

MEXICO CITY



RESEARCH, ACTION AND POLICY CHANGE IN A MEGACITY GRAPPLING WITH A PUBLIC HEALTH EMERGENCY

As one of the great megacities of the world, with more than 20 million citizens,⁸ Mexico City finds itself in the clutches of a diabetes epidemic. A major cause of this healthcare emergency, which affects almost 16.0% of adults (2.3 million people) in the city,¹⁸ is the increasing challenge of overweight and obesity. With 34.7% of the city's adult population considered to have obesity, the prevalence of diabetes can only be expected to grow.¹⁹ The Diabetes Projection Model forecasts that 22.8% of the adult population (aged 20–79) will have diabetes by 2045 if action is not taken (Figure 3).¹⁸ This is an additional 2 million people with diabetes compared with today.

The challenge is not confined to Mexico City. In fact, as many as 14.7% of Mexico's adult population already has diabetes, and it is estimated that the prevalence could rise to 18.5% by 2040.⁴ The toll from diabetes-related deaths in Mexico is immense. More than 76,000 people died from diabetes-related causes in 2015⁴ – an 8.0% increase on 2013²⁰. This sharp rise in such a short period

has led the Federal State's Ministry of Health to declare a public health emergency and call on local, state and federal governments to work to design and launch effective solutions to tackle the challenge.²¹

EXPLORING THE SOCIOCULTURAL FACTORS OF DIABETES

Taking on the important challenge of addressing diabetes, Mexico City was the first city to sign up to the Cities Changing Diabetes programme in 2014, and the first step was to establish a baseline for the challenge. Under the leadership of Dr Armando Ahued Ortega, secretary of health of Mexico City, with the academic support of Dr Simón Barquera, executive director, Nutrition and Health Research Centre, National Institute of Public Health, a massive data collection process was initiated in Mexico City. Data regarding the characteristics of housing, demography, health information, food consumption and levels of physical activity were collected from 2,500 people aged 20 to 69, along

with information about anthropometry and biomarkers for diabetes and lipidaemia. In addition, blood samples were collected from half of the participants surveyed.¹⁹

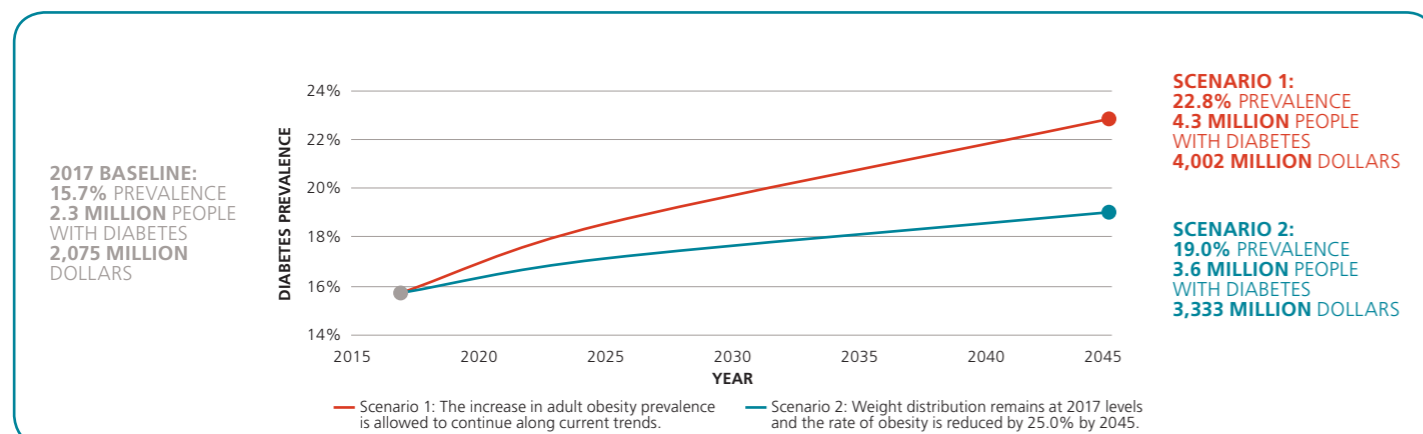
Following this, a Diabetes Vulnerability Assessment was conducted, involving 220 individual interviews with people with type 2 diabetes.¹⁶ The assessment revealed that socioeconomic vulnerabilities are exacerbated when people cannot engage with healthcare services. It also highlighted several barriers to care, including lack of resources, lack of understanding and lack of trust in institutions.¹⁶

A turning point for tackling the burden of diabetes

The outcome of this research has enabled local policymakers to respond to the crisis with concrete interventions. Two such interventions are *El Médico en Tu Casa* (the doctor in your home) and the establishment of a specialised diabetes centre in Iztapalapa.

FIGURE 3: DIABETES PREVALENCE IN MEXICO CITY, 2017–2045 (ADULTS AGED 20–79)¹⁸

If we reduce obesity by 25.0% by 2045, 700,000 cases of type 2 diabetes can be avoided and 669 million dollars in healthcare expenditure saved



NOTE: The baseline prevalence of 15.7% among adults (aged 20–79) in 2017 is a projection based on Rule of Halves research conducted in Mexico City in 2015, which showed a prevalence of 13.9% among adults (aged 20–69).¹⁹



Mexico City, Mexico

LOCAL PROGRAMME PARTNERS

Government of Mexico City
Ministry of Health, Government of Mexico City
National Institute of Public Health of Mexico

“The insights we’ve gained from the Cities Changing Diabetes research have fundamentally changed the way we think about diabetes in our city.”

**DR ARMANDO AHUED ORTEGA,
SECRETARY OF HEALTH, MEXICO CITY**

Diabetes screening and care integrated into existing health services

El Médico en Tu Casa is an example of how diabetes can be integrated into existing interventions. The programme, introduced in 2014, mobilised approximately 3,000 doctors and nurses to knock on doors in the most marginalised areas of the city to look for pregnant women who were vulnerable, without access to healthcare and potentially at risk for poor pregnancy outcomes. Now, influenced by Cities Changing Diabetes research, the scope of the programme has been expanded to address vulnerability among other populations (including people with disabilities and chronic illnesses, people in a state of neglect and people who are terminally ill).

The programme has a special focus on type 2 diabetes. By bringing diabetes screening into people's homes, *El Médico en Tu Casa* works to improve type 2 diabetes diagnosis rates, and identify and assist people at high risk of developing type 2 diabetes. It also works to reduce the impact of vulnerability among people already diagnosed with diabetes. As highlighted in the research, many senior citizens find it difficult or even impossible to get to a doctor or healthcare centre because of the transportation and appointment costs, and because of distances to the primary healthcare centres. Through this consolidated programme, these challenges are being circumvented.

Comprehensive diabetes care in an underserved part of the city

The specialised diabetes clinic in Iztapalapa is another example of how vulnerability in diabetes care is being addressed. The clinic, established in December 2016, has introduced vital diabetes services in the heart of one of Mexico City's most vulnerable communities. The centre is one of the only truly integrated diabetes care centres in Mexico City serving as a one-stop-shop for a range of medical services. Services including internal medicine, psychology, nephrology, cardiology, dentistry, ophthalmology, podology, diabetes education, nutrition and clinical laboratory tests are all provided under one roof, thus reducing the number of clinics patients need to visit. The clinic, which serves 8,000 patients and their families annually, is the result of a collaboration between the World Diabetes Foundation and Mexico City's Ministry of Health.

These two programmes mark a turning point in Mexico City's approach to tackling the rising burden of diabetes and its impact on vulnerable communities. Due to its success, the local congress granted *El Médico en Tu Casa* legal status, meaning that it is no longer a pilot programme, but instead a permanent part of Mexico City's healthcare service offering. Two more clinics following a similar model to the clinic in Iztapalapa are set to open in the district of Mexico City.

IN MEXICO CITY, 28.8% OF PEOPLE WITH TYPE 2 DIABETES ARE UNDIAGNOSED, PUTTING THEM AT GREATER RISK OF DEVELOPING SERIOUS HEALTH COMPLICATIONS.¹⁹



MEET CAMILO¹⁶

- 50-year-old man
- Poor socioeconomic circumstances and sedentary job as a taxi driver
- Type 2 diabetes.

Camilo, a taxi-driver from Mexico City, was diagnosed with diabetes after an episode of exhaustion. The diagnosis did not come as a surprise to him as his mother and three brothers already have diabetes. Still, it made him feel depressed and he delayed going for treatment until his health began to get worse. Without the support of the public healthcare system, he could not have afforded the medical consultations and medicines that he needs for his diabetes. Camilo sees himself as fortunate because the endocrinologist who treated him provided a lot of information about diabetes. Even with a sedentary job as a taxi driver, he sticks to his eating habits and his treatment. He has realised that Mexican society “eats to get full, not to get nutrients”. Camilo furthermore thinks that there are not sufficient clinics to take care of all the people with diabetes.