EMEA.

There is also substantial agreement on the need for harmonised data collection across the EU.

Additionally, the SPD has called for the EU, through its various funding mechanisms, to invest in diabetes research and both the APDP and SPD have called for general European guidelines and a coherent European benchmarking system for diabetes.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.3%	9.4%
Estimated number of people with diabetes	1,519,200	1,524,500
Estimated cost of diabetes	€90 million (2.0% of the total healthcare budget, 2007)	

POLICY FRAMEWORK

National plan

- Yes – 2006 National Programme for Diabetes Mellitus and other Nutritional Diseases

Guidelines

- No – Except for Training Guidelines for medical professionals

Developments (since 2005)

- 2006: Introduction of national diabetes programme
- 2007: Guidelines for the training of general practitioners

Planned actions

- Guidelines for diabetes care
- Health census

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Romania is 9.4% of the adult population, representing an estimated 1.5 million people. This number is forecasted to rise to 10.7% by 2025.

In 2006, the Romanian Health Ministry (*Ministerul Sănătății Publice*) reported approximately 400,000 people with diabetes as registered to receive treatment under the National Diabetes Programme²⁹⁵, and the Diabetes Patients' Association (*Asociația Tinerilor Diabetici din România*) reported a prevalence of 450,000 cases.

COST OF DIABETES

The total budget allocated to diabetes care amounted in 2007, to RON 303 million²⁹⁶, approximately €90 million, or 2% of the total healthcare budget, according to the Ministry of Health.²⁹⁷

Another indication of the diabetes burden comes from the IDF Diabetes Atlas which estimated the number of deaths from diabetes in Romania in 2007 at as high as 23,000 deaths per year, representing 8.9% of the total number of deaths in men and 16.6% in women.²⁹⁸

GOVERNMENT HEALTH PRIORITIES

Since 2006, the Romanian healthcare system has been in the midst of a comprehensive reform of medical and healthcare services. Aimed at improving the overall general health of the population, the reform is designed to ensure better access to care, improve the quality of healthcare services and funding notably by decentralising the healthcare system and promoting competition on the market for medical services and products.²⁹⁹

In line with the reform, the budget allocation to healthcare has risen from 3.6% of GDP in 2004 (€2.1 billion) to 4% in 2007 (€4.3 billion) with a forecasted increase to 6% of GDP in 2008.³⁰⁰

In 2007, the Health Ministry adopted a strategy for 2008-2010³⁰¹, which emphasises the same general objectives and introduces performance indicators for the eight national health programmes, including the diabetes programme.

Another government healthcare priority is the ongoing national health census which by October 2008 will provide information on the general health status of the entire population with diabetes tests included in check-ups.³⁰² Launched in July 2007, media reports in December 2007 already revealed that four million people had been screened.

NATIONAL DIABETES PLAN/Framework

The National Programme on diabetes and other nutritional diseases (*Programul Național de Diabet Zaharat și alte Boli de Nutriție*)³⁰³ was adopted in September 2006 and is designed to coordinate the prescription and supply of diabetes treatment to people known to have diabetes. The Programme also provides for the creation of an electronic Diabetes Registry, but there is no timeline for the implementation of this provision.

Coordinated by the Health Ministry, the Programme has three main components: prevention and control of diabetes (run by the Ministry), insulin and oral diabetes treatment for people with diabetes (both run by the health insurance). For prevention, the national programme provides for regular screening (once every three years) for people older than 45 and for high risk groups (i.e. with a body mass index higher than 30, family history, high blood pressure, high cholesterol levels, impaired glucose tolerance, etc.).

The programme allocates responsibility for managing the disease to general practitioners for people with diabetes who are non insulin-dependent and to diabetologists for people who are insulin-dependent.³⁰⁴ Annual check-ups with a diabetes specialist are required for all people with diabetes, in designated centres in each of the 42 counties in Romania. In some cases – when there is no improvement or when complications of diabetes occur – more frequent checkups are required.

Technical coordination of the diabetes programme is ensured by the National Institute of Diabetes, Nutrition and Metabolic Diseases (*Institutul Național de Diabet, Nutriție și Boli Metabolice, N. C. Paulescu*), which is responsible for training of medical specialists, coordination of annual monitoring and prevention of diabetes complications, annual HbA1c check-ups, self-monitoring, access to specific treatments, e.g. insulin pumps, and administration of the soon to be created National Diabetes Registry.

The programme envisages the adoption of good practice guidelines and clinical protocols, currently under preparation, to ensure consistent medical care.³⁰⁵ In May 2007, the Health Ministry adopted guidelines for the training of general practitioners involved in the diabetes programme³⁰⁶ which set the minimum duration and the content of specialised courses in diabetes care.

POLICY FOCUS

The Romanian Programme has no specific policy focus but certain provisions do refer specifically to children and pregnant women, clarifying that only diabetes specialists should be responsible for their care. Testing for diabetes is mandatory for pregnant women only if they are classified as representing moderate to high risk of developing the disease.

PATIENT ACCESS

Legislation provides for full reimbursement by national health insurance for medication and routine monitoring of people with diabetes. Moreover, since October 2006, oral diabetes medication has been available in all pharmacies while insulin is still only available in hospital pharmacies.

Reimbursed treatments include medication (insulin and oral hypoglycaemics), as well as technologies (lancets, blood glucose monitoring strips and meters, self-monitoring blood pressure meters and retinopathy screening)³⁰⁷. However, available data shows that financial resources allow for only 190 people with insulin pumps out of over 52,000 people who are insulin-dependent.

The budget allocated to diabetes is, however, strictly limited to people with diabetes who are registered, so increasing numbers of people experience difficulties in receiving the full provision of medication and its reimbursement.³⁰⁸ In addition to limited resources, other problems include repeated changes to the lists of reimbursed products, leading to confusion and delays in their provision to people with diabetes, and a limited amount of self-monitoring help such as glucometers.³⁰⁹

OUTLOOK

Given that the national diabetes programme is relatively new, the focus is on implementation where the priorities include the publication of clinical guidelines, improvements in screening and early diagnosis and improvements in access to self-monitoring technologies.³¹⁰

In the second half of 2008, the health census evaluating the population's health will be completed, and could reveal a major change in diabetes statistics which could increase pressure on the financing of the diabetes programme.

SLOVAKIA

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	8.7%	8.8%
Estimated number of people with diabetes	338,700	353,300
Estimated cost of diabetes	15% of the total healthcare budget (€37.<5 million)	

POLICY FRAMEWORK

National plan

- Yes – National Diabetes Plan (2000)

Guidelines

- Yes – Multiple (Type 1, gestational diabetes, dyslipidaemia and Type 2)

Developments (since 2005)

- 2007: Adoption of Type 2 Guidelines

Planned actions

- Potential extension of the National Diabetes Plan

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Slovakia is 8.8% of the adult population, representing a total of 353,300 people living with the disease. The Atlas forecasts a rise to 10.8% by 2025.

The Association of Diabetic Patients of Slovakia (*Diabetikov Slovenska, ZVAZ*) estimates that the current prevalence rate is 7%.

COST OF DIABETES

According to the Association of Diabetic Patients of Slovakia, the cost of diabetes represents 15% of the total national healthcare expenditure. This equates to Slovak Koruna SKK 1.26 billion per year or €37,475,029. Per patient, the cost is estimated at SKK 8,462 (€257) per year.

GOVERNMENT HEALTH PRIORITIES

The government's main health priority is currently its Cardiovascular Disease (CVD) Programme, which includes diabetes as a main risk factor. The Ministry also considers that diabetes is a Government priority as demonstrated by the existence of a National Diabetes Programme.

According to the Association of Diabetic Patients of Slovakia, however, diabetes is not considered a Government health priority.³¹¹

The Slovak Health Ministry (*Ministerstvo Zdravotníctva Slovenskej Republiky*) confirms that the healthcare system in Slovakia is currently undergoing reform.

NATIONAL DIABETES PLAN/Framework

Slovakia's National Diabetes Programme (*Národný Diabetologický Program*), approved in 2000, covered the period 2002-2006.

The Programme covered the main aspects of diabetes prevention, treatment and care:

- Primary prevention
- Early detection
- Care and services for people with known diabetes
- Education of people with diabetes for improved self-care
- Guidelines, protocols for standards of care
- Information systems
- Supply of medication and equipment
- Research
- Diabetes and complications

- Prevention of Type 2 diabetes
- Development of community awareness
- Psychological and behavioural issues in diabetes

As part of the National Diabetes Programme, a screening project was approved for four years and a genetic bank project for two years. According to the Slovak Health Ministry, a working group and a national cooperative group for screening diabetes mellitus were set up to implement the National Diabetes Programme. Working groups have also been established by the Slovak Diabetes Society for practitioners.

According to the diabetes stakeholder groups, the national plan has been partially implemented; however, there are difficulties in the roll-out of all projects envisaged by the plan due to financial restrictions by the Ministry of Health. Insufficient resources are said to plague the entire healthcare system.

The chief coordinator of these activities confirms that the Ministry of Health is currently actively considering an extension of the previous plan in the near future.³¹²

The Slovak Diabetes Society (*Slovenska Diabetologicka Spolocnost*) has published multiple national guidelines including those for the diagnosis and treatment of Type 1 diabetes (2004), Type 2 diabetes (2007) and gestational diabetes. These guidelines are addressed to diabetologists and primary care practitioners.

POLICY FOCUS

According to the Association of Diabetic Patients of Slovakia, the National Plan includes specific provisions for children and women with diabetes.

PATIENT ACCESS

Slovakia has a partly private health insurance system, entailing co-payments by patients. Slovaks must subscribe to a compulsory public healthcare insurance and must pay for healthcare services. According to the Association of Diabetic Patients of Slovakia, not all prescribed diabetes treatments are reimbursed.³¹³

The list below outlines the treatments which are reimbursed in Slovakia:

Full reimbursement:

- Injectable insulin (95-100%)
- Insulin pumps and accessories
- Lancets (200 per year)
- Lipid testing
- Micro/macro albuminuria
- Retinopathy screening
- Structured education
- Psychologists

Restricted reimbursement:

- Blood glucose strips/meters (50 strips per month)

No reimbursement:

- Self-monitoring blood pressure meters

Since 2005, patients have been entitled to visit a diabetologist, which only operate in the private sector, whereas they were previously expected to pay SKK20 (€0.50) per visit.

“Diabetes is in theory a priority for the Government but not in practice.”

Dr. Jozef Michálek, PhD

Director of the National Endocrinology and Diabetology Institute in Lúbochňa

OUTLOOK

According to the Association of Diabetic Patients of Slovakia, more investment and better health insurance coverage are necessary for the prevention and treatment of diabetes. Over the next two years, they expect that more blood glucose test strips will be reimbursed for patients with diabetes.

The Government is also planning to extend the current National Diabetes Plan and to renew the Type 1 diabetes guidelines.

SLOVENIA

COUNTRY OVERVIEW

KEY STATISTICS		
	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.6%	9.8%
Estimated number of people with diabetes	145,200	148,900
Estimated cost of diabetes	€475 million (2002)	
POLICY FRAMEWORK		
National plan		
<ul style="list-style-type: none"> • No – In preparation 		
Guidelines		
<ul style="list-style-type: none"> • Yes – Slovenian Guidelines for the Healthcare of Patients with Type 2 Diabetes Mellitus (2007) 		
Developments (since 2005)		
<ul style="list-style-type: none"> • 2007: Slovenian Guidelines for the Healthcare of Patients with Type 2 Diabetes Mellitus • 2007: Multi-stakeholder group started drawing up a one-year national plan 		
Planned actions		
<ul style="list-style-type: none"> • Further development and implementation of national plan • Strategic review of diabetes treatment and services 		

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Slovenia is 9.8% among the adult population, representing a total of 148,900 people living with the disease. This number is forecasted to rise to 12% by 2025 (or 173,300 people).

The Slovenian Ministry of Health, meanwhile, uses lower figures from 2004 which put diabetes prevalence at approximately 5-6%.³¹⁴

COST OF DIABETES

The latest available figures for the estimated cost of diabetes in Slovenia date from 2002, when the indirect morbidity cost of the disease, together with circulatory diseases, was 114.6 billion Slovenian tolar, around €475 million.³¹⁵

The Slovenian Public Health Institute is currently analysing the cost situation which will form part of the data feeding into the upcoming national action plan on diabetes. The cost data will be based on international statistics.

The Ministry of Health acknowledges that it lacks cost data and says that one of the most useful purposes of reports into diabetes care is to remind it of this fact and to help fill the data gap.

GOVERNMENT HEALTH PRIORITIES

In the public health field, the government's priorities are focused on tackling alcoholism and smoking, and during its presidency of the European Union (January–June 2008), Slovenia placed the spotlight on cancer prevention.³¹⁶

It seems that Slovenian health priorities are frequently influenced by developments at EU-level.³¹⁷ The focus on chronic diseases, including diabetes, during the Austrian presidency of the EU (2006) encouraged the Ministry of Health to tackle issues related to chronic diseases, such as tobacco use, alcohol-abuse and the lack of physical activity, and to introduce greater screening for cancer, diabetes and cardiovascular diseases.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in place in Slovenia, but at the time of this report, a plan was in the final stages of preparation.

The plan, as yet untitled, has been developed by experts, non-governmental organisations (NGOs), and a working group set up within the Ministry of Health, comprising representatives of primary and secondary care, the Slovenian Diabetes Association (SLODA), and the Public Health Institute.

“Better statistics are needed, including a national diabetes register, in order to plan treatment better.”³¹⁸

*Dr Vlasta Gjura Kaloper,
President of the Slovenian Diabetes Association (SLODA)*

The plan seeks in the first place to ensure an integrated approach to combating diabetes and to patient care. Currently, individual elements of patient care are considered good, but there is a wide recognition of the need for a better integrated and coordinated approach to avoid patients getting lost in the system as they pass from general practitioners to specialists (one reason why statistics are poor). Accessibility is also an important consideration. The plan's second objective is to reinforce disease prevention, including faster detection of metabolic syndrome (pre-diabetes) and diabetes.

The initial plan is expected to cover only one year, but it is hoped that it will set useful national guidelines for improving the fight against diabetes in subsequent years.

In December 2007, Slovenia published guidelines entitled, 'Slovenian Guidelines for the Healthcare of Patients with Type 2 Diabetes Mellitus' (*Slovenske smernice za zdravstveno oskrbo bolnikov s sladkorno boleznijo tipa 2*). They were developed and edited under the auspices of the Slovenian Endocrinology Society, the Diabetes Forum and the Department of Endocrinology, Diabetes and Metabolic Diseases, University Medical Centre, Ljubljana.

The Slovenian government has also implemented strategies aimed at reducing some of the risk factors that lead to diabetes. These include the National Programme of Food and Nutrition Policy 2005-2010³¹⁹ and the National Health-Enhancing Physical Activity Programme 2007-2012³²⁰. Both of these programmes make reference to prevention of diabetes, but do not propose specific steps to tackle the disease.

In general, diabetes has been recognised as an important factor in fighting other chronic diseases but is often not seen as a condition in its own right. The Ministry of Health has indicated that, as part of its efforts to prevent diseases and promote health, it is setting up a national information system for the recording of risk factors and coronary diseases, and that it aims to systematically prevent coronary and other chronic diseases, including diabetes.³²¹

POLICY FOCUS

There is a special care framework for children with diabetes, but currently no national programme. Care for children is, nonetheless, considered to be better organised than the current system for adults.³²² Special care is also provided for pregnant women with gestational diabetes.

The forthcoming diabetes plan will include specific provisions for children with Type 1 diabetes and for women with gestational diabetes. There is no particular provision for immigrants, given the small number of immigrants in Slovenia.

The government has also established health promotion activities for children and young people including the use of a diabetes quiz, developed by the Slovenian Diabetes Association in cooperation with the National Education Institute of Primary and Secondary Schools.

PATIENT ACCESS

Most diabetes treatments are free to patients as part of the country's compulsory health insurance scheme. The availability of drugs and medical devices for diabetes is considered to be good in Slovenia and, as a general rule, patients are able to access these treatments as needed.

Specifically, the provision of insulin pumps is automatic and free for children with diabetes. For those people over the age of 18 years, at SLODA's request, a Ministry of Health Commission makes an assessment based on need.

For Type 2 diabetes, certain treatments are limited for use in combination with others and more expensive treatments tend only to be considered as a last resort. At present, oral hypoglycaemics are free. Medical devices (including blood glucose meters and strips and lancets) are free only for those undergoing insulin therapy and for those about to commence insulin therapy. There is no reimbursement for blood pressure meters and lipid testing.

There is little availability of psychological care as there is currently only one specialist diabetes psychologist, based in Ljubljana, who is not currently integrated into the diabetes care system.

OUTLOOK

A national diabetes plan was due to be put in place by the end of 2007. This is expected to include better integration of care, especially in terms of screening.

Pressure is also building for the introduction of diabetes screening into the current general health screening provided to children and new employees.

Slovenia will also look at the implementation of existing programmes on food and nutrition and on physical activity, and at access to healthcare, including diabetes treatment, those who are financially and educationally disadvantaged.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	9.9%	7.5%
Estimated number of people with diabetes	3,004,300	2,497,800
Estimated cost of diabetes	€2.6 billion (7% of total healthcare cost, 2002)	

POLICY FRAMEWORK

National plan

- Yes – National Diabetes Strategy (2006), multiple regional plans adopted over the last three years (in about one third of Spanish Regions)

Guidelines

- No – Clinical guidelines for Type 1 and Type 2 diabetes in preparation

Developments (since 2005)

- 2006: National Diabetes Strategy adopted

Planned actions

- Assessment of implementation of the National Diabetes Strategy
- Practical guidelines on diagnosis and treatment of Type 2 diabetes
- Guidelines for Type 1 diabetes
- Andalusia to launch its second Diabetes Plan

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Spain is 7.5%, of the adult population representing nearly 2.5 million people and forecasts an increase to 9.7% by 2025.

Data from the Spanish Health Ministry (*Ministerio de Sanidad y Consumo*) reveal a steady increase in the prevalence rate, from 4.1 to 5.9% over a ten-year period (1993-2003). Data from the National Diabetes Strategy (*Estrategia en diabetes del Sistema Nacional de Salud*)³²³ estimates the current prevalence rate at 6.5% of the population aged between 30 and 65.

At the time of this audit, the Spanish Diabetes Professional Society (*Sociedad Española de Diabetes*) was carrying out a study to identify the prevalence rates of diabetes at regional level. A number of earlier studies suggest a much higher rate of diabetes-related deaths in the Southern regions of Spain, such as Andalusia, Ceuta, Melilla and the Canary Islands. The risk of dying from diabetes in the southern regions of Spain is reported to be 3 times higher than in the north of the country³²⁴.

COST OF DIABETES

The latest available data on the cost of diabetes date from 2002 when the estimated annual cost of diabetes and its complications were approximately €2.6 billion, representing some 7% of the total healthcare budget. Some studies have indicated that 47% of the increase in cost is due to associated cardiovascular disease.³²⁵ Currently, there are no estimates about the cost burden of diabetes at regional level.

GOVERNMENT HEALTH PRIORITIES

The main health priorities in Spain include promoting healthy lifestyles, research and innovation and improving the coherence of the public healthcare system. Diabetes became a priority in 2006, when the Health Ministry (*Ministerio Español de Sanidad y consumo*) adopted its National Diabetes Strategy (*Estrategia en diabetes del Sistema Nacional de Salud*) which established common priorities and strategic guidelines for the entire country. In 2006, the Health Ministry also carried out a poll which showed that diabetes mellitus is a health priority in the vast majority of the country's 17 Autonomous Communities (*Comunidades Autónomas*)³²⁶ each of which has its own budget and political structure.

Spain is one of the most decentralised countries in the European Union, and since 2002, the public healthcare system has become completely decentralised. The central government continues to set minimum standards for the entire country, which are implemented by regional authorities. Each region adapts the National Diabetes Strategy to its local needs.

About two-thirds of the Autonomous Communities have created a Diabetes Advisory Council (*Consejo Asesor para la Diabetes*) composed of representatives of the regional governments, professionals, scientific societies and patient groups that provides useful information to regional healthcare authorities so they can take informed decisions on diabetes³²⁷.

Diabetes also benefits from policy initiatives to promote healthy lifestyles and to combat CVD. In 2005, the Ministry of Health adopted a strategy to promote nutrition and physical exercise and fight against obesity. This was followed in 2006 by a strategy to fight cardiovascular diseases aimed at strengthening prevention and improving screening, treatment and patient care.

NATIONAL DIABETES PLAN/Framework

Adopted in 2006, the Spanish National Diabetes Strategy provides the long-term strategic framework for diabetes policy across the country. Agreed by the Inter-territorial Council (*Consejo Interterritorial*) with the active involvement of scientific societies, patient groups, and the Autonomous Communities, the Strategy has a 20-year lifespan.³²⁸

A main objective of the Diabetes Strategy is to harmonise information and data registration systems across the country. The Strategy includes the following components:

- Promotion of healthy lifestyle and prevention
- Screening and diagnosis
- Treatment and follow up
- Treatment of other related diseases and special situations
- Training, education, research and innovation
- Information and evaluation systems

A review of the strategy is already currently under way, starting in June 2007 with an initial joint meeting of the Ministry and the Autonomous Communities to share experiences. By the end of 2007, the Health Ministry intended to have launched a monitoring process which, over the course of 2008, in cooperation with interested stakeholders, will evaluate progress at

both national and regional level. From 2008, the strategy will be monitored every two years.

Spain does not currently have national diabetes guidelines in place, however, the Ministry is in the process of working with patient, professional and medical groups to draft clinical guidelines for Type 2 diabetes, which were expected in early January 2008. 2008 will also see the start of preparations for clinical guidelines for Type 1 diabetes.

“Structured patient education is the forgotten element in Spain.”

Dr. José Luis Martín Manzano

Coordinator of the Diabetes Working Group of the Andalusian Society of Family and Community Doctors (SAMFyC)

REGIONAL LEVEL

Over the last three years, about one third of the autonomous communities have adopted their own diabetes action plans, including Andalusia, Extremadura, Castilla La-Mancha, Valencia and Murcia. Andalusia, the Autonomous Community with the largest population and one of the highest prevalence rates, has put in place an integrated action plan for the key health priorities, including the Andalusian Diabetes Plan 2003-2007 (*Plan Integral de Diabetes de Andalucía 2003-2007*).

Andalusia's current plan aims to guarantee integrated assistance and care to patients. It addresses a wide range of areas, such as prevention, screening and treatment, including education and awareness raising on healthy lifestyles addressed to the general public, patients and professionals, early detection of diabetes-related diseases (CVD) or determinants (e.g. tobacco). Research and innovation are another major focus.

Andalusia is currently collecting data in preparation for the region's second Diabetes Plan, which was due to be launched in early 2008. This plan will provide continuity while addressing in more depth a number of specific aspects related to particular groups of population like children, women, immigrants and prisoners. The Andalusian authorities plan to review the regional plan every four years with the active involvement of professional and patients groups, and has set up a centralized IT system to monitor implementation. The Andalusian health services (*Servicios de salud andaluces*) in cooperation with professional and patient associations have set out professional guidelines.

POLICY FOCUS

The National Diabetes Strategy includes special measures targeted at children, elderly people and pregnant women. There are no specific actions targeted at immigrants, although there is growing concern and awareness about the need to address this group of the population. For children, for example, the strategy aims to help them assume active control of their disease before they become adults.

At regional level the Andalusian Diabetes Plan includes specific measures addressed to women (sexual education, screening and treatment during pregnancy) and children (education on healthy lifestyles).

PATIENT ACCESS

In Spain, most people are covered by the national social security system, paying 40% of the cost of their prescribed medication. Retired people, however, have free access to all medicines. If a patient is recognised as having a chronic disease, on a case by case basis all medicines will be free of charge³²⁹.

Diabetes treatments and visits to health centres and hospitals are free, however, reimbursement of medicines is restricted. Injectable insulin and pens, inhaled insulin, insulin pumps and accessories, blood glucose monitoring strips/meters, self-monitoring blood pressure meters, lancets and lipid testing are reimbursed by the national health system. Basic products (e.g. lancets) have a symbolic cost for the patient (less than 10%). In addition, some medicines for diabetes patients can only be prescribed by certain specialists not by GPs.

There is no national education and patient awareness programme, but most of the Autonomous Communities run diabetes education programmes at the primary care level. Structured education can be one-to-one or in groups depending on the health centre or hospital.

The Spanish Diabetes Federation, with the support of the Health Ministry, is currently studying the quality of healthcare and the health insurance available for people with diabetes across Spain. The results were expected to be published by the end of October 2007.

“The Spanish Diabetes Strategy aims to provide equity and efficiency, by homogenising science-based quality standards for patient access to diabetes care in all Spanish Autonomous Communities.”

Dr. José Antonio Vázquez García

President of Spanish Diabetes Federation and Scientific Coordinator of the Spanish Diabetes Strategy

OUTLOOK

It is hoped that diabetes will be reinforced as a priority in Spain following the appointment in July 2007 of Bernat Soria as Health Minister. A doctor, researcher and leading scientist in the area of diabetes, Soria was the former president of the Spanish Diabetes Professional Society and has expressed his commitment to guarantee quality care to all people with diabetes in Spain.³³⁰

Multiple initiatives will shape diabetes prevention over the next few years:

- A study reviewing the quality of healthcare and the health insurance available for diabetes, expected at the end of 2007 could lead to changes in benefits.
- In October 2007, the Minister of Health launched an epidemiological study on the relationship between diet, diabetes and cardiovascular risk.
- 2008 will see a review of the Diabetes Strategy and publication of guidelines on treatment and diagnosis for Type 2 and Type 1 diabetes.
- At regional level Andalusia, will launch its second Diabetes Plan in 2008. It will include innovative measures to address social and economic inequalities, and will also expand the groups specifically targeted, including all groups at risk of exclusion on the grounds of poverty, disability, age, ethnic origin, etc. Specific actions are also expected for people in prison as well as a major focus on women.

Professionals believe action should be taken to raise awareness about the need to allocate better resources to individual patient consultations, in order to guarantee complete structured care to patients.

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	7.3%	7.2%
Estimated number of people with diabetes	456,900	554,400
Estimated cost of diabetes	7-8% of healthcare spending	

POLICY FRAMEWORK

National plan

- No

Guidelines

- Yes – National Board of Health and Welfare's Guidelines for Diabetes Care

Developments (since 2005)

- 2008: National Diabetes Register will also cover children with diabetes

Planned actions

- Launch of revised national guidelines for diabetes prevention in preparation

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the diabetes prevalence rate in Sweden is 7.2%, representing approximately 467,500 people. By 2025, the Atlas forecasts that the prevalence rate will rise to 8.1% of the population.

National data put diabetes prevalence at around 3%. Prevalence rates have been slowly rising over recent years, and vary from 2 to 4.5% in different studies.³³¹

The estimated number of people known to have diabetes in Sweden is 360,000,³³² while an estimated 80,000 have undiagnosed Type 2 diabetes. National statistics also show that along with Finland and Sardinia, Sweden has the highest incidence of Type 1 diabetes in the world³³³, estimated at approximately 0.5%.³³⁴ Over the past 20 years, the number of children with diabetes has increased by 50%.³³⁵

COST OF DIABETES

An estimated 7-8% of Sweden's healthcare budget is allocated to diabetes³³⁶, while 8% of Sweden's GDP (currently €304.7 billion)³³⁷ is devoted to healthcare spending.

GOVERNMENT HEALTH PRIORITIES

Current government priorities focus on improvements in psychiatric care and in care for the elderly.³³⁸

An ongoing debate also centres on the need for specific policies for obesity, diet and sports, especially in schools.

Although diabetes is not a specific government priority, the disease is receiving increased attention as a result of the government's efforts to fight the rise in lifestyle diseases and obesity, especially in children, where diabetes is a growing concern.³³⁹ The government is currently evaluating the impact of 11 public health objectives identified in 2003 which include increasing physical activity and the promotion of healthy diets.³⁴⁰

NATIONAL DIABETES PLAN/Framework

There is currently no national plan for diabetes in Sweden.

Government policy traditionally avoids disease-specific national plans in the belief that all diseases are equally important for those suffering from them. Attitudes are however now shifting away from this policy, as reflected in steps currently underway to develop a national plan for cancer prevention.³⁴¹

Sweden does however address diabetes through the national guidelines for care and treatment of diabetes mellitus (*Nationella riktlinjer för vård och behandling vid diabetes mellitus*)³⁴² which include professional guidelines for medical practitioners. In addition Sweden has built up a solid data base on the disease through its national diabetes register

(*Nationella Diabetesregistret*) that helps to improve prevention, treatment and care for people with diabetes.

The Swedish Society for Diabetology (*Svensk Förening för Diabetologi*) views the guidelines as the primary reference for healthcare practitioners at all levels in Sweden, but acknowledges that while “effective, they could be improved.” Against this background, the Swedish National Board of Health and Welfare (*Socialstyrelsen*) is currently overseeing a revision of the 1999 guidelines. The new edition will set out evidence-based recommendations and priorities in contrast to the 1999 guidelines which were consensus-based. New research findings including health economics³⁴³ and increased knowledge about the effectiveness of various diabetes treatments will feed into the guidelines and recommendations. The review is leading to the creation of a working group on socio-economic data which will carry out an initial fact-finding exercise in mid-2008.³⁴⁴

The new guidelines will be published in 2009³⁴⁵ and rolled out over a period of 10 years,³⁴⁶ but frequent reviews will be built in to ensure that they reflect the needs of contemporary society and the latest medical findings.³⁴⁷ The national diabetes register monitors implementation of the guidelines, and will play an important role in their ongoing revision.

Created over 11 years ago, the registry is now one of the largest in the world covering over 150,000 people with diabetes (around 50% of Sweden’s 360,000 known people with diabetes).³⁴⁸ It involves online registration of all patients with diabetes in Sweden.³⁴⁹ From January 2008, the national diabetes register widened its scope to include children. Managed by diabetes doctors appointed by and funded by the Swedish National Board for Health and Welfare and the Swedish Association of Local Authorities and Regions, the register measures the quality of diabetes treatment in Sweden to determine compliance with the guidelines by hospitals, care centres and clinics and to help identify problem areas.³⁵⁰ It also contributes to improving patients’ influence and participation in their treatment.

POLICY FOCUS

Provisions in the current diabetes guidelines target children, but neither women nor immigrants.³⁵¹ The revised guidelines may include quality indicators to evaluate specifically diabetes care for women and weaker groups in society, including immigrants.³⁵²

“If the same variables are measured or registered in all the Scandinavian and/or European countries, better knowledge and treatment would result.”

High-level representative of National Diabetes Register

PATIENT ACCESS

In 2006, the national register revealed that 318,000 people in Sweden received diabetes treatments at the pharmacy.³⁵³

All insulin-related treatments are reimbursed in Sweden. Injectable insulin and pens, inhaled insulin, and insulin pumps and accessories, are all 100 % reimbursed³⁵⁴ as are blood glucose monitoring strips, lancets, lipid testing, micro/macro albuminuria, and retinopathy screening. For self-monitoring blood pressure meters and structured education and psychologists, patients pay a small fee, although most of the cost is reimbursed.³⁵⁵

Access to new and existing diabetes treatments is handled by the national reimbursement agency, the Pharmaceutical Benefits Board (*Läkemedelsförmånsnämnden*).³⁵⁶ Sweden is often referred to as a ‘fast-mover’ in the field of patient access to medicines due to its rapid adoption of new and innovative treatments and medicines.³⁵⁷ The issue of Health Technology Assessment (HTA) is now however under discussion in Sweden.

Diabetes care centres in Sweden all have specialised diabetes nurses, who teach, distribute and explain how medical devices function. Swedish hospitals also have special diabetes teams.³⁵⁸

OUTLOOK

Over the next two years, new national guidelines will be published and implemented in Sweden. The endocrine and diabetes centre of the department of internal medicines of the Central Hospital in Karlstad (*Centralsjukhuset i Karlstad*) and the Swedish Association for Diabetology (*Svensk Förening för Diabetologi*) believe that a higher registration frequency in the NDR will also further stimulate government interest in diabetes prevention.³⁵⁹

A high-level representative of the diabetes register would also like to see it used as a model for all Scandinavian and/or EU countries.

TURKEY

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	7.0%	7.1%
Estimated number of people with diabetes	2,958,700	3,286,900
Estimated cost of diabetes	Not available	

POLICY FRAMEWORK

National plan

- No

Guidelines

- No – IDF guidelines have been translated and other guidelines are expected to be published

Developments (since 2005)

- Reform of the health insurance system underway

Planned actions

- Completion of the health insurance reform

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the prevalence rate in Turkey is 7.1% of the adult population (over 20 years) representing almost 3.3 million people. The Atlas forecasts a rise to 8.9% by 2025.

The Turkish Diabetes Foundation (*Türkiye Diyabet Vakfı*) reports that the disease affects 300,000 more people each year.

COST OF DIABETES

The Turkish Diabetes Foundation estimates that diabetes costs annually about €340 in patients without complications. This figure can increase up to about €880 each year in patients with complications.

GOVERNMENT HEALTH PRIORITIES

The priorities of Turkey's Health Ministry (*Sağlık Bakanlığı*) are currently focused on the reform of the health insurance system both to eliminate fragmentation, by integrating all existing systems into a single regime, and to increase its coverage. Currently, some 20-25 million people in Turkey are not part of a health insurance scheme, according to the Turkish Diabetes Foundation. Diabetes is not considered to be a priority for the government according to the stakeholders in the Turkish diabetes community.

NATIONAL DIABETES PLAN/Framework

There is currently no national diabetes plan in Turkey.

Diabetes is currently the responsibility of the Chronic Diseases Department in the Ministry of Health (soon to be the Department of Non-Communicable and Chronic Diseases). In the mid 1990's, the Ministry established a National Diabetes Advisory Board whose members include the Turkish Diabetes Foundation, the Turkish Diabetes Association and other relevant organisations. The Board had been expected to prepare a national diabetes plan but the group has been inactive since 2002.

Lack of government action has meant that patient associations have taken the lead in all activities and initiatives to tackle diabetes in Turkey.

They have set up patient clinics and engaged in multiple activities, including³⁶⁰:

- Organisation of meetings, sometimes targeted at specific groups such as the police force, teachers and officials from the Turkish administration;
- Organisation of educational courses targeted at healthcare professionals (the Turkish Diabetes Association has established four different post-graduate courses);
- Publication of booklets/toolkits, sometimes targeted at schools or the police force;

- Publication of articles in the specialised press;
- Organisation of events (e.g. blood glucose screening inside the Parliament, commemorative events during World Diabetes Day);
- Establishment of programmes to improve the meals of specific populations, such as schoolchildren and prisoners;

The Turkish Diabetes Foundation initiated, launched and coordinates the diabetes platform, 'Improvement of strategies for fighting diabetes and national health policies', which meets annually on World Diabetes Day to discuss the issues concerning diabetes and possible solutions. Members of the platform include the Turkish Diabetes Association, the Turkish Nursing Association, the Turkish Dietetic Association, the Living with Diabetes Association and representatives from industry and specialised press.

Due to the size of the country, diabetes associations would like to have the government encourage regional screening of diabetes targeted at high risk populations.

There are neither government nor professional diabetes guidelines in Turkey, but the Turkish Diabetes Foundation and the Turkish Diabetes Nursing Association have translated several IDF guidelines for local use:

- Desktop Guide for Type 1 Diabetes
- Desktop Guide for Type 2 Diabetes
- Global Guideline for Type 2 Diabetes
- International Curriculum for Diabetes Health Professional Education (used by nurses)
- Improvement of Insulin Treatment Implementation (used by nurses)

The Turkish Diabetes Foundation has also coordinated a regional diabetes programme, the Southeastern Anatolia Diabetes Support Project-GAPDIAB, aimed at reducing the incidence of diabetes in that part of the country. To reach this objective, the project established a set of educational and preventive programmes targeted at patients and healthcare professionals, and also increased the number of diabetes centres and created Insulin Support Units. The project's success led to the initiation of two additional projects in neighbouring regions: the 'Eastern Anatolia Project-DOGUDIAB' and 'CukurovaDIAB'³⁶¹.

The Turkish Diabetes Foundation has also established a Legal Aid Office which defends those with diabetes who would have not been able to afford legal support. The creation of this office reflects the vulnerable position in which people with diabetes find themselves: often ignorant of their rights and having to confront discrimination due to widespread ignorance the disease as well as an obscure reimbursement system³⁶².

POLICY FOCUS

There are no provisions targeted at specific groups of people, but patient associations have put in place some programmes targeting schoolchildren, teachers, police officers and prisoners.

PATIENT ACCESS

Turkey has a fragmented insurance system, so reimbursement of medicinal products generally depends on each patient's health insurance. Under the current system, some products are reimbursed by the Turkish authorities. However, the level of reimbursement may depend on whether the patient seeks treatment in public hospitals or if the patient has obtained an authorisation granted by healthcare professionals.

Reimbursement is currently available for injectable insulin, insulin pumps and other accessories, glucose monitoring strips (three strips per day for patients with Type 1 diabetes and one strip a day to patients with Type 2), lipid testing and retinopathy screening.

It remains unclear if lancets, self-monitoring blood pressure meters and glucose monitoring meters are reimbursed or not. Concerning the latter, some stakeholders believe that, as is the case with insulin pens, that these are often provided by pharmaceutical companies. Psychological treatment is not reimbursed.

OUTLOOK

The next few years will focus on completing the reform of the Turkish health insurance system. As a reform improving the social rights of patients it may improve the quality of life of patients suffering from chronic diseases, such as people with diabetes.

Professional guidelines for prevention, screening and treatment of diabetes are also expected to be published in the years to come.

Diabetes associations believe that a comprehensive and effective national diabetes plan coupled with the allocation of an appropriate budget is vital to reduce the burden of diabetes. In the meantime, they welcome international and European pressure to get the Turkish government involved in and committed to the fight against diabetes.

This report was drafted at a time when the Turkish Ministry of Health was undergoing major internal reform. It was therefore not possible to get its input. This will undoubtedly reflect the information provided here.

UNITED KINGDOM

COUNTRY OVERVIEW

KEY STATISTICS

	IDF ATLAS 2003	IDF ATLAS 2006
Estimated national diabetes prevalence (% of total population aged 20-79)	3.9%	4.0%
Estimated number of people with diabetes	1,671,500	1,709,400
Estimated cost of diabetes	€4.8 billion (5% of NHS expenditure spent on treating diabetes and its complications)	

POLICY FRAMEWORK

National plan

- Yes – National Service Framework (NSF) for Diabetes (2001)

Guidelines

- Yes – NICE guidelines (National Institute for Health and Clinical Excellence), General Medical Services Contract (new GMS), Quality Outcomes Framework (QoF)

Developments (since 2005)

- 2007: NHS report evaluating diabetes strategy
- NHS White Paper announcing new NHS 'life check' to assess individual lifestyle risks

Planned actions

- NICE guidelines 'Diabetes - Type 2 (update)' and 'Diabetes in pregnancy'

There are four publicly-funded national healthcare systems in the United Kingdom each of which are responsible to their own devolved governments in England, Wales, Scotland and Northern Ireland. They have developed under differing legislation resulting in a variation of management and practice. All four services operate co-operatively without general discrimination toward citizens from each others' areas. This chapter focuses primarily on England.

DIABETES PREVALENCE

The IDF Diabetes Atlas 2006 estimates that the national diabetes prevalence rate in the UK is 4.0% among 20 to 79 year olds, representing a total of 1,709,000 people living with the disease. The Atlas forecasts this number to rise to 4.6% by 2025.

The Department of Health (DoH) estimates the prevalence rate to be closer to 4.67%³⁶³ with a predicted increase to more than 5.05% (2.5 million people) by 2010.³⁶⁴ It is estimated that about 90% of people with diabetes have Type 2, and that the incidence of Type 2 diabetes is growing at 15% a year in some areas.³⁶⁵ Of these new cases, 9% will be due to an increase in obesity, while 6% will be due to an aging population.³⁶⁶

Diabetes UK states that there are 2.3 million people with diagnosed diabetes in the UK.³⁶⁷ Both the Department of Health and Diabetes UK agree that up to 500,000 people in the UK are also living with undiagnosed diabetes.³⁶⁸

COST OF DIABETES

Estimates put the cost of diabetes prevention, screening and treatment at 5% of the total expenditure of the National Health Service (NHS). The NHS spends approximately £9.6 million (€13.3 million) a day dealing with diabetes and its complications, that is up to £3.5 billion (€4.8 billion) per year.³⁶⁹

Each year 20% of people with diabetes enter hospital, and they account for around 10% of hospital expenditure.³⁷⁰ More than half of this sum is spent treating the complications of the disease, and 10% of hospital beds are occupied by people with diabetes.³⁷¹ The presence of often avoidable diabetes complications increases NHS costs more than five-fold and social care four-fold.³⁷²

Medicines for treating diabetes represent the second biggest item on the NHS's total bill for drugs. From

2005 to 2006 the number of prescriptions for diabetes increased by 7.4%, but costs rose by 14% due to the introduction of new drugs and new formulations.³⁷³

People with Type 1 diabetes spend personally and additionally an estimated €697 million per year coping with their condition.³⁷⁴

GOVERNMENT HEALTH PRIORITIES

The Department of Health (DoH) identifies both the fight against obesity and the promotion of healthy living as government-wide priorities.³⁷⁵ Although both are important in the fight against Type 2 diabetes as well, diabetes stakeholders feel that the risk of diabetes associated with obesity has, so far, not received as much focus as cardiovascular disease, for example.

Suggesting that diabetes has nevertheless become a political priority, an All-Party Parliamentary Group for Diabetes has been established in the House of Commons.

NATIONAL DIABETES PLAN/Framework

The NHS in England adopted the National Service Framework (NSF) for Diabetes³⁷⁶ in 2001.

The framework sets out multiple standards for diabetes care and prevention with the goal of enabling patients with diabetes or at risk of developing diabetes to manage their illness and lifestyle. The NSF is designed to help patients by providing support, structured education and treatment. The NSF standards range from the prevention of Type 2 diabetes, diabetes and pregnancy and the management of diabetic emergencies to the detection and management of long-term complications.

Together with the Delivery Strategy issued in 2003³⁷⁷, the NSF involves a ten-year programme of change and improvement, subject to regular review.³⁷⁸ Published in 2007, the latest review, 'The local challenge: Improving diabetes services: The National Service Framework four years on'³⁷⁹ noted progress in many areas, notably:

Prevention of Type 2 diabetes

- The Department of Health's Public Service Agreements (PSAs) related to the overall field of prevention include targets to reduce the mortality rates from the major killer diseases, reduce inequalities, increase life expectancy, halt the yearly rise in obesity among children under 11, promote the take-up of sports for 5-16 year-olds and increase the take-up of cultural and sporting opportunities by adults and young people aged 16 and above.

In 2006 two key White Papers focused on the role that prevention plays in improving health in England. Both 'Choosing Health'³⁸⁰ and 'Our health, our care, our say'³⁸¹ recognise that primary prevention where individuals have the initial responsibility for becoming and staying healthy, is a vital part of any health and social care strategy.³⁸²

Empowering people with diabetes

- Patient education is central to the Government's attempts to engage people with diabetes in their own care. However, studies have found that many people with diabetes are unaware of the structured education or training available through government programmes, and that training programmes must be monitored for quality assurance (by meeting criteria set out by NICE, for example, by the Structured Patient Education Toolkit).

Clinical care of adults with diabetes

- A report by the Yorkshire and Humber Public Health Observatory revealed that greater focus is needed to ensure that diabetes patients develop their skills, knowledge and motivation to improve their care. The report concluded that due to gaps in understanding, many people with diabetes fail to grasp the importance of adhering to a strict medical regime which leads to one in five suffering from preventable complications.

Detection and management of long-term complications

- In 2003, the government launched the English National Screening Programme for Diabetic Retinopathy³⁸³ which, by April 2006, had ensured that 78.4% of people with diabetes were offered retinopathy eye screening. The NSF's target remains an 80% offering.

It has been suggested that an extra €836.6 million per year would be needed to fully implement the Diabetes National Service Framework (NSF) for England by 2010-11, with much of this extra expenditure going on programmes to improve management of diabetes. This additional investment would bring an estimated annual saving of €278.9 million in ten years.³⁸⁴

The UK has multiple guidelines for diabetes. Most healthcare professionals rely on the evidence-based series of NICE guidelines (National Institute for Health and Clinical Excellence) in England and the Scottish Intercollegiate Guidelines Network (SIGN) in Scotland.

NICE guidelines cover both Type 1 and Type 2 diabetes, with the latter subject to multiple editions focused on blood glucose (2002), foot care (2004), blood pressure

and lipids (2002), renal disease (2002) and obesity (2006).

Over the next two years NICE is expected to issue several clinical practice guidelines:

- ‘Diabetes in pregnancy’ is expected in March 2008
- ‘Type 2 Diabetes (update)’ is expected in April 2008
- ‘Diabetes (Type 2) – newer agents’ is expected in Feb 2009

POLICY FOCUS

UK policy identifies children, women and immigrants for special consideration.

• Children

All NSF standards relate to children and young people. NICE has also published comprehensive clinical guidelines on diagnosis and management of Type 1 diabetes in children, young people and adults (2004). The DoH’s report “Making every young person with diabetes matter”³⁸⁵ looked at the 25,000 people under the age of 25 with diabetes³⁸⁶ and recommended ways to improve care.

• Women

A national enquiry on ‘Diabetes in Pregnancy’ in February 2007 concluded that while the objectives of the St. Vincent declaration³⁸⁷ have not been achieved, there have been a number of national and local initiatives focused on improving the care and outcomes of pregnant women with Type 1 and Type 2 diabetes.³⁸⁸ NICE was expected to issue guidelines on ‘diabetes in pregnancy’ in March 2008.

• Immigrants

The report of the Patient Education Working Group³⁸⁹ recognised the need to ensure that educational programmes are accessible to a broad range of people, taking into account culture, ethnicity, disability and geographical issues.³⁹⁰ The report also highlighted the need to fill in current gaps to ensure that all people with diabetes have access to structured education, such as one-to-one, children and adolescents, and minority ethnic groups.³⁹¹

PATIENT ACCESS

The National Health Service in all four nations of the UK is a universal health service, free at the point of delivery. Access to healthcare services is free to all meeting defined standards and criteria (such as NICE). The UK has a relatively restrictive policy towards

specific technologies and advancements, such as insulin pumps, where people have to meet specific criteria to have free access.

Providing a person with diabetes is taking insulin or any other related diabetes medication, they are exempt from prescription charges for all other medication even if unrelated to diabetes. If they do not take medication for diabetes, then they will not be exempt.

Free healthcare services for all:

- Lipid testing
- Micro/macro albuminuria
- Retinopathy screening (annual)
- Structured education (one-to-one/group)
- Psychologists

Additionally for a patient taking tablets or insulin, the following medications/treatments are free:

- Injectable insulin and pens
- Tablets
- Blood and urine testing
- Lancets

Restricted:

- Insulin pumps and inhaled insulin are free if the following three conditions are met:
 - the healthcare professional supports the decision,
 - there is a demonstrated benefit
 - the person meets criteria set out by NICE
- Blood glucose monitoring strips/meters are not free to all - if deemed to be needed by the healthcare professional then they can be accessed free, if not, they have to be bought via pharmacies.

OUTLOOK

On World Diabetes Day 2007, Prime Minister Gordon Brown announced an additional £15 billion spending on medical research over the next 10 years, which would include research on diabetes. He has since announced plans for a national screening programme to be available for all patients regardless of age or risk profile by 2011 for England covering CVD, stroke, chronic kidney disease, chronic lung disease and diabetes.

Stakeholders believe that best practice examples from across Europe or an EU Recommendation on diabetes which includes the establishment of national screening programmes may motivate the government to take further action.

ANALYSIS AND KEY FINDINGS



CONCLUSIONS AND RECOMMENDATIONS

ANALYSIS AND KEY FINDINGS

The research carried out in each of the 30 European countries revealed a number of compelling trends, which have important implications for national and EU policy makers. The following section contains an analysis of the research as well as an indication of the key findings in the areas of diabetes prevalence, costs of diabetes care, national diabetes plans/frameworks and patient access.

DIABETES PREVALENCE

The diabetes statistics collected in the course of this audit paint a clear picture of the continued deterioration in the situation across much of Europe – in the EU, as well as in potential member and neighbouring countries. While the 30 countries surveyed by this report have very different starting points, reflected in their current prevalence rates, the real threat lies in the rate of growth of these figures and the predicted future increases that point to a major diabetes epidemic.

According to the latest edition of the IDF Diabetes Atlas³⁹²:

- The average prevalence of diabetes in the EU has risen from 7.6% of the adult population (aged 20-79) in 2003, to 8.6% in 2006.
- This represents over 31 million people across the 27 EU Member States.
- This prevalence rate is forecasted to rise to 10.3% by 2025.

In the wider group of European countries covered by this audit³⁹³, these figures are respectively 7.5% in 2003; 8.5% in 2006 and 10.2% forecast for 2025.

(A table of prevalence rates in 2003, 2006 and forecasts for 2025 can be found in Annex 3.)

HIGH/LOW COUNTRY PREVALENCE

Looking at the current prevalence rates of individual countries in the EU, the IDF Diabetes Atlas shows:

There are currently 13 EU Member States with diabetes prevalence rates (people aged 20-79) of more than 9%. This increases to 14 European countries including Croatia – an EU accession country.

According to the latest IDF statistics, Germany and Austria have the highest diabetes prevalence rates in Europe in people aged 20-79 with 11.8% and 11.1% respectively. Close behind are Cyprus, Bulgaria and Latvia with prevalence rates of 10.3%, 10.1% and 10% respectively. Other countries suffering from rates exceeding 9% include the Czech Republic, Estonia, Hungary, Lithuania, Malta, Poland, Romania, Slovenia and Croatia.

The UK is the country with the lowest prevalence rate, reported at 4% (up from 3.9% in 2003), however, there are very few countries in the EU with a prevalence rate below 6% - only Belgium, Ireland and Kazakhstan come close to the UK with respective prevalence rates of 5.2%, 5.6% and 5.6%.

Nevertheless, with the exception of Kazakhstan, the other two countries reveal troubling increases in their rates. Ireland saw its prevalence rise from 3.4% to 5.6% over the four year period with a predicted rate of 6.4% for 2025. Belgium's 5.2% prevalence (up from 4.2% in 2003) already represents the rate forecasted for the country for 2025. The IDF Atlas now forecasts a 9.7% prevalence rate for Belgium by 2025 - more than double its prevalence in 2003.

HIGH/LOW COUNTRY GROWTH

Perhaps the most alarming statistics reflecting the epidemic growth in diabetes is the number of countries where, in 2006, they have either reached, or even surpassed, the prevalence rate forecasted only four years ago for 2025.

Both Belgium and Germany, have now reached the forecasted rate for 2025, while Croatia, Cyprus, France, Greece, Ireland, Italy, Luxembourg and the Netherlands have already surpassed the 2025 forecast with their 2006 prevalence rates.

COUNTRY	PREVALENCE (%)
United Kingdom	4.0
Belgium	5.2
Ireland	5.6
Kazakhstan	5.6
Luxembourg	6.9
Turkey	7.1
Sweden	7.2
Netherlands	7.3
Denmark	7.5
Spain	7.5
Portugal	8.2
Finland	8.4
France	8.4
Europe (30) average	8.5
Greece	8.6
EU (27) average	8.6
Italy	8.7
Slovakia	8.8
Poland	9.1
Romania	9.4
Croatia	9.5
Czech Republic	9.7
Lithuania	9.7
Malta	9.7
Hungary	9.8
Slovenia	9.8
Estonia	9.9
Latvia	10.0
Bulgaria	10.1
Cyprus	10.3
Austria	11.1
Germany	11.8

COUNTRY	IDF ATLAS 2003 (%)		IDF ATLAS 2006(%)	
	Prevalence 2003	Estimated Prevalence 2025	Prevalence 2006	Estimated Prevalence 2025
Belgium	4.2	5.2	5.2	9.7
Cyprus	5.1	6.3	10.3	11.3
France	6.2	7.3	8.4	10.4
Germany	10.2	11.9	11.8	13.3
Greece	6.1	7.3	8.6	9.7
Ireland	3.4	4.1	5.6	6.4
Italy	6.6	7.9	8.7	10.4
Luxembourg	3.8	4.4	6.9	8.2
Netherlands	3.7	5.1	7.3	9.6
Croatia	5.8	6.7	9.5	10.6

KEY FINDINGS

- Despite some efforts to combat diabetes at the national level, overall prevalence is rising across the EU and in many of its neighbouring countries. The average prevalence rate forecast for 2025, for the 30 countries covered by this audit, represents a 25% increase over today’s rate.
- Even for countries which today have a relatively low diabetes prevalence rate, the predicted growth rates highlight major challenges for their healthcare systems in the next 20 years.
- In most cases, countries which have not introduced national diabetes plans are suffering from high prevalence rates.
- Beyond the IDF Diabetes Atlas, there is a significant lack of comparative prevalence data across Europe making reliable comparisons between countries very difficult.
- There are still very few diabetes registers throughout Europe and an absence of clear criteria for data collection.
- In many countries, data collected at the national level is an underestimate due to its limitation to registered diabetes patients.

COST OF DIABETES

Reliable comparisons on the cost of diabetes and its complications to healthcare systems in Europe are difficult in the absence of any recent pan-European cost studies. Data available at the national level vary widely. Definitions of scope are often unclear, particularly with regard to direct and indirect costs of the disease and in most cases there is no consideration of the cost of diabetes to the individual, society and the economy through lost productivity. Data also vary according to the healthcare structure with national, regional and local governments each playing a different role (and incurring different costs) in diabetes care delivery.

Based on the data available, this report has tried to indicate the level of annual spending on diabetes per country, where possible, as a percentage of total

healthcare expenditure. Overall, this data demonstrates the growing burden of diabetes to governments at a time when health budgets are under the increasing strain of an ageing population.

In Europe, the cost of diabetes as a percentage of healthcare spending varies from a stated 2% (in Netherlands and Romania) to 18.6% (in Latvia). There are several countries estimating the cost between 5-8% (Ireland, Italy, Poland, Spain, Sweden, UK) and another series of countries between 11-15% (Belgium, Czech Republic, Denmark, Estonia, Finland, Slovenia). Finally, diabetes associations in two of Europe’s largest economies, France and Germany, estimate that the annual cost of diabetes equals respectively €9 billion and €40 billion in total healthcare expenditure.

COUNTRY	IDF ATLAS 2006	
	Cost of diabetes as % of healthcare budgets or total estimated spend where available in 2007	Prevalence % 2006
Austria	€11 million	11.1
Belgium	10-15%	5.2
Bulgaria	€34 billion per year	10.1
Croatia	\$120-220 million	9.5
Cyprus	€3.5 million per year	10.3
Czech Republic	11.26%	9.7
Denmark	14%	7.5
Estonia	13.7%	9.9
Finland	11.1%	8.4
France	€9 billion per year	8.4
Germany	€40 billion per year	11.8
Greece	Not available	8.6
Hungary	€60 million per year	9.8
Ireland	6.4%	5.6
Italy	6%	8.7
Kazakhstan	Not available	5.6
Latvia	18.6%	10.0
Lithuania	Not available	9.7
Luxembourg	Not available	6.9
Malta	Not available	9.7
Netherlands	2%	7.3
Poland	8.1%	9.1
Portugal	Not available	8.2
Romania	2%	9.4
Slovakia	€475 million	8.8
Slovenia	15%	9.8
Spain	7%	7.5
Sweden	8%	7.2
Turkey	Not available	7.1
UK	5%	4.0

There is no publicly available information for seven countries: Greece, Kazakhstan, Lithuania, Luxembourg, Malta, Portugal and Turkey.

Until there are updated comparative tables of cost, the most recent pan-European study of the diabetes burden dates from the 1998 Code 2 study of eight European countries: Belgium, France, Germany, Italy, Spain, Sweden, the Netherlands and the United Kingdom. A major study is expected in France.

KEY FINDINGS

- Based on available data, the cost burden of diabetes and its complications in Europe is significant and growing. In most countries, diabetes is responsible for over 10% of total healthcare spending, and in some the figure is as high as 18.6%.
- The current estimated cost of diabetes is still expected to be a gross underestimation due to a lack of consideration for the direct as well as indirect costs of the disease.
- Since the CODE-2 study in 1999, which was carried out in 5 countries in Europe, there have been no pan-European studies on the cost of diabetes, preventing reliable comparisons across the EU's Member States.
- This lack of comparable data undermines efforts to anticipate the current and future economic impact of the disease, as well as to understand the effectiveness of national diabetes policies.

NATIONAL DIABETES PLANS/FRAREWOKS

While the statistics show a substantial increase in the prevalence of diabetes and a growing cost burden across Europe, the emergence of disease-specific national policies remains low and frustratingly slow. There has been very little progress in the development of diabetes plans since the last audit in 2005, despite repeated calls for policy action from the diabetes

community, as well as the European and international health community.

Only 13 out of the current 27 EU Member States have a national diabetes plan or framework in place. Including all countries involved in this audit, this still only represents 14 national plans in total.

Those countries with a national diabetes plan include:

COUNTRY	NATIONAL DIABETES PLAN/FRAREWOKS
Austria	Austrian Diabetes Plan (<i>Österreichischer Diabetesplan</i>)
Croatia	National Programme of Diabetes Care with Particular Initiative in Prevention and Early Detection (<i>Program zdravstvene zaštite osoba sa šećernom bolešću s posebnim ciljem prevencije bolesti</i>)
Cyprus*	National Diabetes Plan (<i>Ethniko Programma gia ton Diaviti</i>)
Czech Republic	National Diabetes Programme (<i>Národní Diabetologický Program</i>)
Denmark	Diabetes Action Plan (<i>Handlingsplan Om Diabetes</i>)
Finland	Development Programme for Prevention and Care of Diabetes (DEHKO)
Lithuania*	National Programme for Diabetes Control 2006-2007
Netherlands	Diabetes Action Programme 2005-2009 (<i>Het Diabetesactieprogramma</i>)
Poland*	Polish Diabetes Prevention and Treatment Programme 2006-2008 (<i>Program Prewencji i Leczenia Cukrzycy w Polsce na lata</i>)
Portugal	National Programme for Diabetes' Prevention and Control (<i>Programa Nacional de Prevenção e Controlo de Diabetes</i>)
Romania*	National Programme for Diabetes Mellitus and other Nutritional Diseases (<i>Programul Național de Diabet Zaharat și alte Boli de Nutriție</i>)
Slovakia	National Diabetes Plan (<i>Národný diabetologický</i>)
Spain*	National Diabetes Strategy (<i>Estrategia Nacional en Diabetes</i>)
UK	National Service Framework (NSF) for Diabetes

*Plans introduced since 2005

Several countries have taken steps in the last two years to either introduce national plans or to renew their efforts on diabetes. Cyprus, Lithuania, Poland, Romania and Spain have all introduced national plans in the last two years, while Portugal has carried out a significant revision of its existing plan.

All of the above-mentioned plans vary according to their priorities and scope with some more focused on primary prevention and others targeted more at tackling the secondary complications of the disease. Areas which appear to be neglected in some plans include the systematic screening of high risk groups with the aim of reducing complications, appropriate care for those with gestational diabetes and for pregnant women with diabetes.

In countries where national diabetes policies have been adopted, these plans usually have monitoring and

evaluation systems in place to assess the progress in implementation of the policies. However, measurable targets still appear to be lacking in a number of countries.

In some countries, national plans have been adopted but the lack of adequate human and financial resources allocated is preventing the full implementation of the proposed policies.

Seven countries in the EU have stated and, in some cases, restated their intention to develop and adopt new or revised national diabetes plans in the near future during the course of this latest audit.

These countries include:

COUNTRY	NATIONAL DIABETES PLAN/Framework
Bulgaria	National Programme for Prevention, Early Diagnosis and Treatment of Diabetes and its Complications
Germany	National Diabetes Programme – expected in 2010
Ireland	National Diabetes Plan – expected 2008
Italy	National Diabetes Plan – expected 2008
Lithuania*	National Programme for Diabetes Control 2008-2010 – expected in 2008
Malta	National Diabetes Plan
Slovenia	National Diabetes Plan expected end-2007/2008

*Renewal of existing 1-year diabetes plan

COUNTRY	PREVALENCE RATE (%)
Belgium	5.2
Bulgaria	10.1
Estonia	9.9
France	8.4
Germany	11.8
Greece	8.6
Hungary	9.8
Ireland	5.6
Italy	8.7
Kazakhstan	5.6
Latvia	10.0
Luxembourg	6.9
Malta	9.7
Slovenia	9.8
Sweden	7.2
Turkey	7.1

There are 14 countries in the EU (16 countries in this audit) without a national diabetes plan, several of which have among the highest prevalence rates in Europe

Six of these countries, namely Germany, Bulgaria, Estonia, Hungary, Latvia and Slovenia, not only have the highest prevalence rates in the European region, but also rates which are predicted to grow significantly by 2025. It should also be noted that Germany, Ireland and Luxembourg, which had indicated their intention during the 2005 audit to introduce national plans, have still failed to do so. France, which had a diabetes plan at the time of the previous audit, has not renewed the policy following its expiry in 2005.

A number of countries have also reported that they are addressing diabetes through other national health plans and initiatives, for example, through national obesity plans.

KEY FINDINGS

- Only 13 of the EU's Member States currently have a national diabetes plan, despite the growing prevalence rates and increasing cost burden of the disease.
- Some countries regard current efforts to address diabetes risk factors in the context of broader prevention and health promotion policies as being sufficient to tackle diseases such as diabetes.
- Ten national plans take a comprehensive approach to diabetes including measures aimed at primary prevention, through to systematic screening and prevention of complications.
- Within the context of their national plans, a few countries have introduced specific policies targeted at high risk groups.
- There are varying standards of implementation as well as monitoring and evaluation in those countries with national diabetes plans. There is little evidence in these countries of measurable targets to assess the impact and cost-effectiveness of their plans.
- In a few countries, limited budgets allocated to national diabetes plans are restricting implementation of policy proposals.

PATIENT ACCESS

A closer look at the access of diabetes patients to available treatments and technologies, including the reimbursement policies of national governments, has revealed a number of significant and, in some cases, worrying trends. Unfortunately, a definitive assessment of patient access was not possible in many countries, due to the differing responses of patient organizations from those of the health or insurance administrations regarding effective reimbursement levels. In general, this analysis is based on the information provided by national health administrations, but clearly the confusion due to lack of transparency or easily accessible information about patient access and reimbursement represents another gap in our pan-EU picture of diabetes policies.

Most of the countries covered by this audit have obligatory national healthcare regimes that provide for reimbursement or free access to treatment. In general, patient access and reimbursement of essential diabetes treatments e.g. insulin appears to be generous by global standards, however interviews suggest that access looks better on paper than in reality particularly in some of the poorer EU countries where restrictions on prescriptions and the absence of qualified specialists limit access to treatment which are, in theory, subject to full reimbursement. It is also the case that in a number of countries, access to more advanced treatments and technologies is much more restrictive.

Many of the countries, whether in the midst of a major reform of their healthcare system or just of healthcare spending, are making efforts to keep rising

healthcare costs under control. In a number of countries, discussions on the use of health technology assessments are becoming increasingly common. The full impact on access to and reimbursement of diabetes treatments is not clear at this stage according to most stakeholder organisations, however there is growing concern over the potential implications for people with diabetes.

While access to insulin is consistently good across the majority of countries, there do appear to be significant restrictions or, in a few cases, denied access to self monitoring technologies such as blood glucose monitoring strips and self-monitoring blood pressure meters. The restricted access to education and psychologist support is also striking and there is no reliable information available on access to qualified professional foot care. Limiting access to such essential resources seems to contradict current efforts to empower diabetes patients in order to allow them to take more responsibility for their conditions and to self-manage the disease. This is likely to undermine long-term goals to contain the growth of the disease, and particularly its costly complications.

Other observations include the common distinctions made between Type 1 and Type 2 diabetes patients with the former benefitting from greater levels of access.

KEY FINDINGS

- In general, there is good access to essential diabetes treatments in countries across Europe, however access to more advanced treatments and technologies tends to be more restrictive.
- In some countries, differences between a government's official reimbursement policy and the reported level of access for individual diabetes patients suggest an overall lack of available information on diabetes treatments.
- Government budget reforms and/or efforts to cut back on budget deficits are beginning to cut into the prescribed treatments offered free of charge to diabetes patients. There is also a growing debate around the use of health technology assessment to determine access.
- The implications of these reforms for diabetes patients are not yet clear, although there have been recent examples of countries restricting access to new treatments where the perceived benefits to the individual's quality of life were considered to be outweighed by the cost.
- Many countries make a distinction between insulin and non-insulin treated patients, with full reimbursement of treatments often being reserved for the former group.
- Many countries do not fully reimburse self-monitoring equipment and the reimbursement of education, professional foot care and psychological support is also inconsistent.

CONCLUSIONS AND RECOMMENDATIONS

This audit represents, we believe, a vital contribution to our common fight against diabetes. It seeks to compile the best available data on the disease and its complications and on related national policies in a way that helps to identify best practice, and thereby facilitate the task of national and European policy makers in their efforts to accord the prevention and treatment of diabetes a higher priority at national, European and even global levels. While the national practices may vary somewhat and comparable data may be imperfect, these weaknesses in no way justify inaction. Indeed, the current state of knowledge about risk factors, prevention and treatment argue for an intense campaign and coherent EU strategy to combat diabetes.

While there have been changes in the diabetes policy environment since the first diabetes policy audit in 2005, fuelled by the growing obesity epidemic and a new focus on encouraging healthier lifestyles, the fact remains that diabetes prevalence rates in Europe continue to rise and are predicted to reach an average of 10.3% of the EU population by 2025 – a burden which national healthcare systems will find hard to bear.

Although 14 of the EU's 27 Member States now have an established national diabetes plan or policy framework in place, it is our settled view that this cannot yet be considered satisfactory. In over two years, we have seen insufficient change to be encouraged that Europe's Member States are taking action on diabetes as requested by the numerous EU and international declarations and recommendations adopted in recent years.

In the absence of visible progress, and in response to the identified gaps in national diabetes policies, we emphasise again the need for a coordinated and comprehensive European diabetes strategy. Such a strategy should be based on a series of EU and national policy recommendations.

We regret that many of the recommendations which follow – to both national governments and to the EU's institutions – repeat the call for action made in the last audit in 2005, as well in the original St Vincent Declaration of 1989 – yet these recommendations are more urgent today than ever before.

EU POLICY RECOMMENDATIONS

- **Establish diabetes as an EU health priority by developing an EU diabetes strategy which addresses the disease in a coordinated, strategic and comprehensive manner**

There are significant potential gains to be made from addressing diabetes at the EU-level while respecting the responsibility for health service delivery of the EU Member States. Europe's decision makers must build on and extend the current health policy focus on primary disease prevention in order to tackle the chronic diseases, such as diabetes, which are adversely affecting Europe's citizens today.

- **Create an incentive for coordinated action among EU Member States through an EU Council Recommendation for diabetes prevention, early diagnosis and control**

Such a non-binding, EU legal instrument would promote a tangible focus for action around which Member States, associated states (EFTA), and acceding and candidate countries could improve the health of citizens and ensure a high level of care for people with diabetes who migrate between Member States. Such a Recommendation would support national governments in prioritising diabetes as a public health imperative and in establishing the necessary national action plans to tackle the disease effectively, as evidenced by the UK.

- **Encourage cooperation between Member States in the exchange of good practice as regards prevention, screening and control of diabetes by creating an EU diabetes forum**

There are already examples of individual countries looking to other Member States for best practice in shaping their own national diabetes programmes. For example, Germany has collaborated with Finland in developing a new prevention programme, based on the well-respected Finnish programme. The EU should encourage Member States to learn from the successes and failures of their respective diabetes policies with a view to raising standards, reducing inequalities and optimising healthcare resources.

- **Formalise and repeat this EU benchmarking exercise every 2-3 years, and publish the results in the form of a European Commission (DG Sanco) diabetes status report**

The EU has a valuable role to play in performing benchmarking exercises such as the one carried out in this report. By reporting regularly on the existence and implementation of national diabetes plans, this will enable EU policy makers to assess the extent to which the current measures to address the diabetes epidemic are working effectively, to highlight policy gaps and identify areas that would benefit from further national and EU policy action.

- **Compile, report and disseminate information on the current epidemiological status of diabetes across the EU Member States, by establishing a set of common measurement criteria**

Without timely, accurate and comparable data on the impact of diabetes, EU and national policy makers do not have a clear picture of the scope of the diabetes problem and cannot therefore begin to tackle the disease effectively. EU funding should be allocated to support population-based diabetes surveys as well as the creation of an EU diabetes register. The role of the European Centre for Disease Prevention and Control (ECDC), which has until now focused on communicable diseases, should also be considered as a pertinent partner in this regard.

- **Encourage the development and implementation of national diabetes primary prevention programmes**

While the EU's recent initiatives under the Public Health Action Programme in the area of obesity and chronic disease prevention are widely supported - including the EU-funded D-Plan, IMAGE and SWEET projects - there remains a limited number of Member States with established diabetes primary prevention programmes. The EU has a justifiable role to play in sharing the results of these projects across Europe and encouraging uptake of their recommendations in national diabetes policies.

- **Ensure continued support for diabetes funding under the current and future EU Framework Programmes for Research and Development, while considering Type 1 and Type 2 diabetes as specific diseases**

While diabetes is one of the few diseases specifically recognised in the EU's Seventh R&D Framework Programme, there is some concern that increasingly, nutrition and obesity are mentioned in common programmes with diabetes, which is likely to have a negative impact on the budget dedicated to the disease. Although there is evidence that nutrition, obesity and Type 2 diabetes are tightly interlinked, not all people with Type 2 diabetes are obese and Type 1 diabetes is not at all linked with obesity. Diabetes in its two major forms are diseases with specific characteristics that demand specific types of research. Research on obesity or nutrition alone will therefore not solve the problem of the diabetes epidemic. The results of the EU-funded DIAMAP project, currently underway, will serve to identify gaps and highlight strengths in order to shape the future strategy for diabetes research in Europe.

- **Mark the 20th anniversary of the St Vincent Declaration in October 2009 as the first clear recognition that diabetes is a European Union challenge that requires a Europe-wide response**

The signing of the St Vincent Declaration on Diabetes Care and Research in Europe in October 1989 was the first time European government representatives, patients' organizations and diabetes experts from across Europe had publicly agreed to take coordinated action on diabetes. Under the aegis of WHO Europe and IDF Europe, this broad group of decision-makers and stakeholders agreed a set of goals to improve the lives of people with diabetes. Twenty years later, these goals remain largely unmet and, yet, they have become even more important in the fight against the growing epidemic.

NATIONAL POLICY RECOMMENDATIONS

- **Collect, register, monitor and manage, every three years comprehensive diabetes epidemiological data based on common measurement criteria**

The starting point for any comprehensive and credible national diabetes policy is the availability of accurate and representative data on the extent and magnitude of the disease, as well as its projected growth rates in order to assess the most appropriate action. Where national diabetes registers exist, they are considered to be of significant value to the individual, public health authorities and policy planners at national and local level. The development of a standard dataset is also critical in producing genuinely comparable data between different Member States.

- **Collect, register and manage comprehensive health economic data on the direct and indirect costs of diabetes prevention and management**

While recognising that governments have limited financial resources to allocate to healthcare expenditure, in order to optimise those resources in the areas of diabetes and reach informed policy decisions, they require accurate and representative health economic data on the current and future financial impact of a disease. Only then are they able to assess the most appropriate and cost-effective interventions for tackling the disease.

- **Develop and implement national diabetes plans for evidence-based disease prevention, screening and control, which are founded on best practices**

These plans should:

- *Define measurable targets for timely implementation;*
- *Create an evaluation system to track health outcomes and cost-effectiveness;*
- *Receive appropriate financial support.*

National plans often lack specific targets and/or a monitoring system to assess the implementation and effectiveness of diabetes policies. Without this information on outcomes, it makes it extremely difficult to define best practice. Strong political commitment to invest in the necessary infrastructure and systems of care is essential to ensure the successful implementation of national policy, to ensure equity and continuity of access and to provide quality of care to people with diabetes throughout the EU. There must be adequate allocation of both human and financial resources to achieve this.

- **Ensure continued patient access to high quality diabetes treatments, technologies and ensure that new methods of assessing the cost-effectiveness of treatments and technologies take sufficient account of the potential impact on patients' quality of life**

Governments are under increasing pressure to contain healthcare spending and one of the key targets for these savings is the provision of free access to treatments. Governments should, however, focus on the long-term cost burden of inadequate treatment of diabetes (hospitalization, blindness, amputation) when considering short-term cost savings of individual treatments and technologies.

- **Encourage the development of structured therapeutic patient education and psychological support for patients and their families**

The importance of education and psychological support cannot be over-estimated, if we are to succeed with empowering patients to manage successfully their disease. By helping diabetes patients and their families to understand how to manage and self-manage their disease and the consequences of failing to do so, education and psychological support give them important tools for dealing with diabetes in the long-term.

- **Develop targeted policies for groups at high risk of diabetes including children, women and immigrants**

In order to begin to reduce the diabetes prevalence among specific high risk groups, there is a need to develop and implement targeted prevention, screening and management programmes for these specific groups.

ANNEXES

ANNEX 1 – EDITORIAL REVIEW BOARD

To ensure that the picture and analysis provided by this audit respects high standards of research, comment and analysis, it was reviewed by an editorial review board of diabetes experts. The board comprised the following members:

Dr Michael Hall

Co-chair, Editorial Review Board
Board Member, International Diabetes Federation –
European Region (IDF Europe)

Anne-Marie Felton

Co-chair, Editorial Review Board
President, Federation of European Nurses in Diabetes
(FEND)

Professor Jaakko Tuomilehto

University of Helsinki

Dr Eugene Hughes

Chairman, Primary Care Diabetes Europe
(PCD – Europe)

Dr Peter Schwarz

Medizinische Fakultät Carl Gustav Carus
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Professor Dr Eberhard Standl

President, International Diabetes Federation –
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Deirdre Kyne-Grzebalski

Chairman, Federation of European Nurses in Diabetes
(FEND)

Professor Helmut Rainer Henrichs

Member, International Diabetes Federation – European Region
(IDF Europe)

Sari Härmä-Rodriguez

Member, Federation of European Nurses in Diabetes
(FEND)

ANNEX 2 – INTERVIEWEE ORGANISATIONS

COUNTRY	CONSULTED ORGANISATIONS
Austria	Austrian Ministry of Health, Families and Youth (<i>Bundesministerium für gesundheit, familie und jugend</i>) Austrian Diabetes Association (<i>Österreichische Diabetes Gesellschaft</i>) Diabetes Specialist Nurse
Belgium	Belgian Ministry of Health Belgian Diabetes Association (<i>Association Belge du Diabète</i>) Flemish Diabetes Association (<i>Vlaamse Diabetes Vereniging</i>) Diabetes Specialist Nurse Scientific Association of Flemish General Practitioners (<i>Wetenschappelijke Vereniging van Vlaamse Huisartsen</i>)
Bulgaria	Bulgarian Ministry of Health (<i>Министерство на здравеопазването</i>) Bulgarian Society of Endocrinology (<i>Българско дружество по ендокринология</i>) National Sports University, Sofia, Bulgaria
Croatia	Croatian Ministry of Health Croatian Diabetes Association (<i>Hrvatski Savez Dijabeticka Uduga</i>) National Public Health Institute, Vuk Vrhovac University Clinic
Cyprus	Cyprus Ministry of Health, Medical Council (<i>Υπουργείο Υγείας της Κυπριακής Δημοκρατίας</i>) Cyprus Diabetes Association (<i>Παγκύπριος Διαβητικός Σύνδεσμος</i>)
Czech Republic	Czech Ministry of Health (<i>Odbor zdravotni pece</i>) Czech Diabetes Society (<i>Česká diabetologická společnost</i>) Czech Union of Diabetic Patients (<i>Svaz Diabetiků ČR</i>) Diabetes Specialist Nurse
Denmark	Danish Ministry of Health (<i>Indenrigs-og Sundhedsministeriet</i>) Danish Diabetes Association (<i>Diabetesforeningen</i>) Danish Medical Society (<i>Dansk Medicinsk Selskab</i>)
Estonia	Estonian Ministry of Social Affairs (<i>Sotsiaalministeerium</i>) Estonian Diabetes Association (<i>Eesti Diabeediliit</i>)
Finland	Finnish Diabetes Association (<i>Diabetesliitto</i>)
France	French Ministry of Health (<i>Haute Autorité de santé</i>) French Diabetes Association (<i>Association Française des Diabétiques</i>) French Institute for Public Health Surveillance (<i>Institut de veille sanitaire</i>) National Health Insurance Fund for Salaried Employees (<i>Caisse nationale de l'assurance maladie des travailleurs salariés</i>)
Germany	German Ministry of Health (<i>Bundesministerium für Gesundheit</i>) German Diabetes Union (<i>Deutsche Diabetes-Union</i>) Diabetes Specialist Nurse
Greece	Hellenic National Centre for the Research, Prevention and Treatment of Diabetes Mellitus and its Complications (<i>Εθνικό Κέντρο Έρευνας, Πρόληψης και Θεραπείας του Σακχαρώδη Διαβήτη και των Επιπλοκών του</i>) Diabetic Centre of the Athens General Hospital "Polycliniki" – (<i>Διαβητολογικό Κέντρο του Γ. Ν. Ν. «Πολυκλινική Αθηνών»</i>)
Hungary	Hungarian Ministry of Health (<i>Egészségügyi Minisztérium</i>) Hungarian Diabetes Association (<i>Magyar Diabetes Társaság</i>) Hungarian Nursing School

COUNTRY	CONSULTED ORGANISATIONS
Ireland	Irish Department of Health and Children Health Service Executive (HSE) Diabetes Federation of Ireland Diabetes Specialist Nurse
Italy	Italian Ministry of Health (<i>Ministero della Sanita</i>) Regional Governments (<i>Regioni</i>) Italian Diabetes Association (<i>Associazione Italiana diabetici</i>) Italian Society of Diabetology (<i>Societa' Italiana di diabetologia</i>) Diabetologist Doctors Association (<i>Associazioni medici diabetology</i>)
Kazakhstan	International Diabetes Federation – European Region
Latvia	Latvian Ministry of Health (<i>Latvijas Republikas Veselības ministrija</i>) Latvian Diabetes Association (<i>Latvijas Diabeta Asociācija</i>)
Lithuania	Lithuanian Ministry of Health (<i>Lietuvos Respublikos Sveikatos Apsaugos Ministerija</i>) Lithuanian Diabetes Association (<i>Lietuvos Diabeto Asociacija</i>)
Luxembourg	Luxembourg Ministry of Health (<i>Ministère de la Santé</i>) Luxembourg Diabetes Association (<i>Association Luxembourgeoise du Diabète</i>) Reimbursement agency (<i>Union des Caisses Maladies</i>)
Malta	Maltese Ministry of Health Maltese Diabetes Association (<i>Għaqda Maltija Kontra id-Dijabete</i>)
The Netherlands	Dutch Ministry of Health, Wellbeing & Sports (<i>Ministerie van Volksgezondheid, Welzijn en Sport</i>) Dutch Diabetes Association (<i>Diabetesvereniging Nederland</i>) Professional Care of Diabetes Federation (<i>Beroepszorg voor diabeteszorgverleners</i>) College of Insurers (<i>College voor zorgverzekeringen</i>)
Poland	Polish Ministry of Health (<i>Ministerstwo Zdrowia</i>) Polish Society of Diabetics (<i>Polskie Stowarzyszenie Diabetyków</i>) Polish Diabetologists Association (<i>Polskie Towarzystwo Diabetologiczne</i>) Polish Federation of Diabetes Education (<i>Polska Federacja Edukacji w Diabetologii</i>) Diabetes Specialist Nurse Silesian Medicine Academy in Zabrze (<i>Śląskiej Akademii Medycznej w Zabrze</i>) National Consultant on Diabetes (<i>Klinika Chorób Wewnętrznych, Diabetologii i Nefrologi</i>)
Portugal	Portuguese Ministry of Health (<i>Direcção De Serviços De Cuidados De Saúde</i>) Portuguese National Diabetes Association (<i>Associação Protectora dos Diabéticos de Portugal</i>) Portuguese Diabetology Society (<i>Sociedade Portuguesa de Diabetologia</i>) Diabetes Specialist Nurse
Romania	Romanian Society of Diabetes, Nutrition and Metabolic Diseases (<i>Societatea Romana de Diabet, Nutritie si Boli Metabolice</i>) Association for the Protection of Romanian Children & Youth with Diabetes (<i>Asociația Tinerilor Diabetici din România</i>) Nicolae Paulescu National Institute for Diabetes, Nutrition and Metabolic Diseases (<i>Institutul National de Diabet, Nutritie si Boli Metabolice "Nicolae Paulescu"</i>)
Slovakia	Slovakian Ministry of Health (<i>Ministerstvo Zdravotníctva Slovenskej Republiky</i>) Association of Diabetic Patients of Slovakia (<i>ZVAZ Diabetikov Slovenska</i>) Slovakian National Endocrine and Diabetes Institute

COUNTRY	CONSULTED ORGANISATIONS
Slovenia	Slovenian Ministry of Health (<i>Ministrstvo za zdravje</i>) Slovenian Diabetes Association (<i>Zveza Drustev Diabetikov Slovenije</i>) National Endocrinology and Diabetology Institute, Ljubochña, Slovenia
Spain	Spanish Ministry of Health (<i>Ministerio de Sanidad y Consumo</i>) Spanish Federation of Diabetes (<i>Federacion Española de Diabetes</i>) Spanish Diabetes Professional Society (<i>Sociedad Española de Diabetes</i>) Diabetes Specialist Nurse Andalusia Assembly – Health Council (<i>Junta de Andalucía, Consejería de Salud</i>) Andalusian Society of Family and Community Doctors (<i>Sociedad Andaluza de medicina familiar y comunitaria</i>)
Sweden	Swedish Diabetes Association (<i>Svenska Diabetesförbundet</i>) Swedish Society for Diabetology (<i>Svensk Förening för Diabetologi</i>)
Turkey	Turkish Diabetes Foundation (<i>Türkiye Diyabet Vakfı</i>) Turkish Diabetes Association (<i>Türk Diabet Cemiyeti</i>) Turkish Diabetes Nursing Association
United Kingdom	Diabetes UK Diabetes Specialist Nurse

ANNEX 3 – DIABETES PREVALENCE DATA

COUNTRY	IDF ATLAS 2003		IDF ATLAS 2006		
	Diabetes Prevalence 2003 (%)	Estimated Prevalence 2025 (%)	Diabetes Prevalence 2006 (%)	Number of Diabetes Patients 2006	Estimated Prevalence 2025 (%)
Austria	9.6	11.9	11.1	682,300	13.2
Belgium	4.2	5.2	5.2	598,800	9.7
Bulgaria	10.0	11.6	10.1	595,700	11.5
Cyprus	5.1	6.3	10.3	62,100	11.3
Czech Republic	9.5	11.7	9.7	756,800	11.6
Denmark	6.9	8.3	7.5	290,600	11.4
Estonia	9.7	11.0	9.9	97,300	10.8
Finland	7.2	10.0	8.4	321,700	10.0
France	6.2	7.3	8.4	3,616,600	10.4
Germany	10.2	11.9	11.8	7,379,200	13.3
Greece	6.1	7.3	8.6	736,700	9.7
Hungary	9.7	11.2	9.8	741,500	11.2
Ireland	3.4	4.1	5.6	169,700	6.4
Italy	6.6	7.9	8.7	3,850,200	10.4
Latvia	9.9	11.1	10.0	170,300	11.0
Lithuania	9.4	10.8	9.7	239,900	10.7
Luxembourg	3.8	4.4	6.9	23,600	8.2
Malta	9.2	11.6	9.7	28,600	11.6
Netherlands	3.7	5.1	7.3	872,000	9.6
Poland	9.0	11.0	9.1	2,607,700	11.0
Portugal	7.8	9.5	8.2	648,300	9.8
Romania	9.3	10.6	9.4	1,524,500	10.7
Slovakia	8.7	10.7	8.8	353,300	10.8
Slovenia	9.6	12.0	9.8	148,900	11.8
Spain	9.9	10.1	7.5	2,497,800	9.7
Sweden	7.3	8.6	7.2	467,500	8.1
United Kingdom	3.9	4.7	4.0	1,709,400	4.6
Croatia	5.8	6.7	9.5	328,700	10.6
Turkey	7.0	9.1	7.1	3,286,900	8.9
Kazakhstan	5.5	7.0	5.6	550,700	7.0
EU (27) average	7.6	9.1	8.6	31,191,000	10.3
Europe (30) average	7.5	9.0	8.5	33,480,500	10.2

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