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Current situation of people with diabetes in Peru:

achievements, challenges, and perspectives



Diabetes mellitus is one of the major public health challenges of the 21st century. Its impact extends beyond the clinical setting, affecting productivity, quality of life, and the sustainability of health care systems (1). In Peru, the epidemiological transition, rapid urbanization, changes in dietary patterns, and the increase in overweight and obesity have contributed to a sustained rise in the prevalence of the disease (2).

Over the past 2 decades, Peru has experienced one of the fastest increases in diabetes in Latin America, affecting nearly 2 million people.³ However, advances in diagnosis, treatment, and health care coverage have not been sufficient to meet the growing demand for care.

MAGNITUDE OF THE PROBLEM

The nationwide PERUDIAB study, based on fasting blood glucose measurements, showed that the prevalence of diabetes among Peruvian adults aged > 25 years was approximately 7%, while nearly one-quarter of the population had impaired fasting glucose, a condition considered to confer »

» a high risk of developing diabetes and to be an independent cardiovascular risk factor. In addition, approximately 40% of people with diabetes were unaware of their diagnosis (3). (Figure 1).

Even more concerning, longitudinal follow-up showed that the incidence of diabetes in Peru is 19.5 new cases per 1000 person-years, one of the highest rates reported worldwide (4).

GEOGRAPHICAL DISTRIBUTION OF DIABETES IN PERU

Diabetes affects all natural regions of Peru. The incidence rate of diabetes, expressed as new cases per 1000 person-years, is highest in the Amazon region, followed by the Andean highlands and the coastal region. These findings show that diabetes is no longer a disease confined to major cities and that populations traditionally considered to be at low risk are undergoing a rapid metabolic transition (4). (Figure 2).

FACTORS DRIVING THE EPIDEMIC

The main determinants include increasing rates of overweight and obesity, physical inactivity, population aging, rapid urbanization, high-calorie and ultra-processed diets, and genetic and epigenetic factors. Obesity, which affects approximately 25% of the population aged > 18 years in Peru, increases the risk of developing diabetes almost 5-fold and is one of its main determinants (Figure 3) (5).

Type 1 diabetes mellitus: a particularly vulnerable population
Although type 2 diabetes mellitus accounts for more than 90% of cases, the situation of people with type 1 diabetes mellitus (T1DM) warrants particular attention.

Peru has no national T1DM registry, making it difficult to determine the exact number of people affected. However, older data indicate a low incidence in Latin America and worldwide, affecting fewer than 1 child aged < 15 years per 100,000 population per year (6). It is estimated that approximately 20,000 Peruvian children, adolescents, and adults depend on insulin every day for survival (7).

During 2025 and 2026, recurrent insulin shortages were reported in several regions of the country, particularly affecting patients receiving care through the public health system. This situation has highlighted weaknesses in procurement planning, regulatory processes, logistics management, regional distribution, and inadequate funding for essential medicines such as insulin analogues (8).

For a person with T1DM, interruption of treatment can rapidly lead to diabetic ketoacidosis, hospitalization, and even death.

COMPLICATIONS AND DISEASE BURDEN

Since the beginning of the 21st century, chronic diseases have accounted for almost 70% of the disease burden in Peru. Diabe- »

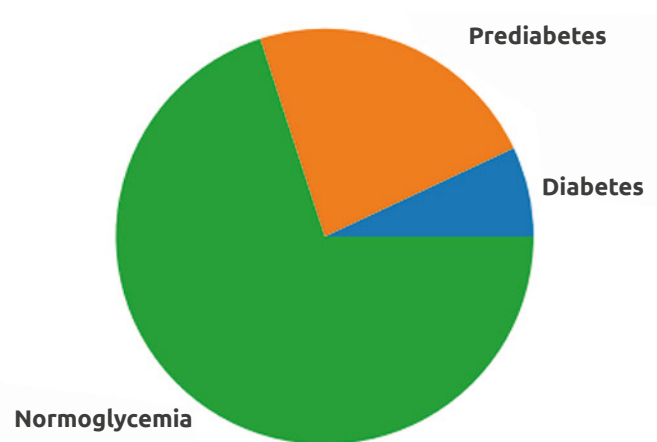


Figure 1: It is estimated that approximately 30% of the Peruvian adult population has diabetes or prediabetes, representing a substantial burden on the health care system.

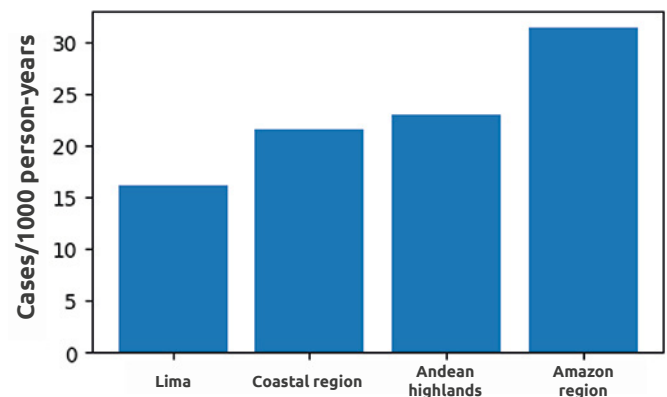


Figure 2: The Peruvian Amazon has the highest incidence rate of diabetes in Peru, followed by the Andean highlands and the coastal region, demonstrating a rapid epidemiological transition in regions traditionally considered to be at lower risk.

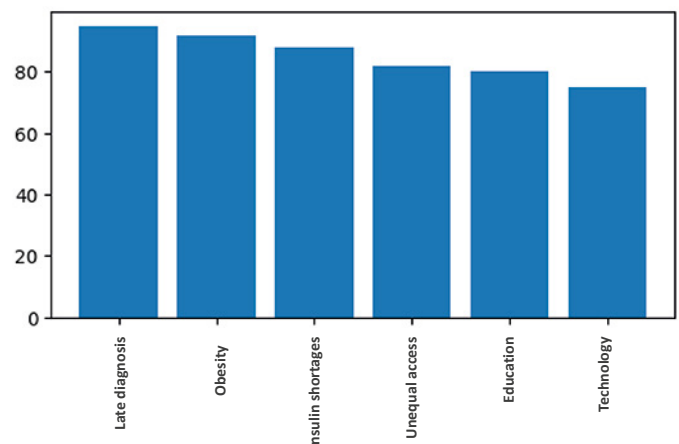
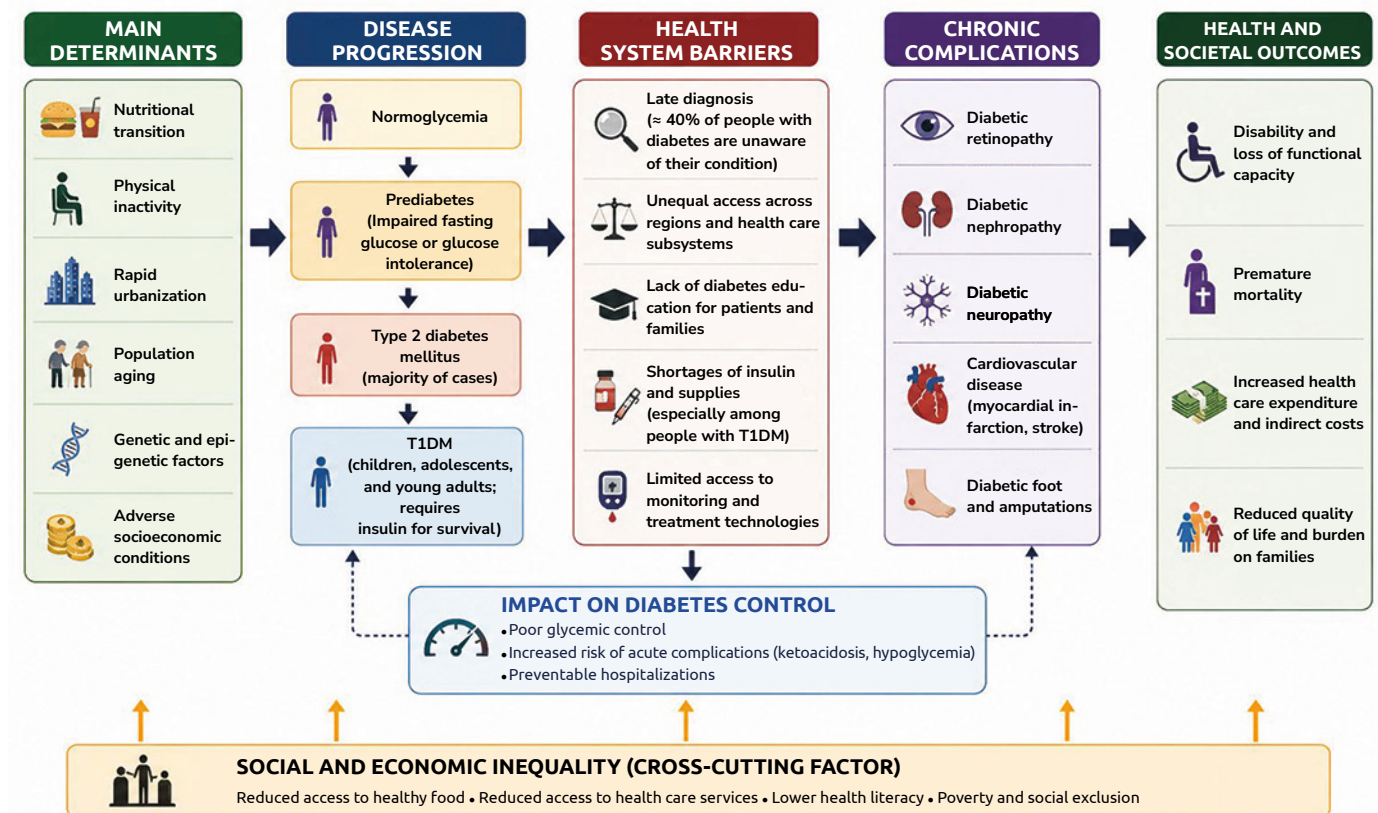


Figure 3: Late diagnosis, the increasing prevalence of obesity, and difficulties in access to insulin are currently among the main challenges to diabetes control in Peru.

Figure 4. Conceptual framework for diabetes care in Peru

» Diabetes is the eighth leading cause of death, mainly because of cardiovascular disease and chronic kidney disease, and accounts for approximately 150,000 disability-adjusted life-years lost annually because of premature disability related to neuropathy, retinopathy, and nontraumatic amputations (9).

Many of these complications could be prevented through timely diagnosis, adequate glycemic control, and continuous access to drugs and supplies.

However, major gaps persist in:

- Screening for complications at the primary care level.
- The number of adult and pediatric endocrinologists relative to the population of people with diabetes.

- Implementation of diabetes education as a health policy.
- Knowledge and use of glucose monitoring.
- Access to modern technologies such as continuous glucose monitoring systems and insulin pumps.
- Access to treatment in public hospitals (10).

New therapeutic options have been progressively introduced. Nevertheless, substantial inequalities persist because of the fragmentation of the Peruvian health care system among the Ministry of Health (MINSA), EsSalud for people with stable formal employment, the Armed Forces health system, and the private sector.

While some patients, particularly those in the private sector, have access to insulin analogues, continuous glucose monitoring, and insulin pumps, a large proportion—particularly those treated through MINSA's Seguro Integral de Salud and EsSalud—continue to rely on conventional treatment regimens with limited resources.

The recent approval of the regulations implementing the Diabetes Law and the clinical practice guideline for T1DM represent important advances. However, full implementation remains challenging because of economic constraints. Recent studies evaluating the cost of care for a person with diabetes have estimated annual expenditure at US\$2158.¹¹ The conceptual framework for diabetes care in Peru incorporates these aspects comprehensively (Figure 4).

» OUTSTANDING CHALLENGES

1. Early diagnosis

Approximately 4 in 10 people with diabetes are unaware that they have the disease.

2. Prevention

The increasing prevalence of obesity threatens to drive an even greater rise in diabetes cases in the coming years.

3. Equitable access

Marked disparities persist between urban and rural regions.

4. Insulin and supplies

Continuous availability of insulin, glucose test strips, needles, and monitoring technologies must be guaranteed.

5. National type 1 diabetes registry

The absence of a national T1DM registry limits planning and budgeting for government procurement of insulin.

6. Diabetes education

Structured diabetes education should be considered an essential therapeutic intervention.

FUTURE PERSPECTIVES

Peru currently has a unique opportunity to transform diabetes care through:

- Effective implementation of the Diabetes Law.
- Strengthening primary care.
- Development of national registries.
- Integration of digital technologies.
- National obesity prevention programs.
- Guaranteed universal access to insulin and essential supplies. **D**

CONCLUSIONS

- Diabetes is one of the major threats to public health in Peru.
- Peru has one of the highest reported diabetes incidence rates internationally, driven primarily by the increasing prevalence of obesity and lifestyle changes.
- Major gaps persist in public policies related to diagnosis, prevention, education, and access to essential therapies.
- The situation of people with T1DM and the recent insulin supply shortages highlight the urgent need to strengthen their care within the health care system.
- Ensuring comprehensive, continuous, and equitable care for all people with diabetes, in accordance with the Diabetes Law, should be a national public health priority.

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