International Diabetes Federation
Europe

An overview of access to diabetes care in Europe

IDF Europe Compendium of Country Profiles

Contents

Foreword

The discovery of insulin in 1921 marked a major milestone in medical history, transforming diabetes from a fatal diagnosis to a manageable condition.

One hundred years later, diabetes remains a major health challenge for individuals and societies. More than 61 million people live with the condition in the region. While many innovations have become available, many people do not achieve their treatment targets, and these advances have not yet reached everyone.

So, where do we actually stand today in terms of access not only to insulin but also more generally to diabetes prevention and care across Europe? And what needs to change?

This publication provides a snapshot not only of what has been achieved but also of the remaining challenges and inequalities in diabetes prevention and care today, which themselves lead to disparities in health outcomes and poor quality of life for people living with diabetes (PwD). Our mission is clear – to address these inequalities and advocate for every PwD to access the best possible care.

In recent years, the diabetes community itself has driven much of this progress. PwD have advocated for innovations that can support and meet their real needs and improve their quality of life. This push has fuelled innovation, with advanced insulin delivery systems, innovative medicines and devices, and more recently, promising developments in cell therapies,

Beyond new technologies, progress in diabetes care also lies in putting people at the centre of their care, fostering strong relationships between PwD and their healthcare professionals (HCPs) and re-organising our healthcare systems to deploy more integrated and personalised care models.

In November 2023, IDF Europe and WHO Europe co-signed a Declaration calling on governing bodies to accelerate action and uphold their commitment on diabetes, including the WHO Global Diabetes Compact (2021), the World Health Assembly (WHA) Resolution for reducing the burden of non-communicable diseases (NCDs) through strengthening prevention and control of diabetes (2021), the Global Targets for Diabetes at the 75th World Health Assembly (2022) and the European Parliament Diabetes Resolution (2022).

The time to act is now! To ensure that current solutions are used to their fullest potential by all; to support new research and to create systems that tackle inequalities and give everyone their best opportunity for a long and fulfilling life with diabetes.

It is with this ambition that we have developed this publication, hoping it serves our community as a powerful snapshot of where we stand today, the road we have travelled and the path still ahead. May it inspire and guide our actions to truly revolutionise health in Europe. Together, united, let us build a future free from inequalities, where every person living with diabetes and those at risk can achieve the highest possible standard of health.

IDF Europe Regional Chair,

Prof. Nebojša M. Lalić

Acknowledgements

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Albanian Diabetes Association

Armenian Association of Diabetes

Austrian Diabetes Association

Azerbaijan Diabetes League (ADL)

Belarus Society of Endocrinologists

Diabetes Liga

Society of Endocrinology and Diabetology in Bosnia and Herzegovina

Bulgarian Diabetes Association (BDA)

Cyprus Diabetic Association

Danish Diabetes Association

Estonian Diabetes Association

Faroese Diabetes Association

Finnish Diabetes Association

French Diabetes Federation (FFD)

Georgian Union of Diabetes and Endocrine Associations

DiabetesDE

Hellenic Diabetes Association

Diabetes Island

Diabetes Ireland

Italian Association of Athletes Living with Diabetes (ANIAD)

Italian Association of Diabetologists (AMD)

Italian Association for the Defense of PwD Interests (AID)

Association of Doctors-Endocrinologists of Kazakhstan

Diabetes and Endocrinological Association of Kyrgyzstan

Latvian Diabetes Association

Lithuanian Diabetes Association

Luxembourg Diabetes Association (ALD)

Maltese Diabetes Association

Society of Endocrinologists of the Republic of Moldova

Dutch Diabetes Association (DVN)

Macedonian Diabetes Association

Norwegian Diabetes Association

Polish Diabetes Association

Portuguese Diabetes Association (APDP)

Romanian Federation of Diabetes, Nutrition and Metabolic Diseases

Romanian Society of Diabetes, Nutrition and Metabolic Diseases

Diabetes Association of Serbia

Diador

Slovakian Diabetes Society

ZVAZ Diabetes Slovakia

Slovenian Diabetes Association

Spanish Diabetes Society (SED)

Swedish Association of Diabetology (SFD)

Swiss Diabetes Association

Turkish Diabetes Foundation

Ukrainian Diabetology Association

Diabetes UK

Endocrinological and Diabetes Association of Uzbekistan (O'EDA)

Tashkent Charity Public Association of the Disabled and People with Diabetes (UMID)

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Writing team

Martina Boccardo, IDF Europe Strategic Communications & Content Coordinator

Sabine Dupont, IDF Europe Director, Policy & Strategy

Layout

Ex Nihilo

We thank DiaNear© for providing the pictures on pages 50, 51 and 54, featuring diabetes advocates with the purpose of driving change (Joana Amorim, Nikolas Evripidou and Manuel Pérez López), photographed by Joana Amorim and Lazar Begović, Co-Founders of DiaNear.

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International Diabetes Federation Europe

IDF Europe is the European chapter of the International Diabetes Federation (IDF). We are an umbrella organisation representing 72 national diabetes organisations in 45 countries across Europe. We are a diverse and inclusive multicultural network of national diabetes associations, representing both people living with diabetes and healthcare professionals.

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Abbreviations

AI: Artificial intelligence

AID systems: Automated insulin delivery systems

CGM: Continuous glucose monitor

CKD: Chronic kidney disease

CVD: Cardiovascular disease

DiGA: Digital Health Application programme

DME: Diabetes-related macular oedema

DSN: Diabetes specialist nurse

GDM: Gestational diabetes

GP: General practitioner

EHR: Electronic health records

HCP: Healthcare professional

isCGM: Intermittently-scanned continuous glucose monitor

NCD: Non-communicable disease

NDP: National diabetes plan

NDR: National diabetes registry

PCP: Primary care physician

PwD: People living with diabetes

rtCGM: Real-time continuous glucose monitor

T1D: Type 1 diabetes

T2D: Type 2 diabetes

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Executive summary

Diabetes is a complex, chronic condition which represents a major health burden for individuals, health systems and societies. Currently, **61 million people live with diabetes in Europe** (32 million in the EU), forecast to rise to **67 million by 2030** (33 million in the EU) [1]. Over **one third of people living with diabetes (PwD) are undiagnosed,** and nearly **half fail to meet their health targets** [2], often leading to costly complications and poor quality of life. This is evident in the €176 billion spent on diabetes-related healthcare in Europe in 2021 (€104 billion in the EU), with **75% of costs linked to treating** these often preventable **complications** [1; 3].

To identify the gaps in diabetes prevention and care, we collaborated with our Member Associations and other national diabetes associations to develop country profiles providing an overview of the state of **access to diabetes prevention and care across Europe,** looking specifically at the following areas:

- **Policy frameworks**
- **Medicines, technologies and supplies**
- **Education, support and screening**
- **Health system organisation**

A country's policy framework determines the effectiveness of its healthcare system in preventing and managing diabetes. Adopting **healthy living policies** helps create health-enabling environments that support prevention and help PwD manage their condition. Setting up **national diabetes plans** (NDPs) and **registries** (NDRs) is also key as they help shape and evaluate policy responses by informing prevention and treatment strategies, supporting research and enhancing education for PwD and healthcare professionals (HCPs).

Inadequately managed diabetes can result in people living with the condition developing potentially life-altering complications including cardiovascular diseases (CVD), chronic kidney disease (CKD), retinopathy and neuropathy. **To reduce the risk of developing such complications and maintain longer health expectancy and quality of life, PwD require uninterrupted access to a number of medicines, technologies and supplies.** These include, for example, insulin, other diabetes and CVD medicines as well as devices for blood glucose monitoring and insulin administration.

Access to regular screening is also crucial to lower this risk and/or manage and slow the progression of these complications. Alongside these, **PwD require ongoing self-management education and psychological support.** Structured education, provided at diagnosis and throughout the life course, equips individuals with the skills to manage their condition effectively. **Peer support** is also invaluable in improving health outcomes and providing **psychological support.**

Health system organisation is another element influencing diabetes prevention and care. Traditional siloed approaches, with separate organisations managing distinct priorities and budgets, have proven inadequate for addressing chronic conditions, which require continuous, coordinated care across multidisciplinary teams. This has been compounded by long-term underinvestment. To improve their effectiveness and reduce the burden of the disease, **healthcare systems need to transition to more integrated and person-centred models.** Key steps include **strengthening primary care, improving HCP education** and **leveraging digital tools** such as telemedicine and electronic health records (EHRs). **Empowering diabetes nurses and other community and primary care professionals** (PCPs) to take on larger roles in prevention, education and management can also help enhance prevention and management and overcome barriers to effective management and care linked to HCP shortages. Adopting such measures would go a long way towards ensuring that all PwD receive the care and support they need and can live long and fulfilling lives.

Policy frameworks

More than two-thirds of the European countries in our review implement healthy living policies targeting obesity and overweight, healthy food and diets, physical activity and smoking. However, binding regulations for healthy diets, such as sugar taxes, are less common and have been adopted in fewer than half of the European countries, despite their demonstrable impact.

About two-thirds of the countries have NDPs. Of these, 18 are stand-alone, six are partially integrated and six are fully integrated within broader NCD strategies. **NDRs,** despite their key role, **are available and complete** (i.e. covering all age groups and types of diabetes) in **only nine European countries,** severely hindering healthcare systems' ability to assess strategies and programmes, measure outcomes, and understand PwD's needs with a view to adapting and improving policies.

Medicines, technologies and supplies

Access to medicines, technologies and supplies varies widely across Europe reflecting largely differences in affordability and availability.

Most types of insulin are consistently **available in nearly all European countries** and their cost is generally mostly **covered by national health systems,** except for a few countries (e.g., Armenia, Bulgaria, Kyrgyzstan, Republic of Moldova and Uzbekistan).

Other diabetes and CVD medicines are **widely available** across Europe and are typically **fully or partially reimbursed.** However, access to nasal glucagon, meglitinides, alpha-glucosidase inhibitors, ezetimibe and PCSK9 inhibitors is limited in at least 11 to 14 countries.

Basic devices and supplies for blood glucose monitoring and insulin delivery, including blood glucose meters, test strips, syringes, needles and insulin pens, are broadly **available and reimbursed for most PwD.** However, in some countries, the number of reimbursed test strips is limited and may not meet PwD's actual needs. Additionally, **access to newer technologies** such as continuous glucose monitors (CGMs), insulin pumps and automated insulin delivery (AID) systems **varies significantly** and are often restricted to specific groups, such as children or some people living with T1D, especially in countries outside the EU.

Education, support and screening

The lack of comprehensive diabetes education accessible to all represents a significant hindrance to effective diabetes management in Europe. All European countries provide some form of diabetes education at the time of diagnosis. However, **access is inconsistent and/or uneven in about one third of countries,** particularly in smaller clinics or for individuals living with T2D. Additionally, in about half of the European countries, education is not provided consistently throughout the life course. **Peer support,** which has time and time again been shown to be invaluable, is integrated in education programmes in only **eight countries.**

Many of the chronic diabetes-related complications can be asymptomatic for a long time. Regular screening is therefore essential to be able to act early and prevent or slow their progression. This screening is generally available across Europe but it is not always comprehensive nor accessible for everyone. **Fewer than half of all European countries have consistent, effective screening programmes** for all diabetes-related complications.

The demanding nature of diabetes management often has a considerable, yet oft overlooked, impact on the mental health of people living with the condition, for which **psychological support** might be beneficial. This support is available in **nearly all European countries. Key barriers to access often exist though,** notably insufficient reimbursement and long waiting times, and it is easily accessible in only five countries.

Health system organisation

Diabetes specialist nurses (DSNs) can play a key role in prevention, self-management education and clinical care. However, they only benefit from **formal academic training** in about **half of the European countries under review,** and only in **three countries** are they **allowed to prescribe diabetes medicines.**

Some e-health services such as EHRs and electronic prescriptions are available in **over three-quarters of European countries.** By contrast, services such as video consultations and telehealth are less widespread. Only **nine countries** provide **systematic and comprehensive access to a full range of e-health services** for all PwD.

Conclusion

Much has been achieved since insulin was first discovered 100 years ago. New insulins and other medicines have been developed. Most of these are now available and often reimbursed – albeit sometimes with delays – across most European countries. **New medical devices have also emerged** that are greatly reducing the burden of diabetes management, **although their provision remains limited.** New care and education strategies and tools also hold the potential to effect meaningful changes. Despite these advances the number of people living with diabetes (PwD) continues to rise, many still develop life-altering complications and their voice often remains unheard.

Ahead of the UN High-Level Meeting on Noncommunicable Diseases (NCDs) and building on the momentum of the 2022 European Parliament Resolution on Diabetes and the 2023 IDF Europe-WHO Europe Declaration, **2025 presents a critical opportunity to advocate for bold political action on diabetes.**

This publication highlights inequalities in diabetes prevention and care across Europe, emphasising gaps between evidence and practice. **In particular, urgent attention needs to be placed on investing in, and re-designing, healthcare systems to provide comprehensive, timely, integrated and person-centred care for all.** This entails promoting the development and adoption of innovative tools and practices, leveraging digitalisation and data, improving HCP education and empowering PwD. Ensuring timely and uninterrupted provision of the necessary medicines, technologies and supplies is also a prerequisite to effective change. Bridging these to improve the lives of PwD and those at risk and laying the foundation for more resilient health systems and more sustainable societies for all will only be possible through broad-ranging collaboration and political will. **We call on policymakers and other stakeholders to heed this call and accelerate action on diabetes now!**

Introduction and methodology

One hundred years after the discovery of insulin, diabetes continues to present significant challenges to those living with the condition, healthcare systems and society at large. Despite medical advances and efforts to improve health policies, many people living with diabetes (PwD) still face unacceptable health outcomes, hindering their ability to lead long and fulfilling lives. Disparities in health outcomes are also widespread both across and within European countries. While many factors contribute to this, the quality and accessibility of prevention, management and care play a critical role. **Key areas requiring urgent action include establishing more robust policy frameworks, strengthening primary and secondary prevention strategies, promoting integrated, person-centred care, advancing the digitalisation of health systems and improving access to diabetes self-management education and advanced self-management technologies.** Identifying the gaps in these areas is essential to enable PwD and those at risk to lead fulfilling and healthy lives.

To contribute to this mission, IDF Europe has developed a comprehensive compendium of best practices in diabetes management and care and areas requiring urgent action in 45 countries across the European region. It is a foundation for under-

standing and addressing disparities in access to diabetes prevention, management and care.

The goal of this publication is twofold: to celebrate the progress made since the discovery of insulin and to map the road ahead. It provides a rich, qualitative and nuanced understanding of the current state of diabetes care in Europe and is intended to serve as a tool for advocacy and policy action for policymakers, healthcare professionals (HCPs) and advocates to guide their efforts and collaboration in driving equitable access to high-quality diabetes prevention and care for all.

Methodology

This compendium is based on a collaborative effort with our Member Associations across Europe. National diabetes associations, representing both PwD and HCPs, are uniquely positioned to provide information, coupled with real-world insights, on the state of diabetes care in their respective countries.

The data was obtained through a **questionnaire** distributed to our Member Associations in 45 countries within the European Region. The questionnaire covered a range of topics, including:

- **Policy frameworks:**
  the presence of national diabetes plans, registries, monitoring mechanisms and clinical guidelines.
- **Healthy living policies:**
  the availability of policies addressing healthy foods, physical activity, obesity, smoking and regulations on healthy diets.
- **Access to medicines and devices:**
  the availability and reimbursement of insulin, other diabetes and cardiovascular medicines, and technologies and supplies for self-management.
- **Screening for complications:**
  access to screening programmes for diabetes-related complications, including cardiovascular diseases (CVD), chronic kidney disease (CKD), eye disease, diabetes foot and gestational diabetes.
- **Health system organisation:**
  the availability of structured diabetes education, the use of e-health services and the role of specialist diabetes nurses.

Respondents were also invited to provide **qualitative insights** detailing variations in access or specific country-level nuances. Where clarification or additional information was needed, online **interviews** were conducted with respondents.

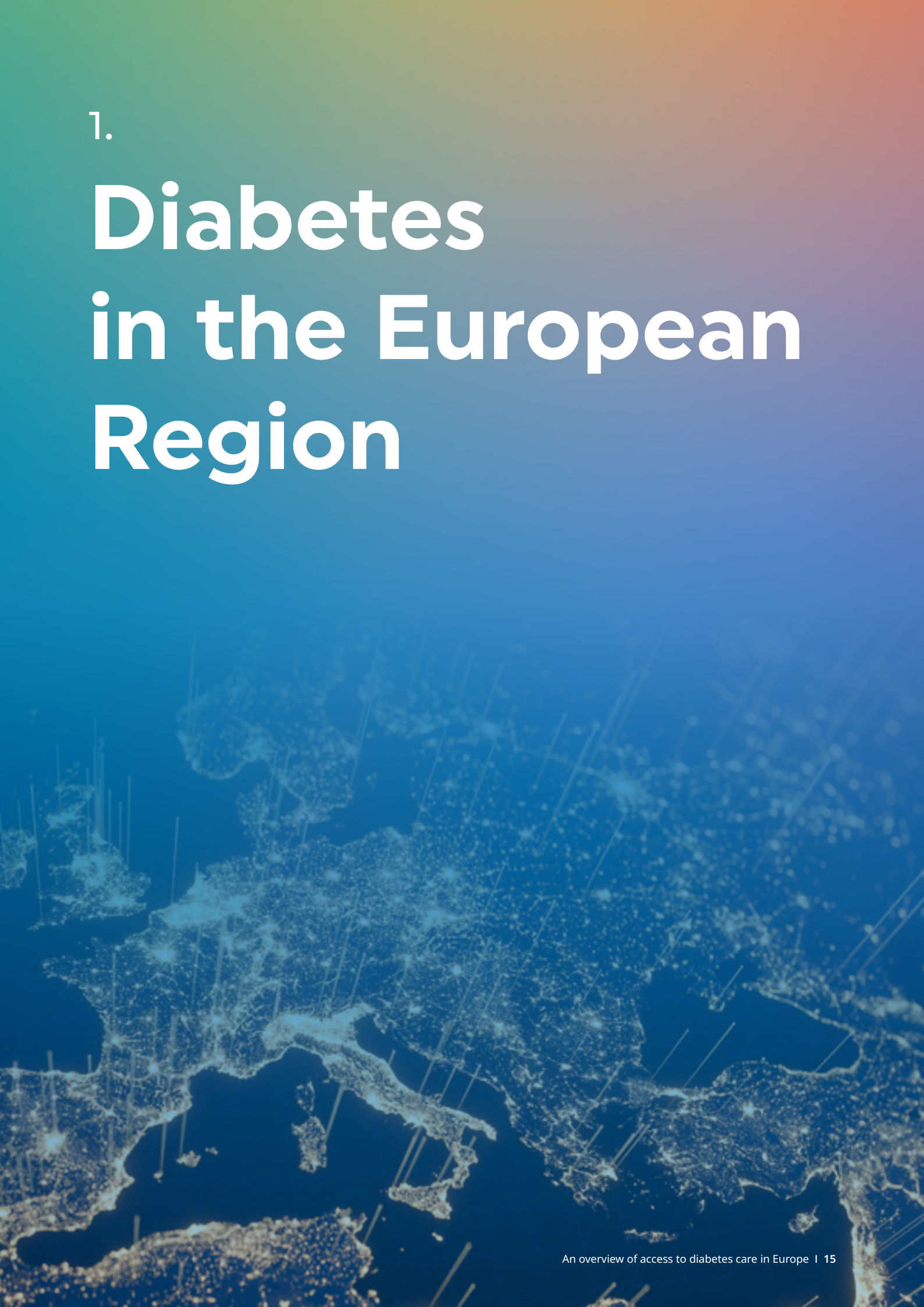
Figures on diabetes prevalence, mortality and related statistics were sourced primarily from the **IDF Atlas 2021 (10th edition)** [1] to ensure consistency and comparability across countries. Where available, **national data sources** were also incorporated into the country profiles.

Analysis and reporting

The collected insights are presented in **individual country factsheets** (see appendix A), each accompanied by an introductory analysis to provide context and highlight key successes and gaps in each country. This **compendium** integrates these findings to offer a **regional overview,** identifying overarching themes, trends and inequalities, and outlining targeted recommendations to advance diabetes prevention and care in Europe.

1.

Diabetes in the European Region



Diabetes prevalence

Diabetes is a chronic condition which represents a major health burden for individuals, health systems and society at large – one that has continued to rise unabated in recent years. **Across Europe, more than 61 million people now live with diabetes,** representing about **one in 10 adults.** Without urgent action being undertaken, this number is forecast to reach **67 and 69 million in 2030 and 2045** respectively [1].

Type 2 diabetes (T2D) accounts for around 90% of all cases [4]. The remainder are predominantly Type 1 diabetes (T1D) and gestational diabetes mellitus (GDM), along with other rarer forms of diabetes, which together highlight the diversity and complexity of the condition.

What is diabetes?

Diabetes is a group of chronic metabolic disorders characterised by elevated levels of blood glucose. Diabetes is a highly complex condition, whose onset involves different mechanisms, facilitated by risk factors. The World Health Organization recognises more than 10 forms of the disease [5].

- **Type 2 diabetes (T2D)** is the most common form, which develops due to a combination of unmodifiable, genetic, physiological, environmental and modifiable, behavioural risk factors. In T2D, the body may not produce enough insulin and/or not be able to use the insulin it produces effectively. As a result, glucose cannot get into the cells, causing glucose levels in the blood to rise, potentially creating life-altering complications. Blood glucose levels in people living with T2D can be managed in a variety of ways, with some oral medications sometimes associated with lifestyle programmes, and for some people, through administering insulin.
- **Type 1 diabetes** (T1D) is an auto-immune disease, whereby the body destroys insulin-producing cells (β-cells) in the pancreas. Living without insulin is impossible, so a person living with T1D will receive insulin through injections (generally, in Europe, through insulin pens or via an insulin pump).
- **Gestational diabetes (GDM)** is a form of diabetes which develops during pregnancy. It is managed through a mix of diet, exercise and, as required, appropriate medication (insulin or oral medication). Although GDM resolves after birth, both the person giving birth and the child are at higher risk of developing T2D later in life.
- Many **other, much rarer, forms of diabetes** exist, of which the most frequent is monogenic diabetes.

The average prevalence of diabetes in Europe is 9%. This hides wide variations between countries, with prevalence ranging from 4% to as high as 16%. Countries with the highest prevalence include Bosnia and Herzegovina (12.2%), Serbia (12.2%), Portugal (13%), Spain (14.7%) and Turkey (15.9%) [1].

Chart 1. Number of PwD in Europe, 2011-2045

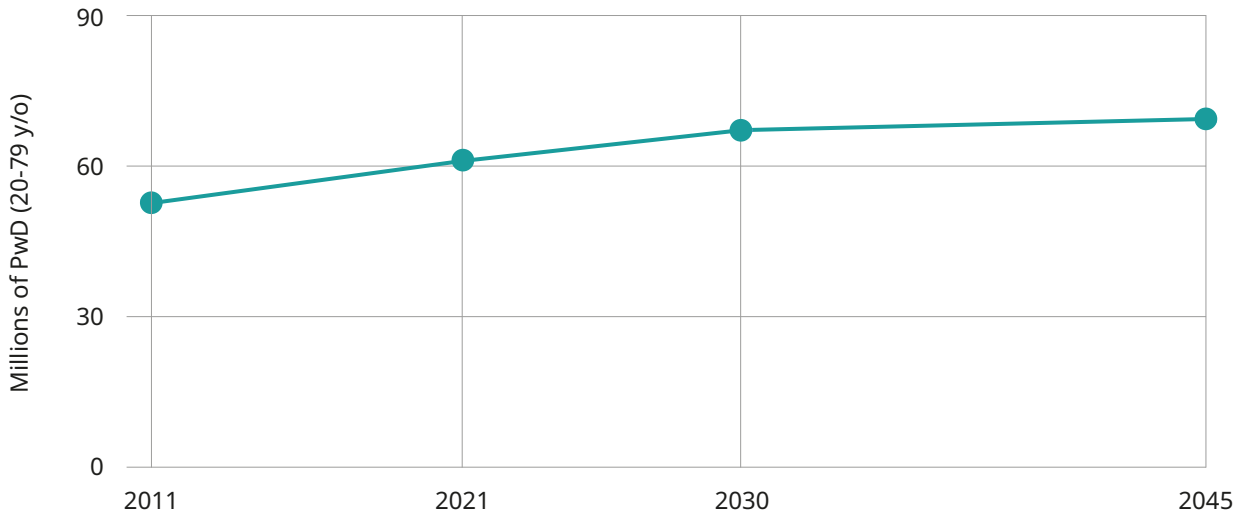


Chart 2. Geographic distribution of diabetes prevalence across Europe (20-79 y/o), 2021

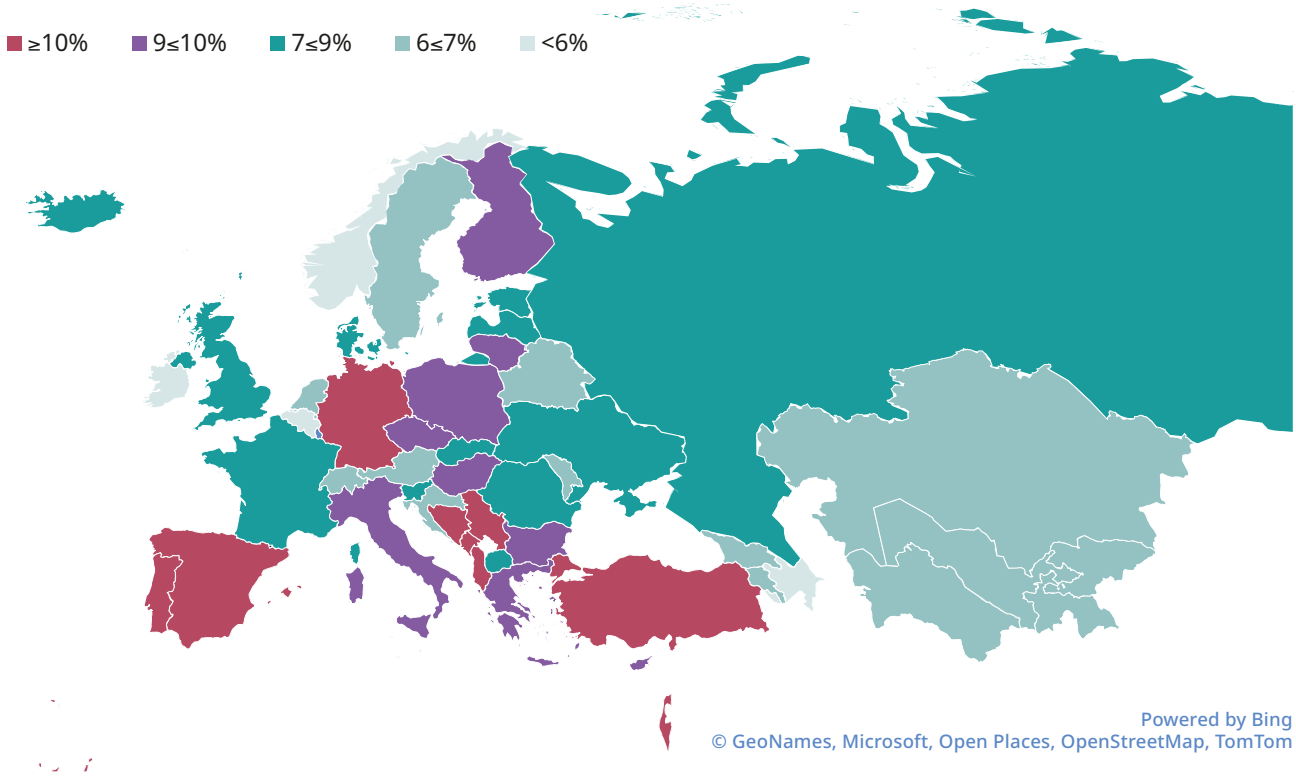
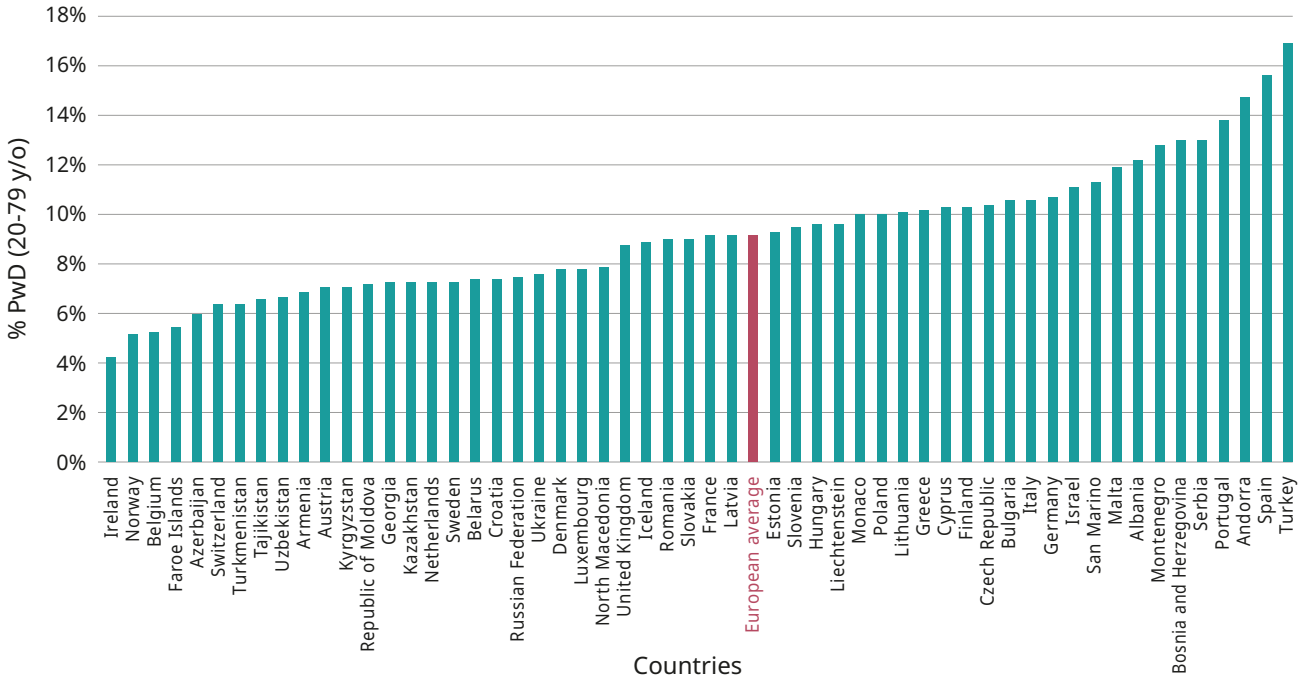


Chart 3. Diabetes prevalence across Europe, by country, 2021



Diabetes and the youth

T1D is the most common form of diabetes in young people. **The European Region has the highest number of children and adolescents living with the condition (295,000) as well as the highest incidence annually (31,000)** [1]. Although T2D remains far less common than T1D in children and young adults, an increasing trend in its prevalence has also been recorded among the paediatric population over the past 30 years. **The rapid increase in T2D in youth** over the last two decades is particularly worrisome as the development of the disease tends to be quicker and more severe compared to youths with T1D or adults with T2D, leading to a higher and accelerated risk of developing diabetes-related complications [6].

Undiagnosed diabetes

Of those living with the condition in Europe, more than one third are undiagnosed [1]. The high share of undiagnosed diabetes greatly contributes to the disease burden – the longer a person lives with the condition undiagnosed or inadequately managed, the more likely it is that they will develop life-altering and costly complications. Some studies have found that up to 35% of people living with T2D already show signs of complications such as CVD, at the time of diagnosis [7].

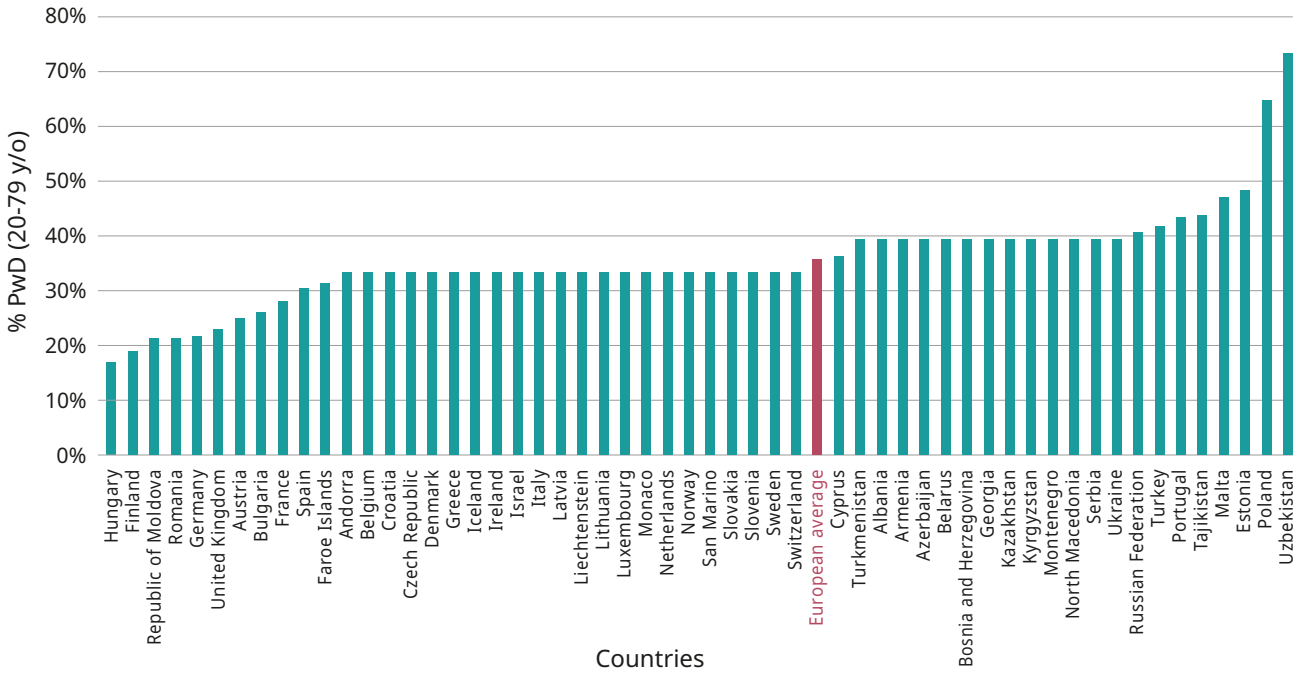
Diabetes and other non-communicable diseases

Diabetes is one of the four major types of non-communicable diseases (NCDs), alongside CVD, chronic respiratory diseases and cancer. NCDs, often referred to as chronic diseases, are typically long-lasting and result from a combination of genetic, physiological, environmental and behavioural risk factors [8]. These conditions are closely interconnected and share common risk factors – **living with one NCD can increase the likelihood of developing others.** NCDs present lifelong challenges, placing a considerable burden on those living with them, healthcare systems and society at large. As an example of this interconnectedness, **diabetes can affect every organ system in the human body and is the root cause of many other NCDs and co-morbidities.**

Diabetes-related mortality

According to WHO estimates, **mortality from the four major NCDs** – diabetes, CVD, cancer and

Chart 4. Proportion of undiagnosed diabetes across Europe, 2021



chronic respiratory diseases – **accounts for 90% of about nine million deaths each year** [9].

In 2021, more than one million deaths were attributable to diabetes and linked to acute complications such as diabetic ketoacidosis (DKA) and hypoglycemia [1]. While diabetes itself only accounts for a small proportion of all NCD deaths, this does not reflect the deaths from NCDs caused by diabetes. Diabetes is a significant risk factor for many NCDs including CVD and certain types of cancer. Therefore, the forecast rise in diabetes prevalence over the next 20 years will inevitably increase the burden and mortality linked to other NCDs.

Premature mortality in PwD is often due to potentially preventable complications of the condition. A stronger focus on prevention, early detection and screening can help reduce diabetes incidence and the development of complications, thereby lowering the incidence of premature mortality.

The cost of diabetes

As well as having a devastating effect on individuals, diabetes also has a major impact on health systems. **In 2021, diabetes-related health expenditure represented around €176bn in Europe** (€104bn in the European Union), **of which 75% resulted from the treatment of often preventable complications** [1; 3]. In the EU, diabetes accounts for approximately 10% of the total healthcare spending [10]. The average expenditure in Europe is €3,629 per person living with diabetes [1].

Figure 1. Diabetes-related complications and co-morbidities

Diabetes in Europe at a glance [1]

61m
1 in 10 adults live with diabetes

1m
deaths attributable to diabetes in 2021

295,000
Europe has the highest number of children and adolescents living with T1D

€176bn
diabetes related health expenditure in 2021

36%
1 in 3 people living with diabetes are undiagnosed

15%
of pregnant people are diagnosed with GDM

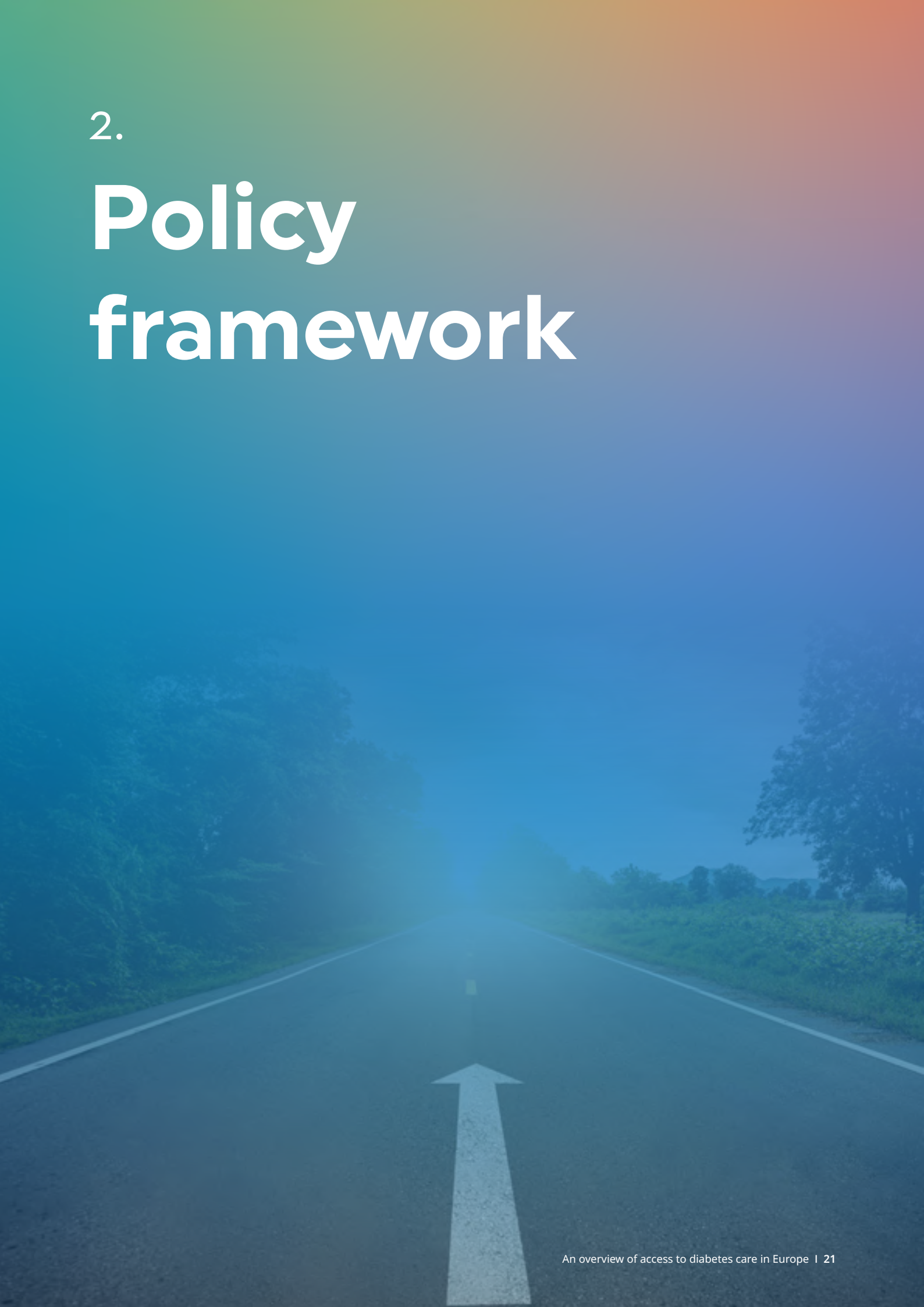
OUR CALL TO ACTION

Bending the Curve on Diabetes, Reducing the Burden and Improving Quality of Life

- Allocate resources efficiently to shift from a treatment-focused approach to one centred on prevention.
- Strengthen screening programmes to detect diabetes and its risk factors early.
- Focus on proactive measures to deliver the right treatment at the right time and place, preventing or slowing the progression of complications.
- Foster coordinated efforts to address diabetes alongside other NCDs, acknowledging their interconnected risk factors.

2.

Policy framework



A country's policy framework determines how its healthcare system operates to ensure effective prevention, management and care of chronic diseases such as diabetes.

Ensuring the health and well-being of the population requires the implementation of robust and comprehensive policy frameworks encompassing initiatives that promote healthy living for all, as well as targeted prevention strategies for at-risk populations such as education programmes and effective use of data.

Health-in-all policies

The development of diabetes and the effectiveness of its management are affected by a combination of individual health factors (e.g., genetics) and external health factors which include social, commercial, economic and environmental determinants.

The **social determinants** are defined by WHO as the conditions in which people are born, grow, live, work and age. Several studies show that the social determinants of health account for between 30-55% of health outcomes [11]. The **commercial determinants** of health refer to the private sector activities that affect people's health directly or indirectly (e.g., supply chains, product design and packaging, lobbying, etc.) [12]. Similarly, the **environment** in which people live also strongly influences their ability to adopt health-enhancing practices and access health services, resources as well as support systems that can help them lead healthy lifestyles and/or best manage other aspects of their condition. The **physical environment** people are exposed to also influences their health outcomes. Environmental factors such as pollution, climate change, heatwaves and the use of chemicals in food production all have a direct impact on health. According to WHO, **creating healthier environments could prevent almost one quarter of the global disease burden** [13].

Fostering health-enabling environments and adopting a "health-in-all-policies" approach is essential for improving population health and addressing health inequalities in a multidimensional way. By integrating health considerations into policies across sectors such as food systems, labour, education, transportation and housing, this approach helps remove barriers to health-promoting practices and improves access to healthy lifestyles. For instance, it can enhance living and working conditions, ensure equitable access to healthy food, and create safer, more accessible urban environments. These measures are particularly impactful for individuals and communities disproportionately affected by external determinants of health.

Healthy living policies

Healthy living policies are usually adopted as **population-based interventions** aiming to **prevent the development of T2D and other chronic conditions,** but they can also **support those living with the condition** across all diabetes types in their daily self-management. Healthy living policies include, for example, actions informing the general population about healthy diets and the importance of physical activity, providing nutrition advice and counselling in community settings, ensuring the availability of healthy food and initiatives stimulating physical activity in schools, improving the nutritional quality of the food supply, adopting labelling systems to inform people about the nutritional profile of the products they are buying, redesigning urban environments to facilitate physical activity, implementing transport infrastructures that support active societies, establishing smoke-free areas, etc.

For this review, we examined the implementation of healthy living policies across Europe in these areas:

- **Obesity and overweight**
- **Physical activity**
- **Healthy food and diet**
- **Smoking**

Policies on healthy food may relate to non-binding initiatives aiming to influence people's behaviour towards food. In this review, we refer to **regulations for healthy diets** to indicate binding legal measures relating to, for example, the marketing of certain foods and beverages to children and taxes on sugar sweetened beverages.

SUMMARY OF RESULTS

Assessing the landscape of healthy living policies in Europe: progress and gaps

Our review of the adoption of healthy living policies across Europe shows that **a majority of European countries have healthy living policies in place, although this is not the case for regulations on healthy diets.**

Policies on obesity and overweight and healthy food and diet are in place in 78% and 76% of European countries respectively. Another 9% of countries adopt policies targeting obesity and overweight and some 11% have policies on healthy food and diet but these are not widely implemented across the country or lack effectiveness. Approximately 13% of all European countries do not have any such policies.

Policies on physical activity are in place in slightly fewer countries – 69% of the total. Some 11% have such policies but they are only implemented with some variations, while 20% do not have them at all.

Policies targeting smoking are implemented and effective in almost all European countries (93%).

Binding regulations for healthy diets such as sugar taxes or bans on advertising unhealthy foods to children are not widespread across Europe. They exist in approximately 38% of European countries. A further 13% have them but lack effectiveness, and 49% do not have any.

Chart 5. Implementation of healthy living policies across Europe

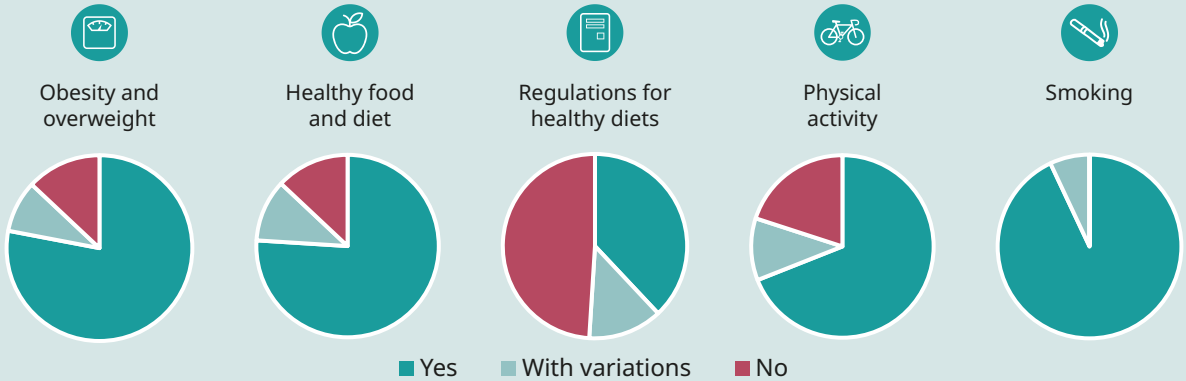


Table 1. Adoption of healthy living policies across Europe, by country

Countries	Obesity & overweight	Healthy food & diet	Physical activity	Smoking	Regulations for healthy diets
EU countries					
Austria	●	●	●	●	●
Belgium	●	●	●	●	●
Bulgaria	●	●	●	●	●
Croatia	●	●	●	●	●
Cyprus	●	●	●	●	●
Denmark	●	●	●	●	●
Estonia	●	●	●	●	●
Finland	●	●	●	●	●
France	●	●	●	●	●
Germany	●	●	●	●	●
Greece	●	●	●	●	●
Hungary	●	●	●	●	●
Ireland	●	●	●	●	●
Italy	●	●	●	●	●
Latvia	●	●	●	●	●
Lithuania	●	●	●	●	●
Luxembourg	●	●	●	●	●
Malta	●	●	●	●	●
Netherlands	●	●	●	●	●
Poland	●	●	●	●	●
Portugal	●	●	●	●	●
Romania	●	●	●	●	●
Slovakia	●	●	●	●	●
Slovenia	●	●	●	●	●
Spain	●	●	●	●	●
Sweden	●	●	●	●	●
Other European countries					
Albania	●	●	●	●	●
Armenia	●	●	●	●	●
Azerbaijan	●	●	●	●	●
Belarus	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●
Faroe Islands	●	●	●	●	●
Georgia	●	●	●	●	●
Iceland	●	●	●	●	●
Kazakhstan	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●
North Macedonia	●	●	●	●	●
Norway	●	●	●	●	●
Republic of Moldova	●	●	●	●	●
Serbia	●	●	●	●	●
Switzerland	●	●	●	●	●
Turkey	●	●	●	●	●
Ukraine	●	●	●	●	●
United Kingdom	●	●	●	●	●
Uzbekistan	●	●	●	●	●

● Yes ● With variations ● No

Case study: the introduction of a tax on sugar-sweetened beverages in Poland

In 2021, Poland imposed a tax on beverages with added sugars and on beverages with sweeteners, with the tax value varying according to the beverage composition.

The aim of these taxes is to decrease consumers' dietary sugar intake and subsequently reduce their risk of developing chronic conditions such as T2D, obesity and CVD. Studies indicate that the impact of sugar taxes can vary, depending on the value of the tax, its interaction with other regulations and the local context of the country in which it is implemented [14].

In Poland, analyses from the initial years following the imposition of the tax attest to its effectiveness. Specifically, a study found that the tax has led to health-enhancing changes in the composition of 62% of the beverages analysed. This outcome results from manufacturers reformulating the composition of their products to avoid the tax, leading to improved nutritional values [15].

National Diabetes Plans and Registries

National Diabetes Plans (NDPs) and National Diabetes Registries (NDRs) have a key role to play in driving and assessing systematic policies addressing diabetes prevention and care.

National Diabetes Plans

NDPs are comprehensive frameworks developed by governments and health authorities to address the growing burden of diabetes. They typically include strategies for diabetes prevention and treatment, such as organising early prevention and routine care, reducing the risk of diabetes-related complications, supporting research and innovation and enhancing education for PwD and HCPs [16].

NDPs can be stand-alone and address diabetes specifically or be part of broader NCD strategies. To be effective, they must be tailored to each country's unique context, ensuring that interventions are both relevant and impactful in reducing the burden of diabetes. This includes implementing prevention strategies to reduce diabetes prevalence by addressing the general population as well as specifically targeting at-risk groups. Additionally, NDPs should focus on reducing diabetes-related complications and improving health outcomes for those living with the condition by promoting the delivery of integrated, person-centred care. NDPs should also include **monitoring and surveillance mechanisms** to measure the effectiveness of diabetes-related interventions [16].

National and/or international **guidelines and protocols on diabetes prevention and treatment** are typically included in NDPs, and it is crucial that these be aligned with the latest scientific evidence on diabetes prevention and treatment.

The development and implementation of effective NDPs requires the involvement of multiple stakeholders, including clinicians, Ministries of Health and patient organisations. Consulting patient organisations and PwD themselves about their needs and preferences and valuing their lived experience is particularly important to develop NDPs that are impactful in effectively addressing the real-world barriers that prevent PwD and those at risk from achieving optimal health outcomes.

By ensuring equitable access to diabetes prevention and care across the entire population and through target actions, NDPs not only contribute to improving health outcomes, but also play a critical role in reducing health inequalities.

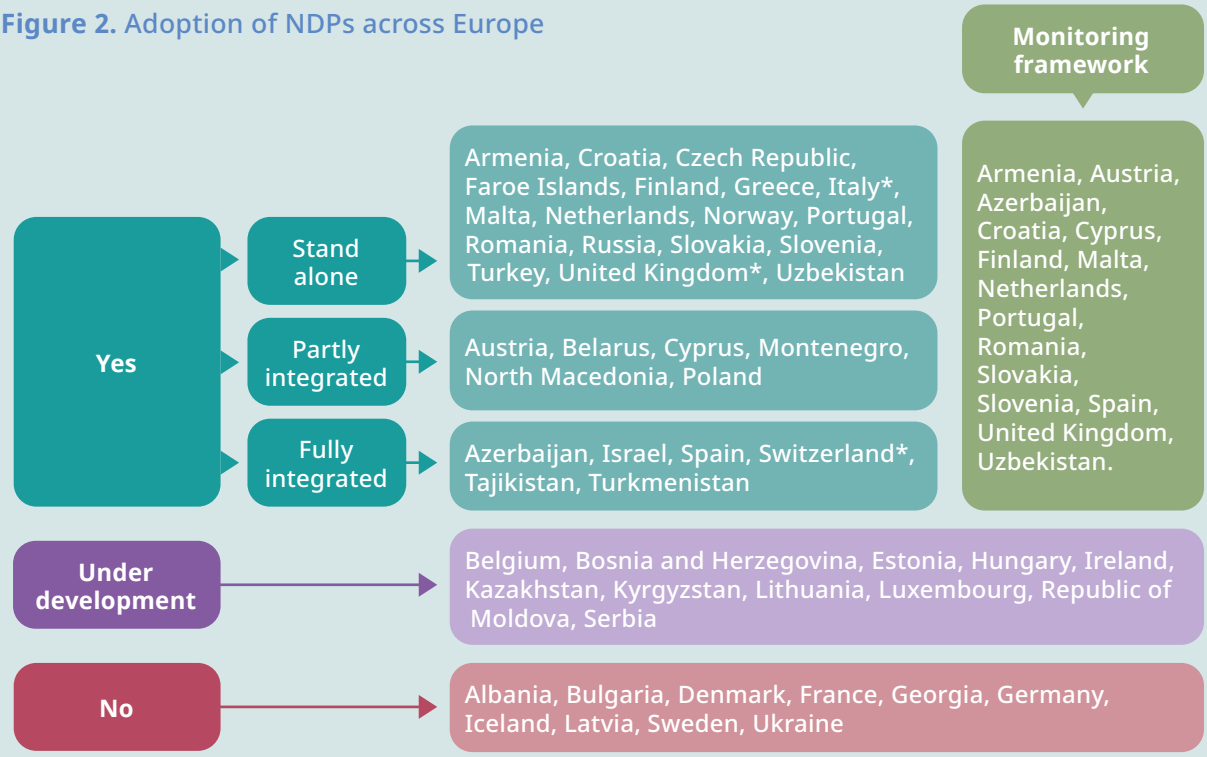
SUMMARY OF RESULTS

The adoption of national diabetes plans in Europe

Two thirds of countries in Europe currently have NDPs. About one third do not have one – of which approximately half have one under development.

At present, about two thirds of the countries with a working NDP also have monitoring and surveillance mechanisms in place to inform its development and implementation.

Figure 2. Adoption of NDPs across Europe



*NDPs implemented in some regions

Case study: Slovenia's National Diabetes Programme — a collaborative approach

Like many European countries, Slovenia's population is ageing and chronic conditions such as diabetes represent an ever-growing burden. This challenge requires changes to the healthcare systems for effective and sustainable action on diabetes and other NCDs [17].

Between 2010 and 2020, Slovenia implemented its first National Diabetes Prevention and Care Development Programme. Building on this, a new plan for 2020-2030 was launched, developed through a consultative process involving a wide range of stakeholders, such as PwD, national diabetes associations, HCPs, universities, professional organisations related to diabetes (e.g., pharmacology and ophthalmology) and the National Health Insurance Agency.

The final programme was revised to ensure it was accessible and easy to understand, with clear, non-technical language [17].

The programme is built on three guiding principles:

- Empowering PwD through education, training and health literacy
- Addressing inequalities and the social determinants of health
- Promoting a community-focused, integrated, evidence-based approach to care that ensures quality and adapts to PwD's changing needs

The programme's overarching goals are:

- Strengthening population health
- Improving diabetes prevention and early detection
- Reducing diabetes-related complications mortality, and improving quality of life

The programme covers key areas such as data collection, diagnosis, care, HCP training, monitoring and research. A core focus is empowering PwD and fostering partnerships, ensuring that those with lived experience play a central role in policy development.

The implementation of the plan is monitored every two years through routine data sources. Key stakeholders are gathered regularly to review progress and identify areas for improvement. The stakeholder engagement process consists of email communication, interviews and workshops stimulating discussions. Since its launch, the programme has facilitated the provision of systematic training and tools to HCPs on new clinical guidelines. It has also achieved the harmonisation of care pathways for GDM, including postnatal care, and the revision of national diabetes guidelines. Another key accomplishment is the expansion of diabetes education; people at risk of developing diabetes can now participate in group education programmes promoted at the primary care level, while people living with T2D have access to a targeted five-session group education programme [17].

The Slovenian Diabetes Association (SLODA), an IDF Europe Member, has been involved in the programme since its inception, contributing actively to education and awareness-raising initiatives for both PwD and the general population. SLODA is also part of the programme's coordination group, which monitors progress. However, challenges remain, such as addressing all areas for improvement identified during the monitoring process.

National Diabetes Registries

NDRs enable the systematic collection of data about PwD and their care. NDRs can include detailed information about PwD demographics, medical history, treatment plans, laboratory results and outcomes related to their diabetes care and management. They are typically used to monitor health outcomes and/or the performance of diabetes care over time, notably the effectiveness of different treatments [18].

NDRs can support improvements in diabetes care by identifying gaps and areas of improvements, leading to better care practices and more personalised treatment plans. Data collected by NDRs is also crucial for clinical research. Evidence from NDRs can also inform both the development and the assessment of public health strategies and NDPs aimed at improving diabetes prevention, management and care [18; 19].

In summary, **NDRs are essential tools** for HCPs, researchers and policy makers **to ensure the availability and the provision of high-quality diabetes care.**

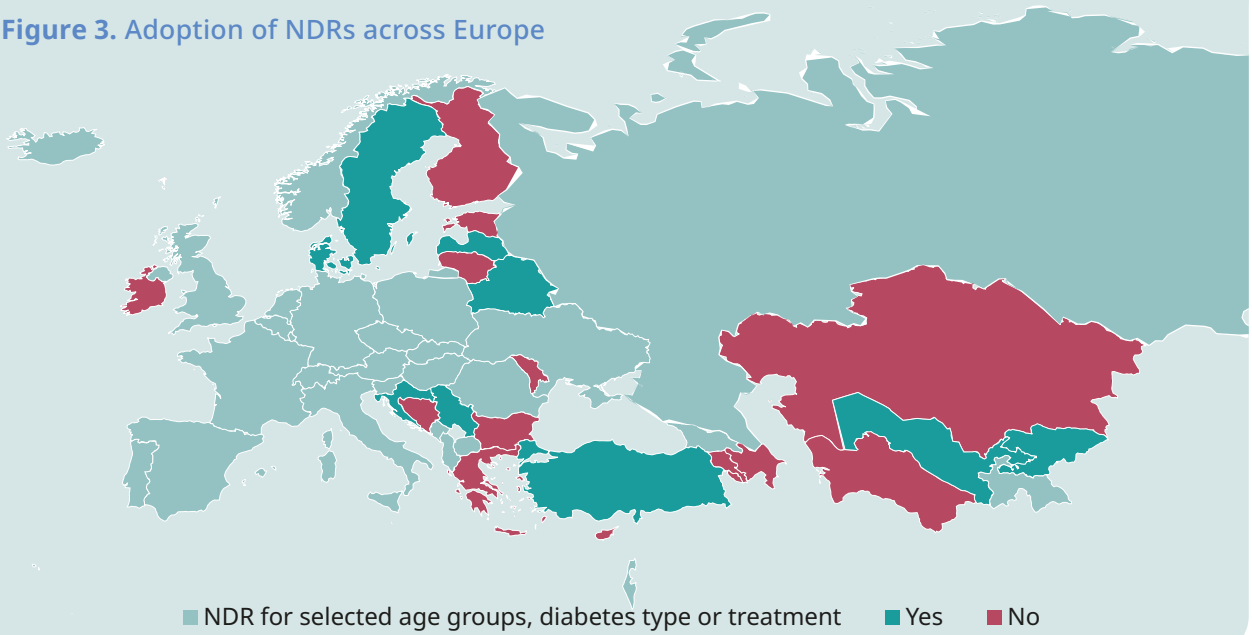
SUMMARY OF RESULTS

Availability and challenges of national diabetes registries in Europe

Despite their usefulness, comprehensive NDRs are only available in a minority of European countries. In the rest of the region, NDRs are either not available or they are incomplete, covering selected groups of PwD only. In most cases, when incomplete NDRs are available, they include data on PwD under the age of 18, PwD on insulin treatment and/or PwD using insulin pumps. In other cases, NDRs are regional and only cover data about PwD receiving care in specific regions within a country.

Some of the main barriers to the development of comprehensive NDRs include complex regulatory frameworks, stringent privacy policies, lack of financial and human resources, or inadequate technological infrastructure.

Figure 3. Adoption of NDRs across Europe



> *Building on existing experience with NDRs and advances in IT systems, there is a significant opportunity to transform NDRs into robust data collection and management platforms. Next to their use for epidemiological and statistical purposes, NDRs should be the backbone of diabetes care—supporting informed decision-making, enhancing healthcare system management and improving the routine care of PwD.*
>
> *While the importance of involving PwD in the promotion, design, implementation and evaluation of NDRs is widely acknowledged, their participation often remains marginal. This underscores the need to identify and apply strategies that enable meaningful PwD involvement in shaping and leveraging these critical tools.*
>
> – Prof. Massimo Massi Benedetti,
> President of the Hub for International Health Research

Case study: the Swedish National Diabetes Registry

An NDR was established in Sweden in 1996 with the primary aim of enhancing the quality of diabetes care through evidence-based practices. The NDR also facilitates research and serves as a surveillance tool to support healthcare policy and help evaluate prevention programmes or specific interventions. For example, over the past years several reports have been published containing recommendations for improving PwD treatment based on findings from the NDR data [20].

The Swedish NDR is based on a web interface allowing both primary care and hospital clinics which provide diabetes care to participate. One of the data collection methods used is the automated transmission of information on PwD from electronic health records. The registry also makes use of data linkage to other databases such as prescriptions, birth and cause of death registries. PwD are able to access information about their care and consultations with their HCPs through the registry [20].

One of the Swedish NDR's distinctive features is its systematic recording of patient-reported outcome measures (PROMs) by means of a questionnaire which collects information on PwD's management of their condition, their wellbeing and experience of diabetes care. The integration of PROMs in NDRs is particularly important for providing insights into PwD's perspectives on their health and treatment as well as their unmet needs, and for informing improvements towards more personalised and effective care [21].

The Swedish NDR has been an integral part of Swedish diabetes care for 28 years and has enabled the monitoring of the quality of diabetes care and support strategies aimed at improving treatment, reducing the prevalence of complications and maximising the cost-effectiveness of diabetes care [20].

In most countries, the existence of NDPs and NDRs reflects the political importance given to diabetes and other NCDs. Awareness-raising and advocacy initiatives are therefore crucial to elevate diabetes on the political agenda and push for their setup. This should go hand in hand with investment in adequate resources and the development of monitoring and surveillance mechanisms to assess NDPs and NDRs' effectiveness, make adjustments if needed, and ultimately ensure that they deliver on their objectives.

OUR CALL TO ACTION

Enacting effective policies for healthier societies

- Build health-enabling environments by design.
- Reduce inequalities through targeted action on the socio-economic, commercial and environmental determinants of health.
- Adopt a health-in-all-policies approach to ensure that health is considered across all policy areas.
- Develop comprehensive NDPs and NDRs to drive effective action and measure progress.
- Adopt evidence-based guidelines to regulate and enhance access to essential diabetes prevention and care services, reflecting the latest scientific advances.

3.

Medicines, technologies and supplies

Diabetes is a complex condition which requires 24/7 management on the part of the people living with it. To optimally self-manage their condition and lower their risk of developing life-altering complications, **PwD need uninterrupted and affordable access to various medicines, technologies and supplies.** These include insulin and other diabetes medicines as well as supplies and devices such as syringes, needles, blood glucose meters, test strips, insulin pens, continuous glucose monitors (CGMs) and insulin pumps.

Today, many inequalities persist in access to medicines and medical devices across Europe, resulting in some PwD being at higher risk of developing diabetes-related complications and having a shorter life expectancy than others. In this chapter, we provide an overview of the availability and affordability of the main medicines, supplies and technologies that PwD require for managing their condition.

Availability and affordability

One of the main drivers of positive health outcomes is uninterrupted, affordable access to the required diabetes medicines, technologies and supplies.

Despite most countries in Europe having achieved universal coverage for some health services, the range of products covered and the degree of contribution to their cost vary. **Differences in out-of-pocket expenses for diabetes medicines and medical devices usually depend on the co-payment model adopted by each country.** In some countries, such as Germany, PwD are required to pay a fixed amount for their prescription medicines and medical devices. In others, such as Portugal, the co-payment is a percentage of the total product cost. Some countries adjust co-payment levels according to individual characteristics such as people's income level or their age group (e.g., Spain). In several countries, such as Sweden and Iceland, diabetes medicines and devices are entirely free of charge for PwD under 18 years of age. Some healthcare systems make use of annual deductibles, placing a cap on the total amount that PwD pay per year (e.g., Netherlands and Norway). There are, however, countries in which PwD need to cover the cost of some of the products they need entirely out-of-pocket (e.g., Ukraine and Uzbekistan).

Another factor contributing to PwD's access to medicines and technologies is their **availability at the point of delivery** in the country in which they live. Especially for newer and innovative products, some countries experience delays and barriers to their introduction as well as shortages. In some cases, supplies may be insufficient to cover the entire population in need of a certain product and access is subsequently limited to people living with some types of diabetes or belonging to a specific age group.

Lack of availability and/or affordability of medicines and devices that are essential to PwD's self-management often result from their cost. Lack of resources and knowledge within national healthcare systems to assess their cost-effectiveness in the long-term is an additional barrier.

Access to insulin

Without insulin, people living with T1D and some T2D will die. **This life-saving medicine is vital to regulate their blood glucose levels.** Lack of access to it can be life-threatening, leading to severe health complications, including ketoacidosis and organ failure.

Since its discovery in 1921, several types of insulin have been developed. From human insulin to a range of insulin analogues, researchers have been working on preparations that can improve diabetes treatment by making self-management more efficient thereby reducing the burden of the condition on PwD.

In our review, we looked at the availability and affordability of five main types of insulin across Europe: short-acting, rapid-acting, ultra-rapid-acting, intermediate-acting and long-acting insulins.

Type of insulin	Onset time	Duration
Short-acting regular insulin	30-60 minutes	6-8 hours
Rapid-acting insulin	5-15 minutes	3-5 hours
Ultra-rapid-acting insulin	Less than 5 minutes	2-3 hours
Intermediate-acting insulin	1-2 hours	12–24 hours
Long-acting insulin	1-2 hours	24-42 hours

SUMMARY OF RESULTS

Availability and reimbursement of insulin across European countries

Overall, short-acting, rapid-acting, intermediate-acting and long-acting insulins are always available at the point of delivery in almost all European countries, except for a few countries in which they are not always available, or available with some limitations (i.e., Armenia, Bulgaria, Estonia, Kyrgyzstan, Republic of Moldova and Uzbekistan).

Ultra-rapid-acting insulins are also available at the point of delivery in most European countries, except for some countries including Armenia, Azerbaijan, Belarus, Bulgaria, Kyrgyzstan, Malta, Turkey and Uzbekistan, in which they are not available, or only available with some limitations.

As a life-saving medicine, **insulin's cost is generally covered by national health systems** in Europe and is either partially or fully reimbursed for all PwD who need it according to the co-payment model in place in each country.

Chart 6. Availability of insulin across Europe / Reimbursement of insulin across Europe

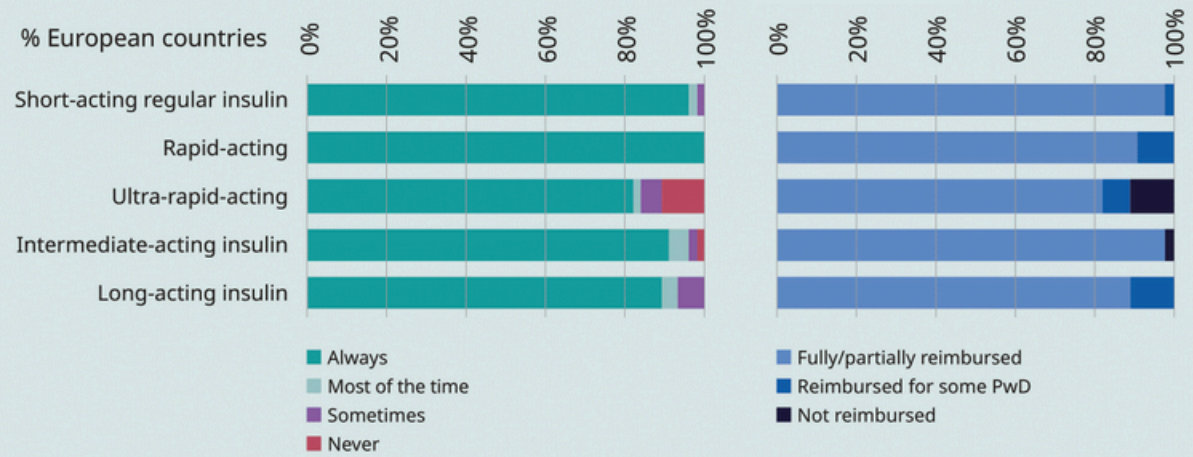


Table 2. Insulin availability across Europe, by country

Countries	Short-acting regular insulin	Rapid-acting insulin	Ultra-rapid-acting	Intermediate-acting	Long-acting
EU countries					
Austria	●	●	●	●	●
Belgium	●	●	●	●	●
Bulgaria	●	●	●	●	●
Croatia	●	●	●	●	●
Cyprus	●	●	●	●	●
Denmark	●	●	●	●	●
Estonia	●	●	●	●	●
Finland	●	●	●	●	●
France	●	●	●	●	●
Germany	●	●	●	●	●
Greece	●	●	●	●	●
Hungary	●	●	●	●	●
Ireland	●	●	●	●	●
Italy	●	●	●	●	●
Latvia	●	●	●	●	●
Lithuania	●	●	●	●	●
Luxembourg	●	●	●	●	●
Malta	●	●	●	●	●
Netherlands	●	●	●	●	●
Poland	●	●	●	●	●
Portugal	●	●	●	●	●
Romania	●	●	●	●	●
Slovakia	●	●	●	●	●
Slovenia	●	●	●	●	●
Spain	●	●	●	●	●
Sweden	●	●	●	●	●
Other European countries					
Albania	●	●	●	●	●
Armenia	●	●	●	●	●
Azerbaijan	●	●	●	●	●
Belarus	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●
Faroe Islands	●	●	●	●	●
Georgia	●	●	●	●	●
Iceland	●	●	●	●	●
Kazakhstan	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●
North Macedonia	●	●	●	●	●
Norway	●	●	●	●	●
Republic of Moldova	●	●	●	●	●
Serbia	●	●	●	●	●
Switzerland	●	●	●	●	●
Turkey	●	●	●	●	●
Ukraine	●	●	●	●	●
United Kingdom	●	●	●	●	●
Uzbekistan	●	●	●	●	●

● Always ● Most of the time ● Sometimes ● Never

Case study: insulin shortages in Bulgaria

Over the past few years, some European countries have been facing temporary shortages of insulin, causing significant concern among PwD and their HCPs. These are usually due to manufacturing issues or supply chain disruptions.

Insulin shortages are serious issues for PwD. To cope with these shortages, it is essential for national and international institutions to have systems in place that enable them to act proactively and provide solutions.

In 2023, as a result of prolonged insulin shortages in Bulgaria, the Ministry of Health imposed a ban on insulin exports, introduced tighter controls through mandatory electronic prescriptions from HCPs, and required wholesalers and pharmacies to periodically provide information on the delivered, allocated and available quantities of insulin [22].

Data collected through electronic prescriptions and/or diabetes registries can be instrumental in allowing health authorities to track insulin distribution, detect potential shortages early and respond proactively. Additionally, regional agencies and institutions such as the European Medicines Agency (EMA), the Heads of Medicines Agencies (HMA) and the European Union can facilitate coordination between countries and harmonise solutions to cope with medicine shortages.

Case study: access to insulin during crises – the war in Ukraine

The war in Ukraine has highlighted some key challenges related to access to insulin during emergencies. In the occupied zones, the conflict disrupted regular deliveries. Attacks on medical facilities forced several pharmacies and hospitals to close, making it difficult for PwD to access their medicines. Humanitarian organisations also faced logistical challenges in delivering insulin supplies to the occupied zones, including, for example, unstable internet connections and temperature control issues for insulin storage, which can complicate effective distribution.

The stress and anxiety related to the war and disrupted food supply chains further affected PwD's insulin needs and complicated their glycaemic control. Additionally, many PwD had to switch to different types of insulin due to the unavailability of their usual type. The process of switching insulin requires adequate guidance from HCPs which was often lacking due to the disruptions to the healthcare systems.

Despite this, the Ukrainian population demonstrated remarkable resilience, implementing various solutions with the help of international support. Humanitarian aid, in coordination with the Ministry of Health and national diabetes associations, managed to cover most of the population's insulin needs and provided other forms of assistance, including, for example, information on insulin availability in pharmacies across the country. Community-level initiatives, such as helplines, also proved essential in providing support when formal healthcare services were limited or interrupted. Local associations played a key role in disseminating information about operational pharmacies and resources on how to switch insulin, for example. Remote consultations with HCPs have also been crucial to allow some PwD to receive medical advice and support even when they could not physically visit clinics or hospitals.

> *Since the start of the war in Ukraine, many PwD have had to switch to different types of insulin which are easier to access. While switching is a life-saving necessity if usual insulins are not available, this change is not trivial, but necessitates substantial adjustments, for example in calculating the appropriate dosage and managing the differences that may result from using a different type or brand. Many of these can only be adequately managed with the help and support of specialised healthcare professionals. But in the current circumstances, this help and support is often lacking.*
>
> – Daniel, Ukrainian physician living with T1D.

Access to non-insulin diabetes medicines

While some PwD require insulin to manage their glycaemic levels (e.g. all people living with T1D and some people living with T2D), other medicines exist that help regulate glucose levels or that are needed in the case of hypoglycaemia.

Glucagon

For PwD on insulin therapy, access to **glucagon is particularly important to treat severe hypoglycaemia,** where blood glucose levels can drop to dangerously low levels. Although glucagon has typically been administered via injection, the introduction of **nasal glucagon** in Europe in 2020 provides an alternative administration method that simplifies its use during emergency situations.

Other diabetes medicines

People living with T2D and other types of diabetes may require access to different types of medicines depending on their treatment. Oral and injectable medicines that are commonly used for treating diabetes include metformin, sulfonylureas, DPP-4 inhibitors, GLP-1 receptor agonists, SGLT2 inhibitors, meglitinides and alpha-glucosidase inhibitors.

Non-insulin diabetes medicines	
Metformin	Lowers blood glucose levels by decreasing glucose production in the liver, diminishing intestinal absorption and enhancing insulin sensitivity.
Sulfonylureas	Stimulate the beta cells in the pancreas to release more insulin, thereby lowering blood glucose levels.
DPP-4 inhibitors	Enhance the body's natural incretin hormones, increasing insulin release in response to meals and reducing glucagon secretion, which together help to control blood glucose levels.
GLP-1 receptor agonists	Activate the GLP-1 receptor, thereby slowing gastric emptying, stimulating insulin production and reducing glucagon secretion. They help regulate blood glucose levels after meals and promote weight loss by reducing appetite.
SGLT2 inhibitors	Act by blocking glucose reabsorption in the kidneys, causing excess glucose to be excreted in the urine. They lower blood glucose levels and also offer cardiovascular and kidney protection.
Meglitinides	Stimulate the pancreas to release insulin in response to meals, helping control post-meal blood glucose spikes.
Alpha-glucosidase inhibitors	Slow the breakdown of carbohydrates in the intestine, reducing the rate of glucose absorption and preventing blood glucose levels from rising after meals.

Availability and reimbursement of non-insulin diabetes medicines across European countries

According to our review, **glucagon is consistently available in most European countries,** except for approximately 10 countries where it is not always available at the point of delivery. However, its full or partial **reimbursement is generally limited to people living with T1D and, in some cases, to children only. Nasal glucagon is not yet widely available across Europe.** It is currently available in 19 European countries but is not reimbursed in at least five of these countries.

Metformin and sulfonylureas are almost always available in all European countries **(>94%)**.

DPP-4 inhibitors, GLP-1 receptor agonists and SGLT2 inhibitors are also almost always available in a majority **(>87%)** of European countries, although recent shortages of GLP-1 receptor agonists have been reported in many countries. However, **reimbursement varies:** DPP-4 inhibitors are not covered in approximately 20% of countries, GLP-1 receptor agonists in 24% and SGLT2 inhibitors in 22%.

Meglitinides and alpha-glucosidase inhibitors are not available at the point of delivery or used in 11 and 12 European countries respectively. When available, they are, however, fully reimbursed most of the time.

Chart 7.

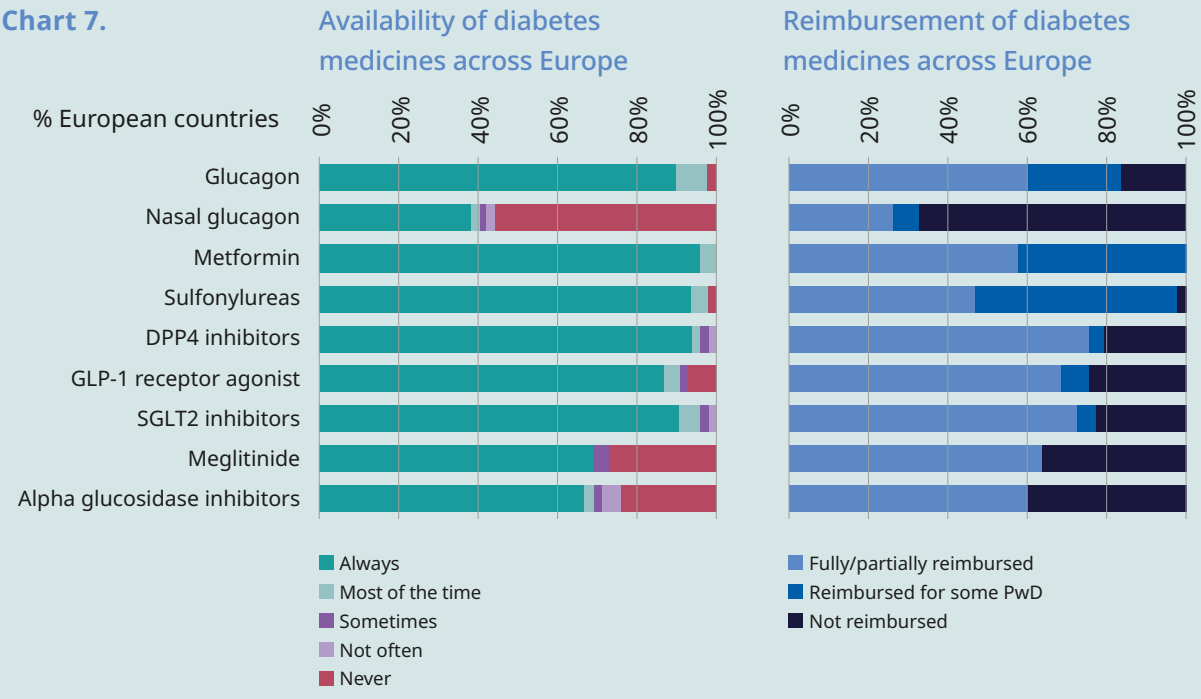


Table 3. Availability of diabetes medicines across Europe, by country

Countries	Glucagon	Nasal glucagon	Metformin	Sulfonylureas	DPP4 inhibitors	GLP-1 receptor agonists	SGLT2 inhibitors	Meglitinide	Alpha glucosidase inhibitors
EU countries									
Austria	Always	Always	Always	Always	Always	Always	Always	Always	Always
Belgium	Always	Always	Always	Always	Always	Always	Always	Always	Always
Bulgaria	Always	Sometimes	Sometimes	Always	Always	Always	Always	Always	Always
Croatia	Always	Always	Always	Always	Always	Always	Always	Always	Always
Cyprus	Always	Never	Always	Always	Always	Always	Always	Never	Never
Denmark	Always	Never	Always	Always	Always	Always	Always	Never	Never
Estonia	Always	Never	Always	Always	Always	Always	Always	Never	Never
Finland	Always	Always	Always	Always	Always	Always	Always	Always	Always
France	Always	Not often	Always	Always	Always	Always	Always	Always	Always
Germany	Always	Always	Always	Always	Always	Always	Always	Always	Always
Greece	Always	Always	Always	Always	Always	Always	Always	Always	Always
Hungary	Always	Most of the time	Most of the time	Most of the time	Always	Always	Always	Always	Always
Ireland	Always	Never	Always	Always	Always	Always	Always	Always	Always
Italy	Always	Never	Always	Always	Always	Always	Always	Always	Always
Latvia	Always	Never	Always	Always	Always	Always	Always	Always	Always
Lithuania	Always	Never	Always	Always	Always	Always	Always	Always	Always
Luxembourg	Always	Always	Always	Always	Always	Always	Always	Always	Always
Malta	Always	Never	Always	Always	Always	Never	Always	Never	Never
Netherlands	Always	Always	Always	Always	Always	Always	Always	Always	Always
Poland	Always	Sometimes	Always	Always	Always	Always	Always	Never	Most of the time
Portugal	Always	Always	Always	Always	Always	Always	Always	Never	Always
Romania	Always	Always	Always	Always	Always	Always	Always	Always	Always
Slovakia	Always	Always	Always	Always	Always	Always	Always	Not often	Not often
Slovenia	Always	Always	Always	Always	Always	Always	Always	Always	Always
Spain	Always	Always	Always	Always	Always	Always	Always	Always	Always
Sweden	Always	Never	Always	Always	Always	Always	Always	Always	Always
Other European countries									
Albania	Sometimes	Never	Always	Always	Always	Always	Most of the time	Not often	Not often
Armenia	Most of the time	Never	Always	Always	Most of the time	Most of the time	Most of the time	Never	Never
Azerbaijan	Most of the time	Never	Always	Always	Always	Always	Always	Always	Always
Belarus	Most of the time	Never	Always	Always	Always	Always	Always	Never	Never
Bosnia and Herzegovina	Always	Always	Always	Always	Always	Always	Always	Always	Sometimes
Faroe Islands	Always	Always	Always	Always	Always	Always	Always	Always	Always
Georgia	Always	Never	Always	Always	Always	Always	Always	Never	Never
Iceland	Always	Never	Always	Always	Always	Always	Always	Always	Always
Kazakhstan	Not often	Never	Always	Always	Always	Always	Always	Always	Always
Kyrgyzstan	Not often	Never	Always	Never	Sometimes	Never	Sometimes	Never	Never
North Macedonia	Always	Never	Always	Always	Always	Always	Always	Always	Never
Norway	Always	Always	Always	Always	Always	Always	Always	Never	Always
Republic of Moldova	Sometimes	Always	Always	Always	Always	Never	Always	Always	Never
Serbia	Always	Never	Always	Always	Always	Always	Always	Always	Always
Switzerland	Always	Always	Always	Always	Always	Always	Always	Always	Always
Turkey	Always	Never	Always	Always	Always	Always	Always	Always	Always
Ukraine	Always	Never	Always	Always	Always	Always	Always	Always	Always
United Kingdom	Always	Never	Always	Always	Always	Always	Always	Always	Always
Uzbekistan	Never	Never	Most of the time	Most of the time	Not often	Not often	Not often	Never	Never

● Always ● Most of the time ● Sometimes ● Not often ● Never

Table 4. Reimbursement of diabetes medicines across Europe, by country

Countries	Glucagon	Nasal glucagon	Metformin	Sulfonylureas	DPP4 inhibitors	GLP-1 receptor agonists	SGLT2 inhibitors	Meglitinide	Alpha glucosidase inhibitors
EU countries									
Austria	●	●	●	●	●	●	●	●	●
Belgium	●	●	●	●	●	●	●	●	○
Bulgaria	○	○	●	●	●	●	●	●	●
Croatia	●	●	●	●	○	○	○	○	○
Cyprus	●	○	●	●	●	●	●	○	○
Denmark	●	○	●	●	●	●	●	○	○
Estonia	○	○	●	●	●	●	●	○	○
Finland	●	●	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●	●	●
Germany	●	●	●	●	●	●	●	●	●
Greece	●	○	●	●	●	●	●	●	●
Hungary	●	●	●	●	●	●	●	●	●
Ireland	●	○	●	●	●	●	●	●	●
Italy	●	○	●	●	●	●	●	●	●
Latvia	●	○	●	●	●	●	●	●	●
Lithuania	●	○	●	●	●	●	●	●	●
Luxembourg	●	●	●	●	●	●	●	●	●
Malta	●	○	●	●	●	○	●	○	○
Netherlands	●	●	●	●	●	●	●	●	●
Poland	●	○	●	●	●	●	●	○	●
Portugal	●	○	●	●	●	●	●	○	●
Romania	●	●	●	●	●	●	●	●	●
Slovakia	●	●	●	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●	●	●	●
Spain	●	●	●	●	●	●	●	●	●
Sweden	●	○	●	●	●	●	●	●	●
Other European countries									
Albania	○	○	●	●	●	●	○	●	●
Armenia	●	○	●	●	○	○	○	○	○
Azerbaijan	○	○	●	●	○	○	○	○	○
Belarus	○	○	●	●	○	○	○	○	○
Bosnia and Herzegovina	●	○	●	●	●	●	●	●	○
Faroe Islands	●	○	●	●	●	●	●	●	●
Georgia	●	○	●	●	○	○	○	○	○
Iceland	●	○	●	●	●	●	●	●	●
Kazakhstan	●	○	●	●	○	○	○	○	○
Kyrgyzstan	●	○	●	○	○	○	○	○	○
North Macedonia	●	○	●	●	●	●	●	●	○
Norway	●	●	●	●	●	●	●	○	●
Republic of Moldova	●	○	●	●	●	○	●	●	○
Serbia	●	○	●	●	●	●	●	●	○
Switzerland	●	●	●	●	●	●	●	●	●
Turkey	●	○	●	●	●	●	●	●	●
Ukraine	○	○	●	●	○	○	○	○	○
United Kingdom	●	○	●	●	●	●	●	●	●
Uzbekistan	○	○	●	●	○	○	○	○	○

● Fully/partly reimbursed ○ Not reimbursed

Access to CVD medicines

Diabetes is a key risk factor for CVD. PwD are two to three times more likely to develop CVD than people without diabetes and CVD are the most common causes of premature death and disability among PwD [23]. This is why screening for CVD, and as required, access to CVD medicines, are also crucial for PwD.

Medicines used to prevent and treat CVD in PwD primarily work by lowering blood pressure and cholesterol levels. They are usually available in oral or injectable formulations and include calcium channel blockers, beta blockers, angiotensin-converting enzyme (ACE) inhibitors, thiazide diuretics, statins, ezetimibe and PCSK9 inhibitors.

> *PwD often live with multiple conditions and develop serious complications, making timely access to the right medicines at the right time essential. Equally important is to monitor the effectiveness of medications and adjust treatment when necessary. Personally, I take medication regularly for T2D, hypertension, gout and peripheral neuropathy. In Bulgaria, significant progress has been made in improving access to expensive blood glucose-lowering medicines. However, in some cases the need for prescriptions from specialists like endocrinologists can delay the process due to their high workloads. Additionally, some people get their medicines abroad, where they can find them at lower prices – unfortunately, this remains a common practice in Bulgaria.*
>
> – Vilen Michev, T2D Advocate from Bulgaria

CVD medicines	
Calcium channel blockers	Lower blood pressure by preventing calcium from entering the cells of the heart and arteries
Beta blockers	Lower blood pressure by causing the heart to beat more slowly and with less force.
ACE inhibitors	Lower blood pressure by preventing an enzyme in the body from making angiotensin 2, a substance that narrows blood vessels.
Thiazide diuretics	Treat high blood pressure by reducing the ability of the kidneys to reabsorb salt and water from the urine and into the body.
Statins	Lower cholesterol levels by reducing the production of low-density lipoprotein (LDL) inside the liver.
Ezetimibe	Lowers the amount of cholesterol in the blood by preventing the small intestine from absorbing it.
PCSK9 inhibitors	Lower LDL cholesterol by blocking the PCSK9 protein. This prevents PCSK9 from degrading LDL receptors on liver cells, which are responsible for clearing LDL cholesterol from the blood.

Availability and reimbursement of CVD medicines across European countries

Based on our review, **calcium channel blockers, beta blockers, ACE inhibitors, thiazide diuretics and statins are almost always available at the point of delivery** in all European countries. Their cost is either partially or fully covered in at least 91% of countries.

Ezetimibe is not available at the point of delivery **in at least five European** countries and is only **sometimes available in three countries.** When available its cost is either partially or fully covered in at least 78% of countries.

PCSK9 inhibitors are a new class of medicines that has recently emerged as an important regulator of cholesterol metabolism [24]. Studies show that these medicines have a powerful effect and, in some cases, can prevent heart attacks and strokes [25]. They can be particularly effective as an alternative therapy to statins when these have proven ineffective or caused side effects. However, the cost of PCSK9 inhibitors is much higher than that of other cholesterol lowering medicines, making their **availability and accessibility extremely limited.** In Europe, they are always available at the point of delivery in about half the countries and available with limitations in approximately one quarter of countries. They are usually subject to strict prescription criteria by specialists such as cardiologists and are usually partially or fully reimbursed according to the co-payment system in place in each country. However, in at least five countries they are not reimbursed.

Chart 8. Availability of CVD medicines across Europe / Reimbursement of CVD medicines across Europe

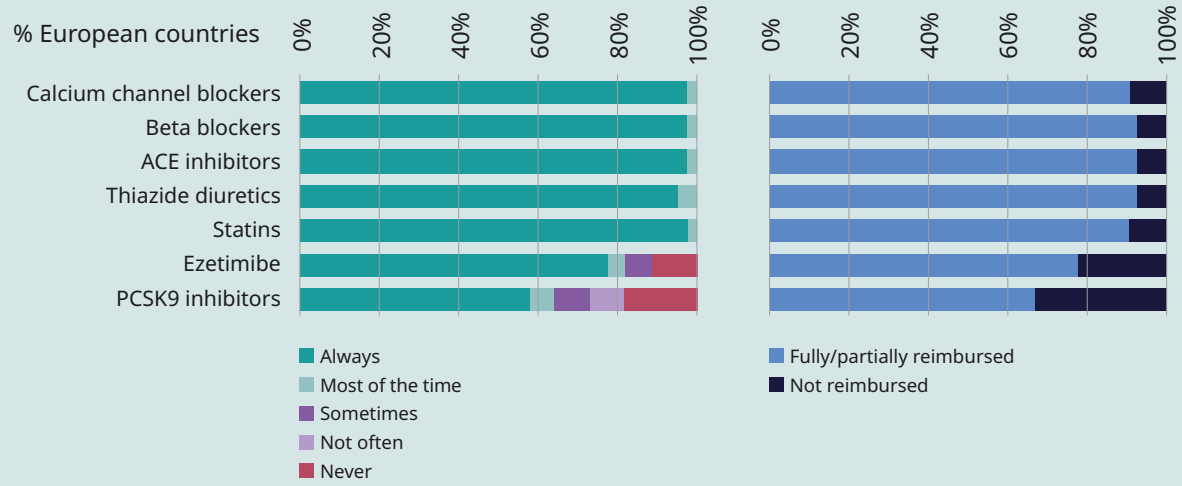


Table 5. Availability of CVD medicines across Europe, by country

Countries	Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhibitors
EU countries							
Austria	●	●	●	●	●	●	●
Belgium	●	●	●	●	●	●	●
Bulgaria	●	●	●	●	●	●	●
Croatia	●	●	●	●	●	●	●
Cyprus	●	●	●	●	●	●	●
Denmark	●	●	●	●	●	●	●
Estonia	●	●	●	●	●	●	●
Finland	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●
Germany	●	●	●	●	●	●	●
Greece	●	●	●	●	●	●	●
Hungary	●	●	●	●	●	●	●
Ireland	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●
Latvia	●	●	●	●	●	●	●
Lithuania	●	●	●	●	●	●	●
Luxembourg	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●
Poland	●	●	●	●	●	●	●
Portugal	●	●	●	●	●	●	●
Romania	●	●	●	●	●	●	●
Slovakia	●	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●	●
Spain	●	●	●	●	●	●	●
Sweden	●	●	●	●	●	●	●
Other European countries							
Albania	●	●	●	●	●	●	●
Armenia	●	●	●	●	●	●	●
Azerbaijan	●	●	●	●	●	●	●
Belarus	●	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●	●
Faroe Islands	●	●	●	●	●	●	●
Georgia	●	●	●	●	●	●	●
Iceland	●	●	●	●	●	●	●
Kazakhstan	●	●	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●	●
Norway	●	●	●	●	●	●	●
Republic of Moldova	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●
Switzerland	●	●	●	●	●	●	●
Turkey	●	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●	●
United Kingdom	●	●	●	●	●	●	●
Uzbekistan	●	●	●	●	●	●	●

● Always ● Most of the time ● Sometimes ● Not often ● Never

Table 6. Reimbursement of CVD medicines across Europe, by country

Countries	Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhibitors
EU countries							
Austria	●	●	●	●	●	●	●
Belgium	●	●	●	●	●	●	●
Bulgaria	●	●	●	●	●	●	●
Croatia	●	●	●	●	●	●	●
Cyprus	●	●	●	●	●	●	●
Denmark	●	●	●	●	●	●	●
Estonia	●	●	●	●	●	●	●
Finland	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●
Germany	●	●	●	●	●	●	●
Greece	●	●	●	●	●	●	●
Hungary	●	●	●	●	●	●	●
Ireland	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●
Latvia	●	●	●	●	●	●	●
Lithuania	●	●	●	●	●	●	●
Luxembourg	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●
Poland	●	●	●	●	●	●	●
Portugal	●	●	●	●	●	●	●
Romania	●	●	●	●	●	●	●
Slovakia	●	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●	●
Spain	●	●	●	●	●	●	●
Sweden	●	●	●	●	●	●	●
Other European countries							
Albania	●	●	●	●	●	●	●
Armenia	●	●	●	●	●	●	●
Azerbaijan	●	●	●	●	●	●	●
Belarus	●	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●	●
Faroe Islands	●	●	●	●	●	●	●
Georgia	●	●	●	●	●	●	●
Iceland	●	●	●	●	●	●	●
Kazakhstan	●	●	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●	●
Norway	●	●	●	●	●	●	●
Republic of Moldova	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●
Switzerland	●	●	●	●	●	●	●
Turkey	●	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●	●
United Kingdom	●	●	●	●	●	●	●
Uzbekistan	●	●	●	●	●	●	●

● Fully/partly reimbursed ● Not reimbursed

Access to supplies and technologies

All PwD benefit from accessing blood glucose monitoring solutions, while those on insulin also require devices to inject the medicine. While a number of devices, technologies and digital solutions for diabetes management are now available, PwD's ability to access them varies, however, broadly.

Blood glucose monitoring

PwD must check their blood glucose several times throughout the day and adjust their treatment accordingly. Various factors can affect glycaemic levels, including food intake, physical activity, medication, stress, sleep quality, hormonal changes and environmental conditions. Access to reliable tools for monitoring blood glucose is therefore crucial for managing the condition effectively and preventing hypoglycaemia and hyperglycaemia.

Blood glucose meters were first introduced in the 1970s to measure blood glucose levels. They involve pricking a finger to obtain a small blood sample which is then placed on a test strip inserted into the meter, providing a digital reading of the glucose levels in the blood.

The introduction of **CGMs** in the early 2000s represented a great innovation in diabetes management. CGMs are advanced medical devices that can be used to track blood glucose levels in real time through a small sensor inserted under the skin. As well as reducing the need for frequent finger pricking, another key advantage of CGMs is that they can be linked to smart phones or other devices which collect data on blood glucose trends and provide alerts for high or low blood glucose levels. There exist two main types of CGMs: intermittently scanned CGMs (isCGMs), also known as flash glucose monitors, and real-time CGMs (rtCGMs). While rtCGMs automatically measure blood glucose values and display a recent value, isCGMs measure blood glucose levels every minute and store one value every 15 minutes. Additionally, isCGMs need to be actively scanned with an associated device to display the value.

I often wonder how I managed my blood glucose levels before having a CGM. The truth is, I did not. It was a best-guess effort, relying on occasional finger pricks that provided only a snapshot of my blood glucose at that specific moment. I had no insight into trends—where my levels had been, where they were heading, or how rapidly they were changing. This lack of data often resulted in suboptimal HbA1c levels.

With my CGM, I can finally manage my diabetes effectively. Continuous monitoring throughout the day gives me a clear picture of what is happening inside my body. This not only empowers me to make informed decisions about my care but also reduces stress and lowers the risk of complications. If you truly want to manage your diabetes, a CGM is essential.

– Erik Werson, T2D Advocate from the Netherlands

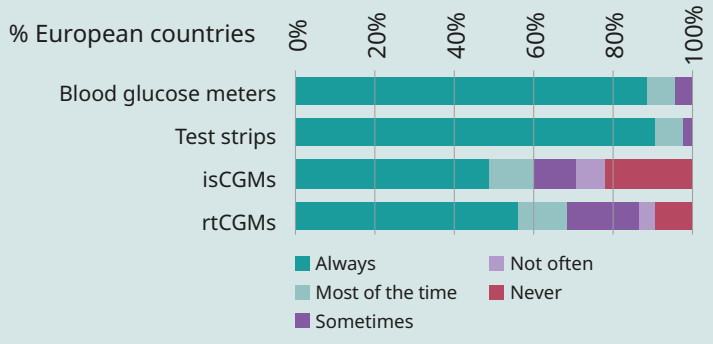
SUMMARY OF RESULTS

Availability and reimbursement of blood glucose monitoring devices across Europe

Blood glucose meters and test strips are generally available at the point of delivery everywhere across Europe. However, test strips are not always fully reimbursed for all PwD. In addition, in some cases, the number of test strips reimbursed per year is limited and may not meet PwD's actual needs. In some countries, test strips are only reimbursed for children or PwD on insulin therapy. In others, a higher number of test strips may be reimbursed for people living with T1D compared to those with T2D.

The availability of isCGMs and rtCGMs and their reimbursement varies greatly across Europe. Generally, rtCGMs are available in more countries than isCGMs. When available, the full or partial reimbursement of both CGM types is limited to certain categories of PwD. Generally, rtCGMs are reimbursed for people living with T1D (≈ 26 countries) and children (≈ eight countries). In about six countries, reimbursement for CGMs is extended to people living with T2D on insulin therapy. While isCGMs are available and/or reimbursed in fewer countries than rtCGMs, they are more often reimbursed for people living with T2D (approximately 12 countries).

Chart 9. Availability of blood glucose monitoring tools across Europe



Reimbursement of blood glucose monitoring tools across Europe

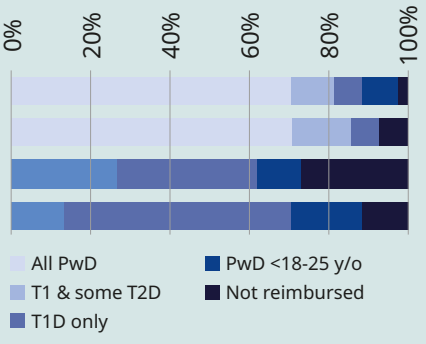


Table 7. Availability of blood glucose monitoring tools across Europe, by country

Countries	Blood glucose meters	Test strips	isCGMs	rtCGMs
EU countries				
Austria	Always	Always	Always	Always
Belgium	Always	Always	Always	Always
Bulgaria	Always	Always	Always	Always
Croatia	Always	Always	Always	Always
Cyprus	Always	Always	Never	Most of the time
Denmark	Always	Always	Most of the time	Most of the time
Estonia	Always	Always	Not often	Most of the time
Finland	Always	Always	Always	Always
France	Always	Always	Always	Always
Germany	Always	Always	Always	Always
Greece	Always	Always	Always	Sometimes
Hungary	Always	Always	Always	Sometimes
Ireland	Always	Always	Always	Always
Italy	Always	Always	Sometimes	Always
Latvia	Always	Always	Always	Always
Lithuania	Always	Always	Always	Always
Luxembourg	Always	Always	Always	Always
Malta	Always	Always	Never	Always
Netherlands	Always	Always	Always	Always
Poland	Always	Always	Most of the time	Most of the time
Portugal	Always	Always	Sometimes	Sometimes
Romania	Always	Always	Never	Always
Slovakia	Always	Always	Always	Always
Slovenia	Always	Always	Always	Always
Spain	Always	Always	Always	Always
Sweden	Always	Always	Always	Always
Other European countries				
Albania	Most of the time	Most of the time	Never	Never
Armenia	Always	Always	Most of the time	Most of the time
Azerbaijan	Always	Always	Sometimes	Sometimes
Belarus	Always	Always	Never	Sometimes
Bosnia and Herzegovina	Always	Always	Most of the time	Sometimes
Faroe Islands	Always	Always	Always	Always
Georgia	Always	Always	Never	Always
Iceland	Always	Always	Always	Always
Kazakhstan	Always	Always	Never	Never
Kyrgyzstan	Most of the time	Most of the time	Not often	Not often
North Macedonia	Always	Always	Sometimes	Sometimes
Norway	Always	Always	Always	Always
Republic of Moldova	Always	Always	Not often	Not often
Serbia	Always	Always	Never	Always
Switzerland	Always	Always	Always	Always
Turkey	Sometimes	Always	Sometimes	Sometimes
Ukraine	Always	Always	Never	Never
United Kingdom	Most of the time	Most of the time	Most of the time	Most of the time
Uzbekistan	Sometimes	Sometimes	Never	Never

Always · Most of the time · Sometimes · Not often · Never

Table 8. Reimbursement of blood glucose monitoring tools across Europe, by country

Countries	Blood glucose meters	Test strips	isCGMs	rtCGMs
EU countries				
Austria	All PwD	All PwD	T1D only	T1D only
Belgium	T1 & some T2D	T1 & some T2D	T1 & some T2D	T1 & some T2D
Bulgaria	All PwD	Not reimbursed	T1D only	T1D only
Croatia	All PwD	All PwD	All PwD	T1D only
Cyprus	All PwD	All PwD	Not reimbursed	T1D only
Denmark	T1 & some T2D	T1 & some T2D	T1 & some T2D	T1D only
Estonia	All PwD	All PwD	Not reimbursed	T1D only
Finland	All PwD	All PwD	T1D only	T1D only
France	All PwD	All PwD	T1 & some T2D	T1 & some T2D
Germany	All PwD	All PwD	All PwD	T1D only
Greece	All PwD	All PwD	T1D only	T1D only
Hungary	All PwD	All PwD	T1D only	T1D only
Ireland	All PwD	All PwD	T1D only	T1D only
Italy	All PwD	All PwD	T1 & some T2D	T1 & some T2D
Latvia	Not reimbursed	All PwD	PwD <18-25 y/o	PwD <18-25 y/o
Lithuania	All PwD	All PwD	T1D only	<50 y/o T1D only
Luxembourg	All PwD	All PwD	T1D only	T1D only
Malta	All PwD	All PwD	Not reimbursed	PwD <18-25 y/o
Netherlands	T1 & some T2D	T1 & some T2D	T1 & some T2D	PwD <18-25 y/o
Poland	All PwD	T1 & some T2D	T1 & some T2D	T1D only
Portugal	All PwD	All PwD	T1D only	T1D only
Romania	T1 & some T2D	T1 & some T2D	Not reimbursed	T1D only
Slovakia	All PwD	All PwD	T1D only	T1D only
Slovenia	All PwD	All PwD	T1 & some T2D	T1 & some T2D
Spain	All PwD	All PwD	T1D only	T1D only
Sweden	All PwD	All PwD	T1 & some T2D	T1D only
Other European countries				
Albania	All PwD	<18 and > 65 y/o PwD <18-25 y/o	Not reimbursed	Not reimbursed
Armenia	PwD <18-25 y/o	PwD <18-25 y/o	PwD <18-25 y/o	PwD <18-25 y/o
Azerbaijan	All PwD	All PwD	Not reimbursed	Not reimbursed
Belarus	All PwD	All PwD	Not reimbursed	T1D only
Bosnia and Herzegovina	T1D only	T1D only	T1D only	T1D only
Faroe Islands	All PwD	All PwD	T1D only	T1D only
Georgia	PwD <18-25 y/o	PwD <18-25 y/o	Not reimbursed	PwD <18-25 y/o
Iceland	All PwD	All PwD	T1D only	T1D only
Kazakhstan	T1D only	T1D only	Not reimbursed	Not reimbursed
Kyrgyzstan	PwD <18-25 y/o	All PwD	PwD <18-25 y/o	PwD <18-25 y/o
North Macedonia	T1 & some T2D	T1 & some T2D	PwD <18-25 y/o	PwD <18-25 y/o
Norway	All PwD	All PwD	T1 & some T2D	T1 & some T2D
Republic of Moldova	All PwD	All PwD	PwD <18-25 y/o	PwD <18-25 y/o
Serbia	All PwD	All PwD	Not reimbursed	T1D only
Switzerland	All PwD	All PwD	T1D only	T1D only
Turkey	All PwD	All PwD	T1D only	T1D only
Ukraine	T1D only	T1D only	Not reimbursed	Not reimbursed
United Kingdom	All PwD	All PwD	T1 & some T2D	T1 & some T2D
Uzbekistan	PwD <18-25 y/o	PwD <18-25 y/o	Not reimbursed	Not reimbursed

All PwD · T1 & some T2D · T1D only · PwD <18-25 y/o · Not reimbursed

Case Study: advocating for continuous glucose monitors in Malta

Until recently, people living with T1D in Malta faced significant challenges in accessing CGMs. These devices were not available through the national health system.

The Maltese Diabetes Association worked to address this gap through sustained advocacy efforts by engaging with policymakers, raising public awareness and highlighting the benefits of CGMs for people living with T1D.

The pilot project and expansion

In 2021, the government initiated a six-month pilot project to provide CGMs to children and adolescents under 16 living with T1D. This project demonstrated significant improvements in participants' health, quality of life and diabetes management. Building on the success of the pilot, access to CGMs has now been gradually extended to older age groups.

Strategies for advocacy

The Maltese Diabetes Association employed a comprehensive approach to drive change by emphasising the long-term benefits of CGMs, including improved glucose control, reduced stress for individuals and their families, and potential cost savings by preventing complications such as CVD and kidney disease.

Key initiatives included:

- Engagement with decision-makers: regular communication and meetings with government authorities and the Ministry of Health.
- Parliamentary action: collaboration with Members of Parliament to raise the issue through parliamentary questions, ensuring it remained a priority.
- Leveraging international frameworks: use of the IDF Europe-WHO Europe Declaration to substantiate arguments and reinforce the importance of access to CGMs.
- Media and public awareness: issuing press releases and publishing articles to raise awareness of CGMs and their importance for people living with T1D.
- Educational initiatives: organising seminars and panel discussions on access to care, sharing the outcomes with the Ministry of Health and providing actionable recommendations.

Outcomes and future goals

In 2024, the Health Minister announced an additional €300,000 investment to expand access to CGMs to individuals aged 46-50, benefiting 160 more people. Currently, out of the approximately 1,600 people living with T1D in Malta, 950 people benefit from the programme and have access to CGMs.

The Maltese Diabetes Association is committed to ensuring equitable access to CGMs for all people living with T1D, regardless of age. Their work demonstrates how strategic advocacy and collaboration can lead to meaningful policy changes, improving health outcomes and quality of life for PwD.

Insulin administration

PwD on insulin therapy need to administer insulin daily according to their regimen and fluctuations in their blood glucose levels. Insulin is administered with subcutaneous injections via syringes, insulin pens or insulin pumps.

Insulin syringes are disposable and used in combination with **needles.** Different syringe sizes deliver different doses of insulin. When insulin was first discovered in 1921, syringes were the standard method for its administration. However, since the introduction of pens and pumps in the 1980s, their use has become far less common.

Insulin pens, which can be either disposable or reusable, are used by the majority of PwD on insulin therapy. Disposable pens contain a preinstalled insulin cartridge and are discarded once the cartridge is empty, while reusable pens can be loaded with new prefilled insulin cartridges. With pens, insulin is administered through simple push-button injections. Compared to syringes, pens are easier to use and more accurate, reducing the risk of hypoglycaemia.

Over the last few years, **connected (smart) insulin pens** have been introduced to improve diabetes management. These pens combine new technological features such as dose tracking and dose calculations, further improving their accuracy.

Insulin pumps are computerised devices that deliver insulin in a steady, measured and continuous dose (basal insulin) and as a surge (insulin bolus) around mealtimes based on users' food intake. There are two types of insulin pumps: tethered and patch pumps. Both types are attached to PwD's bodies via a tiny tube (cannula) inserted under their skin, which needs to be changed every two or three days.

In tethered pumps, the insulin reservoir is located in the pump, which is connected to the cannula site by a plastic tube. The pump itself contains all the controls and can be carried on a belt, in a pocket or in a body band. Patch pumps, including the insulin reservoir, are attached directly to the body at the cannula site and have no extra tubing. These pumps can be operated by connecting them to a smartphone.

In recent years, the use of insulin pumps, particularly among people living with T1D, has been increasing. This is due to their ease of use, the reduced need for numerous injections through syringes or pens, the ability to adjust basal rates throughout the day, the reduced risk of hypoglycaemia, and ultimately, improved blood glucose control.

Availability and reimbursement of insulin administration devices across Europe

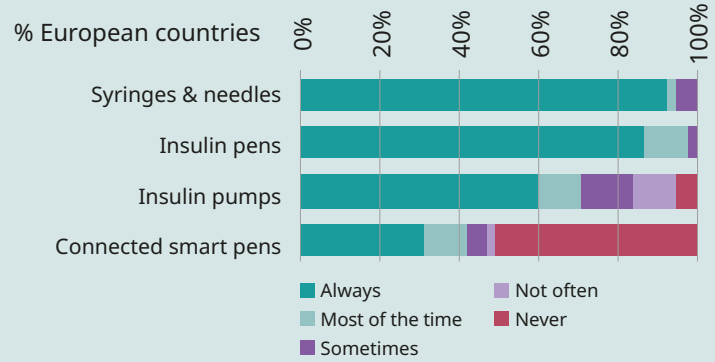
Based on our review, **syringes, needles and insulin pens are available at the point of delivery everywhere in Europe,** with only a minority of countries (three to six) reporting them most of the time or sometimes available. These tools are generally partially or fully reimbursed for all PwD on insulin therapy, with the exception of a few countries in which they are either not reimbursed or reimbursed only for children (e.g., Armenia and Uzbekistan).

By contrast, **connected insulin pens are not widely available in Europe.** These devices are available in less than half of the European countries, with variations in terms of the number of PwD who have access to them and their reimbursement.

Although insulin pumps are generally available in most European countries, they are less accessible than syringes and insulin pens. They are not available at the point of delivery in Albania and Malta, and they are not often available in Armenia, Georgia, Kazakhstan, the Republic of Moldova and Uzbekistan.

In most countries, insulin pumps are fully or partially reimbursed for people living with T1D, although, in some cases, due to the limited number of pumps available, not all people living with T1D have access to them. In other cases, when the number of insulin pumps is limited, they are only reimbursed for PwD under a certain age. Insulin pumps are reimbursed for people living with T2D in only a small minority of countries.

Chart 10. Availability of insulin administration devices across Europe



Reimbursement of insulin administration devices across Europe

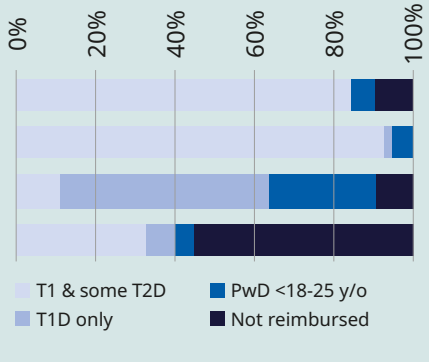


Table 9. Availability of insulin administration devices across Europe, by country

Countries	Syringes & needles	Insulin pens	Insulin pumps	Connected smart pens
EU countries				
Austria	Always	Always	Always	Always
Belgium	Always	Always	Always	Always
Bulgaria	Always	Always	Always	Never
Croatia	Always	Always	Always	Always
Cyprus	Always	Always	Most of the time	Always
Denmark	Always	Always	Always	Most of the time
Estonia	Always	Always	Sometimes	Most of the time
Finland	Always	Always	Always	Always
France	Always	Always	Always	Always
Germany	Always	Always	Always	Always
Greece	Always	Always	Always	Never
Hungary	Always	Always	Most of the time	Not often
Ireland	Always	Always	Always	Always
Italy	Always	Always	Always	Never
Latvia	Always	Always	Always	Never
Lithuania	Always	Always	Always	Never
Luxembourg	Always	Always	Always	Most of the time
Malta	Always	Always	Never	Never
Netherlands	Always	Always	Always	Never
Poland	Always	Most of the time	Most of the time	Never
Portugal	Always	Always	Sometimes	Never
Romania	Always	Always	Always	Never
Slovakia	Always	Always	Always	Never
Slovenia	Always	Always	Always	Never
Spain	Always	Always	Always	Never
Sweden	Always	Always	Always	Always
Other European countries				
Albania	Always	Always	Never	Never
Armenia	Always	Most of the time	Not often	Sometimes
Azerbaijan	Always	Always	Sometimes	Never
Belarus	Always	Always	Always	Never
Bosnia and Herzegovina	Always	Always	Always	Most of the time
Faroe Islands	Always	Always	Always	Always
Georgia	Sometimes	Always	Not often	Sometimes
Iceland	Always	Always	Always	Always
Kazakhstan	Always	Always	Not often	Never
Kyrgyzstan	Always	Most of the time	Sometimes	Never
North Macedonia	Always	Always	Sometimes	Never
Norway	Always	Always	Always	Always
Republic of Moldova	Most of the time	Most of the time	Not often	Never
Serbia	Always	Always	Always	Never
Switzerland	Always	Always	Always	Always
Turkey	Always	Always	Sometimes	Always
Ukraine	Always	Sometimes	Most of the time	Never
United Kingdom	Always	Always	Most of the time	Most of the time
Uzbekistan	Sometimes	Most of the time	Not often	Never

Always · Most of the time · Sometimes · Not often · Never

Table 10. Reimbursement of insulin administration devices across Europe, by country

Countries	Syringes & needles	Insulin pens	Insulin pumps	Connected smart pens
EU countries				
Austria	●	●	●	●
Belgium	●	●	●	●
Bulgaria	●	●	●	●
Croatia	●	●	●	●
Cyprus	●	●	●	●
Denmark	●	●	●	●
Estonia	●	●	●	●
Finland	●	●	●	●
France	●	●	●	●
Germany	●	●	●	●
Greece	●	●	●	●
Hungary	●	●	●	●
Ireland	●	●	* ●	●
Italy	●	●	●	●
Latvia	●	●	●	●
Lithuania	●	●	●	●
Luxembourg	●	●	●	●
Malta	●	●	●	●
Netherlands	●	●	●	●
Poland	●	●	●	●
Portugal	●	●	●	●
Romania	●	●	●	●
Slovakia	●	●	●	●
Slovenia	●	●	●	●
Spain	●	●	●	●
Sweden	●	●	●	●
Other European countries				
Albania	●	●	●	●
Armenia	●	●	●	●
Azerbaijan	●	●	* ●	●
Belarus	●	●	●	●
Bosnia and Herzegovina	●	●	●	●
Faroe Islands	●	●	●	●
Georgia	●	●	●	●
Iceland	●	●	●	●
Kazakhstan	●	●	●	●
Kyrgyzstan	●	●	●	●
North Macedonia	●	●	●	●
Norway	●	●	●	●
Republic of Moldova	●	●	* ●	●
Serbia	●	●	●	●
Switzerland	●	●	●	●
Turkey	●	●	●	●
Ukraine	●	●	●	●
United Kingdom	●	●	●	●
Uzbekistan	●	●	●	●

● Fully/partly reimbursed for T1D and some T2D ● Fully/partly reimbursed for T1D
● Fully/partly reimbursed for PwD <18-25 y/o ● Not reimbursed
*Only for some T1D

Access to insulin pumps has been transformative for many of us living with diabetes, significantly improving both our management and quality of life. The continuous delivery of insulin provides a level of stability we once thought impossible. It is not just about better blood glucose control – it is about reclaiming our freedom.

With an insulin pump, I no longer need to worry about constant injections or unpredictable blood glucose fluctuations. This technology allows me to focus on what truly matters, whether it is pursuing activities I love, chasing my dreams or simply living a normal life. For many, insulin pumps are more than just tools – they are a bridge to a healthier future.

As a medical student, I often see the challenges people living with diabetes face in accessing insulin pumps. There is clearly a need for greater collaboration between healthcare systems, policymakers and the diabetes community to break down barriers, such as lack of insurance coverage. Through my work with national diabetes associations, I advocate for equitable access to this life-changing technology.

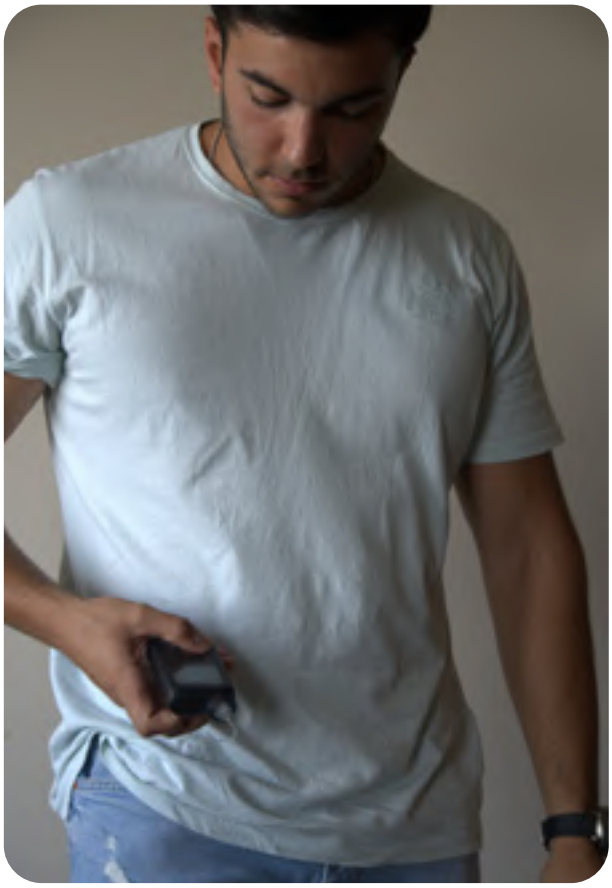
– Nikolas Evripidou,
T1D Advocate and YOURAH
Member from Cyprus

Automated insulin delivery systems

Automated insulin delivery (AID) systems consist of an algorithm which responds to the blood glucose levels recorded by rtCGMs by automatically modulating insulin delivery through an insulin pump.

AID systems offer great advantages for improved glycaemic control and quality of life. By linking rtCGMs and insulin pumps, they quickly adapt outputs from pumps to PwD's changing insulin needs throughout the day. They require less user input and, therefore, alleviate the burden of daily self-management by reducing the number of decisions that PwD or their caregiver need to take. The provision of AID systems remains quite limited.

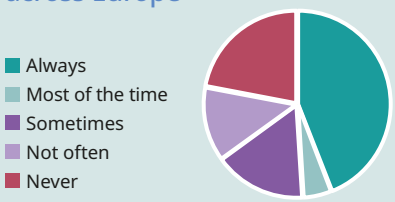
In 2013, a community of people living with T1D and/or their carers started the **do-it-yourself (DIY) closed-loop movement** and began collaborating online to develop their own AID system with the hashtag #WeAreNotWaiting. These DIY systems connect commercially available insulin pumps and CGMs to an open-source algorithm, which does not undergo any regulatory screening. They were primarily developed because of the many unmet needs that remained with available systems (e.g. decree of customisability), alongside their costs. This highlights the power of grassroot innovation to drive progress in health technology. However, access to DIY systems is still limited to PwD who have the confidence and skills to use and maintain them [26].



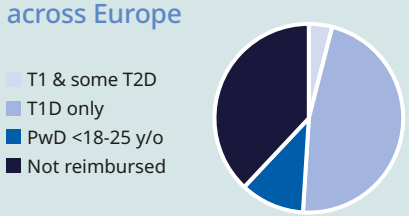
Availability and reimbursement of automated delivery systems across Europe

Access to AID systems varies across Europe and is interlinked with the availability and affordability of rtCGMs and insulin pumps. Given the strict criteria often applied to these self-management technologies, access to AID systems is in most cases limited to children and/or some people living with T1D.

Chart 11. Availability of AID systems across Europe



Reimbursement of AID systems across Europe



The variations in availability and reimbursement of AID systems between countries partly reflect their significant upfront and ongoing cost compared with standard insulin therapy. Another barrier to their adoption relates to the additional need for HCP and user training and support.

Supported by the increased use of data and AI, future innovations are likely to lead to safer, more finely-tuned AID systems with the potential to further reduce the burden of diabetes management on people living with the condition.

Ensuring uninterrupted, equitable and affordable access to the required medicines, technologies and supplies

- Encourage greater competition and product substitution – where appropriate and in agreement with HCPs and PwD.
- Perform cost-effectiveness assessments to build evidence on the long-term health and economic benefits of reimbursing innovative treatments and technologies.
- Integrate the broader use of real-world evidence and patient-reported outcomes in reimbursement decisions.
- Boost research and innovation, as well as the capacity and knowledge of health technology assessment organisations and notified bodies and to accelerate the development of novel treatments and technologies that address unmet needs for PwD.
- Within the EU, support broader engagement between the EU, individual Member States, the private sector (providers and payers) and other stakeholders to ensure access to innovation that will benefit PwD and healthcare systems.

Table 11. Availability of AID systems across Europe, by country

Countries	AID systems
EU countries	
Austria	●
Belgium	●
Bulgaria	●
Croatia	●
Cyprus	●
Denmark	●
Estonia	●
Finland	●
France	●
Germany	●
Greece	●
Hungary	●
Ireland	●
Italy	●
Latvia	●
Lithuania	●
Luxembourg	●
Malta	●
Netherlands	●
Poland	●
Portugal	●
Romania	●
Slovakia	●
Slovenia	●
Spain	●
Sweden	●
Other European countries	
Albania	●
Armenia	●
Azerbaijan	●
Belarus	●
Bosnia and Herzegovina	●
Faroe Islands	●
Georgia	●
Iceland	●
Kazakhstan	●
Kyrgyzstan	●
North Macedonia	●
Norway	●
Republic of Moldova	●
Serbia	●
Switzerland	●
Turkey	●
Ukraine	●
United Kingdom	●
Uzbekistan	●

● Always
● Most of the time
● Sometimes
● Not often
● Never

Table 12. Reimbursement of AID systems across Europe, by country

Countries	AID systems
EU countries	
Austria	●
Belgium	●
Bulgaria	●
Croatia	●
Cyprus	●
Denmark	●
Estonia	●
Finland	●
France	* ●
Germany	●
Greece	●
Hungary	●
Ireland	* ●
Italy	●
Latvia	●
Lithuania	●
Luxembourg	●
Malta	●
Netherlands	●
Poland	●
Portugal	●
Romania	●
Slovakia	●
Slovenia	●
Spain	●
Sweden	* ●
Other European countries	
Albania	●
Armenia	●
Azerbaijan	●
Belarus	●
Bosnia and Herzegovina	●
Faroe Islands	●
Georgia	●
Iceland	●
Kazakhstan	●
Kyrgyzstan	●
North Macedonia	●
Norway	●
Republic of Moldova	●
Serbia	●
Switzerland	●
Turkey	●
Ukraine	●
United Kingdom	●
Uzbekistan	●

● Fully/partly reimbursed for T1D and some T2D
● Fully/partly reimbursed for T1D
● Fully/partly reimbursed for PwD <18-25 y/o
● Not reimbursed
*Only for some T1D

4.

Education, support and screening

Diabetes is a condition essentially managed by those living with it and/or their carers 24 hours a day, seven days a week. Everyday activities such as going for a walk, eating an ice-cream, travelling or breast-feeding a baby – all have an impact on glycaemic (blood glucose) levels. The primary goal of diabetes management is to keep these glycaemic levels within a certain target range to lower the risk of organ and tissue damage and reduce the risk of acute and chronic complications. This round-the-clock self-management can be hard, relentless and all-consuming.

In addition to gaining access to the required medicines, technologies and supplies for blood glucose monitoring and insulin administration, as discussed in the previous chapter, other factors supporting effective diabetes management include:

- **Structured diabetes education.** This is essential at the time of diagnosis and throughout the life course to equip PwD and their carers with the knowledge and tools needed to manage the condition effectively.
- **Psychological support, including peer support.**
- **Person-centred, integrated and personalised approach to care, including timely screening for complications**

Key elements of effective diabetes management

Managing diabetes across the life course

Early diagnosis and timely intervention are critical to reduce the risk of diabetes-related complications, both short- and long-term [27]. Since diabetes is a lifelong condition, **holistic management strategies that adapt over time are required.**

During childhood and adolescence, for instance, PwD may require additional psychological support, given the unique challenges of managing a chronic condition during key developmental stages. Their management strategies will also require adaptation and support as they transition from paediatric to adult care.

Managing diabetes in older adults also requires a targeted approach that takes into account their living situations (e.g., in-home or retirement centres), overall health (e.g., frailty, cognitive decline, mental health) and their capacity to use self-management tools, especially those involving digital technologies [28; 29].

A life-course, integrated and personalised approach to diabetes management and care is essential to address PwD's changing needs at key stages of their lives, support transitions between different providers and care levels and provide tailored support, considering co-morbidities and complications, to achieve the best possible health outcomes and quality of life.

Diabetes education

PwD need to understand their condition in order to be empowered to take an active role in their care, to make informed decisions and to have the motivation to keep up with the round-the clock management of their condition over many years. **Structured diabetes education should be provided to all newly diagnosed people as early as possible.** Because diabetes is a progressive disease, **education should also be provided on an ongoing basis** throughout a person's journey with the condition. Structured diabetes education should be made available whenever treatment changes or glycaemic targets are not being met.

Peer-to-peer education, coaching and support should also be integrated into healthcare services, as they can be effective in providing psychological support, fostering behavioural changes and improving health outcomes.

Case Study: improving diabetes self-management through peer-to-peer education programmes in Turkey

From 2011 to 2017, the Turkish Diabetes Foundation implemented a peer-to-peer education programme designed to improve PwD's self-management by promoting greater awareness, knowledge and empowerment. This programme specifically targeted rural areas in Turkey where the availability of diabetes education was limited.

The project consisted of three components: peer advisor training, patient education and the organisation of support groups. Ten health centres each appointed two peer advisors who underwent a two-day training focused on both T1D and T2D. These trained advisors then held interactive educational sessions three times a week for PwD in rural communities, covering essential diabetes management topics in group settings of about 20 participants. Each participant completed a 10-session course. Diabetes knowledge and biological outcomes (such as blood pressure, HbA1c and cholesterol levels) were measured before and after the programme. After completing the course, participants joined support groups where they could engage in social activities, attend seminars and participate in additional educational programmes. These groups encouraged sustained diabetes management practices through peer support and shared experiences.

Project outcomes

As part of the initiative, 33 peer educators and 23 educators were trained in self-monitoring, diabetes care and teaching models. In total, 13,710 patient education session were conducted, benefitting 34,093 PwD. After the training, more than three-quarters of all participants were able to understand and/or perform self-care, had a good understanding of diabetes-related complications, what a balanced diet looks like and the role of insulin therapy.

Key results

One year after the training, a survey was conducted with 1,600 participants to assess its impact. The results showed significant improvements in diabetes management. The average HbA1C levels had dropped from 7.6% to 6.9%. The proportion of participants on monotherapy had increased from 19% to 28%, while the use of dual and triple therapies had also increased. Notably, the proportion of PwD requiring four or more daily medications had decreased from 53% to 27%, reflecting improved treatment efficiency.

Diabetes education, whether provided by professionals or through peer-to-peer support, is essential to empower PwD to actively participate in their own care. Access to the right information and tools – not just at diagnosis but throughout their lives – gives PwD the confidence and skills needed for effective self-management. The journey with diabetes can be full of ups and downs and without the proper education, navigating its complexities can feel overwhelming. With ongoing support, such as that from a diabetes educator, PwD can learn to make informed decisions, identify potential health risks early and ultimately feel in control of their condition. As both an educator and someone living with diabetes, I have seen first-hand the difference it makes when PwD are empowered to take an active role. Knowledge truly is power, and with it, PwD can achieve their biggest goals and dreams in life.

– Maartje Roskams, Diabetes Educator and T1D Advocate from Belgium

SUMMARY OF RESULTS

Gaps and variations in diabetes education across Europe

Diabetes education is provided at the time of diagnosis in almost all European countries. However, 31% of countries report variations in its availability. In some countries, including for example, North Macedonia, structured diabetes education is available only in large diabetes clinics, while people diagnosed in smaller settings may not receive the same level of education. In other cases, diabetes education is provided and well-structured only for those living with T1D.

Although most European countries offer diabetes education throughout the life course, about 42% report variations in its delivery. This means that not all PwD have access to structured education in the years following diagnosis if, for example, their treatment changes.

Peer-to-peer support is integrated in the education provided in only 18% of European countries, such as Belgium, Bosnia and Herzegovina, France, Italy, Lithuania, Portugal and the UK. In approximately one quarter of countries, peer support is occasionally available, while in the rest of Europe this service is not at all integrated in diabetes education programmes.

Chart 12. Availability of diabetes education and peer support across Europe

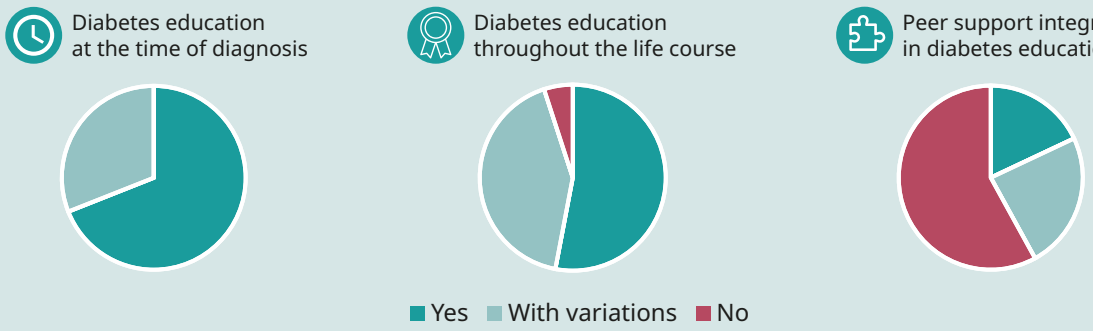


Table 13. Availability of diabetes education and peer support across Europe, by country

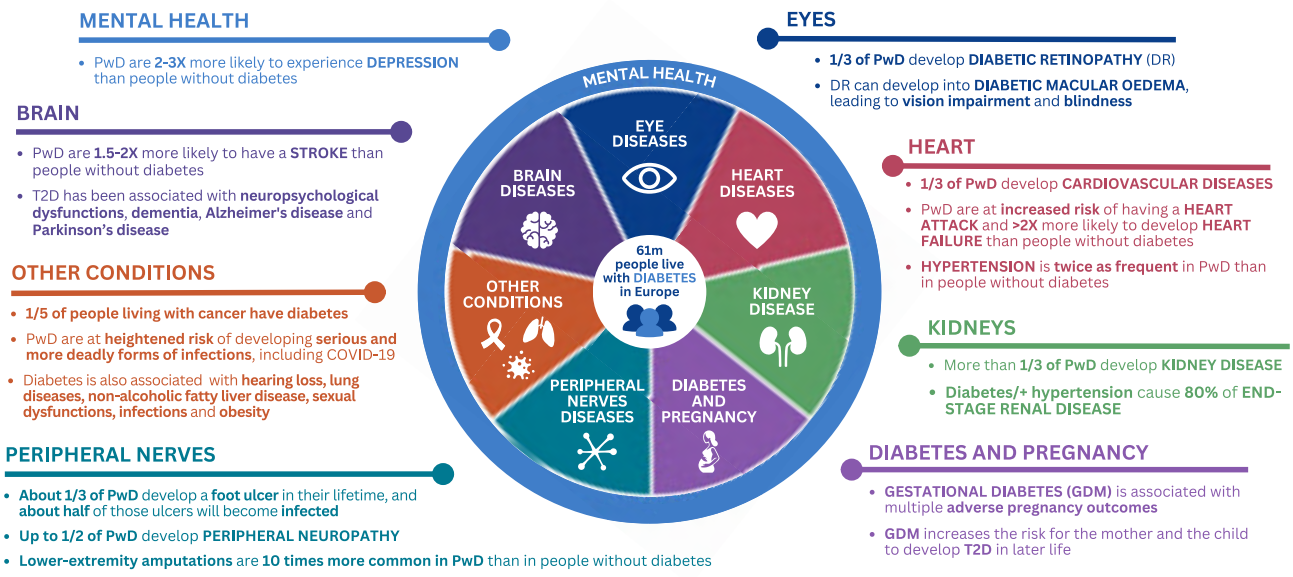
Countries	At the time of diagnosis	Throughout the life course	Peer support
EU countries			
Austria	Yes	Yes	No
Belgium	With variations	With variations	Yes
Bulgaria	Yes	With variations	No
Croatia	Yes	Yes	No
Cyprus	Yes	With variations	No
Denmark	Yes	Yes	With variations
Estonia	Yes	Yes	Yes
Finland	Yes	Yes	With variations
France	With variations	With variations	Yes
Germany	Yes	Yes	No
Greece	With variations	With variations	No
Hungary	Yes	Yes	With variations
Ireland	Yes	With variations	With variations
Italy	Yes	Yes	Yes
Latvia	Yes	Yes	No
Lithuania	Yes	Yes	Yes
Luxembourg	With variations	With variations	With variations
Malta	Yes	Yes	With variations
Netherlands	Yes	Yes	No
Poland	With variations	With variations	No
Portugal	Yes	Yes	Yes
Romania	Yes	Yes	No
Slovakia	Yes	Yes	No
Slovenia	Yes	Yes	No
Spain	Yes	Yes	No
Sweden	Yes	With variations	No
Other European countries			
Albania	With variations	With variations	No
Armenia	With variations	With variations	With variations
Azerbaijan	With variations	With variations	With variations
Belarus	Yes	Yes	With variations
Bosnia and Herzegovina	Yes	Yes	Yes
Faroe Islands	Yes	Yes	No
Georgia	Yes	With variations	No
Iceland	With variations	No	No
Kazakhstan	With variations	With variations	No
Kyrgyzstan	With variations	With variations	No
North Macedonia	With variations	With variations	No
Norway	With variations	With variations	With variations
Republic of Moldova	Yes	Yes	No
Serbia	Yes	Yes	No
Switzerland	Yes	Yes	No
Turkey	Yes	Yes	No
Ukraine	With variations	With variations	With variations
United Kingdom	Yes	No	Yes
Uzbekistan	Yes	With variations	No

Yes · With variations · No

Diabetes-related complications

Diabetes can affect every organ system in the human body and is the root cause of many other chronic conditions and comorbidities. Despite strenuous management and significant advances in treatment options, **many PwD do not meet their health targets and develop diabetes-related complications** such as CVD, diabetes-related retinopathy and chronic kidney disease (CKD).

Figure 4. The burden of diabetes: diabetes-related complications and co-morbidities



Diabetes and cardiovascular diseases

CVD are disorders of the heart and blood vessels including hypertension, coronary heart disease, cerebrovascular disease and peripheral arterial disease. Globally, CVD are the number one cause of death [30]. Diabetes is a key risk factor for developing these conditions. It is estimated that about **one third of PwD develop CVD** [31], which accounts for half of its deaths, and that **hypertension is twice as frequent in PwD as in people without diabetes** [32]. High levels of blood glucose can make a person's blood coagulation system more active which increases the risk of blood clots forming. Diabetes is also associated with high blood pressure and high cholesterol, which lead to an increased risk of cardiovascular complications such as angina, coronary artery disease, myocardial infarction, stroke, peripheral artery disease and congestive heart failure [32]. Studies have shown that an increase in HbA1c levels by one mmol/mol increases the risk of CVD by 11% [33].

Diabetes and eye diseases

Diabetes is linked, both directly and indirectly, to a number of eye diseases. Diabetes-related retinopathy and diabetes-related macular oedema (DME) are examples of eye conditions that are directly caused by diabetes and can lead to visual impairment. Diabetes-related retinopathy is one of the leading causes of preventable blindness in the world and is caused by prolonged high blood glucose levels that, over time, weaken and damage the small blood vessels within the retina [34]. In Europe, it is estimated that **between 20% and 35% of PwD develop diabetes-related retinopathy** [35]. If left untreated, this can develop into DME – a condition prevalent in about 7% of PwD and potentially resulting in vision impairment and blindness [36]. Diplopia, cataracts and glaucoma are other eye conditions that can be worsened by diabetes.

Diabetes and kidney disease

Diabetes is one of the leading causes of CKD. **Diabetes and hypertension together account for about two thirds of CKD cases globally** [37]. CKD is a progressive loss in kidney function resulting from damage to the nephrons, which are tiny filters in the kidneys cleaning waste from the blood. The high blood glucose and high blood pressure sometimes caused by diabetes can damage kidney function, leading to waste building up and, in severe cases, kidney failure.

Diabetes-related neuropathy and foot complications

Another frequent complication of diabetes, developed by nearly half of PwD, is diabetes-related neuropathy which is caused by the impairment of normal activities of the nerves due to high blood glucose [36]. The most common form of diabetes-related neuropathy affects the outer nerves of the limbs, particularly those of the feet. This can cause sensory function alterations such as progressive numbness, which facilitates the development of ulcers.

Diabetes foot is one of the most common, costly and severe complications of diabetes. When PwD develop foot ulcers, these are susceptible to infections that can cause tissue destruction or gangrene requiring major amputation [39].

It is estimated that **about one third of PwD develop a foot ulcer in their lifetime and about half of those ulcers will become infected** [39]. Chronic ulcers and amputations are not only costly, but also result in a significant reduction in quality of life and increase the risk of premature death. **Lower-extremity amputations are 10 times more common in PwD than in people without diabetes** [40].

Gestational diabetes

Gestational diabetes (GDM) is a form of diabetes that develops during pregnancy. **GDM occurs in about one in six pregnancies** globally and is associated with adverse pregnancy outcomes including, for example, preeclampsia, pre-term delivery, caesarean section delivery, large for gestational age newborns, neonatal hypoglycaemia and neonatal intensive care unit admission [41]. Although GDM resolves after birth, **both the person giving birth and the child are at higher risk of developing T2D later in life.**

Other complications

PwD are also at risk of developing other conditions such as **brain diseases** like dementia, Alzheimer's disease and Parkinson's disease, and **certain types of cancer** (e.g., liver, pancreatic, colorectal, endometrial, breast, stomach and bladder cancer). Other complications include hearing loss, lung diseases, non-alcoholic fatty liver disease, sexual disfunctions, infections and obesity.

Diabetes and mental health

Less visible and front-of-mind, but no less damaging, are mental health-related complications. Besides the mental stress related to the potential of developing long-term complications, the everyday routine of treating a life-long condition like diabetes for a minimum of 20-30 and potentially, up to 80+ years, can become overwhelming. Diabetes distress and burnout (whereby one feels completely overwhelmed by diabetes), depression, anxiety and eating disorders are all very common, and do not only affect people's quality of life and relationships but can also negatively impact a person's ability to manage their diabetes leading to poorer physical health. Studies have shown that **PwD are two to three times more likely to experience depression than people without diabetes** [42].

> *Diagnosed with GDM late in my pregnancy and giving birth prematurely, I did not follow the recommended diet for long – perhaps a sign of what was to come, though I lacked the tools to fully grasp it at the time. Now, living with diabetes, I understand the importance of knowing my body, maintaining the right diet and staying physically active. Managing diabetes is a continuous effort, but it also drives me to prioritise my health. To thrive with diabetes, we must be empowered to make informed choices and take care of ourselves effectively.*
>
> – Mateja Malnar Stembal, T2D Advocate from Slovenia

Living with diabetes can have a significant impact on mental health, even when people do not realise it. There are times when diabetes gets in the way and makes it difficult to achieve what you want. In my experience, on many occasions, diabetes was the cause of a minor depression and some crying – like when I could not get my blood glucose under control no matter what I did to adjust the treatment, or in the old days when it was mandatory to eat every two to three hours, which set me apart from my friends. Today, diabetes should no longer be a barrier to achieving our goals. With the right support, we can manage the condition effectively and live happy, fulfilling lives.

– João Valente Nabais, T1D Advocate from Portugal

Screening for complications

Given the interconnectedness of diabetes with other conditions, as a matter of course, diabetes care should include screening for complications, early action when glucose is not within the target range or complications occur and access to psychological support. **Complications can place a huge burden on PwD. However, if diagnosed and treated early, their progression can be slowed or even stopped, and people can live well with them.** Access to regular screening is crucial, especially for complications that may present no symptoms in the early stages.

Some studies have found that up to 35% of people living with T2D already show signs of complications such as CVD, at the time of diagnosis [7].

In the case of GDM, follow-ups with the person giving birth and the baby are important to reduce their risk of developing T2D or to ensure timely diagnosis and early action.

Access to adequate psychological support must also be integrated into diabetes care to lessen the emotional burden of managing the disease. Training HCPs to recognise the need for mental health support and incorporating mental health screening into diabetes care pathways is key.

Diabetes-related complications not only represent a huge burden to those living with the condition, but they are a **significant economic cost to healthcare systems.** The treatment of complications such as CVD, blindness and amputation, as opposed to their prevention, represents an inefficient allocation of resources. Some 75% of the direct European expenditure on diabetes, which stood at €176 billion in 2021, resulted from diabetes-related complications [1; 3]. Improving screening for diabetes and its complications can help ensure that action is undertaken early and avoid costly treatments later.

I have lived with T2D for 16 years, and over time, I have developed several complications. However, for the last five years I have been in remission thanks to the regular follow ups with my healthcare team. Every six months, I am checked by a cardiologist, ophthalmologist, nephrologist, podiatrist and endocrinologist – proving that regular follow ups pay off. Of course, it takes perseverance on my part, but the results are worth it. My efforts, together with my HCPs' support, have led to this remission, which gives me the strength to live a healthy lifestyle and helps me prevent more serious complications.

– Francis Van der Auwera, T2D Advocate from Belgium

Case Study: screening for complications in underserved communities

According to annual reports of regional dispensaries, approximately 80% of people living with T2D in Uzbekistan do not reach their glycaemic targets, leading to a high risk of development and rapid progression, of diabetes-related complications [43].

PwD living in rural areas and/or from low-income families often face barriers in accessing regular screening for diabetes-related complications. To address this issue, the Charity Union of Persons with Disabilities and Diabetes in Uzbekistan (UMID) frequently organises targeted initiatives to provide comprehensive consultative and diagnostic assistance to PwD from low-income families or living in underserved areas.

On one occasion, a multidisciplinary team conducted a one-day screening for 50 PwD aged 55–70 from low-income families. The assessment included BMI and blood glucose measurements as well as ophthalmic, cardiovascular and podiatric examinations to evaluate the risk of developing complications or monitor their progression.

The presence of diabetes-related complications was detected in 92% of the PwD screened. Diabetic retinopathy was detected in 38% of them, of which 16% was at the proliferative stage and 3% had already reached blindness in one eye. Diabetes-related neuropathy was found in 89.7% of the people examined, and 6% of them had previously experienced limb complications resulting in amputation. Arterial hypertension was detected in 66% of the people visited.

The initiative also integrated diabetes education sessions, focusing on insulin therapy and the importance of a healthy diet, physical activity and the prevention of complications, including the rules of foot care. Additionally, in order to support PwD in managing their blood glucose levels, the association provided each of them with a blood glucose meter and test strips as well as lunch boxes with healthy foods. Until then, many of them had not had access to a blood glucose monitoring device.

This experience highlights the critical importance of diabetes education and access to screening programmes as well as to self-management devices.

Uneven access to screening for complications and psychological support across Europe

Screening for diabetes-related complications, including CVD, eye diseases, kidney disease, diabetes foot and gestational diabetes is available almost everywhere in Europe. However, some variations in access prevent some PwD from accessing regular screening. **Fewer than half of European countries have effective screening programmes (i.e., without variations) for all diabetes-related complications in place.**

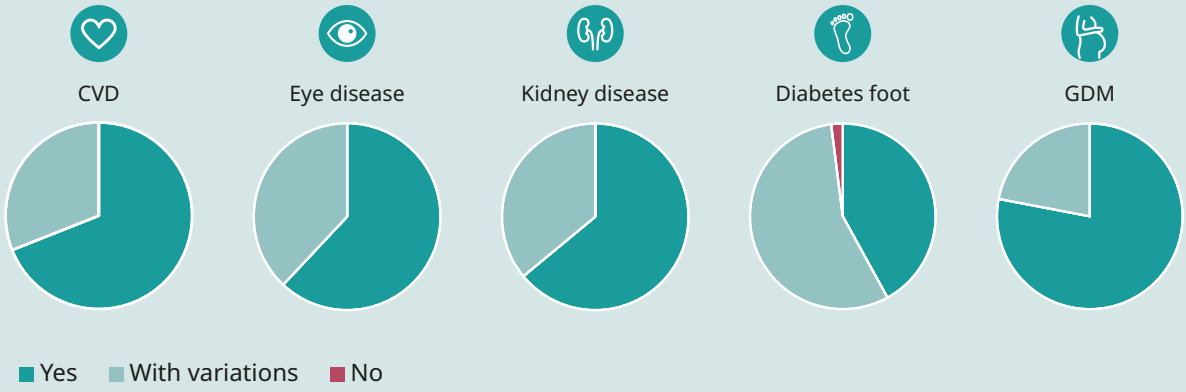
In some countries (e.g., Bulgaria and Ukraine), PwD are not automatically invited to undergo regular screening, even when this is available and reimbursed for everyone. This means that only those who are aware of the importance of regular screening, or those who are advised by their HCPs, request it. In other countries, variations in the availability of screening for complications are often due to uneven coverage within countries,

particularly in rural areas. In some cases, screening for complications is only available in bigger cities.

Comprehensive screening for CVD, eye health and kidney disease is fully available in 62-69% of European countries, with variations in 31-38%. Full access to foot screening is available in only 42% of countries, with variations in about 56%. Albania is the only country reporting a lack of diabetes foot screening entirely. Gestational diabetes screening is available in about 78% of countries, with variations in 22%.

When it comes to mental health, **psychological support for PwD is often unavailable or difficult to access in most European countries.** Only a few countries – the Netherlands, Republic of Moldova, Sweden, Switzerland and Turkey – report that psychological support is both available, reimbursed and easy to access. In all other countries, psychological support is available but comes with significant barriers. The two most common challenges include a shortage of specialised HCPs, leading to long waiting times, and the cost of services, which are often not reimbursed as part of routine diabetes care, creating unequal access for PwD.

Chart 13. Availability of screening for complications across Europe



OUR CALL TO ACTION

Ensuring optimal health outcomes and quality of life for all PwD

- Provide structured diabetes education for all PwD at the time of diagnosis and throughout the life course and integrate peer-to-peer support programmes as part of the diabetes education programme.
- Establish an effective framework for, and facilitate, regular screening for diabetes-related complications and early action accessible for all PwD.
- Integrate self-management training and the training of HCPs in supporting and motivating PwD within an integrated system of care.
- Provide access to specialised psychological support for all PwD who need it, ensuring enough specialised HCPs and reimbursement of the service.

Table 14. Availability of screening for complications across Europe, by country

Countries	CVD	Eye disease	Kidney disease	Diabetes foot	GDM
EU countries					
Austria	●	●	●	●	●
Belgium	●	●	●	●	●
Bulgaria	●	●	●	●	●
Croatia	●	●	●	●	●
Cyprus	●	●	●	●	●
Denmark	●	●	●	●	●
Estonia	●	●	●	●	●
Finland	●	●	●	●	●
France	●	●	●	●	●
Germany	●	●	●	●	●
Greece	●	●	●	●	●
Hungary	●	●	●	●	●
Ireland	●	●	●	●	●
Italy	●	●	●	●	●
Latvia	●	●	●	●	●
Lithuania	●	●	●	●	●
Luxembourg	●	●	●	●	●
Malta	●	●	●	●	●
Netherlands	●	●	●	●	●
Poland	●	●	●	●	●
Portugal	●	●	●	●	●
Romania	●	●	●	●	●
Slovakia	●	●	●	●	●
Slovenia	●	●	●	●	●
Spain	●	●	●	●	●
Sweden	●	●	●	●	●
Other European countries					
Albania	●	●	●	●	●
Armenia	●	●	●	●	●
Azerbaijan	●	●	●	●	●
Belarus	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●
Faroe Islands	●	●	●	●	●
Georgia	●	●	●	●	●
Iceland	●	●	●	●	●
Kazakhstan	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●
North Macedonia	●	●	●	●	●
Norway	●	●	●	●	●
Republic of Moldova	●	●	●	●	●
Serbia	●	●	●	●	●
Switzerland	●	●	●	●	●
Turkey	●	●	●	●	●
Ukraine	●	●	●	●	●
United Kingdom	●	●	●	●	●
Uzbekistan	●	●	●	●	●

● Yes ● With variations ● No

5.

Health system organisation

Health systems include all the institutions, organisations and resources that are devoted to promote, sustain or restore health [44]. The way health systems are organised – their processes and structures – significantly influences the prevention and management of diabetes and other chronic conditions. Effective health systems organisation is essential to ensure that healthcare services are accessible, equitable, efficient, affordable and of high quality for all [45].

NCDs such as diabetes require continuous, coordinated care involving multiple HCPs over an extended period of time. However, traditional care models, often based on disease-specific frameworks, with separate organisations managing distinct priorities and budgets and reliant on solo or small group practices, struggle to meet these requirements [46]. Coupled with long-term under-investment, healthcare systems therefore face challenges associated with the complexity of managing multimorbidity, a shortage of HCPs and an increasing workload which makes it more difficult to provide high-quality, effective care for people living with chronic conditions.

To address these challenges, a shift is needed to re-organise health systems in ways that align with the needs of people living with NCDs. This requires **moving from fragmented, disease-specific models toward integrated, person-centred approaches** that emphasise holistic care, coordination and collaboration among HCPs. These models necessitate changes to the skills, competencies, roles and tasks within the health workforce to better respond to the evolving and complex needs of people living with chronic conditions [46]. Key elements for high-quality care include **strengthening primary care systems, improving HCP education and expanding the role of nurses. Leveraging data and digital tools** is also critical to improve care delivery, enabling better monitoring, coordination and personalisation of care.

Given its complexity and interplay with other chronic conditions and with all levels of care, strengthening diabetes prevention and care can be a catalyst for wider health system reform and transformation. Diabetes prevention, management and care make use of, and depend on, all aspects and elements of a national health system. As such, this makes diabetes prevention and care a marker of health systems' quality, effectiveness, performance and resilience.

Key actions to ensure high quality diabetes care:

Figure 5. Diabetes as a marker of health systems resilience

Strengthening primary care

The majority of people living with T2D, who represent about 90% of all PwD, are treated in primary care. An under-resourced, underfunded and understaffed primary care system is a major obstacle to the effective prevention, management and treatment of diabetes and contributes to higher disease burden for PwD.

The starting point to improve healthcare systems' performance should therefore be action aiming at strengthening primary care systems. This requires several coordinated actions, including: **adequate funding and staffing** [48]**; organisational reforms** to enable coordination and integration across services and to expand the role of PCPs such as nurses, pharmacists and community health workers who can help prevent and manage chronic conditions [46; 48]; **community engagement** to co-design health service and care delivery approaches that are tailored to people's needs [48; 49] and the **adoption of digital health tools** such as electronic health records (EHRs) and telemedicine to provide more efficient and person-centred care [47].

Primary care

Primary care refers to essential health services that should be universally accessible for individuals, families and communities; that provides the first line of action for the prevention and treatment of NCDs such as diabetes; and that forms the gateway to specialist care [47].

HCP education

Several barriers can hinder HCPs in translating scientific evidence into practice and providing adequate treatment and support to PwD. These include **insufficient education and ongoing training**, leaving some HCPs unfamiliar with new treatments, innovations and approaches in diabetes care; **HCP shortages** which lead to time constraints and burnout; **competing priorities and administrative tasks which limit time spent with PwD** [50; 51]; **limited access to decision-making tools** that could help them tailor care to individual needs more easily and effectively [52; 53]; **outdated guidelines** that prevent them from adopting the latest, most effective treatments [50]; and **regulatory barriers** such as slow approval and reimbursement processes of new therapies, medicines and technologies [54].

Improving education on diabetes prevention, detection and care in particular can help bridge

some of these gaps. With better awareness and training, HCPs are equipped to recognise the support each PwD requires and tackle clinical inertia, ultimately reducing the risk of life-altering complications.

Education should prepare HCPs to go beyond diagnosis and treatment, enabling them to address other key aspects of care such as nutrition and exercise. Equally important is their ability to establish a **positive and trusting relationship with PwD** – a key factor in driving better health outcomes and fostering empowerment. By involving PwD in shared decision-making, HCPs can make them active partners in their care journeys.

HCP shortages

By 2030, the World Health Organization (WHO) projects a global deficit of 10 million healthcare workers [55]. This shortage has significant implications for diabetes care. Currently, **one third of PwD are undiagnosed** [1]. The lack of staff at primary care level hampers PCPs' ability to diagnose PwD, identify individuals at risk, conduct regular check-ups and screenings for diabetes-related complications and provide structured education and support. Re-organising health systems and leveraging the role of diabetes nurses and other PCPs as well as expanding the use of digital health solutions can help optimise human and financial resources and help tackle the shortage of HCPs while facilitating the delivery of high-quality care.

The role of diabetes specialist nurses

Diabetes specialist nurses (DSNs) play a key role in the multidisciplinary team of HCPs who support PwD. DSNs often take on a prevention role and/or are tasked with educating PwD on self-management techniques, such as blood glucose monitoring, medication management and lifestyle changes, and generally supporting them in their journey. Their involvement in clinical care and education leads to better health outcomes for PwD and improves the expertise and work settings of HCPs [56]. Despite this, **all too often Diabetes Specialist Nursing is not a recognised specialty or DSNs' role remains limited.** Their role and workload are also affected by the healthcare workforce shortage. **According to WHO, by 2030 Europe will be short of 2.3 million nurses** [57].

Strengthening the role of DSNs by investing in the nursing education and infrastructure that are required to develop adequate expertise and competence would not only benefit the health outcomes of PwD, but it would also help shore up the resilience of health systems by improving the effectiveness of diabetes prevention, management and care.

As a nurse working in diabetes care, I believe we play a key role in supporting PwD. Our tasks are crucial in assessing individual needs, identifying challenges and promoting adherence to treatment through therapeutic education. We empower people to find informed solutions to prevent complications and improve health outcomes. However, we face significant barriers within the health system. The lack of a recognised specialty in diabetes limits our formal training and undervalues our role. Additionally, restrictions on prescribing therapies for chronic conditions prevent us from sustaining treatment despite our close and regular contact with PwD. Overcoming these barriers requires structural changes, including formal recognition of our specialty, advanced training, prescribing rights and better integration across levels of care. Equally important is to raise awareness among healthcare institutions and regulatory bodies of our impact on diabetes management, driving policy and regulatory changes needed to fully support and value diabetes nurses' work.

- Isabel Correia, Nursing Coordinator
at the Portuguese Diabetes Association (APDP)

Case Study: diabetes specialist nurses in the Netherlands

Over the past decades, T2D management in the Netherlands has transitioned from hospitals to primary care settings [58]. Currently, more than 80% of people living with T2D are seen in primary care settings [59]. This shift has prompted general practitioners (GP) to work more closely with DSNs. As a result, today more than 62% of Dutch GPs collaborate with at least one DSN to manage T2D care [60].

In 2014, the Netherlands granted supplementary prescribing authority to registered specialist nurses with a Bachelor's degree , including DSNs. This milestone aligned diabetes care with other specialties such as oncology and pulmonary diseases, where nurses obtained similar prescribing rights. This change was the culmination of extensive advocacy efforts by national associations such as the Dutch Association of Nurses and Carers [61].

Anticipating the new prescribing authority, a pharmacotherapy refresher course was developed collaboratively by educational institutes. Many DSNs proactively completed these modules before the legislative change. To ensure all practicing DSNs could benefit, a transitional arrangement allowed nurses who had graduated before 2014 to complete an additional pharmacotherapy module. Today, pharmacotherapy training is a standard component of diabetes nursing education [61].

The prescribing authority of DSNs is officially recorded in the BIG-register, the Dutch online registry for HCPs. This authority permits DSNs to prescribe glucose-regulating medications in accordance with specific protocols and guidelines established within their respective health institutions [61].

The role of diabetes specialist nurses in Europe: variations in training, recognition and prescribing authority

Across Europe, DSNs' roles and responsibilities vary broadly. **DSNs are present in about three-quarters of countries and specialised academic training for this role is available in about 70% of them.** In countries where DSNs are recognised but lack formal academic training (around 30%), they typically specialise during their practice with PwD. Even in countries where DSNs are not officially recognised, nurses often contribute to diabetes prevention and the management of PwD. Overall, **nurses play an active role in diabetes prevention and care in about 80% of European countries.**

Despite their key role, **DSNs are allowed to prescribe diabetes medicines in only three European countries:** Azerbaijan, the Netherlands and Poland. In Estonia, Finland, Ireland and the UK, some DSNs are also allowed to prescribe diabetes medicines, usually after completing additional courses and assessments on top of their specialisation.

Chart 14. DSNs' availability and role across Europe

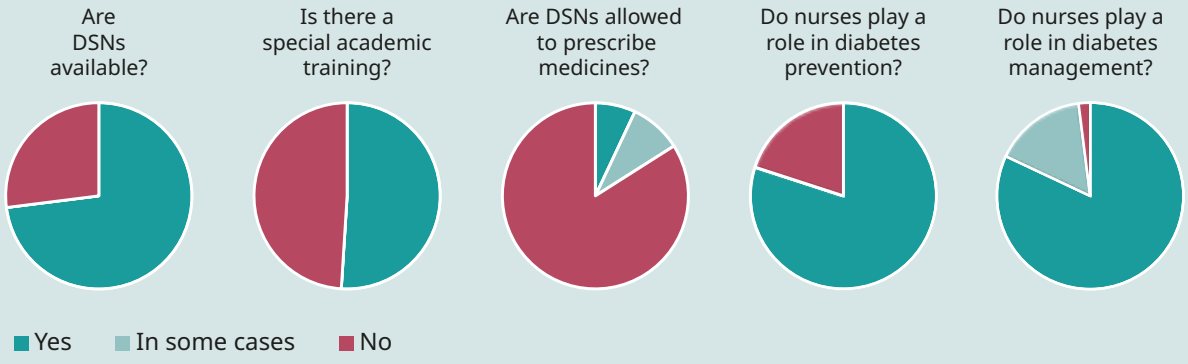


Table 15. DSNs' availability and role across Europe, by country

Countries	DSNs are available	DSNs special academic training	Prescribing rights	DSNs involved in diabetes prevention	DSNs involved in diabetes management (all PwD)
EU countries					
Austria	●	●	●	●	●
Belgium	●	●	●	●	●
Bulgaria	●	●	●	●	●
Croatia	●	●	●	●	●
Cyprus	●	●	●	●	●
Denmark	●	●	●	●	●
Estonia	●	●	●	●	●
Finland	●	●	●	●	●
France	●	●	●	●	●
Germany	●	●	●	●	●
Greece	●	●	●	●	●
Hungary	●	●	●	●	●
Ireland	●	●	●	●	●
Italy	●	●	●	●	●
Latvia	●	●	●	●	●
Lithuania	●	●	●	●	●
Luxembourg	●	●	●	●	●
Malta	●	●	●	●	●
Netherlands	●	●	●	●	●
Poland	●	●	●	●	●
Portugal	●	●	●	●	●
Romania	●	●	●	●	●
Slovakia	●	●	●	●	●
Slovenia	●	●	●	●	●
Spain	●	●	●	●	●
Sweden	●	●	●	●	●
Other European countries					
Albania	●	●	●	●	●
Armenia	●	●	●	●	●
Azerbaijan	●	●	●	●	●
Belarus	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●
Faroe Islands	●	●	●	●	●
Georgia	●	●	●	●	●
Iceland	●	●	●	●	●
Kazakhstan	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●
North Macedonia	●	●	●	●	●
Norway	●	●	●	●	●
Republic of Moldova	●	●	●	●	●
Serbia	●	●	●	●	●
Switzerland	●	●	●	●	●
Turkey	●	●	●	●	●
Ukraine	●	●	●	●	●
United Kingdom	●	●	●	●	●
Uzbekistan	●	●	●	●	●

● Yes ● With variations ● No

Digitalisation of healthcare systems

The digitalisation of healthcare systems, supported by the use of data and Artificial Intelligence (AI), has the potential to overcome barriers and improve the delivery of high-quality services that can enhance PwD's quality of life [62]. **Innovations such as telemedicine, web portals, apps, digital education services and digital therapeutics can help deliver better, more personalised care. Leveraging data and AI can also support more targeted prevention campaigns.**

Telemedicine and remote monitoring often consist of routine consultations and sometimes monitoring through phone or online platforms. Recently, more advanced models have emerged, including complex care platforms that collect data from a range of devices, such as CGMs, insulin pumps, and physical activity and nutrition trackers. These tools help reduce the need for face-to-face consultations and improve the quality and effectiveness of interactions between HCPs and PwD, thus freeing up human and financial resources within healthcare systems.

Apps and digital therapeutics can provide diabetes management support, assisting PwD with daily decision-making personalised recommendations. These tools can also improve access to reliable knowledge, facilitate peer support and foster emotional well-being. For instance, digital education platforms and online communities empower PwD by offering accessible information, practical guidance and a sense of connection, enabling them to better navigate the complexities of their condition.

Digital solutions supported by AI can also enable the **collection of data** that can inform research, foster innovation and support the monitoring and evaluation of healthcare system performance, ultimately facilitating population health management and diabetes prevention.

> *"E-health services can reshape diabetes consultations, enabling a shift towards continuous care models with more frequent touchpoints and personalised care, that adapts to individual needs. By integrating digital tools into diabetes management, we can better support people with diabetes in their day-to-day decisions and foster a sense of agency, leading to improved health outcomes and quality of life."*
>
> – Sufyan Hussain, Endocrinologist and IDF Europe Board Member

Unlocking the full potential of healthcare systems' digitalisation requires the development of robust infrastructure and frameworks that support the use and scalability of novel tools and practices. One key step in this direction is the creation and implementation of **national diabetes registries** (see chapter 2) and **EHRs** underpinned by foundational IT and data layers. These resources allow for effective data collection and utilisation, helping evaluate new care models and enabling HCPs to coordinate care by integrating information about PwD across all levels of care and different care providers. This enables HCPs to better understand PwD's care journey and their context and co-create more integrated and personalised care pathways.

Establishing the infrastructure to support and scale innovative diabetes care approaches also requires frameworks that incentivise adoption and support reimbursement. This involves breaking down regulatory barriers, improving procurement systems for fairness and transparency, facilitating pilot testing of new care models, offering incentives to investors, promoting innovation and fostering partnerships with early-stage innovators [63].

Case study: reimbursement of digital health applications in Germany

In 2019, Germany's Digital Healthcare Act introduced the Digital Health Application (DiGA) programme, designed to integrate digital therapeutics into the national healthcare system. This legislation enables the rapid assessment and approval of digital health applications, which can then be prescribed by physicians and reimbursed through public health insurance. DiGA aims to support individuals in managing health conditions, such as diabetes, by providing therapeutic assistance through mobile and web-based applications [64].

Once approved by the Federal Institute for Drugs and Medical Devices (BfArM), DiGA applications are listed in a central directory, making them eligible for prescription and reimbursement, thus benefitting over 74 million people covered by Germany's public health insurance funds.

This model not only promotes the adoption of innovative digital tools in healthcare but also establishes a streamlined reimbursement structure, ensuring digital health interventions are both affordable and accessible. The Act exemplifies a scalable approach to integrating digital health tools within traditional healthcare systems, fostering evidence-based, user-centred care that is reimbursable and accessible nationwide [64]. As of December 2024, two applications under DiGA for diabetes management hold a permanent listing, while four others are provisionally listed [65]. Provisionally listed applications are those for which manufacturers have applied using preliminary evidence; these manufacturers then have a 12-month period to provide the required evidence to attain a permanent listing [64].

E-health services in Europe: access, variations and challenges

In Europe, EHRs are available in most countries (89%). However, exceptions include Ireland and the UK, where EHRs exist but do not fully cover the entire population, and the Republic of Moldova, Romania and Uzbekistan, where they are unavailable.

Electronic prescriptions are also available in most European countries (75%). In an additional fifth of countries, electronic prescriptions are available but with variations, meaning that they are not always used systematically. Kyrgyzstan, the Republic of Moldova and Uzbekistan do not yet have electronic prescription systems.

Online appointment management systems exist in approximately half of the European countries, with an additional fifth offering this service with some limitations. These systems are unavailable in about one third of countries.

The availability of remote consultations – via phone, video and SMS/email – **varies, ranging from 42% to 58% of countries.** Phone consultations are the most widely used (58%), followed by SMS/email consultations (47%) and video consultations (42%). In an additional 18% to 29% of countries remote consultation services are accessible to some, but not all, PwD.

Telehealth services, which enable remote collection and sharing of data on indicators such as weight, blood pressure and blood glucose, are used less often than other e-health services mentioned above. **Approximately one third of European countries make extensive use of telehealth,** while around one quarter use it to a limited extent, and just over two-fifths do not yet utilise these services.

Apps to support diabetes self-management are commonly recommended by HCPs in half of the countries under review. However, these apps are generally not reimbursed, with some exceptions in Austria, Croatia, Germany and Spain.

Overall, only nine European countries provide comprehensive and systematic access to a wide range of e-health services for all PwD: Austria, Denmark, Estonia, Finland, Germany, the Netherlands, Poland, Portugal and Sweden.

In countries where e-health services are available with variations or limitations, this is often because they are offered by certain HCPs or clinics rather than being accessible nationwide. In some cases, for example, these services are limited to private clinics and are not covered by the public healthcare system.

Chart 15. Availability of e-health services across Europe

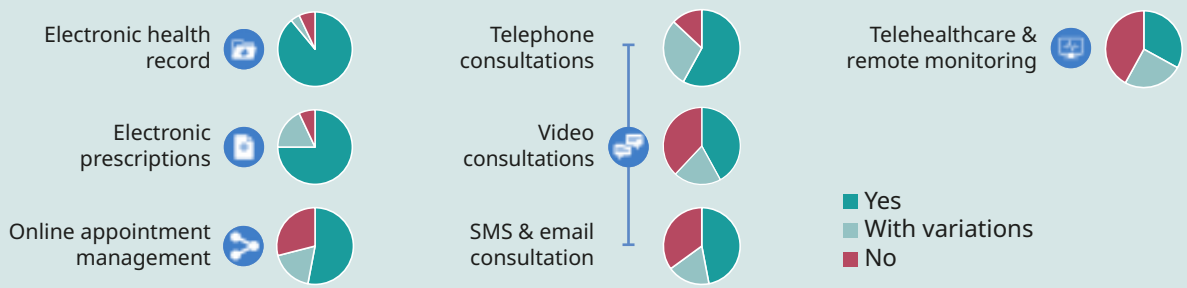


Table 16. Availability of e-health services across Europe, by country

Countries	Electronic health records	Electronic prescriptions	Online appointment management	Telephone consultations	Video consultations	SMS & email consultations	Telehealthcare & remote monitoring
EU countries							
Austria	●	●	●	●	●	●	●
Belgium	●	●	●	●	●	●	●
Bulgaria	●	●	●	●	●	●	●
Croatia	●	●	●	●	●	●	●
Cyprus	●	●	●	●	●	●	●
Denmark	●	●	●	●	●	●	●
Estonia	●	●	●	●	●	●	●
Finland	●	●	●	●	●	●	●
France	●	●	●	●	●	●	●
Germany	●	●	●	●	●	●	●
Greece	●	●	●	●	●	●	●
Hungary	●	●	●	●	●	●	●
Ireland	●	●	●	●	●	●	●
Italy	●	●	●	●	●	●	●
Latvia	●	●	●	●	●	●	●
Lithuania	●	●	●	●	●	●	●
Luxembourg	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●	●
Netherlands	●	●	●	●	●	●	●
Poland	●	●	●	●	●	●	●
Portugal	●	●	●	●	●	●	●
Romania	●	●	●	●	●	●	●
Slovakia	●	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●	●
Spain	●	●	●	●	●	●	●
Sweden	●	●	●	●	●	●	●
Other European countries							
Albania	●	●	●	●	●	●	●
Armenia	●	●	●	●	●	●	●
Azerbaijan	●	●	●	●	●	●	●
Belarus	●	●	●	●	●	●	●
Bosnia and Herzegovina	●	●	●	●	●	●	●
Faroe Islands	●	●	●	●	●	●	●
Georgia	●	●	●	●	●	●	●
Iceland	●	●	●	●	●	●	●
Kazakhstan	●	●	●	●	●	●	●
Kyrgyzstan	●	●	●	●	●	●	●
North Macedonia	●	●	●	●	●	●	●
Norway	●	●	●	●	●	●	●
Republic of Moldova	●	●	●	●	●	●	●
Serbia	●	●	●	●	●	●	●
Switzerland	●	●	●	●	●	●	●
Turkey	●	●	●	●	●	●	●
Ukraine	●	●	●	●	●	●	●
United Kingdom	●	●	●	●	●	●	●
Uzbekistan	●	●	●	●	●	●	●

● Yes ● With variations ● No

As someone living with diabetes, I understand the daily challenges of managing health and accessing essential services. Fortunately, advances in technology – such as mobile apps, AI and e-health services – make it easier to track medications, monitor blood glucose and manage appointments. These tools can empower us to take charge of our well-being by making health information more accessible and easier to manage. Meanwhile, AI can personalise treatment, providing tailored suggestions based on our unique needs and even predicting potential health issues before they arise. E-health solutions, like telemedicine and online consultations, have revolutionised interactions with HCPs. For many, attending physical appointments can be logistically and emotionally difficult. Telemedicine removes these barriers, enabling us to connect with HCPs from the comfort of our home and making the whole experience far less stressful. However, for these solutions to truly work for us, it is important that PwD are involved in their design and development. Our experiences, our struggles and our insights can help ensure these tools are user-friendly, practical and address our real needs.

– Mia Bajramagic, T1D Advocate from Croatia

Re-designing health systems to build resilience

- Strengthen primary care systems through appropriate investment, recruitment and training of multi-disciplinary teams.
- Develop person-centred, integrated and personalised care models across all levels and specialties.
- Improve HCP education to equip them with the knowledge and tools to apply the latest scientific evidence and guidelines in diabetes care.
- Empower HCPs to create a supportive and trusting environment, facilitating shared decision-making with PwD.
- Strengthen and expand the role of DSNs by providing specialised academic training and establishing pathways to grant them prescribing rights.
- Advance the digitalisation of healthcare systems, and foster the adoption of innovation.
- Leverage data and AI to support prevention, decision-making and more personalised care.

Conclusions

Much has been achieved since the discovery of insulin. As is shown in this publication though, **only a few countries are succeeding in addressing diabetes prevention and care effectively across a wide range of areas,** and the country-level analyses also highlight the disparities across Europe. Additionally, **there remain significant gaps between what we know works and what outcomes show,** even when all conditions appear to be met to drive meaningful changes in diabetes prevention and care.

The areas where we are still falling short and which we need to focus on to improve the lives of PwD and those at risk are clear. Besides delivering healthier living environments, transformative action is required to ensure that our healthcare systems are equipped to deliver high-quality, integrated and person-centred care through higher investment in, and reorganisation of, primary care systems, the adoption of innovative tools and practices, the digitalisation of healthcare and enhanced use of data, improved HCP education, the empowerment of PwD and the timely and uninterrupted provision of the necessary medicines, technologies and supplies. Added to which, we need to do so without leaving anybody behind.

The new European Union mandate, combined with a global focus on NCDs through the UN High-Level Meeting on NCDs in late 2025, presents a **unique opportunity to accelerate action on diabetes.** We must maintain the momentum generated by the European Parliament Resolution on Diabetes in 2022 and the IDF Europe-WHO Europe Declaration in 2023 to push for the required changes. And we must do this together, with all diabetes stakeholders working as one community. Together, we can unlock the full potential of the knowledge we have acquired and the innovations we have developed over the past 100 years and continue advocating for new innovations to meet PwD's unmet needs, while ensuring that these solutions are accessible to everyone, without discrimination.

Together, united, let's work towards a better future for all those living with diabetes and those at risk.

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Appendix:

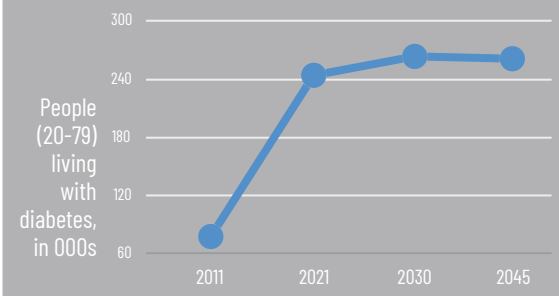
Country Profiles

List of countries

AN OVERVIEW OF DIABETES CARE

Country:
Albania

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (95,400 people)

Children & adolescents with T1D (0-19y)
493

Diabetes prevalence
11.5%

Diabetes-related deaths 4,248

Total expenditure €568 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

*According to national estimates, in 2019, the number of PwD in Albania stood at 237,600, of which 150,400 undiagnosed (63.2%), and the diabetes expenditure per person amounted to €1,823.9.

In Albania, all types of insulin are fully reimbursed for people living with diabetes (PwD). While insulin pens are always reimbursed for all PwD, blood glucose meters and test strips are reimbursed for some PwD in limited quantities depending on their age group and treatment. Newer technologies such as insulin pumps and continuous glucose monitors (CGMs) are not available. The Albanian Diabetes Association (ADA) is actively advocating for CGMs to be made available and reimbursed for PwD.

There is currently no national diabetes plan nor register for PwD. However, in recent years, the ADA and the Endocrinology & Metabolic Diseases Department at the University Hospital Centre "Mother Theresa", in Tirana, conducted two nationwide surveys with approximately 6,500 and 2,000 PwD respectively. The survey results indicated overall improvements in metabolic control among PwD, alongside an increase in the prevalence of diabetes-related complications. Subsequently, the ADA has compiled a database comprising 4,500 PwD from across the country and is initiating a follow-up programme, including the introduction of a "Diabetes Passport" for all PwD.

Despite all PwD being entitled to eye screening, only 30-40% of them undergo regular examinations due to a shortage of ophthalmologists in certain regions. Screening for chronic kidney disease is also available but lacks clear guidelines and effectiveness. Diabetes foot is one of the most significant diabetes-related complications in Albania due to the absence of prevention programmes and of a strategy to identify and monitor PwD at risk.

Structured diabetes education is currently only available in one Endocrinology Department in the capital. The ADA provides group education sessions for PwD as well as several training programmes for HCPs across the country. However, there remains a pressing need for structured diabetes education programmes in all regions.

There is no special academic training for diabetes specialist nurses and the frequent rotation of nurses across health services makes it challenging for them to specialise in diabetes care during their practice. Moreover, there is a lack of dietitians within the public health system, with only one available at the "Mother Theresa" University Hospital in Tirana.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National and international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Insulin pens
- Blood glucose meters

Free of charge for some PwD

- Test strips (1)

Not reimbursed

- Syringes & Needles
- Connected smart pens
- Insulin pumps
- Automated delivery systems
- rtCGMs*
- isCGMs**

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

(1) The number of reimbursed test strips varies by age group and treatment:

- PwD <18 y/o: four test strips/day
- PwD >65 y/o on insulin therapy: two test strips/day
- PwD >65 y/o on oral medications: one test strip/day

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

Not reimbursed

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed (with some restrictions)	Not reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

Fully reimbursed

PCSK9 inhs

Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	■
Telephone consultations	■	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

●

WORKING DIABETES REGISTER?

For children <8 y/o

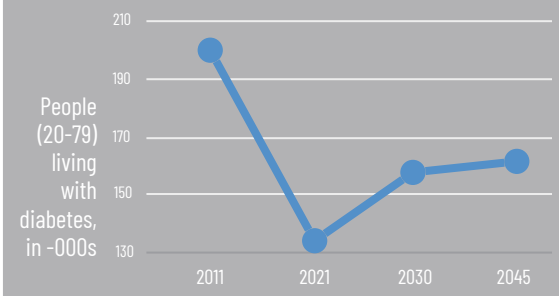
idfeurope@idf-europe.org www.idf-europe.org www.diabeti-albania.org

May 2024

AN OVERVIEW OF DIABETES CARE

country:
Armenia

DIABETES PREVALENCE



Of which, undiagnosed
39.6%

Children & adolescents with T1D (0-19y)
498

Diabetes prevalence
6.4%

Diabetes-related deaths 2,392

Total expenditure €987 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, there were 114,904 adults and 732 children/adolescents living with diabetes in 2022, and spending on endocrine and metabolic diseases accounted for 3% of the total health expenditure (2.3 billion AMD).

In Armenia, short- and intermediate-acting insulin are available free of charge for all people living with diabetes (PwD). Other types of insulin, as well as syringes, needles, insulin pens, test strips, blood glucose meters, and continuous glucose monitors (CGMs), are generally available and free of charge for children. However, newer technologies such as insulin pumps and automated delivery systems are not often accessible nor reimbursed.

Outpatient care costs for adults living with diabetes are partially or fully reimbursed according to the country's Basic Benefit Package. This package is based on targeted state health programmes that are prepared and approved annually by the National Assembly.

New guidelines are set to be introduced in the country's national diabetes programme to improve screening for diabetes-related complications, with a particular focus on diabetes polyneuropathy, kidney diseases and diabetic foot.

While there are established healthy living policies in place addressing smoking, there are no specific policies on healthy diets and physical activity. To promote the importance of healthy lifestyles, recommendations from experts are available for consultation on the Ministry of Health's website.

Self-management education is provided at the time of diagnosis and throughout the life course for most PwD, particularly for children and their families. Currently, there are four dedicated schools for diabetes self-management across the country.

Although most e-health services are available in Armenia, they are not widely adopted.

A diabetes registry has been developed and will soon start to be implemented across the country.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN?
Stand-alone
Fully implemented

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For chilen only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for children

- Syringes & Needles
- Insulin pens
- Connected/smart pens
- Test strips
- Blood glucose meters
- isCGMs**
- rtCGMs*

Not reimbursed

- Insulin pumps
- Automated delivery systems

ARE SUPPLIES/TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Not reimbursed	Not reimbursed	Not reimbursed		

CARDIOVASCULAR MEDICINES

Calcium channel blockers | Beta blockers | ACE inhibitors | Thiazide diuretics | Statins | Ezetimibe | PCSK9 inhs

Fully or partially reimbursed for people with disability status

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Most e-Health services are available but only used when absolutely necessary

Online appointment management*

Telephone consultations*

Electronic prescriptions*

Video consultations*

SMS & EMAIL consultations*

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

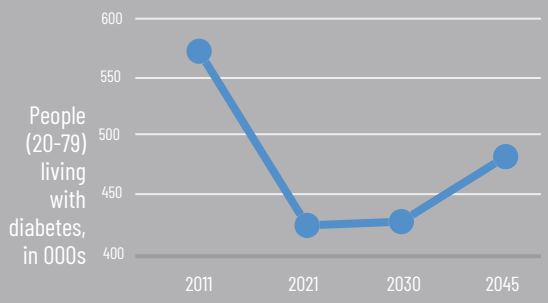
Under development

AN OVERVIEW OF DIABETES CARE

country:

Austria

DIABETES PREVALENCE



Of which, undiagnosed
25% (149,800 people)

Children & adolescents with T1D (0-19y)
3,592

Diabetes prevalence
6.6%

Diabetes-related deaths 12,021

Total expenditure €5.527 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, diabetes prevalence in 2020 stood at 6.55% and the percentage of undiagnosed PwD at 2.5%

In Austria, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available and fully reimbursed for people living with diabetes (PwD). Other diabetes and cardiovascular medicines are also available at no cost.

Healthy living policies are in place with the exception of regulations targeting healthy diets. Screening for all diabetes-related complications is available everywhere in Austria, but screening for kidney diseases is reimbursed only in some federal states.

Diabetes education is provided at the time of diagnosis and throughout the life course. While psychological support is available, it may be hard to access at times and its cost not always fully reimbursed.

Diabetes specialist nurses are required to follow special academic training. They play a role in diabetes prevention and in the management of people living with all types of diabetes, but they are not allowed to prescribe medications.

The use of e-health is widespread and available at the same conditions as "traditional" systems. Austria has electronic health records as well as a diabetes register for children living with diabetes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN?
Partly integrated
Fully implemented

PREVENTION & MANAGEMENT GUIDELINES
National & international guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	YES

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes and needles
- Connected/smart pens
- Insulin pens
- Test strips
- Blood glucose meters

Free of charge for T1D

- Insulin pumps
- Automated delivery systems
- isCGMs*
- rtCGMs**

ARE SUPPLIES & TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*Intermittently scanned continuous glucose monitors.

**Real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? Always MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

Partially reimbursed

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Repaglinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Children and adults with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

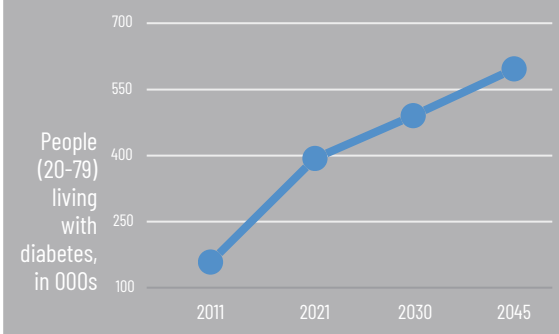
WORKING DIABETES REGISTER?

Yes, for PwD under 18 y/o

AN OVERVIEW OF DIABETES CARE

Country:
Azerbaijan

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (157,200 people)

Children & adolescents with T1D (0-19y)
1,908

Diabetes prevalence
5.6%

Diabetes-related deaths 788

Total expenditure
€405.5 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Azerbaijan, all types of insulin, except for ultra-rapid-acting analogs, are available free of charge for people living with diabetes (PwD). While Metformin and Sulfonylureas are also available and reimbursed for adults living with diabetes, other diabetes and CVD medicines are available but not reimbursed.

Some devices and supplies for blood glucose monitoring and insulin administration are available but their reimbursement varies depending on age. Insulin pumps are available for 300 children living with diabetes in the country, meaning fewer than 20% of children are covered. PwD can obtain continuous glucose monitors (CGMs) by ordering them from abroad. However, this is not a standardised practice. National diabetes associations are currently advocating for CGMs to be readily provided and reimbursed for PwD and children in particular.

A national law on diabetes was introduced in 2004 and the implementation of a diabetes plan followed in 2006. Since then, the plan is reviewed and updated every five years.

Health living policies targeting obesity, healthy food, physical activity and smoking are in place, but they need revision as they lack effectiveness. Screening for diabetes-related complications is conducted as part of secondary prevention campaigns which are, however, not regularly implemented.

The country has electronic health records and most e-health services are also available but their adoption and cost depend on clinics and/or physicians. A diabetes register is currently under development.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN?
Partly implemented
Fully integrated

PREVENTION & MANAGEMENT GUIDELINES
National & international guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	●
Rapid-acting (analogs)	●
Ultra-rapid-acting analogs	●
Intermediate acting	●
Long-acting	●

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for children	Not reimbursed
Insulin pens	Syringes & Needles	Connected smart pens
Blood glucose meters	Insulin pumps (1)	Automated delivery systems
Test strips		isCGMs** (2)
		rtCGMs** (2)

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

(1) Insulin pumps are available for 300 children living with diabetes in the country.

(2) PwD can obtain CGMs by ordering them from abroad. However, this is not a standardised practice. National diabetes associations are currently advocating for CGMs to be readily provided and reimbursed for PwD and children in particular.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Not reimbursed

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs*
Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES?* YES SOMETIMES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS?* YES NO

*Availability and cost depend on the clinic and/or physician

Online appointment management

Telephone consultations

Electronic prescriptions

Video consultations

SMS & EMAIL consultations

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

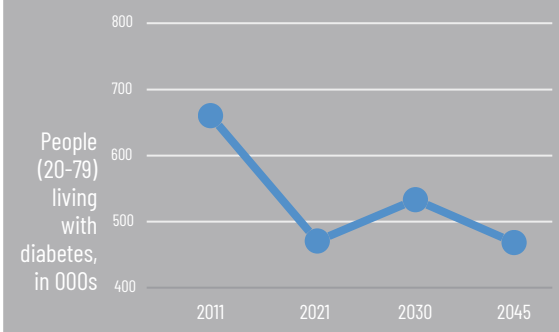
WORKING DIABETES REGISTER?

Under development

AN OVERVIEW OF DIABETES CARE

Country:
Belarus

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (191,100 people)

Children & adolescents with T1D (0-19y)
1,062

Diabetes prevalence
6.9%

Diabetes-related deaths 11,241.6

Total expenditure €860.3 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Belarus, all types of insulin, except for ultra-rapid-acting analogs, are available free of charge for children living with diabetes. Additionally, adults living with diabetes have access free of charge to short-acting regular and long-acting insulin.

While syringes, needles, insulin pens, blood glucose meters and test strips are free of charge for all people living with diabetes (PwD), real-time continuous glucose monitors (rtCGMs) and insulin pumps are only reimbursed for people living with Type 1 diabetes (T1D) and children, respectively.

Healthy living policies are in place, with the exception of regulations for healthy diets.

Diabetes education is provided at the time of diagnosis and throughout the life course by the national health systems and it is complemented by trainings offered by national diabetes associations. Psychological support is available for PwD at a cost.

There is no special academic training for specialist diabetes nurses (DSNs) and they tend to specialise during their practice. Nurses play a role in diabetes prevention and in the management of all types of diabetes but they are not allowed to prescribe medicines.

Belarus has a diabetes register for all PwD who are treated at outpatient clinics as well as electronic health records and some e-health services such as online appointment management and electronic prescriptions.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN?
Partly implemented
Partly integrated

PREVENTION & MANAGEMENT GUIDELINES
International guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

idfeurope@idf-europe.org www.idf-europe.org Belarussian Society of Endocrinologists June 2024

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin		
Rapid-acting (analogs)		
Ultra-rapid-acting analogs		
Intermediate-acting		
Long-acting		

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	
Rapid-acting (analogs)	
Ultra-rapid-acting analogs	
Intermediate-acting	
Long-acting	

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D	Free of charge for children	Not reimbursed
Syringes & Needles	rtCGMs*	Insulin pumps	Connected smart pens
Insulin pens			Automated delivery systems
Blood glucose meters			isCGMs**
Test strips			

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Not reimbursed

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Not reimbursed	Not reimbursed	Not reimbursed		

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed		

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management		Video consultations	
Telephone consultations		SMS & EMAIL consultations	
Electronic prescriptions		Telehealthcare & Remote monitoring	

ELECTRONIC HEALTH RECORDS?

YES NO

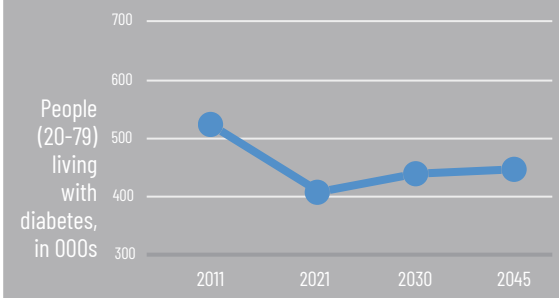
WORKING DIABETES REGISTER?

Yes, for all PwD

AN OVERVIEW OF DIABETES CARE

country:
Belgium

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (135,600 people)

Children & adolescents with T1D (0-19y)
4,330

Diabetes prevalence
4.9%

Diabetes-related deaths 10,714

Total expenditure
€5407.7 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, in 2022, diabetes prevalence in Belgium stood at 7.1%, with approximately 810,000 PwD.

In Belgium, there are three separate care pathways for people living with diabetes (PwD). Those living with Type 1 Diabetes (T1D) and Type 2 Diabetes (T2D) on more than three daily insulin injections are eligible to join the "Diabetes Convention" care pathway through which they have access to all types of insulin and most related supplies and technologies free of charge. PwD under the "Diabetes Convention" are treated in specialised centres and they can receive psychological support free of charge. People living with T2D who are treated with injectable diabetes medications and a maximum of two daily insulin injections, are part of the "Trajectory" diabetes care pathway and they have access, free of charge, to the medicines and supplies they require for their therapy, and to some technologies as a co-payment. People living with T2D who are not on injectable therapies are treated in primary care settings with oral medications and lifestyle interventions under the "Start-up" diabetes care pathway, and are not provided with blood monitoring tools. PwD are entitled to a fixed number of hours of diabetes education per year depending on their care pathway.

There are limited healthy living policies in place in the country, targeting obesity, healthy diets, physical activity and smoking.

Screening for all diabetes-related complications is well-structured for people in the convention and trajectory groups but remains suboptimal for the others.

In Belgium, the use of electronic health records became mandatory in 2021. However, there is no unified system to combine the information collected by different healthcare facilities and healthcare professionals. Patient associations and the government have started a dialogue on the implementation of a system in which patients would be able manage their own health records.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Under development

PREVENTION & MANAGEMENT GUIDELINES — National & international guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?

- For all PwD
- For T1D and T2D on multiple daily injections or insulin pump therapy

Short-acting regular insulin	●
Rapid-acting (analogs)	●
Ultra-rapid-acting analogs	●
Intermediate acting	●
Long-acting	●

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D	Not reimbursed
Syringes	Insulin pumps	Needles
Insulin pens	Automated delivery systems	
Connected/smart pens	isCGMs* (2)	
Blood glucose meters (1)	rtCGMs** (2)	
Test strips (1)		

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Except for T2D on oral medication

(2) Free of charge for T2D on multiple insulin injections since July 2023

*Intermittently scanned continuous glucose monitors.

**Real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available free of charge for PwD under the Diabetes Convention.

Available at a cost for other PwD.

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

Partially reimbursed

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin — Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Partially to fully reimbursed	Partially to fully reimbursed	Partially to fully reimbursed	Partially to fully reimbursed	Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Co-payment	Co-payment	Co-payment	Co-payment	Co-payment	Co-payment	Co-payment and only for genetic hypercholesterolemia

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators? *(hard to access)*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician
**Available for follow ups and not for diagnostics

Online appointment management*	▲	Video consultations	▲
Telephone consultations**	▲	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring**	▲

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

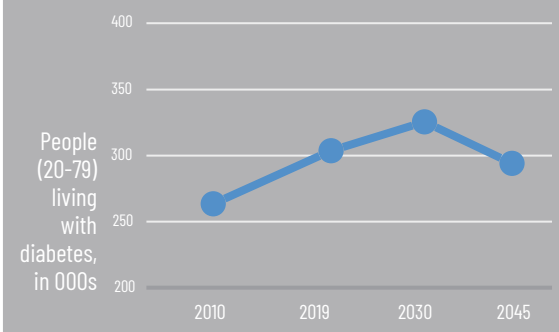
Yes, for T1D

AN OVERVIEW OF DIABETES CARE

country:

Bosnia and Herzegovina

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (121,100 people)

Children & adolescents with T1D (0-19y)
497

Diabetes prevalence
12.2%

Diabetes-related deaths 5,113

Total expenditure
€945.8 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Bosnia and Herzegovina, diabetes care is mostly provided at the secondary and tertiary care levels, with the exception of main cities such as Sarajevo, Banja Luka, Tuzla, Zenica and Mostar, where it is also provided at the primary care level. Due to this structure and the current shortage of endocrinologists and diabetologists, some people living with diabetes (PwD), and in particular those living in rural areas, face obstacles in accessing diabetes care.

All types of insulin as well as most devices and technologies for blood glucose monitoring and insulin administration are available. However, reimbursement for diabetes medicines varies across the country. In the Republika Srpska (RS), the Ministry of Health and Social Welfare and the RS Health Insurance Fund oversee reimbursement decisions for medicines. In the rest of the country, the Ministry of Health of the Federation of Bosnia and Herzegovina is responsible for updating the Federal Medicines List, but the responsibility for implementing decisions, such as the inclusion of medicines in the Cantonal List, lies with the Cantonal Ministries of Health and the Cantonal Insurance Funds. This process often results in delays in the reimbursement of medicines and generates differences in access to medicines across the country.

The complexity of the country's health systems, which numbers 14 ministries with competences on health and 13 health insurance funds, also represents a barrier to the development of a diabetes register. Nevertheless, data on the diabetes population is collected by epidemiology institutes and research centres.

Diabetes specialist nurses play a role in diabetes prevention and management. They are however, not able to prescribe medicines and their education is not uniform across the country.

In 2012, the Parliament of the Federation of Bosnia and Herzegovina adopted a Resolution on Diabetes, mandating the development of a Federal Diabetes Strategy by 2024. A national diabetes plan is currently under development and set to be partly integrated in a broader NCD plan, while a diabetes strategy is already in place in the Republika Srpska.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?

Yes, but it varies across the country

NATIONAL PLAN? Under development Partly integrated

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes and needles
- Insulin pens

Free of charge for T1D

- Connected/smart pens
- Blood glucose meters
- Test strips
- isCGMs*
- rtCGMs**

Free of charge for children

- Insulin pumps
- Automated delivery systems

ARE SUPPLIES & TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed, but hard to access

idfeurope@idf-europe.org
www.idf-europe.org www.endo.ba February 2024

AVAILABLE AT THE POINT OF DELIVERY? Always | MOST OF THE TIME | SOMETIMES | NOT OFTEN | NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	reimbursement varies across the country		Fully reimbursed	Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Partially reimbursed	Partially reimbursed

HEALTH SYSTEMS

YES | NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Children and adults with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH*?

*e-health is not yet legally regulated

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES | NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES | NO

- Online appointment management
- Telephone consultations
- Electronic prescriptions
- Video consultations
- SMS & EMAIL consultations
- Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES | NO

WORKING DIABETES REGISTER?

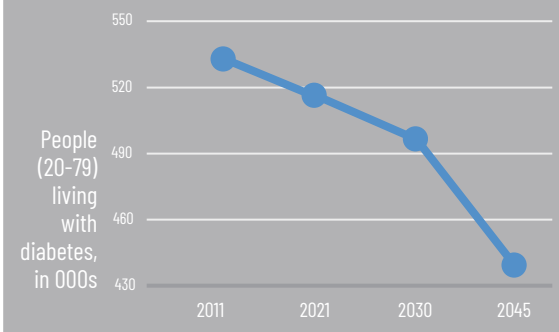
No

AN OVERVIEW OF DIABETES CARE

country:

Bulgaria

DIABETES PREVALENCE



Of which, undiagnosed
25.8% (134,000 people)

Children & adolescents with T1D (0-19y)
1,129

Diabetes prevalence
9.9%

Diabetes-related deaths 10,520.5

Total expenditure €1,590.7 (per person)

In Bulgaria, insulin is available free of charge or subject to a small co-payment for people living with diabetes (PwD). Most diabetes medicines are also available free of charge or are partially reimbursed. PwD have access to insulin pens and blood glucose meters free of charge and, since recently, syringes and needles are also reimbursed. Test strips are available for children and adults living with T1D as well as for people living with T2D on insulin therapy. Insulin pumps are available for people living with T1D.

Occasionally, and especially in the past six months (November 2022-April 2023), the country has experienced insulin shortages due to its irregular delivery to pharmacies.

Healthy living policies are in place targeting obesity, healthy diets, physical activity and smoking. Screening for the prevention of complications is available and reimbursed for all PwD. However, PwD are not automatically invited to undergo regular screening, and they often have to request it themselves.

Diabetes education is provided through the health system to all PwD at the time of diagnosis. There is no structured education programme to follow PwD throughout the life course, although national diabetes associations implement various educational initiatives on a voluntary basis.

In Bulgaria, there is a shortage of diabetes nurses. Available diabetres nurses tend to specialise during their practice as there is no special academic training, and they are involved in the prevention and management of T1D and T2D.

Except for electronic health records and prescriptions, the use of e-health is not widespread in the country.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? No

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D and children	Free of charge for some T1D (2)	Not reimbursed
Syringes & needles	Insulin pumps	rtCGMs**	Connected/smart pens
Insulin pens		isCGMs*	Automated delivery systems
Blood glucose meters			
Test strips (1)			

*intermittently scanned continuous glucose monitors.
**real-time continuous glucose monitors.

(1) For T2D, only for people on insulin treatment

(2) Free of charge for T1D meeting specific criteria (e.g. > 4 daily insulin injections)

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Not reimubrsed

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Partially reimubrsed	Free of charge	Partially reimubrsed	Partially reimubrsed	Free of charge

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Partially reimubrsed	Partially reimubrsed	Partially reimubrsed	Partially reimubrsed	Partially reimubrsed	Partially reimubrsed	Partially reimubrsed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults with T1D*
- *Children with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	■	Video consultations	■
Telephone consultations	■	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

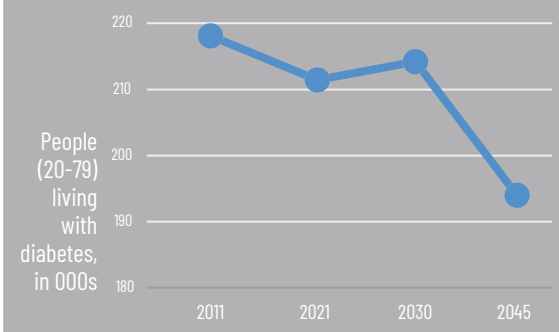
WORKING DIABETES REGISTER?

Under development

AN OVERVIEW OF DIABETES CARE

Country:
Croatia

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (71,300 people)

Children & adolescents with T1D (0-19y)
1,278

Diabetes prevalence
6.9%

Diabetes-related deaths 6,218

Total expenditure
€1006 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Croatia, all types of insulin are available and fully reimbursed for people living with diabetes (PwD). Many other diabetes medicines are available but not reimbursed. Devices and technologies for blood glucose monitoring and insulin administration are available and fully reimbursed for all PwD who need them, except for insulin pumps, real-time continuous glucose monitors and automated delivery systems which are only reimbursed for people living with type 1 diabetes (T1D).

Healthy living policies are in place, including regulations targeting healthy diets. Except for diabetes foot, screening for all diabetes-related complications is available everywhere in Croatia.

Diabetes education is provided at the time of diagnosis and throughout the life course. National diabetes associations are currently working on a peer support programme to be integrated as part of the education provided. Psychological support is available and fully reimbursed but hard to access.

Diabetes specialist nurses are required to follow special academic training. They play a role in the management of people living with all types of diabetes, but they are not allowed to prescribe medications.

A national diabetes register was established in 2000 and its use has been mandatory for all primary and secondary care practices since 2004.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Stand alone Fully implemented

PREVENTION & MANAGEMENT GUIDELINES — International guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- ● Short-acting regular insulin
- ● Rapid-acting (analogs)
- ● Ultra-rapid-acting analogs
- ● Intermediate acting
- ● Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	YES

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles (1)
- Insulin pens
- Blood glucose meters
- Test strips (1)
- isCGMs**
- Connected smart pens

Free of charge for T1D

- Insulin pumps
- Automated delivery systems
- rtCGMs*

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Reimbursed in limited amounts

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed, but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	■	Video consultations	■
Telephone consultations	■	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

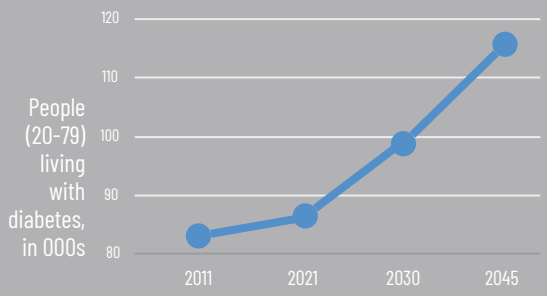
WORKING DIABETES REGISTER?

Yes, for all PwD

AN OVERVIEW OF DIABETES CARE

country:
Cyprus

DIABETES PREVALENCE



Of which, undiagnosed
36.6% (32,000 people)

Children & adolescents with T1D (0-19y)
390

Diabetes prevalence
9.7%

Diabetes-related deaths 1,101

Total expenditure €2161 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According national estimates, in 2023, the number of adults living with diabetes (20-79 y/o) stood at 52,067 and the number of children and adolescents with T1D was 377.

In Cyprus, all types of insulin and other diabetes medicines are available with the exception of Meglitinide and Alpha Glucosidase Inhibitors. They are generally free of charge or subject to a very small co-payment on the part of people living with diabetes (PwD).

Syringes, needles, insulin pens, test strips and blood glucose meters are fully reimbursed for all PwD, while insulin pumps and real-time continuous glucose monitors (rtCGMs) are only reimbursed for people living with Type 1 Diabetes (T1D).

Cyprus has a diabetes register which is, however, incomplete due to strict privacy and data protection frameworks as well as the fact that the participation of private providers is not mandatory.

Some healthy living policies regarding, for example, tobacco consumption, are in place but they lack effectiveness.

Diabetes education is provided primarily at the time of diagnosis. There is no structured diabetes education programme to follow PwD, their carers and families throughout the life course.

There is a special academic training for specialist diabetes nurses, who play a role in prevention of diabetes as well as in the management of all people living with the condition. However, they cannot prescribe diabetes medicines.

E-health is limited to the use of electronic health records and prescriptions and, sometimes, telephone consultations.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis*
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?

Yes, but it varies across the country

NATIONAL PLAN? Partly integrated and partly implemented

PREVENTION & MANAGEMENT GUIDELINES International guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D	Not reimbursed
Syringes & needles	Insulin pumps	Connected/smart pens
Insulin pens	rtCGMs*	Automated delivery systems
Test strips		isCGMs**
Blood glucose meters		

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Small co-payment	Small co-payment	Small co-payment	Not prescribed	Not prescribed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Small co-payment	Small co-payment	Small co-payment	Small co-payment	Small co-payment	Small co-payment	Small co-payment

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

*Sometimes available

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	■	Video consultations	■
Telephone consultations*	▲	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

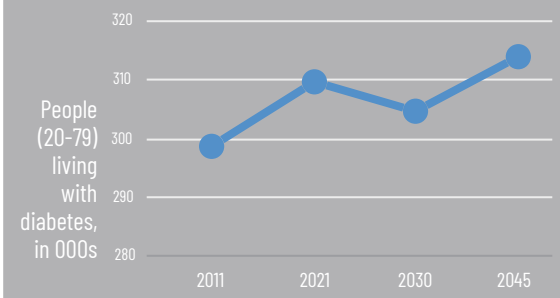
WORKING DIABETES REGISTER?

Incomplete and under development

AN OVERVIEW OF DIABETES CARE

Country:
Denmark

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (103,600 people)

Children & adolescents with T1D (0-19y)
3,103

Diabetes prevalence
7.3%

Diabetes-related deaths 7,010

Total expenditure €6594 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, in 2030, diabetes prevalence is expected to stand at 9.7%, with 430,000 PwD, of which 120,000 undiagnosed and 37,000 children and adolescents with T1D.

In Denmark, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for free for people living with diabetes (PwD) meeting the national guidelines. Since 2016, an annual co-payment has been introduced for reimbursable prescription medicines, amounting to EUR 600 in 2023.

Real-time and intermittently scanned continuous glucose monitors (CGMs), insulin pumps, automated delivery systems and connected smart pens are available for people living with Type 1 Diabetes (T1D). Intermittently scanned CGMs are set to be also reimbursed for people living with Type 2 Diabetes (T2D) starting from 2025.

Healthy living policies are in place, including regulations targeting healthy diets. Screening for all diabetes-related complications is available everywhere in the country. While there is no structured programme to follow people with gestational diabetes after the birth of the baby, they are advised to contact their general practitioner three months postpartum to be tested for T2D.

Diabetes education is provided at the time of diagnosis and throughout the life course. In some regions, peer support is integrated in the education provided.

Diabetes specialist nurses are required to follow a special academic training and they play a role in diabetes prevention and management. They are, however, not able to prescribe medicines.

Denmark has electronic health records and a national diabetes register for all PwD.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs*	●	●
Intermediate acting	●	●
Long-acting	●	●

*Not always prescribed due to high cost

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	●
Rapid-acting (analogs)	●
Ultra-rapid-acting analogs	●
Intermediate acting	●
Long-acting	●

*Free of charge after people have contributed DKK 4,100 (EUR 600) per year to the cost of their prescription medications

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens

Free of charge for all T1D and T2D on insulin treatment

- Blood glucose meters
- Test strips
- isCGMs** (1)

Free of charge for T1D

- Connected smart pens
- rtCGMs*
- Insulin pumps (2)
- Automated delivery systems (2)

(1) isCGMs reimbursement for people living with T2D on insulin treatment will start in 2025.

(2) Insulin pumps and automated delivery systems are free of charge for people living with T1D when available and if specific conditions are fulfilled. They are not accessible through out-of-pocket expenses.

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed but hard to access

idfeurope@idf-europe.org www.idf-europe.org www.diabetes.dk

March 2024

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Free of charge after people have contributed DKK 4,100 (EUR 600) per year to the cost of their prescription medications

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

Free of charge after people have contributed DKK 4,100 (EUR 600) per year to the cost of their prescription medications

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?*
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

Yes, for all PwD

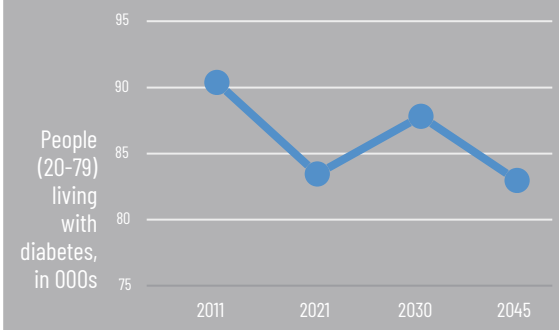
idfeurope@idf-europe.org www.idf-europe.org www.diabetes.dk

March 2024

AN OVERVIEW OF DIABETES CARE

Country: **Estonia**

DIABETES PREVALENCE



Of which, undiagnosed
48.7% (40,900 people)

Children & adolescents with T1D (0-19y)
473

Diabetes prevalence
8.7%

Diabetes-related deaths 174

Total expenditure
€1535.4 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Estonia, all types of insulin, except for intermediate-acting insulins, are available and fully reimbursed for all people living with diabetes (PwD). Supplies and technologies for blood glucose monitoring and insulin administration, such as syringes, needles, insulin pens, blood glucose meters and test strips are available and fully reimbursed for all PwD. Newer technologies such as insulin pumps, real-time continuous glucose monitors (rtCGMs) and automated insulin delivery systems are available and fully or partially reimbursed for some PwD, depending on their age and/or type of diabetes.

Currently, there is no national diabetes plan or register for PwD. Healthy living policies targeting obesity, overweight, healthy food, physical activity and smoking are in place, except for regulations on healthy diets. Screening for all diabetes-related complications and a programme to follow people with gestational diabetes after the birth of their baby are available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course. Psychological support is available but is not reimbursed and can be hard to access.

Diabetes specialist nurses (DSNs) are required to follow a special academic training and they play a role in the management of people living with all types of diabetes. DSNs who work with general practitioners and have completed a 120-hour clinical pharmacology training approved by the National Agency of Medicines are allowed to prescribe diabetes medicines.

The use of e-health is widespread and available at the same conditions as "traditional" systems.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin		
Rapid-acting (analogs)		
Ultra-rapid-acting analogs		
Intermediate-acting		
Long-acting		

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Connected smart pens
- Blood glucose meters
- Test strips

Free of charge for some PwD

- Insulin pumps (1)
- Automated delivery systems (2)
- rtCGMs* (3)

Not reimbursed

- isCGMs**

(1) Insulin pumps: 90% reimbursed for PwD <26 y/o
(2) Automated delivery systems: fully reimbursed for PwD <18 y/o
(3) rtCGMs: fully reimbursed for people living with T1D

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin — Sulfonylureas

Not reimbursed

75-90% reimbursed

OTHER DIABETES MEDICINES

DPP4 inhibitor — GLP1 analogue — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

75-90% reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs*

75/90% reimbursement

*Eligible for reimbursement upon prescription by a cardiologist

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?*

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

*DSNs working with a GP who have completed a 120-hour clinical pharmacology training are allowed to prescribe medicines.

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	▲
Telephone consultations	▲	SMS & EMAIL consultations	▲
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	▲

ELECTRONIC HEALTH RECORDS?

YES NO

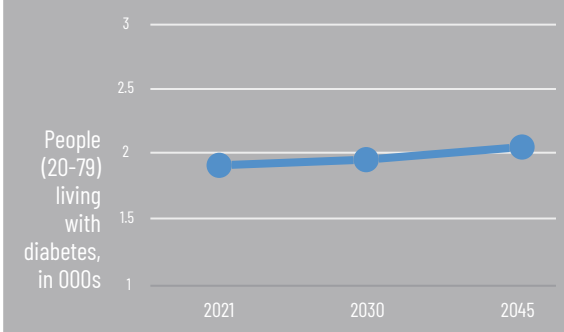
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

Country:
Faroe Islands

DIABETES PREVALENCE



Diabetes prevalence

5.1%

Of which, undiagnosed

31.4% (600 people)

Children & adolescents with T1D (0-19y)

26

Source: IDF Diabetes Atlas 10th edition 2021

In the Faroe Islands, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for free for all children living with diabetes. Adults living with diabetes are required to contribute approximately €500 per year to the cost of their prescription medicines and devices before gaining access to them free of charge.

There is no national strategy for diabetes prevention. However, the Faroese Diabetes Association collaborates closely with the Ministry of Health, which demonstrates a willingness to enhance efforts on the prevention of diabetes and other non-communicable diseases (NCDs).

Healthy living policies and recommendations targeting healthy food, smoking and regulations for healthy diets are in place. Screening for all diabetes-related complications is available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course for people living with Type 1 diabetes (T1D) in specialist diabetes clinics. For people living with Type 2 diabetes (T2D), education is provided by general practitioners and diabetes nurses. However, diabetes nurses are not available at all primary care practices and people living with T2D do not always have access to education as recommended.

Diabetes specialist nurses are required to follow a special academic training and they play a role in diabetes prevention and management. They are, however, not able to prescribe medicines.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?

Yes, everywhere in the country

NATIONAL PLAN? — Stand alone / Partly implemented

PREVENTION & MANAGEMENT GUIDELINES — No

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate-acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

*Free of charge for adults after they have contributed approximately €500 per year to the cost of their prescriptions

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D
Syringes & Needles	rtCGMs*
Insulin pens	isCGMs**
Blood glucose meters	Insulin pumps
Test strips	Automated delivery systems
Connected smart pens	

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

Supplies and technologies for blood glucose monitoring and insulin delivery are free of charge for adults after they have contributed approximately €500 per year to the cost of their prescriptions

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Not reimbursed

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin — Sulfonylureas

OTHER DIABETES MEDICINES

GLP1 analogue — DPP4 inhibitor — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

Free of charge for adults after they have contributed approximately €500 per year to the cost of their prescriptions

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs

Free of charge for adults after they have contributed approximately €500 per year to the cost of their prescriptions

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	■	Video consultations	■
Telephone consultations	▲	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

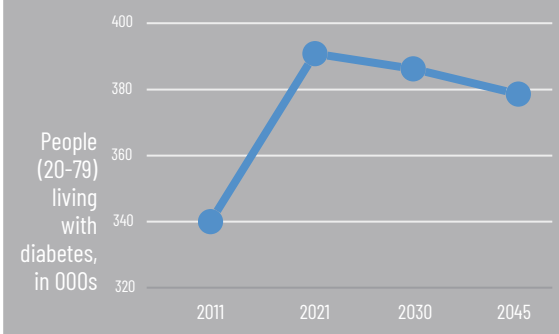
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

Country:
Finland

DIABETES PREVALENCE



Of which, undiagnosed
18.8% (73,700 people)

Children & adolescents with T1D (0-19y)
5,410

Diabetes prevalence
9.7%

Diabetes-related deaths 9,338

Total expenditure €4635.6 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Finland, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available. All adults are required to contribute an annual initial deductible of €50 for their prescription medicines. After meeting this deductible, medicines are reimbursed at varying rates (40-60-100%). In 2024, the annual maximum limit on out-of-pocket costs is set at €626.94, after which individuals will pay a €2.50 co-payment for each reimbursable medicine for the rest of the year. Diabetes care and prescriptions are free of charge for children and adolescents under the age of 18.

Healthy living policies are in place including regulations for healthy diets. Screening for all diabetes-related complications and a programme to follow people with gestational diabetes after the birth of their baby are available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course. Psychological support is available and fully reimbursed.

Diabetes specialist nurses are required to follow a special academic training and they play a role in diabetes prevention and management. However, only some of them are able to prescribe medicines after completing additional training.

A diabetes register is in use collecting information on people living with all types of diabetes. The use of e-health services, including electronic prescriptions and health records is widespread in the country.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? Fully integrated Fully implemented

PREVENTION & MANAGEMENT GUIDELINES National and international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

*€50 initial annual deductible and €2.50 co-payment after people have contributed with a maximum of €626.94 per year to the cost of their prescription medications

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Connected smart pens
- Blood glucose meters
- Test strips

Free of charge for T1D

- Insulin pumps
- Automated delivery systems
- rtCGMs*
- isCGMs**

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed

idfeurope@idf-europe.org www.idf-europe.org www.diabetes.fi

April 2024

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

*€50 initial annual deductible and €2.50 co-payment after people have contributed with a maximum of €626.94 per year to the cost of their prescription medications

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

*€50 initial annual deductible and €2.50 co-payment after people have contributed with a maximum of €626.94 per year to the cost of their prescription medications

HEALTH SYSTEMS

YES IN SOME CASES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

For all types of diabetes

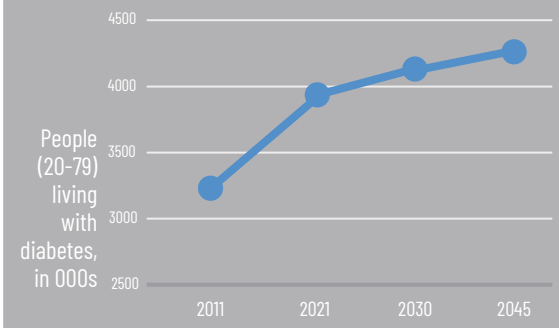
idfeurope@idf-europe.org www.idf-europe.org www.diabetes.fi

April 2024

AN OVERVIEW OF DIABETES CARE

country: France

DIABETES PREVALENCE



Of which, undiagnosed
27.9% (1,098,600 people)

Children & adolescents with T1D (0-19y)
27,128

Diabetes prevalence
8.6%

Diabetes-related deaths 87,434

Total expenditure €4,841.9 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, diabetes prevalence in 2021 stood at 6.07% and the total expenditure per person amounted to €2,296. In 2020, the proportion of people with undiagnosed diabetes was reported to be 23%.

In France, insulin and most related supplies and technologies are available free of charge for all people living with diabetes (PwD). Screening for diabetes-related complications is available as per national guidelines. Since July 2023, all PwD have access to an annual check to assess their risk of diabetes foot.

There are national health policy guidelines supported by a five-year health plan at regional level. Healthy living policies are also in place. However, regulations regarding healthy diets are not sufficiently ambitious and lack effectiveness.

Self-management education is available for adults living with diabetes through the health insurance support service, "Sophia". The programme helps PwD and people living with asthma to better understand their conditions and how to manage them, to adjust their lifestyle and reduce the risk of complications, and to improve their quality of life. Peer-to-peer support is provided by the Fédération Française des Diabétiques through their dedicated BPE service (bénévole patient expert).

Psychological support for PwD is available everywhere in the country and is limited to people living with depression.

In France, specialist diabetes nurses are required to follow a special academic course and they play a role in the prevention and management of Type 1 diabetes (T1D), Type 2 diabetes (T2D) and gestational diabetes. However, they are not allowed to prescribe diabetes medicines.

The country has a working diabetes registry for people living with T1D and electronic health records, although these are not widely used. E-health is adopted mainly in the context of video consultations, telehealthcare, remote monitoring and electronic prescriptions.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN?	PREVENTION & MANAGEMENT GUIDELINES	MONITORING FRAMEWORK?	GOVERNMENT ENGAGEMENT WITH PwD?
No	National guidelines	Yes	Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	SOMETIMES*
When they are recommended, are these apps fully reimbursed?	NO

*Depending on the clinic and/or physician

SUPPLIES & TECHNOLOGIES

Free of charge for all

- Syringes & needles
- Test strips (1)
- Blood glucose meters
- Insulin pens
- Connected/smart pens

Free of charge for T1D and T2D on intensified insulin therapy

- Insulin pumps
- isCGMs*
- rtCGMs**

Free of charge for T1D

- Automated delivery systems (2)

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) A maximum of 200 test strips per year are reimbursed for people living with T2D on oral medications

(2) Reimbursed for T1D whose glycaemic targets are not reached despite well-conducted intensive insulin therapy by insulin pump for more than six months and self-monitoring of blood glucose levels several times a day (≥ 4/d).

*intermittently scanned continuous glucose monitors.
**real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at hospitals but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

Online appointment management*

Video consultations

Telephone consultations (Only during COVID-19)

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

Yes for T1D

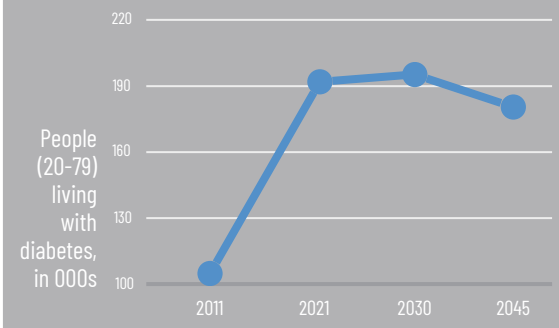
idfeurope@idf-europe.org www.idf-europe.org www.federationdesdiabetiques.org

June 2024

AN OVERVIEW OF DIABETES CARE

country: **Georgia**

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (75,400 people)

Children & adolescents with T1D (0-19y)
429

Diabetes prevalence
6.8%

Diabetes-related deaths 4,271

Total expenditure €737 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Georgia, most types of insulin and other diabetes medicines are available free of charge or at an affordable price for people living with diabetes (PwD). However, supplies and some technologies for blood glucose monitoring and insulin delivery are not always available and are reimbursed only for children.

The Ministry of Health and the Parliamentary Health Committee are currently collaborating with NGOs on developing policies to promote healthy living, targeting issues such as obesity/overweight and smoking and encouraging healthy diets and physical activity. A clinical protocol for the diagnosis and management of type 1 diabetes in children and adolescents has recently been submitted to the Ministry of Health and is soon to be implemented.

The progress on the development of a National Diabetes Plan, a diabetes register and guidelines for the prevention and management of diabetes was interrupted during the COVID-19 pandemic. These efforts have now resumed. As part of this, the diabetes register, which is already available for some groups of PwD, and electronic health records will be further developed.

Aside from the National Centre for Diabetes Research and 1-2 regional centres, there are no structured programmes to follow mothers with gestational diabetes.

Self-management education primarily takes place at the time of diagnosis for PwD and their families/carers. Education continues to be provided as required, until the age of 18, and as part of preconception and pregnancy care. Peer-to-peer support is not integrated into the education framework, but it is sometimes available through international projects.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
It varies across the country

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National & international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting *
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

*Not used for children

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Insulin pens

Free of charge for children

- Connected/smart pens
- Blood glucose meters
- Test strips
- Insulin pumps
- rtCGMs**

Not reimbursed

- Syringes and needles
- Automated delivery systems
- isCGMs*

*Intermittently scanned continuous glucose monitors.
**Real-time continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access and not widely developed across the country

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Not reimbursed but available at an affordable price

Not used in the country

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Children with T1D*
- *Adults with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

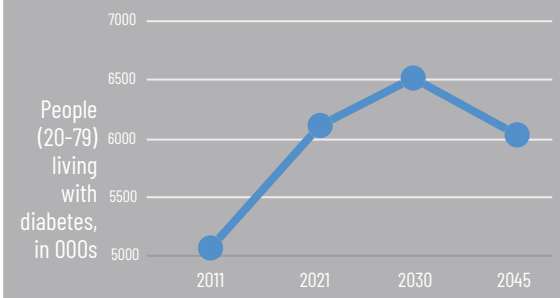
WORKING DIABETES REGISTER?

Yes, for PwD on insulin therapy

AN OVERVIEW OF DIABETES CARE

Country: **Germany**

DIABETES PREVALENCE



Of which, undiagnosed
21.7% (1,345.4 people)

Children & adolescents with T1D (0-19y)
35,144

Diabetes prevalence
10%

Diabetes-related deaths 151,463

Total expenditure
€5599 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, in 2023 the number of people living with T2D in Germany stood at 8.9 million, and the number of children/adolescents and adults living with T1D stood at 32,000 and 340,000 respectively.

In Germany, all types of insulin and other diabetes medicines are available and subject to a €5-10 co-payment. Supplies and technologies for blood glucose monitoring and insulin administration are available and subject to the same co-payment, except for test strips which are entirely free of charge.

Syringes, needles, test strips, insulin pens, blood glucose meters and intermittently-scanned continuous glucose monitors (isCGM) are reimbursed for all people living with diabetes (PwD), while real-time continuous glucose monitors (rtCGMs), insulin pumps and automated delivery systems are only reimbursed for people living with Type 1 diabetes (T1D).

There is no national diabetes plan. However, the Federal Ministry of Health commissioned the Robert Koch Institute, a federal government agency and research institute responsible for disease control and prevention, to develop a diabetes surveillance system which is currently in place.

Healthy living policies are in place with the exception of regulations targeting healthy diets. Screening for all diabetes-related complications and a programme to follow people with gestational diabetes after the birth of their baby are available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course. Psychological support is available and fully reimbursed but hard to access due to long waiting lists.

The country does not have a comprehensive diabetes register. However, data on PwD under 25 years of age is collected as part of the *Diabetes Patienten Verlaufsdokumentation* (DPV) initiative. The use of electronic health records, electronic prescriptions and other e-health services is widespread in the country.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National and international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? No

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate-acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	●
Rapid-acting (analogs)	●
Ultra-rapid-acting analogs	●
Intermediate-acting	●
Long-acting	●

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	YES

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD (1)

- Syringes & Needles
- Test strips
- Insulin pens
- Connected smart pens
- Blood glucose meters
- isCGMs**

Free of charge for T1D (1)

- rtCGMs*
- Insulin pumps
- Automated delivery systems

(1) Except for test strips, which are entirely free of charge, PwD are required to contribute 10% of the cost of their prescription medicines and devices, up to €5-10. Reimbursement varies depending on their health insurance provider.

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed but hard to access due to long waiting lists

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

5-10€ co-payment

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

5-10€ co-payment

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?*
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Telephone consultations

Electronic prescriptions

Video consultations

SMS & EMAIL consultations

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

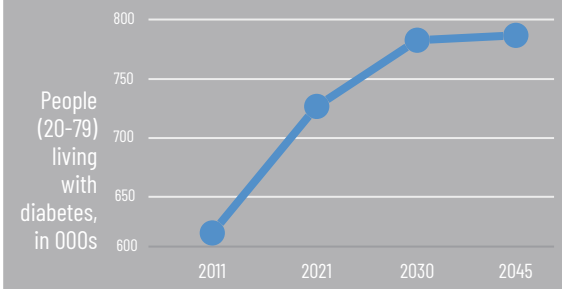
WORKING DIABETES REGISTER?

DPV Register for PwD <25 y/o

AN OVERVIEW OF DIABETES CARE

country: **Greece**

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (246,000 people)

Children & adolescents with T1D (0-19y)
2,905

Diabetes prevalence
9.6%

Diabetes-related deaths 22,350

Total expenditure
€1468.6 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

The Greek healthcare system offers free high-quality care to people living with diabetes (PwD). Diabetology is a sub-specialisation of Internal Medicine and Paediatrics. Because of the health system structure and the geographical specificities of Greece (many islands), most people living with Type 2 diabetes (T2D) are followed by internists specialised in diabetes or GPs, and not by endocrinologists.

National guidelines developed by the Hellenic Diabetes Association (HDA) are updated every year as per international guidelines. Based on these guidelines, doctors decide what therapy is best for PwD. For people living with Type 1 diabetes (T1D), all types of insulins and supplies, up to a fixed amount, are fully reimbursed by the national insurance (National Organization for the Provision of Health Services [EOPYY]). For people living with T2D, 90% of the cost of all diabetes medicines is reimbursed, whereas other medicines (such as those for cardiovascular diseases) receive a 75% reimbursement. Supplies such as strips, needles and lancets are also fully reimbursed for people with T2D, although the quantity provided varies based on the treatment regimen. As per recent studies, PwD in Greece are effectively managing their condition, with a mean HbA1c close to 7%.

Continuous Glucose Monitors (CGMs) are fully reimbursed for people with T1D. Diabetes associations are currently advocating for CGMs to be reimbursed for people with T2D on intensified insulin therapy. Pumps and supplies are also fully reimbursed for people with T1D, based on a proposal by one of the country's 23 diabetes centres and the approval of the EOPYY Supreme Health Council.

There is no formal education for specialist nurses in diabetes, although there are some nurses and so-called "health visitors" who work in diabetes centres and have some informal knowledge of diabetes care. There is no formal curriculum yet for diabetes educators in general, but the Hellenic Diabetes Association is planning on creating one in collaboration with the Nurses' Association.

Regarding e-health, prescriptions (for medicines and lab tests) are sent to the PwD and filled in the pharmacy or the labs electronically, as long as people have activated the "intangible prescription system", which is available for all. Remote consultations are done on an individual basis.

The main gaps in diabetes care include the lack of specialised diabetes training for nurses; the absence of a diabetes registry (although much diabetes-related information is captured in the national prescription database, covering more than 99% of individuals with a social security number); and the implementation of effective prevention programmes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Always available for T1D, with variations for T2D

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? Stand alone

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

Notes:

Screening is scheduled by primary care physicians/specialists and is mostly covered by the public insurance system.

HCPs education is provided through seminars organized mostly by scientific organizations, like the Hellenic Diabetes Association and other relevant Associations.

A "National Plan for the Prevention and Treatment of Diabetes and its Complications" was produced by the HDA)and the National Diabetes Center (NDC), under the auspices of the Hellenic Ministry of Health, in 2012, but was never implemented in practice.

The HDA guidelines cover primary prevention strategies, screening and diagnosis, healthcare pathways and management of all major forms of diabetes, diabetes-related complications, and structured education. There is no monitoring protocol in place, to assess the implementation of these guidelines.

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Is available INSULIN free of charge?

- For all PwD
- For all T1D only*
- For children only
- Other

Children		Adults
●	Short-acting regular insulin	●
●	Rapid-acting (analogs)	●
●	Ultra-rapid-acting analogs	●
●	Intermediate-acting	●
●	Long-acting	●

●	Short-acting regular insulin
●	Rapid-acting (analogs)
●	Ultra-rapid-acting analogs
●	Intermediate-acting
●	Long-acting

*For other diabetes types, reimbursement up to 90% of cost

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D	Not reimbursed
Syringes & Needles	Automated delivery systems	Connected smart pens
Insulin pens	rtCGMs*	
Blood glucose meters	isCGMs**	
Test strips		
Insulin pumps		

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Note: the number of test strips, lancets, needles and other supplies available for free varies depending on diabetes type and treatment.

T1D: 200 strips, lancets and needles per month; 50 blood ketone strips per year.

T2D on insulin: 100 strips and lancets and 60 needles per month.

PwD on antidiabetic tablets or other injectable non-insulin treatment: up to 50 blood glucose test strips per two months, up to 50 lancets biweekly and up to 60 insulin needles per month for PwD on glucagon like peptide 1 (GLP1) in built in needle in the pre-filled syringe.

PwD on lifestyle programmes: up to 50 strips and lancets per quarter).

GDM: 150 strips, lancets and needles, per month.

PwD with a continuous insulin infusion pump: a blood glucose sensor is provided according to a justified medical opinion. Up to five blood glucose monitoring supplies connected or not connected to the pump per month; up to 50 extra test strips and 50 lancets per month; 50 needles for insulin administration with insulin pen per semester (in case of pump blockage or overdose); and up to 50 blood ketone test strips per year.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

Note: there is no formal psychological support provided in the Diaebtes Centres

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon — FREE OF CHARGE? For all PwD / For all T1D only / For children only / Other

FREE OF CHARGE? For all PwD / For all T1D only / For children only / Other — Metformin — Sulfonylureas

Injectable glucagon reimbursed up to 75%
Nasal glucagon available, but not yet reimbursed

90% of the price is reimbursed, for either adults or children, if prescribed through the national prescription database

OTHER DIABETES MEDICINES

DPP4 inhibitor — GLP1 analogue — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

90% of the price is reimbursed, if prescribed through the national prescription database

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs*

75% of the price is reimbursed, if prescribed through the national prescription database

*PCSK9 Inhibitors require special approval by the Supreme Health Council of the EOPYY

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?

- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

Online appointment management*	▲	Video consultations*	■
Telephone consultations*	▲	SMS & EMAIL consultations*	■
Electronic prescriptions	■	Telehealthcare & Remote monitoring*	■

ELECTRONIC HEALTH RECORDS?

YES NO

●

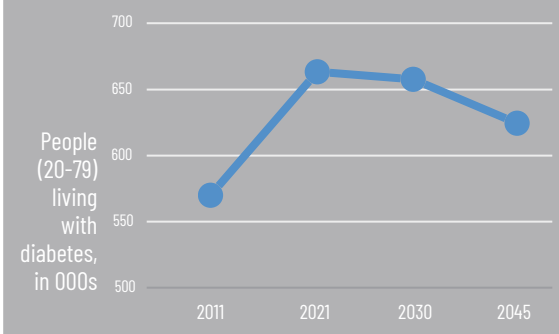
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

Country:
Hungary

DIABETES PREVALENCE



Of which, undiagnosed
16.7% (110,300 people)

Children & adolescents with T1D (0-19y)
3,496

Diabetes prevalence
9.0%

Diabetes-related deaths 10,701

Total expenditure
€1232.2 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Hungary, all types of insulins and other diabetes medicines are available and fully reimbursed or subjet to a 10% co-payment for people living with diabetes (PwD). Additionally, 80% of the expenses for syringes, needles, insulin pens, blood glucose meters, and test strips are reimbursed for all PwD. Moreover, 80% of the costs for insulin pumps and continuous glucose monitors (CGMs) are reimbursed for people living with Type 1 diabetes (T1D), with students benefiting from a 98% reimbursement.

The Hungarian government supports local initiatives on diabetes prevention such as blood glucose testing events and healthy living programmes and is currently working with several associations to develop a national diabetes plan. Healthy living policies are in place, including regulations for healthy diets. Screening for all diabetes-related complications and a programme to follow people with gestational diabetes after the birth of their baby are available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course. However, access to specialist diabetes educators varies by region. Psychological support is available and fully reimbursed through the national health system but is hard to access.

Diabetes specialist nurses are required to follow a special academic training. They are, however, not able to prescribe medicines.

Electronic health records and some e-health solutions such as electronic prescriptions and online appointment management systems are available and the country has a diabetes register for children living with diabetes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Under development

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Partially reimbursed for all PwD (1)

- Syringes & Needles
- Insulin pens
- Connected smart pens
- Blood glucose meters
- Test strips

Partially reimbursed for T1D (1)

- Insulin pumps (2)
- Automated delivery systems (2)
- rtCGMs* (2)
- isCGMs**

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

(1) About 80% of the cost related to supplies and technologies is reimbursed by the National Institute of Health Insurance Fund Management upon prescription by a doctor.

(2) 98% of the cost is reimbursed for students.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

90% reimbursed

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin — Sulfonylureas

90% reimbursed

OTHER DIABETES MEDICINES

DPP4 inhibitor — GLP1 analogue — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

90% reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs*

90% reimbursed

*Prescription and reimbursement limited to specific cases

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	■
Telephone consultations	■	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

●

WORKING DIABETES REGISTER?

PwD <15 y/o

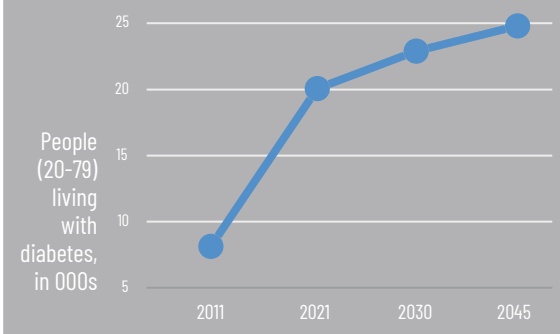
idfeurope@idf-europe.org www.idf-europe.org www.diabet.hu

April 2024

AN OVERVIEW OF DIABETES CARE

Country:
Iceland

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (6,700 people)

Children & adolescents with T1D (0-19y)
137

Diabetes prevalence
8.3%

Diabetes-related deaths 394

Total expenditure
€7,061.6 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Iceland, the healthcare system uses a co-payment system which reduces the expenses for people who frequently need to access healthcare, medications and/or medical devices, such as people living with diabetes (PwD). The threshold for the first and highest level of the co-payment system for medicines and healthcare services is set annually and can vary based on policy updates and budgetary considerations.

All types of insulin and other diabetes and CVD medicines as well as devices and technologies for blood glucose monitoring and insulin administration are available for PwD according to national guidelines.

There is currently no national diabetes plan nor register for PwD. Screening for the prevention of diabetes-related complications is available. However, there is no structured programme to invite PwD to undergo regular screening and they usually have to request it themselves.

Nurses are involved in diabetes prevention and they play a role in the management of people living with all types of diabetes. However, there is not special academic training to become a specialist diabetes nurse and they are not able to prescribe diabetes medicines.

Some e-health services such as electronic health records and prescriptions, telephone, SMS and email consultations are available.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate-acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- ● Short-acting regular insulin
- ● Rapid-acting (analogs)
- ● Ultra-rapid-acting analogs
- ● Intermediate-acting
- ● Long-acting

*different levels of co-payment may apply depending on PwD's annual expenses for medicines

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Partially reimbursed for all PwD (1)

- Syringes & Needles
- Insulin pens
- Connected smart pens
- Blood glucose meters
- Test strips

Partially reimbursed for T1D (1)

- Insulin pumps
- Automated delivery systems
- rtCGMs*
- isCGMs**

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Different levels of co-payment may apply depending on PwD's annual expenses for medical devices

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin — Sulfonylureas

Different levels of co-payment may apply depending on PwD's annual expenses for medicines

OTHER DIABETES MEDICINES

DPP4 inhibitor — GLP1 analogue — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

Different levels of co-payment may apply depending on PwD's annual expenses for medicines

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs

Different levels of co-payment may apply depending on PwD's annual expenses for medicines

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

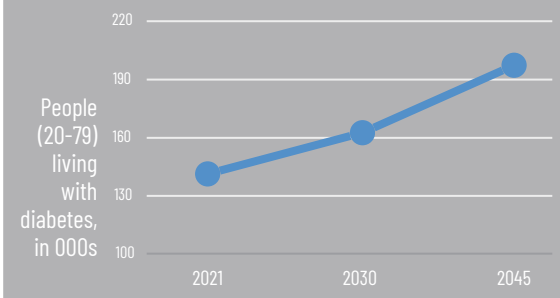
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

Country:
Ireland

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (46,600 people)

Children & adolescents with T1D (0-19y)
3,364

Diabetes prevalence
4.0%

Diabetes-related deaths 2,958

Total expenditure €6593 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According Diabetes Ireland's estimates, in 2022, diabetes prevalence stood at 6%, with approximately 300,000 PwD, of which 25,000 living with T1D.

In Ireland, people living with Type 1 (T1D) and Type 2 Diabetes (T2D) are entitled to a Long-Term Illness (LTI) Scheme. This grants them access free of charge to diabetes medicines and medicines for some associated conditions. Technologies and supplies for blood glucose monitoring and insulin administration are also covered by the LTI Scheme once prescribed by healthcare professionals. The LTI Scheme does not cover people with gestational diabetes.

All types of insulin and other diabetes and cardiovascular medicines are available in the country. Insulin pumps, automated delivery systems and, since December 2023, both intermittently scanned (isCGMs) and real-time continuous glucose monitors (rtCGMs) are reimbursed only for people living with T1D. They are, however, not offered routinely and access to insulin pumps and/or automated delivery systems often involves long waiting lists. There are significant health inequalities as not all clinics provide insulin pumps.

Healthy living policies are in place, including regulations targeting healthy diets such as restrictions on the marketing of certain foods and beverages to children, as well as taxes on sugar-sweetened beverages.

Screening for all diabetes-related complications is available, although the recommended screening frequency outlined by clinical guidelines is not often met.

Structured diabetes education is provided at the time of diagnosis and up to a year after diagnosis, individually or in groups, but it often involves long waiting lists and it is not available in all clinics for people living with T1D.

Diabetes Specialist Nurses (DSNs) play a role in diabetes prevention and management. Upon completion of an approved education programme and registration with the Nursing and Midwifery Board of Ireland, they are also able to prescribe diabetes medicines.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow people with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? No

PREVENTION & MANAGEMENT GUIDELINES National & international guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD*
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

*Not reimbursed for people with gestational diabetes

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips

Free of charge for T1D

- Insulin pumps (1;2)
- Automated delivery systems (1;2)
- rtCGMs* (1)
- isCGMs** (1)

Not reimbursed

- Connected smart pens

(1) Not offered routinely.

(2) Access to insulin pumps and automated delivery systems often involve long waiting lists and not all clinics provide pumps.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Specialised psychological support for PwD is hardly available

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin* — Sulfonylureas

*Not reimbursed for people with gestational diabetes

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Reimbursement regulated by a Managed Access Protocol

HEALTH SYSTEMS

YES NO

*DSNs who complete an approved education programme and register with the Nursing and Midwifery Board of Ireland are able to prescribe diabetes medicines

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?*

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *People with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*The use of e-health is very poor and only limited to a few clinics offering it

Online appointment management	■	Video consultations	■
Telephone consultations*	▲	SMS & EMAIL consultations*	▲
Electronic prescriptions*	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES SOMETIMES NO

Up to 50% of diabetes clinics do not have electronic health records

WORKING DIABETES REGISTER?

For T1D <15 y/o

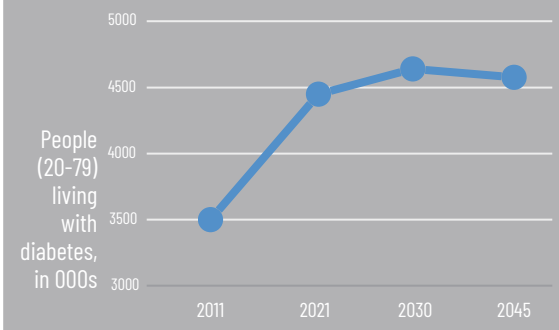
idfeurope@idf-europe.org www.idf-europe.org www.diabetes.ie

June 2024

AN OVERVIEW OF DIABETES CARE

Country: **Italy**

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (1,497,700 people)

Children & adolescents with T1D (0-19y)
13,715

Diabetes prevalence
9.9%

Diabetes-related deaths 172,943

Total expenditure €2757,8 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

One of the pillars of the Italian National Healthcare Service (NHS) is ensuring universal coverage for all citizens. People living with diabetes (PwD) have access, with no out-of-pocket expenditure, to all the medicines, devices and medical services they need. Overall, Italy has a well-developed system of diabetes care, with numerous diabetes centres throughout the country and treatment free at the point of delivery.

The Italian health system is highly decentralised, with most administrative and organisational powers held by the Regions. The National Diabetes Plan defines priorities and provides guidelines to improve the quality of diabetes care, with a patient-centred focus. Regional and local authorities are responsible for its implementation which varies greatly among the 20 regions.

There are also differences in the organisation and delivery of care between, on the one hand, the Northern/Central, and, on the other, the Southern, parts of the country. The Northern and Central diabetes centres tend to be integrated within a hospital, providing a multi-disciplinary team approach, whereas the Southern diabetes centres are often part of group practices (called "poliambulatori"), which do not always provide multi-disciplinary teams.

The framework for e-health services is not yet fully developed, with many remote services being delivered on a voluntary basis/during COVID-19 only. There are no official diabetes specialist nurses in Italy, but many diabetes centres have dedicated nurses who undergo specific training and regular refreshers on diabetes management. Many of them are members of a scientific association – Operatori Sanitari di Diabetologia Italiani (Italian Diabetes Healthcare Providers).

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN?
Stand alone
Implementation varies across regions

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
No

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D	Not reimbursed
Syringes & Needles	Automated delivery systems	Connected smart pens
Insulin pens	Insulin pumps (1; 2)	
Blood glucose meters	rtCGMs* (1; 2)	
isCGMs** (1)		
Test strips		

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Limitations exist on a regional basis

(2) available for some people living with T2D as prescribed by specialists

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

Free / Fully reimbursed

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs*

Fully reimbursed

*Only prescribed by specialists

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

**During COVID-19

Online appointment management

Telephone consultations*

Electronic prescriptions**

Video consultations — Reimbursement procedure under way

SMS & EMAIL consultations*

Telehealthcare & Remote monitoring**

ELECTRONIC HEALTH RECORDS?

YES NO

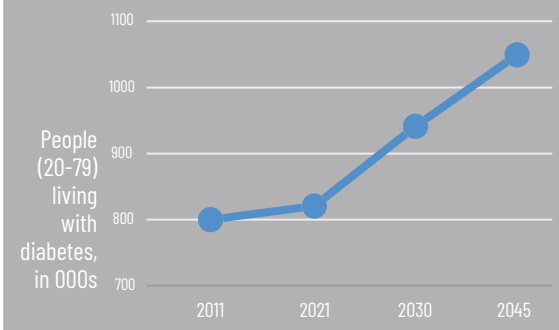
WORKING DIABETES REGISTER?

For some regions and groups of PwD

AN OVERVIEW OF DIABETES CARE

Country:
Kazakhstan

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (319,700 people)

Children & adolescents with T1D (0-19y)
1,001

Diabetes prevalence
6.7%

Diabetes-related deaths 11,806.4

Total expenditure €642,4 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Kazakhstan, diabetes care is free of charge and people have access to the latest diabetes medicines and all types of insulin. Insulin is free but diabetes medicines other than metformin and sulfonylureas have to be paid out of pocket.

The access to newer diabetes devices, such as CGMs and pumps, however, is limited. CGMs are not available and only children with Type 1 Diabetes up to the age of 18 have access to insulin pumps. Glucose meters are available free of charge only for people with T1D. A limited number of test strips is reimbursed.

Screening of diabetes-related complications is not done on a routine basis. Glucagon is only available for children and the supply is very irregular. Statins are the only cardiovascular medicines available at the point of delivery. They are fully reimbursed.

The national diabetes registry is currently not updated and does not provide a comprehensive overview of the diabetes situation in Kazakhstan.

Remote healthcare delivery was available during the COVID-19 pandemic but it is unlikely that remote consultations will remain an option after the crisis. Education should be made the number one priority for GPs and epidemiologists as well as for people living with diabetes.

According to data from the Ministry of Health of the Republic of Kazakhstan, as of 01.01.2021, 386,046 people with diabetes mellitus (T1D and T2D – Adults and children) were registered in the country, representing 2.04% of the country's population.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? — Under development

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens

Free of charge for T1D

- Blood glucose meters
- Test strips

Free of charge for children

- Insulin pumps

Not reimbursed

- Connected smart pens
- Automated delivery systems
- isCGMs**
- rtCGMs*

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES?* YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS?* YES NO

*E-heath services are available on a voluntary basis, depending on the clinic/physician and they are not reimbursed

Online appointment management

Telephone consultations

Electronic prescriptions

Video consultations

SMS & EMAIL consultations

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

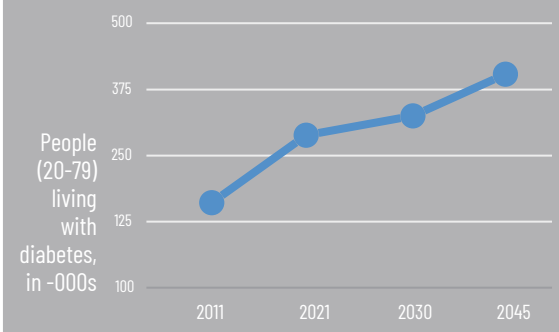
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

country:
Kyrgyzstan

DIABETES PREVALENCE



Of which, undiagnosed
39.6%

Children & adolescents with T1D (0-19y)
400

Diabetes prevalence
6.6%

Diabetes-related deaths 2,966

Total expenditure
€194.2 (per person)

In Kyrgyzstan, short-acting insulin is available free of charge for all people living with diabetes (PwD). Syringes and needles are also free of charge for all PwD on insulin therapy but they are not always available at the point of delivery. Blood glucose meters are free of charge for children and adolescents, while test strips are partially reimbursed for all PwD – 40% of the cost for 2000 and 500 test strips per year for people living with type 1 diabetes (T1D) and type 2 diabetes (T2D) respectively. Newer technologies such as continuous glucose monitors (CGMs) and insulin pumps are free of charge for children but they are only sometimes available.

Healthy living policies are in place targeting obesity and smoking, and the country has regulations for healthy diets. There are, however, no specific policies on healthy food and physical activity. Screening for the prevention of complications is available but its provision varies across the country.

National guidelines for the diagnosis, management and treatment of gestational diabetes are currently being developed. Healthcare professionals are being trained and a screening programme for gestational diabetes is already underway.

Access to diabetes education at the time of diagnosis and throughout the life course depends on a number of factors, including diabetes type and proximity to specialist diabetes centres.

Diabetes nurses play a role in the management of people living with T2D and gestational diabetes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis*
- Throughout the life course
- Integrated peer-to-peer support

*Only in some circumstances for PwD and carers/family

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN? Under development, Partly integrated

PREVENTION & MANAGEMENT GUIDELINES National and international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate acting	●	●
Long-acting*	●	●

*A long-acting insulin analogue is available free of charge for people living with T1D under 29 y/o

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For childen only
- Other

Short-acting regular insulin*	●
Rapid-acting (analogs)	●
Ultra-rapid-acting analogs	●
Intermediate acting*	●
Long-acting	●

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for children	Free of charge for T1D	Not available
Syringes & Needles	Insulin pumps	Insulin pens	Connected/smart pens
Test strips (1)	Blood glucose meters		Automated delivery systems
	isCGMs**		
	rtCGMs*		

(1) 40% of the cost for 2000 and 500 test strips is reimbursed for people living with T1D and T2D respectively

ARE SUPPLIES/TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

50% reimbursed

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor — Not reimbursed

GLP1 analogue

SGLT2 inhibitor — Not reimbursed

Meglitinide

Alpha glucosidase inhibitor

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Partially reimbursed

Beta blockers — Partially reimbursed

ACE inhibitors — Partially reimbursed

Thiazide diuretics — Partially reimbursed

Statins — Partially reimbursed

Ezetimibe

PCSK9 inhs

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

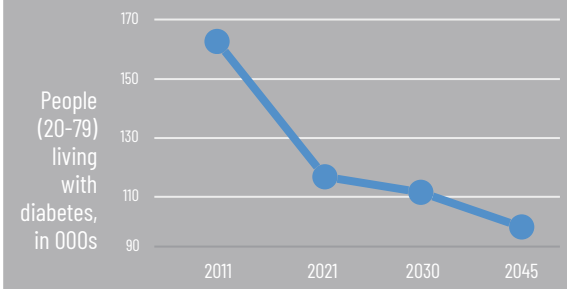
WORKING DIABETES REGISTER?

Yes for all PwD

AN OVERVIEW OF DIABETES CARE

country:
Latvia

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (38,800 people)

Children & adolescents with T1D (0-19y)
256

Diabetes prevalence
8.6%

Diabetes-related deaths 2,229

Total expenditure
€1122 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, in 2020, diabetes prevalence among adults living with diabetes (20-79 y/o) stood at 4.15% and the number of children and adolescents with T1D was 669.

In Latvia, all types of insulin and other diabetes medicines are available and fully reimbursed for people living with diabetes (PwD). Except for some ACE inhibitors which are fully reimbursed, all other cardiovascular medicines require a 25% co-payment.

While insulin pens are free of charge for all PwD, insulin pumps and continuous glucose monitors (CGMs) are only reimbursed for children and test strips require a 25-50% co-payment. Other devices and technologies for blood glucose monitoring and insulin administration such as syringes, needles and blood glucose meters are not reimbursed.

Healthy living policies are in place targeting obesity, healthy diets and smoking. There are, however, no specific policies on physical activity. Except for diabetes foot, screening for all diabetes-related complications is available everywhere in Latvia.

A special academic training for diabetes specialist nurses (DSNs) was in place until 2017. Nurses who completed this specialisation continue to serve as DSNs and play a role in the management of all types of diabetes but they are not allowed to prescribe medicines.

Latvia has electronic health records and a national diabetes register for all PwD that was launched in 1997. The use of e-health is available for online appointment management, electronic prescriptions and video and telephone consultations.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight — YES
- Healthy food & diet — YES
- Physical activity — NO
- Smoking — YES
- Regulations for healthy diets — YES

PREVENTION OF COMPLICATIONS

- Eye screening — YES
- CVD — YES
- Kidney disease — YES
- Diabetes foot — WITH VARIATIONS
- Gestational diabetes — YES

EDUCATION

- At or around the time of diagnosis — YES
- Throughout the life course — YES
- Integrated peer-to-peer support — NO

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? — No

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

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March 2024

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children		Adults
●	Short-acting regular insulin	●
●	Rapid-acting (analogs)	●
●	Ultra-rapid-acting analogs	●
●	Intermediate-acting	●
●	Long-acting	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- ● Short-acting regular insulin
- ● Rapid-acting (analogs)
- ● Ultra-rapid-acting analogs
- ● Intermediate-acting
- ● Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for children	Free of charge for all PwD	Partially reimbursed	Not reimbursed
Insulin pumps	Insulin pens	Test strips (1)	Syringes & Needles
isCGMs**			Blood glucose meters
rtCGMs*			Connected smart pens
			Automated delivery systems

(1) 25-50% co-payment is required

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

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AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
25% co-payment	25% co-payment	Fully reimbursed	25% co-payment	25% co-payment	25% co-payment	25% co-payment

HEALTH SYSTEMS

YES NO

*Available until 2017

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?*
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	▲
Telephone consultations	▲	SMS & EMAIL consultations	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

Yes, for all PwD

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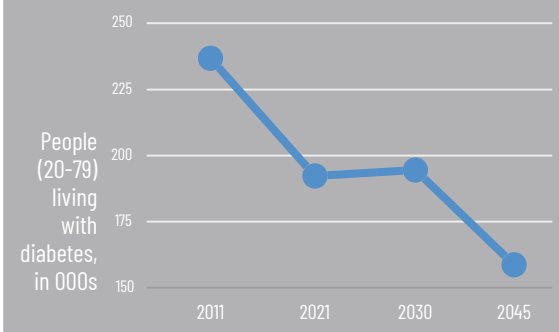
AN OVERVIEW OF DIABETES CARE

Country:
Lituania

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (62,600 people)

Children & adolescents with T1D (0-19y)
907

Diabetes prevalence
9.5%

Diabetes-related deaths 5,870

Total expenditure €1128,5 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Lithuania, diabetes care and medicines are available to all people living with diabetes (PwD), free of charge. Insulin pumps and CGMs are also available free of charge for people living with Type 1 Diabetes (T1D).

One of the main challenges faced by people living with diabetes is the limited number of needles and test strips to which people are entitled free of charge.

Another challenge is the shortage of healthcare professionals, many of whom tend not to stay in Lithuania, resulting in long waiting lists for family doctors (2-3 weeks in Vilnius), specialists (2-4 months) and psychologists.

Diabetes nurses play an important role in diabetes education and are authorised to renew prescriptions for medications first prescribed by doctors.

A national diabetes plan is currently under development.

in 2020, the Supervisory Council for Diabetes Prevention, Diagnosis and Treatment was created by Order of the Minister of Health. The Lithuanian Diabetes Association is now discussing the proposed new diabetes plan ("On Approval of the Description of Accessibility and Quality Indicators of Health Care Services Provided to People with Diabetes and the Procedure for Monitoring Them").

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? Under development

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes but limited

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles (1)
- Insulin pens
- Blood glucose meters
- Test strips (1)

Free of charge for T1D

- Insulin pumps
- rtCGMs*
- isCGMs**

Not reimbursed

- Connected smart pens
- Automated delivery systems

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

(1) The number of test strips and needles available for free varies by type of diabetes and treatment

T1D: 400 to 1800 test strips per year depending on age, insulin delivery system and blood glucose monitoring device; two needles per day for children, one needle per day for adults.

T2D: 150 to 900 test strips per year depending on age and type of treatment (oral medication or insulin regimen); 1 needle per day.

GDM: 600 additional test strips during pregnancy for people with all types of diabetes; 150 test strips for people with GDM during pregnancy.

- Always
- Most of the time
- Sometimes
- Not often
- Never

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs*

Fully reimbursed

HEALTH SYSTEMS

YES NO

*DSNs are allowed to renew prescriptions for insulin, other diabetes medicines and test strips once they have been prescribed by a doctor

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?*

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

**During COVID-19

Online appointment management

Video consultations

Telephone consultations*

SMS & EMAIL consultations*

Electronic prescriptions**

Telehealthcare & Remote monitoring**

ELECTRONIC HEALTH RECORDS?

YES NO

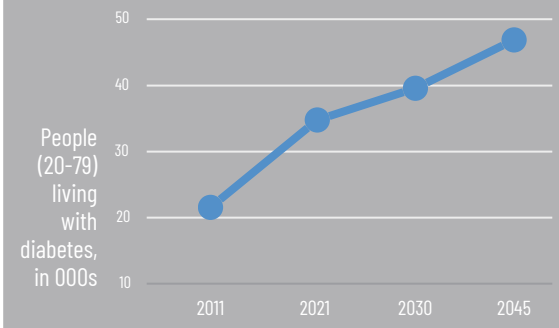
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

Country:
Luxembourg

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (11,600 people)

Children & adolescents with T1D (0-19y)
233

Diabetes prevalence
7.3%

Diabetes-related deaths 788

Total expenditure €6886 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Luxembourg, all types of insulin and other diabetes medicines are available and fully reimbursed for people living with diabetes (PwD). All devices and technologies for blood glucose monitoring and insulin administration are also available and fully reimbursed most of the time. However, depending on the pharmacy and/or provider, PwD might need to contribute with €1-10 to the cost of devices and technologies.

Healthy living policies are in place with the exception of regulations targeting healthy diets. While screening for all diabetes-related complications is available free of charge for all PwD, not everyone benefits from it due to the absence of systematic screening programmes at national level. Referrals to regular screening rely on healthcare professionals and clinics. The National Scientific Council regularly updates the national guidelines on diabetes prevention and management which are, however, not mandatory.

Diabetes education is provided at the time of diagnosis and throughout the life course in various hospitals' diabetes departments and by the national diabetes association (Maison du Diabète). While peer-to-peer support is not integrated in the education provided, some group training courses do facilitate exchanges between peers.

There is no special academic training for diabetes specialist nurses (DSNs) but they tend to specialise during their practice and through various diabetology training programmes. DSNs play a role in diabetes prevention and in the management of people living with all types of diabetes, but they are not allowed to prescribe medications.

The use of electronic health records and other e-health solutions such as online appointment management, telehealthcare, remote monitoring and telephone and video consultations is not widely adopted and depends on the clinic and/or physician.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN? Under development Partly integrated

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? No

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March 2024

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD (1)

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips

Free of charge for T1D (1)

- Connected smart pens
- Insulin pumps (2)
- Automated delivery systems
- rtCGMs*
- isCGMs** (3)

(1) A small co-payment of €1-10 may apply to some supplies and technologies
(2) Free of charge also for people with insulin deficiency and some T2D cases
(3) Free of charge also for some T2D cases on basal -bolus insulin treatment

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs*

Fully reimbursed

*Subject to strict prescription criteria

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

Online appointment management

Video consultations*

Telephone consultations*

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring*

ELECTRONIC HEALTH RECORDS?

YES NO

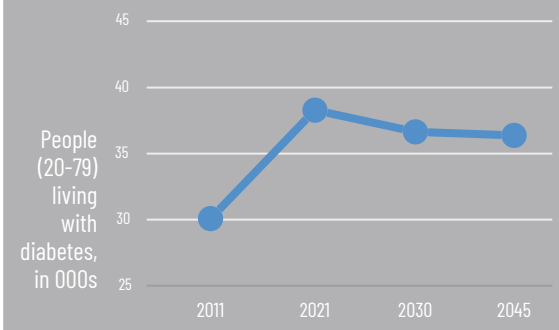
WORKING DIABETES REGISTER?

Yes, for PwD <18-25 y/o

AN OVERVIEW OF DIABETES CARE

Country: **Malta**

DIABETES PREVALENCE



Of which, undiagnosed
47.4% (17,900 people)

Children & adolescents with T1D (0-19y)
189

Diabetes prevalence
11.2%

Diabetes-related deaths 735

Total expenditure €2385 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Malta, all types of insulin, except for ultra-rapid acting analogs, are available free of charge for all people living with diabetes (PwD). While syringes, needles, insulin pens, blood glucose meters and test strips are also available free of charge for all PwD, real-time continuous glucose monitors (rtCGMs) are only reimbursed for people living with Type 1 Diabetes (T1D) under the age of 40. Other technologies such as connected smart pens, insulin pumps, automated delivery systems and intermittently-scanned CGMs (isCGM) are not available in the country.

Malta is currently revising its national diabetes plan. Healthy living policies are in place and those targeting physical activity and smoking are integrated in the national non-communicable diseases (NCDs) strategy. Screening for all diabetes-related complications is available and people with gestational diabetes are followed up with an oral glucose tolerance test six weeks after the birth of the baby.

Diabetes education is provided at the time of diagnosis and throughout the life course. While group training courses were previously available, they have been on hold since the onset of the COVID-19 pandemic due to lack of resources. Psychological support is also available and fully reimbursed but it is hard to access and PwD are not always referred to it.

Malta has electronic health records and some e-health services such as telephone and SMS/email consultations are also available. Telehealthcare and remote monitoring are used with people living with T1D under the age of 24 who use a CGM. The country does not have a working diabetes register.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Stand alone Fully implemented

PREVENTION & MANAGEMENT GUIDELINES — International guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	Always	Always
Rapid-acting (analogs)	Always	Always
Ultra-rapid-acting analogs	Not often	Not often
Intermediate acting	Always	Always
Long-acting	Always	Always

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	For all PwD
Rapid-acting (analogs)	For all PwD
Ultra-rapid-acting analogs	Other
Intermediate acting	For all PwD
Long-acting	For all PwD

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D	Not reimbursed
Syringes & Needles	rtCGMs* (1)	Connected smart pens
Insulin pens		Insulin pumps
Blood glucose meters		Automated delivery systems
Test strips		isCGMs**

(1) Free of charge for people living with T1D <40 y/o

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor — Fully reimbursed

GLP1 analogue

SGLT2 inhibitor — Fully reimbursed

Meglitinide

Alpha glucosidase inhibitor

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Fully reimbursed

Beta blockers — Fully reimbursed

ACE inhibitors — Fully reimbursed

Thiazide diuretics — Fully reimbursed

Statins — Fully reimbursed

Ezetimibe

PCSK9 inhs

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available or people with T1D <24 y/o and using a CGM

Online appointment management	■	Video consultations	■
Telephone consultations	▲	SMS & EMAIL consultations	▲
Electronic prescriptions	▲	Telehealthcare & Remote monitoring*	▲

ELECTRONIC HEALTH RECORDS?

YES NO

●

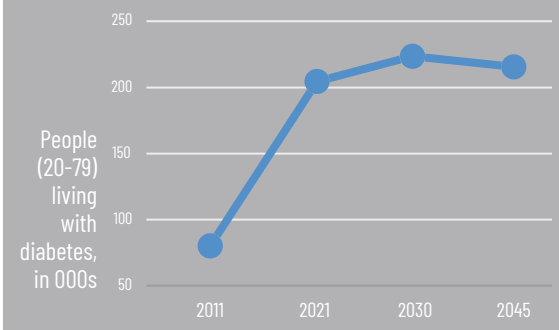
WORKING DIABETES REGISTER?

No

AN OVERVIEW OF DIABETES CARE

country:
Moldova

DIABETES PREVALENCE



Of which, undiagnosed
21.3% (82,000 people)

Children & adolescents with T1D (0-19y)
802

Diabetes prevalence
6.7%

Diabetes-related deaths 4,025

Total expenditure
€412.7 (per person)

In Moldova, insulin and other diabetes medicines, such as Metformin, Sulfonylureas, and Meglitinide, are provided free of charge for people living with diabetes (PwD). Other medications like DPP4 and SGLT2 inhibitors are reimbursed at 75% and 65% of their cost by the National Health Insurance (NHI).

While syringes and needles for insulin administration are covered by the NHI, they only meet about two-thirds of the actual needs of PwD. The availability of test strips, needles and syringes varies depending on diabetes type and treatment.

Newer technologies like continuous glucose monitors (CGMs) and insulin pumps are limited to children, with approximately 100 children living with diabetes having access to insulin pumps, meaning fewer than 15% of children are covered.

Over the past 20 years, Moldova has implemented four National Programmes for Diabetes Prevention. The most recent programme is in its final stages and includes measures for screening diabetes and its complications, diabetes education and PwD engagement.

Screening is available for all diabetes-related complications and is regulated by the National Clinical Protocol for Diabetes. However, there is a lack of reporting and data on the incidence of complications.

Diabetes education is provided by endocrinologists and/or general practitioners. The effectiveness of the education is often limited by the absence of specialist diabetes educators and lack of time and resources.

As of 2023, the Republican Hospital has initiated a training course and is developing a curriculum for diabetes nurses in collaboration with the Center of Excellence in Nursing Training.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN?
Stand alone
Under development

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & needles (1)
- Insulin pens
- Test strips (2)
- Blood glucose meters

Free of charge for children

- Insulin pumps (3)
- Automated delivery systems
- rtCGMs*
- isCGMs**

Not available

- Connected/smart pens

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

(1) Syringes:

- Adults on basal-bolus insulin regimen = 150 syringes / 3 months
- Adults on basal or premixed insulin regimens = 60 syringes / 3 months

(1) Needles:

- Children and adolescents with T1D = 240 needles / 3 months
- People with gestational diabetes = 300 needles / 3 months
- Adults on basal-bolus insulin regimen = 150 needles / 3 months
- Adults on basal or premixed insulin regimens = 60 needles / 3 months

(2) Test strips:

- Children and adolescents with T1D = 450 strips / 3 months
- People with gestational diabetes (for 16 weeks) = 450 strips / 3 months
- Adults with T1D = 350 strips / 3 months
- People with T2D on insulin treatment = 200 / 3 months
- People with T2D on oral medications = 25 / 3 months

(3) Insulin pumps are available for 100 children living with diabetes in the country.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and accessible

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D and children
- Not reimbursed

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Partially reimbursed (75%)		Partially reimbursed (65%)	Fully reimbursed	

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge		

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults with T1D*
- *Children with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	■
Telephone consultations	▲	SMS & EMAIL consultations	▲
Electronic prescriptions	■	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

●

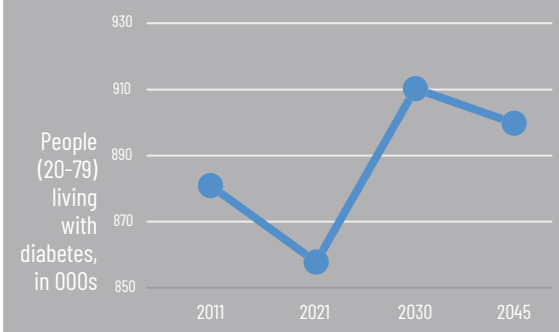
WORKING DIABETES REGISTER?

NO

AN OVERVIEW OF DIABETES CARE

Country: **The Netherlands**

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (287,100 people)

Children & adolescents with T1D (0-19y)
6,393

Diabetes prevalence
6.8%

Diabetes-related deaths 21,213

Total expenditure €5418 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In the Netherlands, all adults are required to take out standard health insurance and pay a monthly premium, along with a yearly compulsory deductible of €385, before gaining access to standard healthcare services, free of charge.

All types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for people living with diabetes (PwD) with reimbursement varying based on their treatment and indication.

Healthy living policies are in place, including regulations targeting healthy diets such as a tax on sugar sweetened beverages which was increased as of January 1, 2024, following the government's commitment, in 2022, to strengthen regulations aimed at restricting the marketing of unhealthy food to children. Screening for all diabetes-related complications is available everywhere in the country.

Diabetes education is provided at the time of diagnosis and throughout the life course primarily by diabetes specialist nurses (DSNs). While peer support is not integrated in the education provided, it is sometimes available through diabetes associations in the country.

DSNs are required to obtain a non-academic qualification at a University of Applied Sciences. They are involved in the management of all PwD and, since 2014, they have also been allowed to prescribe diabetes medicines.

The country has a fully implemented electronic health records and a diabetes register for PwD who are treated at outpatient clinics in hospitals. However, the register does not include people with gestational diabetes or those exclusively treated by general practitioners.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? Stand alone Fully implemented

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs*
- Intermediate acting
- Long-acting

*The reimbursement of ultra-rapid analog insulin requires a specific "Medical Need" prescription which is partly or fully reimbursed by one's health insurer depending on their insurance policy for the product.

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for children

- Automated delivery systems (1)
- rtCGMs* (1)

Free of charge for all T1D and T2D on insulin treatment

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips
- isCGMs** (2)
- Insulin pumps (3)

Not reimbursed

- Connected smart pens

(1) Also free of charge for:
- Adults with T1D with blood glucose levels >64 mmol/mol
- Adults with T1D who started using CGMs before the age of 18
- Pregnant people with existing T1D or T2D
- People with T1D or T2D who wish to become pregnant
- People with hypoglycaemia unawareness

(2) isCGMs:
- People with T2D on intensive insulin treatment
- Pregnant people with existing T2D on insulin treatment
- People with T2D who wish to become pregnant

(3) Insulin pumps:
- People with T2D on intensive insulin treatment

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and easily accessible

idfeurope@idf-europe.org www.idf-europe.org www.dvn.nl

March 2024

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue*

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

*Reimbursement for T2D with certain indications

Fully reimbursed after people have paid their annual compulsory deductible to their health insurer

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

Fully reimbursed after people have paid their annual compulsory deductible to their health insurer

HEALTH SYSTEMS

YES NO

*A non-academic DSN qualification can be obtained at a University of Applied Sciences

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?*
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

Yes, for PwD treated at outpatient clinics in hospitals

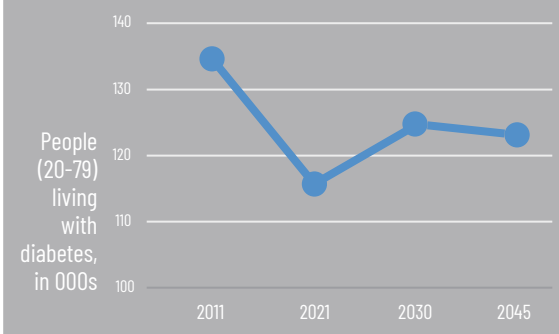
idfeurope@idf-europe.org www.idf-europe.org www.dvn.nl

March 2024

AN OVERVIEW OF DIABETES CARE

country:
North Macedonia

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (46,900 people)

Children & adolescents with T1D (0-19y)
330

Diabetes prevalence
7.4%

Diabetes-related deaths 2,590

Total expenditure
€824.2 (per person)

In North Macedonia, insulin is available free of charge for all people living with diabetes (PwD). Other diabetes medicines are available in the country, but they are fully reimbursed only for a limited number of people annually. Insulin pumps and continuous glucose monitors (CGMs) are available free of charge for children, and glucose meters and test strips are fully reimbursed for people living with type 1 diabetes, while people living with type 2 diabetes on insulin treatment have access to these devices with some limitations.

Ehealth is very well developed across the country. Healthcare professionals have full access to people's electronic records and e-prescriptions. This well-structured ehealth system also provides good national statistics, especially for people on insulin treatment.

One of the main challenges in the country is the organisation of care across the different levels of care. Most PwD in North Macedonia are treated at the tertiary care level, and primary care physicians are often not allowed to prescribe insulin nor renew some prescriptions.

Education programmes and nutrition advice for PwD are not officially recognised in the country. However, some specialised clinics have developed their own formal education programmes for individuals and groups of PwD. Similarly, there is no special academic training for diabetes nurses, although they tend to specialise during their practice and some specialised clinics have a special curriculum in place for diabetes nurses.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis*
- Throughout the life course*
- Integrated peer-to-peer support

*Only for those treated in large clinics and medical centres

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?

Mothers are advised to do an oral glucose tolerance test 6 months after delivery

NATIONAL PLAN? Partly integrated and partly implemented

PREVENTION & MANAGEMENT GUIDELINES National & international guidelines

MONITORING FRAMEWORK? No

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D	Free of charge for children	Not available
Syringes & needles	Blood glucose meters (1)	Insulin pumps	Connected/smart pens
Insulin pens	Test strips (1)	isCGMs**	
Automated delivery systems		rtCGMs*	

(1) Free of charge for people with type 2 diabetes on insulin treatment (30 strips/month)

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

Only Glibenclamide

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Free of charge for 100 PwD annually	Free of charge for 850 PwD annually	Free of charge for 500 PwD annually		

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Not reimbursed	Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	■
Telephone consultations	▲	SMS & EMAIL consultations	▲
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

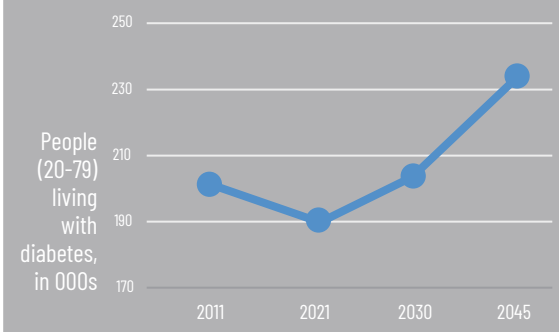
WORKING DIABETES REGISTER?

Yes, for PwD on insulin therapy

AN OVERVIEW OF DIABETES CARE

country:
Norway

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (63,900 people)

Children & adolescents with T1D (0-19y)
3,821

Diabetes prevalence
4.8%

Diabetes-related deaths 2,788.0

Total expenditure €9386.5 (per person)

In Norway, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for people living with diabetes (PwD) and they are free of charge for children. Adults living with diabetes need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to most diabetes medicines, supplies and technologies free of charge.

Healthy living policies are in place. They include regulations to prevent marketing of unhealthy foods and beverages to children. However, there are no taxes on sugar sweetened beverages nor strong sanctions to ensure compliance with the regulations.

Screening for the prevention of diabetes-related complications is available but varies across the country, and there is no programme to follow mothers with gestational diabetes after the birth of the baby.

All PwD are entitled to receive self-management education through group-based courses. However, access to education varies greatly across the country and a high number of PwD are not referred to the courses.

Psychological support is included as part of diabetes care in hospitals, but may not always be available. Nurses play a role in the prevention of diabetes and in the management of both people living with type 1 diabetes (T1D) and women with gestational diabetes.

Norway has a national diabetes register for T1D and T2D above 18 years of age which is, however, incomplete. The full implementation of electronic health records, ehealth and remote monitoring is currently under development.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? — Stand alone Not implemented

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children		Adults
●	Short-acting regular insulin	●
●	Rapid-acting (analogs)	●
●	Ultra-rapid-acting analogs	●
●	Intermediate acting	●
●	Long-acting	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- ● Short-acting regular insulin
- ● Rapid-acting (analogs)
- ● Ultra-rapid-acting analogs
- ● Intermediate acting
- ● Long-acting

PwD above 16 years of age need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to insulin free of charge.

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for children and partially reimbursed for T1D and T2D above 16 years of age (1;2)

- Needles
- Insulin pens
- Blood glucose meters
- Test strips
- Insulin pumps
- Automated delivery systems
- rtCGMs*
- isCGMs**

(1) PwD above 16 years of age need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to supplies and technologies free of charge.

(2) Only a limited number of people with T2D who are treated by specialists have access to CGMs.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Psychological support is included as part of diabetes care in hospitals, but may not always be available.

When available, psychological support is free of charge for PwD under the age of 18.

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

PwD above 16 years of age need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to glucagon, metformin and sulfonylureas free of charge.

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

PwD above 16 years of age need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to diabetes medicines free of charge.

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

PwD above 16 years of age need to pay an annual deductible of kr3040 (approximately €265 in 2023) before having access to cardiovascular medicines free of charge.

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

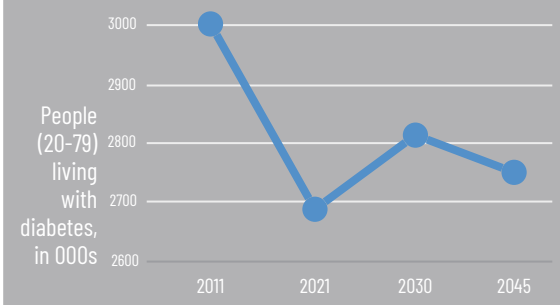
WORKING DIABETES REGISTER?

Yes, for T1D and T2D above 18 years of age

AN OVERVIEW OF DIABETES CARE

country:
Poland

DIABETES PREVALENCE



Of which, undiagnosed*
65.2% (1,745,100 people)

Children & adolescents with T1D (0-19y)*
12,447

Diabetes prevalence
9.4%

Diabetes-related deaths 5,330

Total expenditure €835.8 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, the number of children and adolescents with T1D in Poland is 20,000 and the percentage of undiagnosed diabetes is approximately 25%

In Poland, diabetes care is free of charge for people living with diabetes (PwD). Access to medicines and devices is not universal though. While most modern medicines and technologies are available in the country, they are only free of charge for some groups of people, and only partly or not reimbursed at all for others. Access to specialists is free of charge but the waiting time is often very long.

National guidelines for the prevention and management of diabetes exist and are implemented. Screenings for the prevention of most diabetes-related complications take place everywhere in the country, albeit with some variations for the prevention of the diabetes foot. Healthy living policies are also in place targeting obesity, healthy diets, physical activity and smoking.

Diabetes education is available for children and young people living with Type 1 Diabetes (T1D), but it is hard to access and not always available for people living with Type 2 Diabetes (T2D). Peer-to-peer support is not integrated as part of the education provided.

Specialist nurses play a role in the prevention of the diabetes as well as in the management of all PwD and they can prescribe diabetes medicines.

E-health is available for all PwD at the same conditions as "traditional" systems and the country has electronic health records as well as a working diabetes register for children and mothers with gestational diabetes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN?
Partly integrated
Not implemented

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
No

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children		Adults
●	Short-acting regular insulin	●
●	Rapid-acting (analogs)	●
●	Ultra-rapid-acting analogs	●
●	Intermediate acting	●
●	Long-acting	●

Is available INSULIN free of charge?

- For all T1D
- Lump sum
- Co-payment
- Other

- Short-acting regular insulin*
- Rapid-acting (analogs)*
- Ultra-rapid-acting analogs*
- Intermediate acting*
- Long-acting

*Free for pregnant women, children and PwD over 65 y/o

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for children/young PwD	Partially reimbursed	Not reimbursed
Insulin pens	Insulin pumps (1)	Test strips (2)	Connected/smart pens
Blood glucose meters		Needles (3)	Automated delivery systems
		rtCGMs*	
		isCGMs**	

(1) Until 26 y/o.

(2) Small lump sum for T1D and T2D on intensive insulin therapy. 30% co-payment for T2D not on intensive insulin therapy.

(3) Reimbursed for all PwD on insulin therapy

*real-time continuous glucose monitors.

**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

idfeurope@idf-europe.org www.idf-europe.org www.diabetyk.org.pl

March 2024

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Partially reimbursed

Nasal Glucagon — Not reimbursed

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

Free of charge for PwD over 65 y/o
Small lump sum for PwD under 65 y/o

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

30% co-payment for PwD with a high rirk of carviovascular complications

Meglitinide

Alpha glucosidase inhibitor

30% co-payment for all PwD

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators? *(hard to access)*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

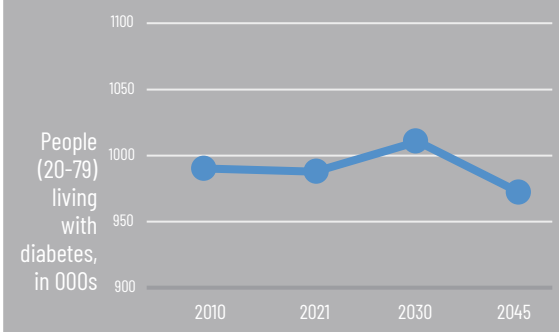
WORKING DIABETES REGISTER?

Yes, for children and mothers with gestational diabetes

AN OVERVIEW OF DIABETES CARE

country:
Portugal

DIABETES PREVALENCE



Of which, undiagnosed
43.6% (433,400 people)

Children & adolescents with T1D (0-19y)
2,443

Diabetes prevalence
13%

Diabetes-related deaths 22,858

Total expenditure
€1928 (per person)

In Portugal, diabetes care provided by the National Health System is free of charge and all types of insulin are available for all people living with diabetes (PwD). Other diabetes medicines are partially reimbursed (usually up to 90%), and some devices such as pumps are fully reimbursed. Continuous Glucose Monitors (CGMs) are generally only available to, and partially reimbursed for, people living with type 1 diabetes.

Although this has slowed down somewhat because of the COVID-19 pandemic, in the last 20 years, the country has made great strides in creating an integrated care model for diabetes management and answering the needs of PwD in an interdisciplinary and complementary way.

One of the main challenges faced by the country is the prevention of type 2 diabetes (T2D). To address this, the National Health Directorate is working on the implementation of healthy living initiatives and a mix of national and international guidelines for the prevention of T2D including a tax on sugar-sweetened beverages, bans on advertising unhealthy foods at prime time and selling unhealthy foods in public spaces and the inclusion of recommendations in the National Health Nutrition Plan.

Screening for diabetes-related complications is available as per the guidelines in place in the country with some variations across regions for eye screening and diabetes foot. Nurses involved in consultations with PwD may receive specific training on diabetes prevention and management. However, they cannot prescribe diabetes medicines.

In Portugal, education for carers and families is usually available at time of diagnosis with variations according to preferences. The same applies to education throughout the life course.

Peer-to-peer support is integrated with regional variations, as no national programme exists.

Electronic health records exist for PwD and most e-health services are also available.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN?
Stand alone fully implemented

PREVENTION & MANAGEMENT GUIDELINES
National & international guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D	Partially reimbursed	Not reimbursed
Syringes & needles	Insulin pumps	Test strips (85%)	Connected/smart pens
Insulin pens	Automated delivery systems	isCGMs*	
Blood glucose meters		rtCGMs**	

*intermittently scanned continuous glucose monitors.
**real-time continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

- Glucagon — Partially reimbursed
- Nasal Glucagon — Not reimbursed
- FREE OF CHARGE? For all PwD / For all T1D only / For children only / Other

- FREE OF CHARGE? For all PwD / For adults only / For children only / Other
- Metformin — Partially reimbursed 90%
- Sulfonylureas — Partially reimbursed 90%

OTHER DIABETES MEDICINES

- DPP4 inhibitor — Partially reimbursed 90%
- GLP1 analogue — Partially reimbursed 90%
- SGLT2 inhibitor — Partially reimbursed 90%
- Meglitinide
- Alpha glucosidase inhibitor — Partially reimbursed 90%

CARDIOVASCULAR MEDICINES

- Calcium channel blockers — Partially reimbursed 69%
- Beta blockers — Partially reimbursed 69%
- ACE inhibitors — Partially reimbursed 69%
- Thiazide diuretics — Partially reimbursed 69%
- Statins — Partially reimbursed 37%
- Ezetimibe — Partially reimbursed 37%
- PCSK9 inhs* — Free of charge Only available at hospital level

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?

- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Not charged to the National Health System

- Online appointment management — YES
- Telephone consultations — YES
- Electronic prescriptions — YES
- Video consultations — NO
- SMS & EMAIL consultations* — NO
- Telehealthcare & Remote monitoring — YES

ELECTRONIC HEALTH RECORDS?

YES NO

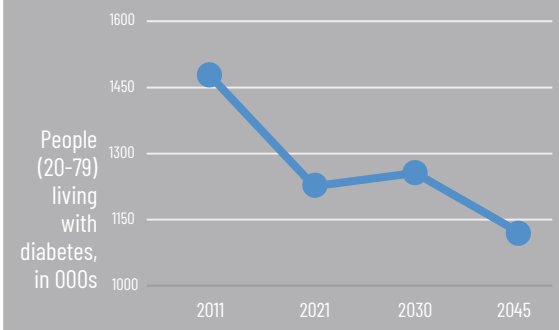
WORKING DIABETES REGISTER?

Yes, for children and PwD on insulin pumps

AN OVERVIEW OF DIABETES CARE

country:
Romania

DIABETES PREVALENCE



Of which, undiagnosed
21.3% (255,400 people)

Children & adolescents with T1D (0-19y)
38,140

Diabetes prevalence
8.4%

Diabetes-related deaths 24,213

Total expenditure
€781.9 (per person)

In Romania, diabetes care is provided by specialists in diabetes, nutrition and metabolic diseases. All types of insulin are available, free of charge. Other medicines and technologies are available at little or no cost for people living with Type 1 Diabetes (T1D). Two types of pumps and continuous glucose monitors (CGMs) are available free of charge for all children. CGMs and insulin pumps are also available free of charge for students and pregnant women and some adults with T1D, based on some specific criteria.

Care is generally good, although access to specialists is sometimes difficult in remote regions. More training of primary care physicians would also enhance their ability to optimally manage people living with Type 2 Diabetes (T2D). Reflecting the shortage of paediatricians specialised in diabetes, children tend to be managed by diabetologists, who then follow them throughout their life course. Screening for most diabetes-related complications is undertaken mainly by diabetes, nutrition and metabolic diseases specialists, with CVD screening undertaken by cardiologists.

Romania has a fully implemented National Diabetes Plan which tackles all aspects of diabetes management (medical assistance, medication, devices), but the country has no working diabetes registry. Since 2020, the Law of Prevention has been passed (mainly for diabetes), although the implementation frame is still being developed. However, the prevention law includes recommendations on increased physical activity in schools and some initiatives for children are already in place. Prevention, screening programmes and early interventions (lifestyle and metformin) for people living with prediabetes have been recently implemented at the primary health care level.

Diabetes education tends to be delivered by nurses working in diabetes clinics or hospital departments and trained through continuous medical education programmes. However, there is no structured self-management education programme, and diabetes nursing is not yet a recognised specialty. Nutritional counselling is available but hard to access because dietitians and nutritionists are not present in hospitals on a regular basis and private consultations are not reimbursed.

COVID-19 has spurred the development of e-health: virtual consultations are reimbursed, and this will continue to be the case in the future.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN? — Stand alone fully implemented

PREVENTION & MANAGEMENT GUIDELINES — National & international guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

idfeurope@idf-europe.org www.idf-europe.org www.federatiaromanadiabet.ro www.societate-diabet.ro
May 2022

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all	Free of charge for T1D	Not available	Other
Syringes & needles	Insulin pumps	Connected/smart pens	Blood glucose meters (1)
Insulin pens	rtCGMs*	isCGMs**	Test strips (2)
	Automated delivery systems		

(1) For those on insulin therapy (Both T1 and T2 diabetes).
(2) For those on insulin therapy (Both T1 and T2 diabetes).
For children = 400 strips / 3 months. For adults = 100 strips / 3 months.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Psychological support is available but hard to access because of a lack of psychologists specialised in supporting people living with diabetes, and because consultations are not reimbursed. It is possible to refer people living with diabetes to specialised psychologists but the waiting list is long and there is more availability in private practices.

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

For PwD on insulin treatment

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

Free of charge

Some CVD medicines like statins and anticoagulants are free of charge in the nine months following an acute event, and otherwise reimbursed at 60%, except for PCSK9 Inhibitors which are free of charge for people at high/very high cardio-vascular risk who cannot achieve the LDL target with statins +/- ezetimibe.

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management	▲	Video consultations	▲
Telephone consultations	▲	SMS & EMAIL consultations	▲
Electronic prescriptions	▲	Telehealthcare & Remote monitoring	▲

ELECTRONIC HEALTH RECORDS?

YES NO

●

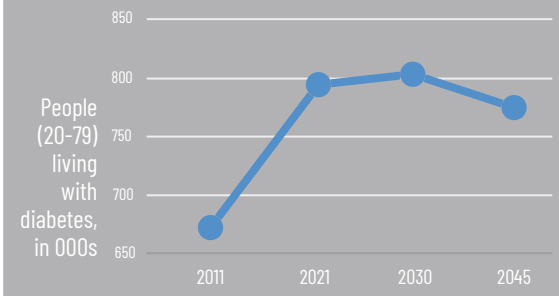
WORKING DIABETES REGISTER?

NO

AN OVERVIEW OF DIABETES CARE

Country:
Serbia

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (315,300 people)

Children & adolescents with T1D (0-19y)*
2,820

Diabetes prevalence
12.2%

Diabetes-related deaths 15,908

Total expenditure €1197,3 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

*According to national estimates, the number of children and adolescents with T1D in Serbia is approximately 4,000.

Serbia has made great strides in setting up the prevention and management frameworks necessary to reduce the incidence of diabetes and diabetes-related complications. A new comprehensive national diabetes plan is under development and the country has a full working diabetes registry at primary level for all people living with diabetes (PwD).

There are national guidelines for the prevention and management of diabetes, including systematic screening for diabetes-related complications. Self-management education is also provided to PwD and carers.

Most medicines and technologies are fully available at little or no cost for those meeting the criteria set by the National Health Insurance Fund, although some of the newer medicines are not yet reimbursed, or not in full. Newer technologies for blood glucose monitoring and insulin administration are also available but not all of them are reimbursed by the National Health Insurance Fund.

COVID-19 has spurred the development of e-health (especially prescriptions and remote consultations) and a pilot project is under way for remote monitoring but advances in both have, to date, remained limited, due to the lack of formal legislation in this respect (e.g., reimbursement of remote consultations).

There is no educational track for specialised diabetes nurses, although they tend to specialise during their practise and healthcare staff shortage is an issue. Psychological support for PwD is also a weak point, due to the lack of dedicated healthcare professionals, with education in this field.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Stand alone Under development

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips (1)

Free of charge for T1D

- Insulin pumps
- rtCGMs*

Not reimbursed

- Connected smart pens
- isCGMs**
- Automated delivery systems

(1) A fixed number of test strips per month is reimbursed, depending on the situation and/or treatment:

- 50 test strips/month for people with T2D
- 100 test strips/month for PwD on insulin treatment
- 150 test strips/month for PwD on four-daily injections
- 150 test strips/month for children and during pregnancy

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available free of charge but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Reimbursed for some PwD meeting specific criteria

Meglitinide

Fully reimbursed

Alpha glucosidase inhibitor

Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Partially reimbursed	Partially reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Partially reimbursed	Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Telephone consultations

Electronic prescriptions

Video consultations

SMS & EMAIL consultations

Telehealthcare & Remote monitoring

Pilot project

ELECTRONIC HEALTH RECORDS?

YES NO

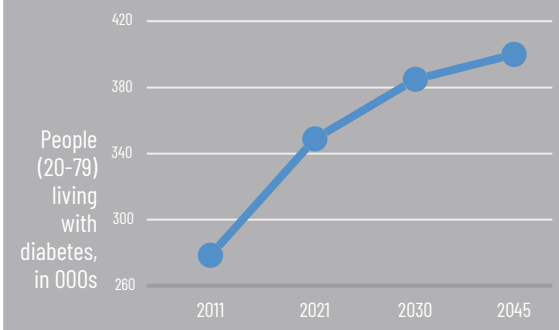
WORKING DIABETES REGISTER?

Yes

AN OVERVIEW OF DIABETES CARE

country: Slovakia

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (117,200 people)

Children & adolescents with T1D (0-19y)
1,375

Diabetes prevalence
8.4%

Diabetes-related deaths 140,775

Total expenditure
€1036 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Slovakia, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for people living with diabetes (PwD) and they are free of charge for children.

Healthy living policies are in place targeting obesity and smoking. There are, however, no specific policies on healthy food and physical activity.

Screening for diabetes-related complications is available but varies across the country. People with gestational diabetes are follow up by diabetologists for six months after the birth of the baby.

Diabetes specialist nurses play a role in diabetes prevention and in the management of people living with all types of diabetes, but they are not allowed to prescribe medications.

E-health services such as telephone/SMS/email consultations, electronic prescriptions, telehealthcare and remote monitoring are available depending on the clinic and/or physician.

Slovakia has a national diabetes register for children living with diabetes.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies accross the country

NATIONAL PLAN? Stand-alone

PREVENTION & MANAGEMENT GUIDELINES National & international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Partially reimbursed

- Insulin pens
- rtCGMs**
- isCGMs*

Free of charge for all PwD

- Syringes and needles
- Blood glucose meters
- Test strips
- Insulin pumps
- Automated delivery systems

Not reimbursed

- Connected/smart pens

ARE SUPPLIES & TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*Intermittently scanned continuous glucose monitors.
**Real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available, but hard to access

AVAILABLE AT THE POINT OF DELIVERY? Always | MOST OF THE TIME | SOMETIMES | NOT OFTEN | NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Partially reimbursed	Partially reimbursed	Partially reimbursed		

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Partially reimbursed	Partially reimbursed	Partially reimbursed	Partially reimbursed	Partially reimbursed	Partially reimbursed	Partially reimbursed

HEALTH SYSTEMS

YES | NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Children and adults with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES | NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES | NO

*Available depending on the clinic and/or physician

Online appointment management	■	Video consultations	■
Telephone consultations*	▲	SMS & EMAIL consultations	▲
Electronic prescriptions*	▲	Telehealthcare & Remote monitoring*	▲

ELECTRONIC HEALTH RECORDS?

YES | NO

●

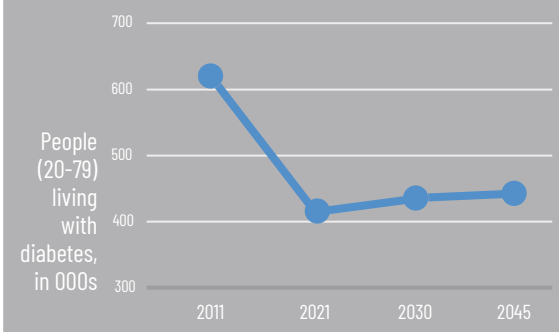
WORKING DIABETES REGISTER?

Yes, for PwD under 18 y/o

AN OVERVIEW OF DIABETES CARE

country: **Slovenia**

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (46,200 people)

Children & adolescents with T1D (0-19y)
603

Diabetes prevalence
8.9%

Diabetes-related deaths 3,291

Total expenditure €2098 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Slovenia, people living with diabetes (PwD) on insulin therapy have access, free of charge, to all types of insulin and devices for blood glucose measuring and insulin administration with some limitations depending on their ability to meet glycaemic targets and/or the frequency and severity of hypoglycaemic episodes.

National guidelines for the prevention and management of diabetes exist and are implemented. Screening for the prevention of most diabetes-related complications takes place everywhere in the country, albeit with some variations for the prevention of the diabetes foot. Healthy living policies are also in place targeting obesity, healthy diets, physical activity and smoking.

PwD in Slovenia have access to diabetes education both at the time of diagnosis and throughout the life course, especially in the case of worsening glycaemic control and/or treatment changes. Psychological support is available but hard to access and it is primarily provided in paediatric clinics.

Diabetes specialist nurses are required to follow a special 400-hour academic training course and they play a role in the prevention and management of all types of diabetes. However, they are not allowed to prescribe diabetes medicines.

The country has electronic health records, but these are not always integrated into the same system. The COVID-19 pandemic has stimulated the uptake of e-health, telemedicine and remote e-services, including remote diabetes monitoring.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN?
Stand alone fully implemented

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for T1D (1)	Not reimbursed
Needles	Insulin pumps	Connected/smart pens
Insulin pens	Automated delivery systems	
Blood glucose meters	isCGMs*(2)	
Test strips	rtCGMs**(2)	

(1) Free of charge for children with T1D, pregnant women on insulin therapy and adults with T1D who do not meet glycaemic targets and/or experience frequent and severe hypoglycaemic episodes.

(2) People with T2D on insulin therapy who require more than 3 daily injections, also have accss to CGMs free of charge.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

*Intermittently scanned continuous glucose monitors.

**Real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access and provided only to PwD treated at paediatric clinics

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

Online appointment management*	▲	Video consultations*	▲
Telephone consultations	▲	SMS & EMAIL consultations*	▲
Electronic prescriptions	▲	Telehealthcare & Remote monitoring*	▲

ELECTRONIC HEALTH RECORDS?

YES NO

●

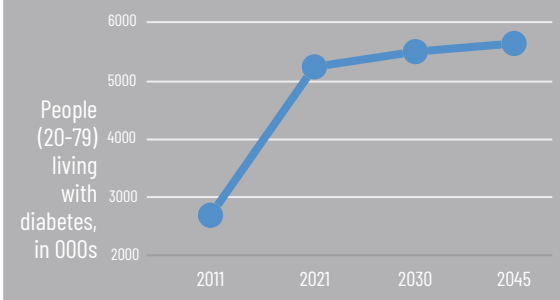
WORKING DIABETES REGISTER?

Yes, for children

AN OVERVIEW OF DIABETES CARE

Country: **Spain**

DIABETES PREVALENCE



Of which, undiagnosed
30.3% (1,557,800 people)

Children & adolescents with T1D (0-19y)
17,221

Diabetes prevalence
14.7%

Diabetes-related deaths 81,717

Total expenditure €2527 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, in 2020, the prevalence of T2D in Spain stood at 11.1-12.1%.

In Spain, all types of insulin and other diabetes medicines are available and subject to a 10% co-payment, with a maximum charge of €4.60, for all people living with diabetes (PwD). Supplies and technologies for blood glucose monitoring and insulin administration such as syringes, needles, insulin pens, blood glucose meters and test strips are available free of charge for all PwD, while insulin pumps and automated delivery systems are reimbursed for people living with Type 1 diabetes (T1D) upon specific recommendation from their healthcare professionals. Real-time and intermittently-scanned continuous glucose monitors (CGMs) are fully reimbursed for people with T1D and Type 2 diabetes (T2D) on multiple daily insulin injections.

A national diabetes plan is fully implemented in some regions and partially in others. Healthy living policies are in place targeting obesity, healthy diets and smoking. There are, however, no specific policies on physical activity. Screening for all diabetes-related complications is available everywhere in the country, while programmes to follow people with gestational diabetes after the birth of their baby vary by region.

Electronic health records and other e-health solutions such as electronic prescriptions, telephone, SMS and email consultations, telehealthcare and remote monitoring are available at the same conditions as "traditional" systems. A national diabetes register for people living with T1D was developed in 2023 and will be fully implemented by the end of 2024.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, but it varies across the country

NATIONAL PLAN? Fully integrated, Partly implemented

PREVENTION & MANAGEMENT GUIDELINES National & international guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?*

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

*10% co-payment with a maximum charge of €4.60

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	YES

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips

Free of charge for T1D

- Insulin pumps (1)
- Automated delivery systems (1)
- rtCGMs*
- isCGMs** (2)

Not reimbursed

- Connected smart pens

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Free of charge for T1D under specific HCPs recommendation

(2) Free of charge for T2D on multiple daily insulin injections

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon — Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Partially reimbursed

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin — Sulfonylureas

10% co-payment with a maximum charge of €4.60

OTHER DIABETES MEDICINES

GLP1 analogue — DPP4 inhibitor — SGLT2 inhibitor — Meglitinide — Alpha glucosidase inhibitor

Income-based co-payment

10% co-payment with a maximum charge of €4.60

CARDIOVASCULAR MEDICINES

Calcium channel blockers — Beta blockers — ACE inhibitors — Thiazide diuretics — Statins — Ezetimibe — PCSK9 inhs

10% co-payment with a maximum charge of €4.60

Income-based co-payment

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

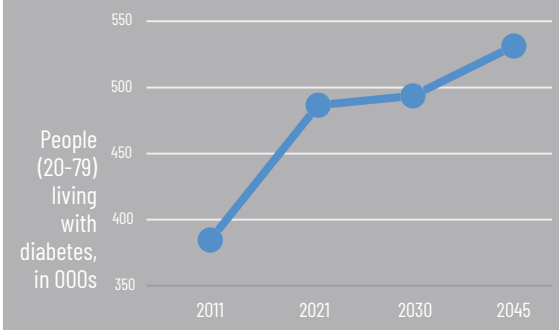
WORKING DIABETES REGISTER?

Yes, for people living with T1D

AN OVERVIEW OF DIABETES CARE

Country:
Sweden

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (166,300 people)

Children & adolescents with T1D (0-19y)
9,167

Diabetes prevalence
6.8%

Diabetes-related deaths 11,623

Total expenditure €6451.3 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Sweden, all types of insulin as well as devices and technologies for blood glucose monitoring and insulin administration are available for free for people living with diabetes (PwD) according to national guidelines. All adults in Sweden are required to contribute to the cost of their outpatient care and other prescriptions, to a maximum of SEK1,400 and SEK2,850 respectively, after which all consultations and medicines are available free of charge. They are also entitled to the reimbursement of their travel expenses for medical appointments after the contribution of a maximum of about SEK1,750 per year which varies by region. Diabetes care and prescriptions are free of charge for children and adolescents under the age of 18.

Healthy living policies are in place with the exception of regulations for healthy diets such as taxes on sugar sweetened beverages. Except for eye screening, which is available everywhere in the country, screening for other diabetes-related complications varies across Sweden.

Psychological support is available to PwD at the same cost as other types of care. Diabetes specialist nurses play a role in diabetes prevention and in the management of people living with all types of diabetes, but they are not allowed to prescribe medications.

Sweden has a national diabetes register for all PwD and fully implemented electronic records. The use of e-health is available for online appointment management, video/telephone/SMS/email consultations, electronic prescriptions and remote monitoring.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? NO

PREVENTION & MANAGEMENT GUIDELINES National guidelines

MONITORING FRAMEWORK? Yes

GOVERNMENT ENGAGEMENT WITH PwD? Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD

- Syringes & Needles
- Insulin pens
- Blood glucose meters
- Test strips
- Insulin pumps
- Automated delivery systems
- rtCGMs*
- isCGMs**

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Psychological support is available and free after people have contributed with a maximum of SEK1,400 per year to the cost of their outpatient care

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Free of charge after people have contributed with a maximum of SEK2,850 per year to the cost of their prescription medications

CARDIOVASCULAR MEDICINES

Calcium channel blockers

Beta blockers

ACE inhibitors

Thiazide diuretics

Statins

Ezetimibe

PCSK9 inhs

Free of charge after people have contributed with a maximum of SEK2,850 per year to the cost of their prescription medications

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

Diabetes education is provided by DSNs and/or diabetologists

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

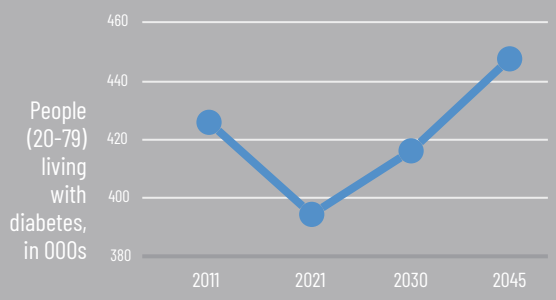
WORKING DIABETES REGISTER?

Yes, for all PwD

AN OVERVIEW OF DIABETES CARE

country:
Switzerland

DIABETES PREVALENCE



Of which, undiagnosed
33.5% (130,300 people)

Children & adolescents with T1D (0-19y)
2,092

Diabetes prevalence
6.0%

Diabetes-related deaths 7644

Total expenditure
€10.783 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According to national estimates, diabetes diabetes among people over 75 y/o was 14.8% in 2022, compared to 4% for women and 6.9% for men over 15 y/o.

All diabetes medicines, including insulins, devices, supplies and technologies for blood glucose monitoring and insulin administration are available for people living with diabetes (PwD). Everyone is required to purchase a private health insurance and pay an annual deductible before gaining access to most healthcare services free of charge. A national list regulates the maximum cost reimbursed for supplies and technologies, and in certain cases, co-payment may be necessary.

Healthy living policies are in place with the exception of regulations for healthy diets.

Psychological support and self-management education are available to all citizens. They are fully reimbursed if prescribed by a physician.

Diabetes registers are privately implemented by some university hospitals for children and adults living with diabetes. Some e-health services such as online appointment management, electronic prescriptions, video consultations, telehealthcare and remote monitoring are available depending on one's health insurance company.

Diabetes specialist nurses are required to follow a special academic course and play a role in the prevention and management of all types of diabetes. However, they are not allowed to prescribe diabetes medicines.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Only in some cantons

PREVENTION & MANAGEMENT GUIDELINES — National & international guidelines

MONITORING FRAMEWORK? — Partly

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate-acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD (1)

- Syringes and needles
- Connected/smart pens
- Insulin pens
- rtCGMs**
- isCGMs*
- Blood glucose meters
- Test strips
- Insulin pumps
- Automated delivery systems

ARE SUPPLIES & TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) A national list regulates the maximum cost reimbursed for supplies and technologies. In certain cases, co-payment may be necessary.

*Intermittently scanned continuous glucose monitors.
**Real-time continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and fully reimbursed, but must be prescribed by a physician

AVAILABLE AT THE POINT OF DELIVERY? Always | MOST OF THE TIME | SOMETIMES | NOT OFTEN | NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon*

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

*Reimbursement is available for up to two packs of 3mg nasal glucagon per year. Additional quantities may also be reimbursed in the event of frequent hypoglycemic episodes, subject to a physician's evaluation.

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Reimbursed with some limitations

HEALTH SYSTEMS

YES | NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Children and adults with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES | NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES | NO

*Depending on health insurance company and primarily for emergencies. Do not guarantee a consultation with a diabetes specialist.

Online appointment management	▲	Video consultations*	■
Telephone consultations*	■	SMS & EMAIL consultations	■
Electronic prescriptions*	▲	Telehealthcare & Remote monitoring	▲

ELECTRONIC HEALTH RECORDS?

YES | NO

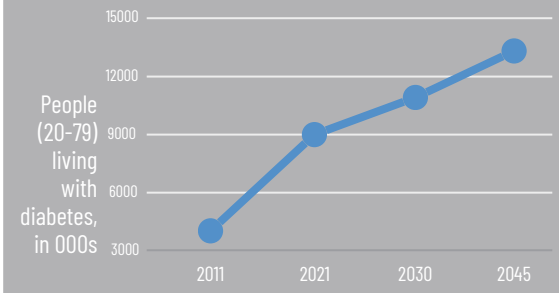
WORKING DIABETES REGISTER?

Private registers are implemented in some university hospitals

AN OVERVIEW OF DIABETES CARE

Country:
Turkey

DIABETES PREVALENCE



Of which, undiagnosed
41.8% (3,770,000 people)

Children & adolescents with T1D (0-19y)
25,800

Diabetes prevalence
15.9%

Diabetes-related deaths 83,221.4

Total expenditure €878 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

According national estimates, in 2010, the number of adults living with diabetes (>20 y/o) stood at approximately 7,000,000.

In Turkey, about 80% of the population is covered by the national social security. People living with diabetes (PwD) are either fully exempt from or partially required to cover the cost of their diabetes care, depending on the medications, supplies and technologies they require for their treatment.

All PwD are treated in secondary and tertiary care settings, where diabetes education is also provided. There is no shortage of internal specialists or endocrinologists and the waiting lists are short.

Prescriptions can be renewed by primary care physicians who are also allowed to order some lab tests. There is, however, a very limited number of diabetes nurses and a shortage of dieticians. Multidisciplinary teams are not yet in place in diabetes centres. There is also a need for better diabetes care at primary care level.

Diabetes education was initiated by the Turkish Diabetes Foundation in primary care health centres for people living with Type 2 Diabetes (T2D). The Foundation also carried out a structured peer-to-peer education programme in 21 cities and reached more than 25,000 PwD.

There is a national diabetes registry, based on the International Classification of Diseases (ICD)-10 codes. PwD are registered either as IDDM (insulin dependent diabetes mellitus) or as NIDDM (non-insulin dependent diabetes mellitus). Data is accessible primarily by the Ministry of Health (MoH). Physicians can also request access to their patients' data, with their permission only. There is a National Diabetes Plan, supplemented by two other initiatives "Diabetes 2020: Vision and targets-Turkey" and the "Diabetes Parliament". The latter was initially driven by the Turkish Diabetes Foundation and gathers all diabetes stakeholders and decision-makers (patient organisations; as well as representatives of all diabetes-related HCPs, the social security institution, every political party of the government; and a representative from the MoH or the Minister of Health himself and a representative of the Presidency). Conventions, led by civil society, are held twice a year. Diabetes is considered a "political" priority.

E-health was very much on the agenda during the COVID-19 pandemic. Real-time consultations were used in some centres, and people who developed COVID-19 or were at high risk were closely followed online. There remain, nevertheless, many gaps in the legal and regulatory frameworks, as well as issues with data and PwD's safety and healthcare professionals' (HCPs) liability.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Stand alone Fully implemented

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — No

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin		
Rapid-acting (analogs)		
Ultra-rapid-acting analogs		
Intermediate acting		
Long-acting		

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Short-acting regular insulin	
Rapid-acting (analogs)	
Ultra-rapid-acting analogs	
Intermediate acting	
Long-acting	

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	NO
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Partially reimbursed
Syringes & Needles	Blood glucose meters
Insulin pens	Insulin pumps
Connected smart pens	Automated delivery systems
Test strips (1)	rtCGMs*
	isCGMs**

(1) For T2D on oral medications, 1 strip/day

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available and easily accessible
Free / fully reimbursed

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

All diabetes medicines are fully reimbursed and require an initial prescription by an internist/endocrinologist, after which they can be renewed by GPs

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Reimbursed under specific conditions

HEALTH SYSTEMS

YES NO

*Available in limited number

- Are diabetes specialist nurses (DSNs) available?*
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Legally required

Online appointment management	■	Video consultations	■
Telephone consultations	■	SMS & EMAIL consultations	■
Electronic prescriptions*	▲	Telehealthcare & Remote monitoring	■

ELECTRONIC HEALTH RECORDS?

YES NO

●

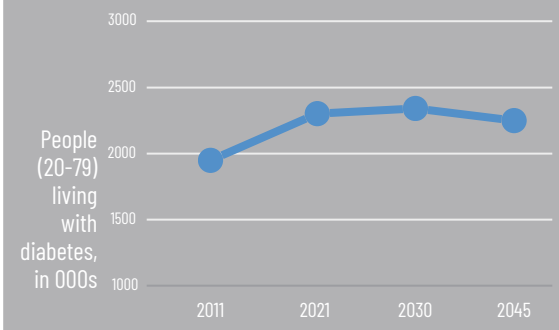
WORKING DIABETES REGISTER?

Yes

AN OVERVIEW OF DIABETES CARE

Country:
Ukraine

DIABETES PREVALENCE



Of which, undiagnosed
39.6% (920,100 people)

Children & adolescents with T1D (0-19y)
6,697

Diabetes prevalence
7.1%

Diabetes-related deaths 58,126

Total expenditure €525.7 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In Ukraine, a reimbursement system for insulin was introduced in 2016. This was followed by the implementation of the "Affordable Medicines" programme in 2017. This programme extended the reimbursement of some glucose-lowering drugs for people living with Type 2 Diabetes (T2D). All types of insulin are available and reimbursed for children living with diabetes. Short and intermediate-acting insulins are also fully reimbursed for adults living with diabetes, while rapid, ultra-rapid and long-acting insulins are either fully or partly reimbursed depending on their HbA1C levels. Other diabetes medicines like Metformin and Sulfonylureas are also fully reimbursed.

Insulin pens are available and reimbursed for all people living with diabetes (PwD). Blood glucose meters and test strips are fully reimbursed only for people living with Type 1 Diabetes (T1D). Insulin pumps are available most of the time, but they are not reimbursed except occasionally through humanitarian programs. Technologies such as continuous glucose monitors (CGMs) are not officially registered in the country but they are sometimes provided to PwD through humanitarian aid.

A national diabetes plan was implemented until 2013. The development of a new plan was interrupted by the start of the war in 2022. There are national guidelines for the management of diabetes and those regarding T1D have been recently updated. Since 2017, the use of international guidelines is also allowed. Healthy living policies, such as programmes promoting healthy food in schools, are in place but are often ineffective. Screening for the prevention of complications is available and reimbursed for all PwD through the public health system. However, PwD are not always referred to regular screening.

Access to diabetes education is dependent upon healthcare professionals (HCPs) and/or the clinic/hospital where PwD receive care providing it.

Except for online appointment management, electronic prescriptions and electronic health records, the use of e-health in the public health system is not widespread and varies by the clinic and/or physician. A diabetes register is available for people on insulin therapy.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN? — Under development

PREVENTION & MANAGEMENT GUIDELINES — National & international guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

	Children	Adults
Short-acting regular insulin	●	●
Rapid-acting (analogs)	●	●
Ultra-rapid-acting analogs	●	●
Intermediate-acting	●	●
Long-acting	●	●

Is available INSULIN free of charge?*

- For all PwD
- For all T1D
- For children
- Other

Short-acting regular insulin	●
Rapid-acting (analogs)*	●
Ultra-rapid-acting analogs*	●
Intermediate-acting	●
Long-acting*	●

*Fully or partially reimbursed for adults depending on their HbA1c levels

APPS

*Depending on HCPs

Do apps get recommended by HCPs to manage/prevent diabetes?	YES*
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for all PwD	Free of charge for children	Free of charge for T1D	Not reimbursed
Insulin pens	Syringes & Needles (1)	Blood glucose meters	Insulin pumps
		Test strips	Connected smart pens
			Automated delivery systems
			rtCGMs* (2)
			isCGMs** (2)

(1) Free of charge on prescription

(2) rtCGMs and isCGMs are not officially registered in the country but they are sometimes provided through humanitarian aid

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available at a cost and hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

Not reimbursed

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

Fully reimbursed

OTHER DIABETES MEDICINES

GLP1 analogue	DPP4 inhibitor	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Partly reimbursed	Not reimbursed	Not reimbursed	Not reimbursed	Not reimbursed

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed	Fully reimbursed

HEALTH SYSTEMS

YES SOMETIMES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

*Available depending on the clinic and/or physician

Online appointment management	▲	Video consultations*	■
Telephone consultations*	■	SMS & EMAIL consultations*	■
Electronic prescriptions	▲	Telehealthcare & Remote monitoring*	■

ELECTRONIC HEALTH RECORDS?

YES NO

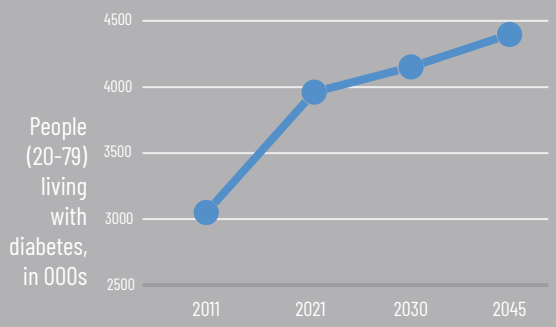
WORKING DIABETES REGISTER?

Yes, for people living with T1D and T2D on insulin therapy

AN OVERVIEW OF DIABETES CARE

country:
United Kingdom

DIABETES PREVALENCE



Of which, undiagnosed
23% (921,100 people)

Children & adolescents with T1D (0-19y)
31,623

Diabetes prevalence
8.2%

Diabetes-related deaths 140,775

Total expenditure
€4925 (per person)

Source: IDF Diabetes Atlas 10th edition 2021

In the UK, insulin and other diabetes medicines are available free of charge for all people living with diabetes (PwD). Supplies and technology for blood glucose monitoring and insulin administration are available at no cost for all PwD, except for connected/smart pens, insulin pumps, automated delivery systems and continuous glucose monitors (CGMs) which are free of charge only for people living with type 1 diabetes (T1D) and type 2 diabetes (T2D) on multiple daily injections insulin therapy.

Whether national diabetes plans and registers are in place varies by country. In Scotland, a stand-alone diabetes plan, a diabetes register and national guidelines are in place. In England and Wales, data on PwD is available on about 98% of the population, but there is no current national diabetes plan. Northern Ireland does not have a diabetes register nor a national diabetes plan, although a diabetes care pathway is established. Healthy living policies are implemented everywhere across the UK.

Screening for all diabetes-related complications is available throughout the UK and is recommended on an annual or biennial basis. Despite this, screening is not consistently carried out.

Structured diabetes education is normally integrated with peer-to-peer support and is available for all PwD but is not always offered to them and the attendance rate remains low.

Nurses play a role in the prevention and management of diabetes for all PwD. Upon completion of relevant courses and assessments, nurses are allowed to prescribe diabetes medicines.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
Yes, everywhere in the country

NATIONAL PLAN? — Vary by country

PREVENTION & MANAGEMENT GUIDELINES — National guidelines

MONITORING FRAMEWORK? — Yes

GOVERNMENT ENGAGEMENT WITH PwD? — Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For children only
- Other

Children

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

Adults

- Short-acting regular insulin
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting
- Long-acting

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for T1D and some T2D

- Connected/smart pens
- Insulin pumps (1)
- Automated delivery systems (1)
- isCGMs*
- rtCGMs**

Free of charge for all PwD

- Syringes and needles
- Insulin pens
- Blood glucose meters
- Test strips

(1) Free of charge for people living with T1D who meet certain criteria

*Intermittently scanned continuous glucose monitors.

**Real-time continuous glucose monitors.

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Available free of charge or fully reimbursed but hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For all PwD
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor	GLP1 analogue	SGLT2 inhibitor	Meglitinide	Alpha glucosidase inhibitor
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge	Free of charge

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a diabetes specialist nurse?*
- Are nurses allowed to prescribe medicines?**

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

*A special academic training is required in Northern Ireland

**Nurses are allowed to prescribe diabetes medicines after completing relevant courses and assessments

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

100% coverage to be reached by early 2025

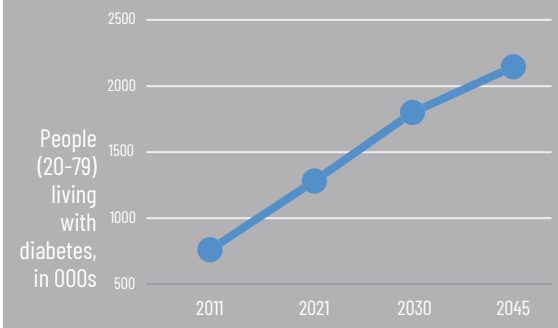
WORKING DIABETES REGISTER?

Vary by country

AN OVERVIEW OF DIABETES CARE

country:
Uzbekistan

DIABETES PREVALENCE



Of which, undiagnosed
74% (1,000,000 people)

Children & adolescents with T1D (0-19y)
2,811

Diabetes prevalence
6.3%

Diabetes-related deaths 16,670.3

Total expenditure €172.6 (per person)

In Uzbekistan, short-acting insulin is available free of charge for all people living with diabetes (PwD) on insulin therapy. Availability of other types of insulin and diabetes medicines as well as supplies and technologies for blood glucose monitoring and insulin delivery varies based on a number of factors, including diabetes type, age, location, cost, etc.

Syringes, needles, insulin pens, blood glucose meters and insulin pumps are free of charge for people living with type 1 diabetes (T1D) below the age of 25 and some people living with type 2 diabetes (T2D) but they are not always available at the point of delivery. Newer technologies such as continuous glucose monitors (CGMs) and automated insulin delivery systems are not yet available in the country.

Screening for diabetes-related complications is scheduled on a biennial basis but its provision varies by region and it is not carried out consistently due to lack of resources and shortages of healthcare professionals.

In order to tackle the high number of undiagnosed PwD and reduce the risk of developing diabetes-related complications, local diabetes associations are very active and organise numerous initiatives providing, for example, consultative and diagnostic assistance to PwD from low-income families and/or living in rural areas.

Diabetes education is provided to PwD at the time of diagnosis and throughout the life course in some specialised centres which are, however, not available everywhere across the country, particularly in rural areas.

A diabetes registry is in place in the country, covering about 80% of all diabetes cases.

DIABETES PREVENTION & MANAGEMENT

YES · WITH VARIATIONS · NO

HEALTHY LIVING POLICIES

- Obesity/ overweight
- Healthy food & diet
- Physical activity
- Smoking
- Regulations for healthy diets

PREVENTION OF COMPLICATIONS

- Eye screening
- CVD
- Kidney disease
- Diabetes foot
- Gestational diabetes

EDUCATION

- At or around the time of diagnosis
- Throughout the life course
- Integrated peer-to-peer support

Is there a programme to follow mothers with gestational diabetes after the birth of the baby?
No

NATIONAL PLAN?
Stand alone
Fully implemented

PREVENTION & MANAGEMENT GUIDELINES
National guidelines

MONITORING FRAMEWORK?
Yes

GOVERNMENT ENGAGEMENT WITH PwD?
Yes

ACCESS TO CARE, TECHNOLOGIES, MEDICINES AND SUPPLIES

Is INSULIN available at the point of delivery?

- Always
- Most of the time
- Sometimes
- Not often
- Never

PwD < 25 y/o		PwD > 25 y/o
●	Short-acting regular insulin	●
●	Rapid-acting (analogs)	●
●	Ultra-rapid-acting analogs	●
●	Intermediate acting	●
●	Long-acting	●

Is available INSULIN free of charge?

- For all PwD
- For all T1D only
- For PwD < 25 y/o
- Other

- Short-acting regular insulin*
- Rapid-acting (analogs)
- Ultra-rapid-acting analogs
- Intermediate acting*
- Long-acting

*Free of charge for some categories of people living with T2D

APPS

Do apps get recommended by the health system/HCPs to manage/prevent diabetes?	YES
When they are recommended, are these apps fully reimbursed?	NO

SUPPLIES & TECHNOLOGIES

Free of charge for people with T1D < 25 y/o

- Syringes & Needles (1)
- Insulin pens
- Blood glucose meters (2)
- Test strips
- Insulin pumps

Not reimbursed

- Connected/smart pens
- Automated delivery systems
- rtCGMs*
- isCGMs**

ARE SUPPLIES TECHNOLOGIES AVAILABLE AT THE POINT OF DELIVERY?

- Always
- Most of the time
- Sometimes
- Not often
- Never

(1) Free of charge for some T2D on insulin treatment.
(2) Free of charge for PwD during pregnancy.

*real-time continuous glucose monitors.
**intermittently scanned continuous glucose monitors.

PSYCHOLOGICAL SUPPORT

PSYCHOLOGICAL SUPPORT PROVIDED AS PART OF DIABETES CARE?

Hard to access

AVAILABLE AT THE POINT OF DELIVERY? YES MOST OF THE TIME SOMETIMES NOT OFTEN NO

GLUCAGON - METFORMIN/SULFONYLUREAS

Glucagon

Nasal Glucagon

FREE OF CHARGE?
- For all PwD
- For all T1D only
- For children only
- Other

FREE OF CHARGE?
- For adults only
- For children only
- Other

Metformin

Sulfonylureas

OTHER DIABETES MEDICINES

DPP4 inhibitor

GLP1 analogue

SGLT2 inhibitor

Meglitinide

Alpha glucosidase inhibitor

Occasionally reimbursed through donations

CARDIOVASCULAR MEDICINES

Calcium channel blockers	Beta blockers	ACE inhibitors	Thiazide diuretics	Statins	Ezetimibe	PCSK9 inhs
Not reimbursed	Reimbursed	Reimbursed	Reimbursed	Not reimbursed		Not reimbursed

HEALTH SYSTEMS

YES NO

- Are diabetes specialist nurses (DSNs) available?
- Do nurses play a role in diabetes prevention?
- Is there a special academic training required to become a specialist diabetes nurse?
- Are nurses allowed to prescribe medicines?

Do nurses play a role in the diabetes management of?
- *Adults & children with T1D*
- *People with T2D*
- *Women with GDM*

- Do people living with diabetes have access to specialist diabetes educators?

HOW WIDESPREAD IS THE USE OF E-HEALTH?

AVAILABLE FOR ALL PEOPLE LIVING WITH DIABETES? YES NO

AVAILABLE AT THE SAME COST AS TRADITIONAL OPTIONS? YES NO

Online appointment management

Video consultations

Telephone consultations

SMS & EMAIL consultations

Electronic prescriptions

Telehealthcare & Remote monitoring

ELECTRONIC HEALTH RECORDS?

YES NO

WORKING DIABETES REGISTER?

Yes

International Diabetes Federation
Europe