

Obesity and Type 2 Diabetes: a Joint Approach to Halt the Rise

A Policy Brief by the International Diabetes Federation and the World Obesity Federation







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Introduction

About this policy brief

The International Diabetes Federation and the World Obesity Federation have developed this policy brief to target diabetes and obesity advocates, healthcare professionals and policy makers, with the aim of providing recommendations on actions required to prevent, manage and treat both diseases effectively.

This policy brief:

- Emphasises that we will only be able to halt the rising incidence and prevalence of type 2 diabetes if action on obesity is also prioritised;
- Generates knowledge about the root causes of obesity and recognises that it is a risk factor for type 2 diabetes and other health conditions, requiring urgent action, both in the short- and long-term;
- Highlights the importance of adopting a systemwide approach if we are to successfully halt the rising incidence and prevalence of diet-related non-communicable diseases;
- Advocates for people-centred care and ensuring that people living with obesity, type 2 diabetes and other non-communicable diseases are included in the development and evaluation of interventions and guidelines.

About the International Diabetes Federation

The International Diabetes Federation (IDF) is an umbrella organisation of over 240 national diabetes associations in 168 countries and territories. It represents the interests of the growing number of people living with diabetes and those at risk. IDF has been leading the global diabetes community since 1950. Its mission is to promote diabetes care, prevention and a cure worldwide.

IDF is engaged in action to tackle diabetes from the local to the global level – from programmes at the community level, to worldwide awareness and advocacy initiatives. IDF activities aim to influence policy, increase public awareness, encourage health improvement, promote the exchange of high-quality information about diabetes, and provide education for people with diabetes and their healthcare providers.

Learn more about IDF at www.idf.org

About World Obesity Federation

World Obesity Federation (WOF) represents over 60 regional and national obesity associations and other organisations working in obesity. Through its membership, World Obesity leads and drives global efforts to reduce, prevent and treat obesity. The mission of WOF is to work with and through its members and partners, to achieve global obesityrelated targets including halting the rise of obesity, and to shape the global narrative. This is achieved through research, education, and policy focused on preventing and managing obesity in low-, middle-, and high-income countries.

■ Learn more about WOF at <u>www.worldobesity.org</u>

The global impact of obesity and type 2 diabetes

Obesity and diabetes on the political agenda

Globally, the burden of non-communicable diseases (NCDs) is at an all-time high, and NCDs are now the leading cause of death worldwide.¹ It is estimated that NCDs are responsible for 41 million deaths annually, equivalent to 71% of all global deaths.² Of these, 15 million are premature deaths.²

Following the <u>High-Level Meeting</u> on NCDs of the United Nations General Assembly in 2011, Member States agreed to develop a set of <u>voluntary targets</u> to help reduce the global burden of NCDs by 2025. The targets were adopted at the World Health Assembly in May 2013 and included:

- A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases;
- Halt the rise in diabetes and obesity.

However, WOF's <u>Missing the Target</u> report shines a spotlight on the rise in obesity levels around the world, highlighting that all countries are off-track to meet the 2025 global targets to which they have committed, subsequently endangering the success of other NCD targets for diseases such as diabetes. The <u>10th edition</u> of the IDF Diabetes Atlas also reports a continued global increase in the prevalence of type 2 diabetes, which accounts for around 90% of all diabetes cases.

What is obesity?

Obesity is a chronic relapsing disease defined by the World Health Organization (WHO) as "abnormal or excessive fat accumulation that presents a risk to health." It can manifest as increased body mass index (BMI), waist circumference and/or fat tissue percentage. Obesity is caused by "the interaction of environmental factors and genetic predisposition, leading to a positive energy balance, in which fuel intake exceeds energy expenditure." Learn more about obesity as a disease here.

Obesity increases the risk, and is recognised as the underlying or mediating cause, of several other NCDs such as diabetes, cardiovascular disease, liver disease and certain cancers. It also increases the risk of harmful psychological, emotional and social outcomes. Individuals with obesity, particularly those who are genetically predisposed to type 2 diabetes

and metabolic syndrome, are at elevated risk for many infections. Recent evidence also shows that people living with obesity have a greater risk of severe illness and death if they contract COVID-19.5

Similar to the global picture we observe for type 2 diabetes, obesity prevalence is now rising most quickly in low- and middle-income countries (LMICs), many of which are simultaneously experiencing the double burden of obesity and undernutrition. Rapid urbanisation and a shift towards western lifestyles are two of the numerous causes driving this transition, resulting in a rapid rise in the prevalence of obesity.

Key obesity statistics:7

- 1 in 5 adults worldwide are expected to be affected by obesity by 2025, of whom one third will be living with severe obesity (BMI > 35kg/m²)
- 205.5 million children ages 5-19 will be affected by obesity by 2025
- The total cost of high BMI to health services globally is US\$ 990 billion per year, over 13% of all healthcare expenditure



Kev $Source: \textit{Global Health Observatory Data Repository } \underline{\textit{https://apps.who.int/gho/data/node.main.A900A?lang} = \underline{\textit{en}} \; (\textit{last accessed } 14.06.21)$

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Figure 1. Estimates of prevalence of obesity in adults (obesity BMI \ge 30 kg/m²)

Source: World Obesity Federation, 2021

What is type 2 diabetes?

Type 2 diabetes is a metabolic disorder defined by high blood sugar levels. It is the result of various degrees of abnormal insulin production and an inability of the body's cells to respond fully to insulin, a condition termed insulin resistance. If the pancreas cannot produce enough insulin to overcome the resistance, the blood sugar rises to levels above the diagnosis threshold. A larger population with type 2 diabetes are living with overweight or obesity, which can lead to or increase insulin resistance. In some instances, people may not be living with obesity according to their BMI but have a higher proportion of body fat distributed predominantly in the abdominal region. This visceral adiposity results in insulin resistance. However, in some populations with lower BMI, such as Asians, β-cell dysfunction and thus decreased insulin production seems to be the major factor in the development of type 2 diabetes.8

Type 2 diabetes is the most common form of diabetes and accounts for around 90% of cases.9 Worldwide, 537 million adults aged 20-79 live with diabetes, a number predicted to rise to 784 million by 2045 (Table 1).10 Today, 81% of adults with diabetes live in LMICs.10

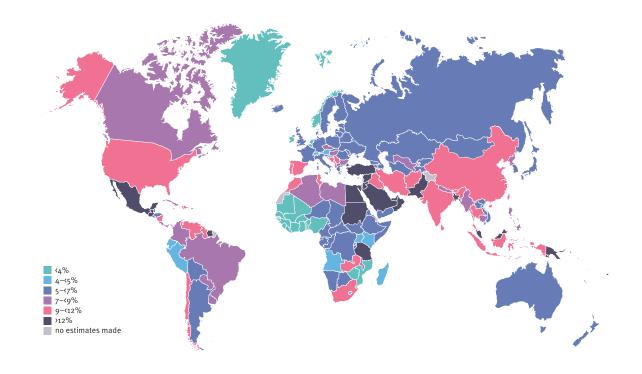
Previously more common in older adults, prevalence is now also increasing among adolescents and younger adults due to rising levels of obesity, poor diets and physical inactivity. Type 2 diabetes increases the risk of multiple painful and disabling complications,

including neuropathy, leg ulcers, infections and amputations, blindness, heart disease and dementia.11 On average, type 2 diabetes shortens lives by 5-6 years and leads to a significant reduction in life expectancy for younger people.12

Key diabetes statistics (2021): 12

- 537 million adults live with diabetes; of these, 90% are living with type 2 diabetes
- 45% of adults living with diabetes (240 million) are undiagnosed
- Diabetes is responsible for 6.7 million deaths annually (excluding the mortality risks associated with COVID-19)
- Diabetes accounts for US\$ 966 billion of healthcare expenditure (11.5% of the total healthcare spent on adult healthcare worldwide)
- 541 million adults have impaired glucose tolerance and 319 million have impaired fasting glucose, significantly increasing their risk of developing type 2 diabetes

Figure 2. Diabetes age-adjusted comparative prevalence (%)



Source: International Diabetes Federation, 2021

Table 1. Estimated number of type 2 diabetes cases and deaths attributable to high BMI: global and regional, 2019

Cases Deaths Global 217.6 million 1.9 million 9.1 million **Africa** 200,000 **Americas** 37.2 million 300,000 **Europe** 27.9 million 200,000 **Eastern** 25.7 million 200,000 Mediterranean South-East 41.2 million 500,000 Asian **Western Pacific** 76.4 million 600,000

Source: World Obesity Federation, 2020

Table 2. Estimated number of adults with diabetes and deaths attributable to diabetes: global and regional, 2021

	Adults with diabetes	Deaths
Global	537 million	6.7 million
Africa	24 million	416,000
Europe	61 million	1.1 million
Middle East and North of Africa	73 million	796,000
North America and the Caribbean	51 million	931,000
South and Central America	33 million	410,000
South-East Asia	90 million	747,000
Western Pacific	206 million	2.3 million

Source: International Diabetes Federation, 2021

Obesity and type 2 diabetes: two interconnected pandemics

The relationship between obesity and type 2 diabetes is not consistent across populations. Globally, obesity is responsible for around 43% of type 2 diabetes cases. 13, 14, 15, 16, 17 In some countries, such as the United States and United Kingdom, obesity contributes to an estimated 80-90% of type 2 diabetes. 18,19 However, in many Asian countries people develop type 2 diabetes at a lower body weight. In a study of 10,000 people living with type 2 diabetes in India, the majority (63%) had ideal body weight at diagnosis, while around 3.5% of them were lean (BMK18.5).20

Obesity and type 2 diabetes arise as a result of a complex interplay of factors, many of which lie outside the individual's control. Biology, genetics, food, education, social deprivation, social economic status, healthcare access, stigma and commercial determinants of health are all drivers of these connected pandemics, also known as a syndemic). With obesity being a key driver of type 2 diabetes, we will only be able to halt the rising prevalence of type 2 diabetes if action on obesity is also prioritised.

Today, it is clear that the 2025 target for zero increase in the prevalence of obesity and diabetes will not be met. In fact, current projections predict that by 2030, 1 in 5 women and 1 in 7 men will be living with obesity, equating to over 1 billion people globally. 21 Childhood obesity rates are still nearly doubling every 10 years and school-aged children are now developing type 2 diabetes.²² Obesity is responsible for around 217.6 million cases of type 2 diabetes (Table 1) and associated with a risk of developing type 2 diabetes seven times higher than those at a healthy weight. 12,23 This has led to an increase in attributable mortality rates.

Diabetes has a significant economic impact on individuals, health systems and countries. The impact is felt hardest in LMICs. Today, the greatest number of people living with obesity are in LMICs, where the double burden of malnutrition remains highly prevalent. WOF's 2022 Obesity-NCD Preparedness Ranking also highlights that the most ill-prepared countries are LMICs, where obesity rates are rising fastest and health system capacity is lowest.²¹ Furthermore, IDF estimates that 11.5% of global health expenditure is spent on diabetes (US\$ 966 billion each year). This represents a 316% increase over the last 15 years and is expected to increase to US\$ 1.1 trillion by 2045. In reality, diabetesrelated expenditure is likely much higher given the links to co-morbidities such as obesity.7

Co-morbidities: what are they and how do they influence people living with NCDs?

"Driven by similar risk factors, together with demographic changes including rapid urbanisation and ageing populations, these diseases are closely interconnected. individual, referred to as 'NCD co-morbidities'. NCD co-morbidities can occur because diseases share the same risk factors, with tobacco use being a risk for cancer, CVD and dementia; or because some diseases predispose individuals to developing others, as in the case of diabetes, which is a risk factor for CVD, stroke, osteoporosis, kidney failure and depression. As a result, these conditions can benefit from a comprehensive and integrated response."24

NCD co-morbidities decrease disability-adjusted life years (years of life lost due to premature mortality and lived with disability) and increase health exwpenditures.²⁵ Co-morbidities exacerbate socioeconomic inequalities, with the strongest impact seen in individuals living in LMICs and enduring the double burden of NCDs and chronic infectious diseases. Often, NCD co-morbidities are associated with higher out-of-pocket expenditures.²⁴



Root causes of obesity and type 2 diabetes

The global rise in obesity and type 2 diabetes can be attributed to multifactorial changes in the economy, demography, epidemiology, dietary habits and physical activity patterns.26 If we are to halt the rising prevalence of obesity and type 2 diabetes, we need to address their various root causes. Simplifying these diseases to any one cause makes prevention, treatment and management efforts more challenging. Many of the determinants of obesity and diabetes lie outside the traditional jurisdiction of the health sector and the impact of the diseases can only be reduced through multisectoral approaches.



Sedentary lifestyles

Exercise alone is only linked to modest weight loss. Therefore, it is essential we move away from misconceptions that to "eat less and move more" will solve the obesity and type 2 diabetes epidemics. Nevertheless, it is undeniable that leading an active lifestyle confers significant physical and mental health benefits. Physical inactivity is one of the leading causes of mortality today: failing to engage in the recommended level of physical activity increases the risk of cancer, heart disease, stroke and diabetes by 20-30% and shortens life expectancy by an average of three to five years.²⁷ Levels of physical activity decrease as countries develop economically due to changing transport patterns, cultural values, and reliance on technology for work and recreational activities, and fall as much as 70%.28

Unhealthy diets

Escalating rates of overweight, obesity and diet-related NCDs such as type 2 diabetes are the consequence of changes in global food systems which make it easier for populations to consume diets which contain energydense food products higher in refined carbohydrates, sugars, saturated fats and processed meat. Our ways of producing, accessing and consuming food have dramatically shifted. Ultra-processed foods (UPFs) have become more commonly available and less costly compared to nutrient-rich, fresh foods. In many countries, UPFs contribute to more than 50% of total calories consumed by children every day. Healthy diets remain unaffordable for 41.9% of the world's population (around 3 billion people).²⁹ Socioeconomic disparities place the most disadvantaged children at greater risk for all forms of malnutrition, including overweight and obesity. Access to nutritious food is thereore a key social determinant of health.

Genetics

Genes account for 40-70% of the likelihood of developing obesity and 25-80% of cases of type 2 diabetes within a population.30,31 The likelihood of developing type 2 diabetes is also linked to parental status: individuals who have one parent with type 2 diabetes have a 40% greater risk of developing the condition. This rises to almost 70% for individuals with two parents who have type 2 diabetes.32



Sleep

Many adults and children suffer from poor sleep quality, including short sleep duration, late sleeping and lack of sleep. This impacts an individual's overall health and is associated with increased risk of mortality, diabetes, obesity and other NCDs.³³

Stigma

In many countries, people living with obesity and diabetes are regularly blamed for their disease. Weight stigma suggests that obesity is due to individual failure and puts responsibility on people living with obesity to 'fix' it. It can damage mental and physical wellbeing and prevent people from seeking necessary medical care. Psychological impacts of obesity include poor body image, anxiety, stress and depression. While attitudes towards weight and the extent of stigma may differ across the world, one thing is clear: experiencing discrimination due to weight does not help people to adopt healthier lifestyles. The persistent failure to recognise the genetic and biological factors which contribute to the development of obesity directly underpins the perpetuation of weight stigma.

Healthcare access

In a recent survey of health professionals, 274 respondents across 58 low-, middle-, and high-income countries reported a widespread lack of obesity services. These included the absence of care pathways from family physician to secondary services; absent secondary, multi-disciplinary services and trained professionals; high costs to patients; the prevailing obesogenic environment; and stigma experienced

by patients within healthcare services. ³⁴ High costs to patients; the prevailing obesogenic environment; and stigma experienced by patients within healthcare services. ²⁶ When services are available, interventions may be affected by prevailing assumptions and biases among healthcare professionals. While the United Nations have identified universal health coverage (UHC) as an essential element of the globally agreed sustainable development goals, governments today are falling short of that promise.

Commercial determinants of health

Modern social marketing by commercial companies has substantially impacted eating preferences and habits in recent decades. The majority of marketed products tend to be energy-dense, nutritionally poor food products and drinks, often targeting vulnerable groups including children, adolescents and young adults, and people of low socioeconomic status.35 Long experience in attempting to regulate the marketing of commodities which cause ill-health shows that policies to intervene in food and beverage markets will be opposed by interests that benefit from the status quo. For example, while the marketing of unhealthful foods and sweetened beverages is directly linked to an increase in overweight and obesity in children, 70% of countries still lack policies to restrict food marketing to children.36 Economic factors provide incentives for market actors to create food environments within which it is increasingly difficult for people to access and afford healthy diets. Governments should urgently implement comprehensive policies and actions to improve food environments, for instance through marketing restrictions and taxes.



Obesity and diabetes as core elements of universal health coverage

"UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care. UHC enables everyone to access the services that address the most significant causes of disease and death, and ensures that the quality of those services is good enough to improve the health of the people who receive them." 37

Currently, governments are falling short of their obligation to include obesity and diabetes in UHC and ensure equitable access to health services. A survey of over 100 obesity specialists from 32 countries around the world found that adults living with obesity often cannot get a diagnosis, cannot access specialist treatment, must incur substantial out-of-pocket expenses, and struggle to maintain any weight loss achieved. Unfortunately, for children the situation is similar. Common barriers include absence of referral services and eligibility, lack of capacity, high costs of treatment, as well as stigma and weight bias.³⁸

Similarly, global estimates show that half of the 60 million people with type 2 diabetes who need insulin to manage their condition do not have access to it, often because of the cost. According to a study of over 110,000 households in 22 countries, the vast majority of households in high-income countries can afford insulin (97.2%), while 63% of households in lowincome countries cannot afford the treatment. 39.40

Ensuring obesity and diabetes are included in UHC is therefore of paramount importance. UHC provides a framework for achieving the 2025 targets on obesity, diabetes and NCDs and the 2030 Sustainable Development Goals. WOF has proposed six steps to achieving UHC for obesity and urges governments to:

- Strengthen political commitment to address obesity, ensuring efforts are cross-departmental and cross-sectoral.
- Leave no one behind, regardless of race, gender, age, citizenship, ability, or income.
- Invest in health workers to deliver high-quality weight management.
- Empower communities and patients to strengthen their engagement in healthy weight promotion.
- Increase public financing to ensure all citizens have access to the care they need.
- Improve surveillance and accountability to monitor progress towards obesity targets.

IDF has proposed four areas to achieve the inclusion of diabetes in UHC and urges governments to take action on the following:⁴¹

- Strengthen primary healthcare to improve early diagnosis and prevention of complications.
- Improve education for better diabetes selfmanagement and type 2 diabetes prevention.
- Boost investment to ensure affordable essential diabetes care for everyone, everywhere.
- Ensure high-level political attention to UHC in the run-up to 2030.



Case studies

Safe and healthy environments for underage children: Oaxaca bans the sale of ultraprocessed foods to minors

Mexico is the country with the sixth most adults aged over 20 living with obesity, and the one with the highest percentage of gross domestic product loss (5.3%) due to obesity.7 Over the past two decades, the country has seen a rapid increase in adult obesity, which can be partially explained by the exponential growth in the prevalence of childhood obesity. Currently, the country only has a 4% chance of meeting the 2025 target. In fact, if current trends continue, it is predicted that by 2030, 42.9% of children aged between 5 and 19 will be living with obesity in Mexico.7

In light of these trends, on August 6, 2020, the Mexican state of Oaxaca banned the sale of sugar-sweetened beverages (SSBs) and junk food to children. 42 As the state with the highest prevalence of childhood obesity in the country, this new legislation was a response to the high mortality rates linked to COVID-19.* Implemented as Article 20 Bis to the Law of the Rights of Children and Adolescents in the State of Oaxaca, the law aims to eliminate malnutrition in children and adolescents, and prohibits the following:

- The distribution, sale, gift or supply to underage people of SSBs and foods high in calories in the state
- The distribution, sale, gift or supply of SSBs and foods high in calories in public and private basic and secondary educational settings
- The sale, distribution or exhibition of any of these products in vending machines in public or private basic and secondary educational settings

While highly criticised by the industry, Oaxaca was a pioneer region in implementing such stringent regulations to address the collision of two pandemics - COVID-19 and obesity - and many other regions in the country, including Mexico City, have now indicated that they will follow.

Cities Changing Diabetes

Today, the prevalence of overweight and obesity is rising fastest in LMICs, specifically across the Latin America, Africa and Caribbean regions. Among them, Argentina was recently flagged as having a high national obesity risk, with a very poor chance of meeting the UN adult obesity targets for 2025.7 In parallel, the country reports more than eight diabetes deaths per 1,000 people. If no action is taken to address the ongoing epidemic, over 15% of Argentina's population (5.3 million people) will live with diabetes.43 In light of this risk, Buenos Aires joined the Cities Changing Diabetes programme in 2018.

According to the Ottawa Charter, "health is created and lived by people within the settings of their everyday life; where they learn, work, play, and love."44 Today, over 50% of the world's population lives in cities, a number expected to increase to close to 70% in the next 20 years.45 However, cities are also often diverse and inequitable places faced with a wide number of public health challenges, including "sanitation, air pollution, urban violence, road safety, and access to healthy food and spaces."46.47 Cities are gaining increased attention as a focal intervention setting as they offer an opportunity to reach a large proportion of the population, including children and their families.

Established in 2014, the Cities Changing Diabetes programme was "designed to address the social and cultural factors that can increase type 2 vulnerability among certain people living in urban environments today."48

^{*}Evidence shows that there is a clear causal link between obesity and worst case of illness due to COVID-19. For more information, refer to World Obesity's policy dossier: https://www.worldobesity.org/resources/policy-dossiers/obesity-covid-19

IDF Kids and Diabetes in Schools: Bringing diabetes education and healthy lifestyles to the school environment

The <u>IDF Kids and Diabetes in Schools (KiDS)</u> <u>programme</u> aims to bring diabetes education to schools to fight diabetes-related stigma and promote healthy lifestyles to address the preventable risk factors for obesity and type 2 diabetes. KiDS was piloted in Sao Paulo (Brazil) and New Delhi (India) in 2013, reaching 1,393 school staff and 38,000 students.

To date, KiDS has been implemented through different models in ten countries (Argentina, Brazil, Egypt, Hungary, India, Japan, Pakistan, Philippines, Poland and UAE), reaching almost a quarter of a million students and 20,000 teachers. An assessment of the programme's impact has been conducted based on the KiDS pilot experiences in India and Brazil. The implementation of the KiDS programme resulted in an improved knowledge of diabetes management among teachers and parents. In addition, it led to healthier food choices and encouraged increased physical activity in the school environment. 49.50

The Global Diabetes Compact: preventing, treating and managing diabetes

Launched in April 2021 to mark the centenary of the discovery of insulin, the <u>Global Diabetes Compact</u> "has the vision of reducing the risk of diabetes and ensuring that all people who are diagnosed with diabetes have access to equitable, comprehensive, affordable and quality treatment and care." ⁵¹ The WHO Global Diabetes Compact has developed eight key asks:

- Unite: Collaboratively unite stakeholders, including people living with diabetes, around a common agenda
- Integrate: Integrate diabetes prevention and management in primary healthcare and universal health coverage
- Innovate: Close research and normative gaps while spurring innovation
- **Treat:** Improve access to diagnostic products, medicines and health products for diabetes, particularly insulin, in low- and middle-income countries
- **Track:** Develop global coverage targets for diabetes care, accompanied by a "global price tag"
- **Fund:** Improve diabetes care for those living through humanitarian emergencies
- **Educate:** Improve understanding of diabetes
- **Power ahead:** Build back better based on experiences from the COVID-19 pandemic



Key takeaways

- The roots of obesity are quite complex and can be genetic, physiological, psychological, sociocultural, commercial, economic or environmental. Working across sectors and specialties is therefore of the utmost importance. The focus should be on implementing packages of policies and ensuring these consider the influence of external factors.
- Obesity needs to be recognised as a disease in its own right as well as a risk factor for other NCDs such as diabetes. With global obesity targets catastrophically off-track, other health targets remain in jeopardy. The WHO's target for 1 billion people to live healthier lives by 2023 will not be met without action on obesity.
- We will only be able to halt the rising prevalence of diabetes if action on obesity is also prioritised. Globally, obesity causes around 43% of type 2 diabetes cases. In some populations, it contributes to up to 80-85% of the type 2 diabetes cases. A holistic approach incorporating physical activity, diet and psychological components, including reduction of overweight during pregnancy, should be adopted to maximise the positive effects of an intervention.
- Advocate for people-centred care and ensure that people living with obesity, diabetes and other NCDs are included in the development and evaluation of interventions and guidelines.

- Ensure national plans include actions that address inequalities and stigma faced by people living with obesity and diabetes, for instance in healthcare settings and local communities.
- Improve data collection at the local, national and regional levels to ensure the adoption of evidencebased approaches and learn from the experiences of other countries.
- Political leadership and engagement are required to improve external environments, address the underlying social determinants of health and ensure the sustainability of interventions. Comprehensive policies and investments to prevent and treat overweight and type 2 diabetes must be included as part of UHC. Strong governance and coordination mechanisms need to be established to ensure intersectoral and multisectoral collaboration.
- In line with the priority areas outlined in the Global Diabetes Compact, conduct a review of the implementation of the report of the Commission on Ending Childhood Obesity and subsequently develop a monitoring and accountability framework.
- Urge Member States to request the development of a Global Action Plan to address obesity at the Seventy-fifth World Health Assembly.



Useful resources

World Obesity Federation

- Global Obesity Observatory: World Obesity has been collating data for over 20 years. Its online database is available in various formats including interactive maps, presentation graphics and country reports.
- The Missing the Targets report examines the evidence for progress in meeting the targets for addressing adult obesity agreed by member states of the World Health Organization in 2013, in response to the 2011 United Nations High-Level Political Declaration on the Prevention and Control of NCDs.
- World Obesity Atlas 2022 provides predictions for the prevalence of obesity in 2030, a new obesity-NCD preparedness ranking, the latest estimates for the loss of healthy years of life due to high BMI, and 200 country scorecards.
- Image Bank: World Obesity's Image Bank offers free-to-use images to ensure accurate, non-biased, respectful images of people with obesity are widely available.

International Diabetes Federation

- IDF Diabetes Atlas 10th edition: the IDF Diabetes Atlas is the authoritative resource on the global impact of diabetes. First published in 2000, it is produced by IDF in collaboration with a committee of scientific experts from around the world. It contains statistics on diabetes prevalence, diabetes-related mortality and health expenditure at the global, regional and national level.
- Prevention of Obesity and Type 2 Diabetes in the School Environment: this position statement focuses primarily on the role that education systems and school environments should play in the prevention of childhood obesity and type 2 diabetes.
- <u>KiDS Advocacy Guide</u>: this toolkit provides information and tips to help advocates encourage local or national decision-makers to bring diabetes education into schools.
- IDF Guide to Data-Driven Advocacy compiles information and advice that will help people interested in diabetes and health-related advocacy to find, interpret and use data for successful diabetes advocacy. It can also be a useful resource for researchers, providing insight on how they can support diabetes advocates to drive change.



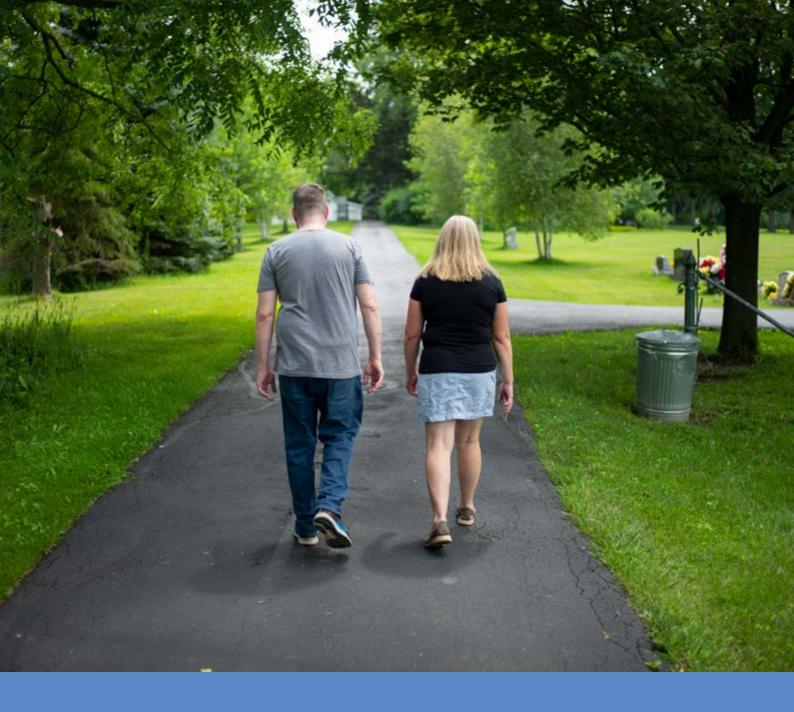
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