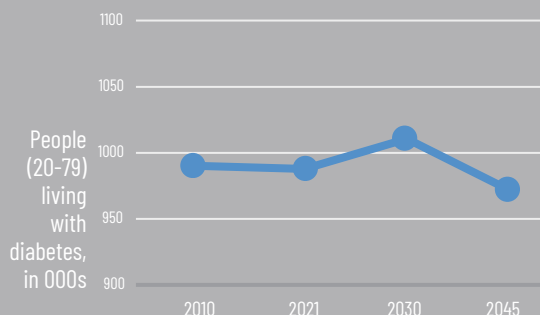




# AN OVERVIEW OF DIABETES CARE

## DIABETES PREVALENCE



Of which, undiagnosed  
43.6% (433,400 people)

Children & adolescents with T1D (0-19y)  
2,443

Diabetes prevalence



Diabetes-related deaths 22,858

13%



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 and 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. Diabetes nurses are specifically trained in the prevention and management of diabetes and attend diabetes consultations. 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 and diabetes registers exist for children and people on insulin pumps. Some ehealth 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

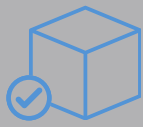
MONITORING  
FRAMEWORK?

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



Is available INSULIN free of charge?

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

<p>Children</p>	● Short-acting regular insulin	●	<p>Adults</p>
	● Rapid-acting (analogues)	●	
	● Ultra-rapid-acting analogues	●	
	● Intermediate acting	●	
	● Long-acting	●	

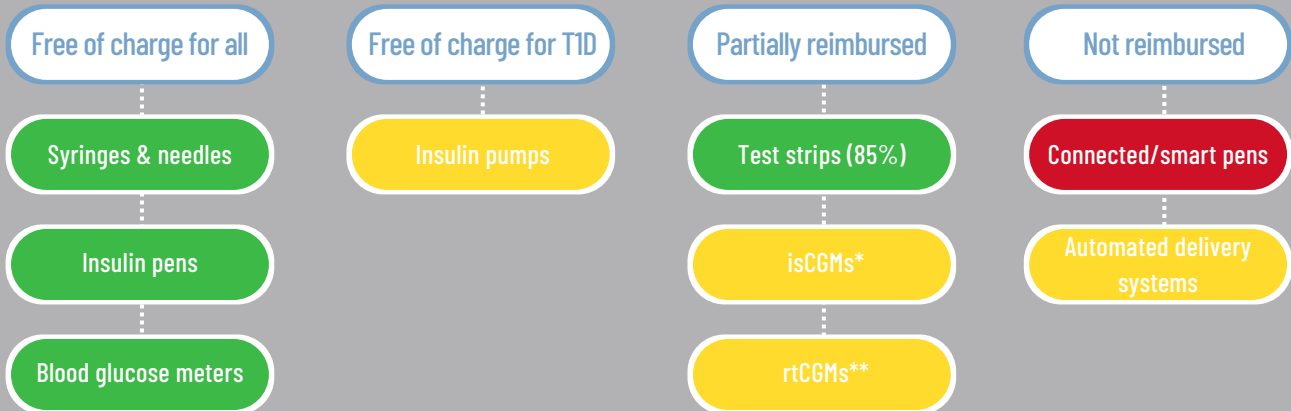
	● Short-acting regular insulin
	● Rapid-acting (analogues)
	● Ultra-rapid-acting analogues
	● Intermediate acting
	● Long-acting

## 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



\*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

<b>Glucagon</b> Partially reimbursed	<b>Nasal Glucagon</b> Not reimbursed	<b>FREE OF CHARGE?</b> <input type="checkbox"/> For all PwD <input type="checkbox"/> For all T1D only <input type="checkbox"/> For children only <input type="checkbox"/> Other		<b>FREE OF CHARGE?</b> <input type="checkbox"/> For all PwD <input type="checkbox"/> For adults only <input type="checkbox"/> For children only <input type="checkbox"/> Other	<b>Metformin</b> Partially reimbursed 90%	<b>Sulfonylureas</b> Partially reimbursed 90%
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### OTHER DIABETES MEDICINES

<b>DPP4 inhibitor</b>	<b>GLP1 analogue</b> Partially reimbursed 90%	<b>SGLT2 inhibitor</b> Partially reimbursed 90%	<b>Meglitinide</b>	<b>Alpha glucosidase inhibitor</b>
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### CARDIOVASCULAR MEDICINES

<b>Calcium channel blockers</b> Partially reimbursed 69%	<b>Beta blockers</b> Partially reimbursed 69%	<b>ACE inhibitors</b> Partially reimbursed 69%	<b>Thiazide diuretics</b> Partially reimbursed 69%	<b>Statins</b> Partially reimbursed 37%	<b>Ezetimibe</b> Partially reimbursed 37%	<b>PCSK9 inhs*</b> Free of charge Only available at hospital level
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### 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 people living with diabetes have access to specialist diabetes educators?
- 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

\*Not charged to the National Health System

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 PwD on insulin pumps

