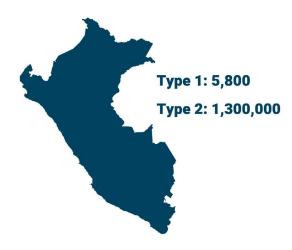


The International Diabetes Federation estimates that there are 1.3 million people aged 20-79 with type 2 diabetes (5.9% of the adult population) in Peru, with 210,743 of those requiring insulin. Approximately 37.3% are currently undiagnosed. A further 5,800 people are estimated to be living with type 1 diabetes.



DIABETES CARE IN PERU

Various studies have documented the care for diabetes in Peru.³⁻⁹

Policy Environment

- National Noncommunicable Disease plan 2016-2020 (which is still valid) includes diabetes.¹⁰
- Law protecting people living with diabetes approved in 2005 was modified in 2018 to include type 1 diabetes.¹¹

- The regulation approved in 2023 [CITAR].
 A health directive for the epidemiological surveillance of diabetes in healthcare facilities was approved in 2014.¹² In February 2024, the health technical standard for the epidemiological surveillance of diabetes was approved.¹³
- The practical guide for type 1 diabetes diagnostic and treatment in children, adolescent and adults with diabetes was approved in May 2024.¹⁴
- Most diabetes-related activities focus on type 2 diabetes.
- Lack of resources (human and financial) at a policy level.
- Different insurance schemes include some elements of diabetes care and availability is often a problem.
- Poor implementation of policies and guidelines.

Organisation of the Health System

- Health care is administered across five sectors, with most of the population in the MINSA (Peruvian Ministry of Health) and EsSalud sectors.
- Challenges accessing care and medicines, especially at the primary health care level.
- Care centralised in tertiary hospitals and in Lima, therefore people need to travel long distances.
- People face long waiting times, difficulties navigating the system for laboratory tests, accessing medicines, and accessing specialists.







Data collection

- No functional diabetes register exists for either type 1 or type 2 diabetes.
- Centre of Diseases Control (CDC Peru) had created a specific surveillance system for diabetes, but the implementation in health care facilities is still in progress.
- Most patient records are paper based.

Diagnostic Tools and Infrastructure

- Lack of diagnostic tools at primary health care level.
- Fluctuating supplies of consumables for all laboratory tests.
- Glycosylated hemoglobin (HbA1c) tests unaffordable to many, even in the public sector.

Government Procurement and Supply

- Insulin is included in the national <u>essential</u> medicines list. ¹⁵
- Insulin centrally purchased since 2020.
- Issues with quantification of needs.

Availability and Affordability of Insulin and Blood Glucose Meters and Test Strips - 2022

- The Addressing the Challenge and Constraints of Insulin Sources and Supply (ACCISS) Study's Monitoring Access to Insulin (MAIn) tool found in 2023 that availability (of any insulin) was 75% in the public sector and 45% in the private sector. 97% of households reported having insulin available in their homes.
- In the public sector, the insulin that was available were all biosimilar brands.
- In terms of prices, in the public sector insulin was free. In the private sector the median price for 1000IU of insulin was found in facilities to be US\$ 27 for human insulins, and \$US 53 US\$ 71 depending on type of analogue. Households reported paying a median price of US\$ 11 and US\$ 56 for human and analogue insulins respectively.
- There was low availability for glucose meters and test strips in both the public and private

sectors. In the public sector, glucose meters were available in 4% of facilities and test strips in 21%. People had to pay for meters in the public sector, but test strips were free. In the private sector, glucose meters were found in 43% of facilities, and test strips in 38%.



Healthcare Workers

- Insufficient number of health professionals with diabetes training; family doctors do not manage type 1 diabetes.
- Management of type 1 diabetes is entrusted to specialists.
- In some specialist diabetes clinics, nurses and other staff are involved in provision of care for people with diabetes.
- Lack of truly interdisciplinary teams for the management of type 1 diabetes.
- There is no continuity in care when patients reach adult age and leave paediatric care centres.

Education and Empowerment

- Diabetes education in Peru is delivered by doctors, specialised nurses, and nutritionists but limited.
- Due to workloads, the time spent on this is often insufficient.
- Specific education and support for type
 1 diabetes exists and is delivered only at
 tertiary-level facilities. However, carb counting training is lacking in all of facilities.







Community Involvement and Diabetes Associations

- Activities of diabetes associations in Peru include education; advocacy; and distribution of medicines and supplies to those in need.
- The associations are dedicated specifically to type 1 diabetes.
- For type 2 diabetes, "diabetes clubs" linked with hospitals are more common.
- Diabetes causes a significant toll on families.

KEY ACTIVITIES

To date, CRONICAS has undertaken the following key activities as part of the ACCISS Study:

- Insulin and Diabetes diagnostic price and availability monitoring at facilities and households.
- Working with the Ministry of Public Health, conducted a needs assessment focusing on the education of health care providers. This mapping exercise resulted in guidelines and a training manual. Trainings using this manual have been carried out online and in-person in select regions in Peru.
- Advocated for improved insulin procurement process.
- Discussion with Ministry of Health to include blood glucose meters in UHC package.
- Conducted research to gain a better understanding of the current barriers to civil society engagement at the policy level and how to foster co-creation of diabetes outcomes.
- WebDia created to support carbohydrate counting in people in with type 1 diabetes (ongoing).
- Creating awareness (enhancing telemedicine system, training healthcare workers and creating a group of champions for diabetes care), prioritising outcomes important to people with diabetes, and advocating with patient organisations.
- Currently working on a methodology of quantification for insulin needs.

LESSONS LEARNED

- Challenges to achieve sustainable results for people with diabetes due to political situation.
- To seek changes, a wide range of stakeholders must be able to collaborate to ensure implementation.
- Need to build capacity of health professionals who provide care for type 1 diabetes.
- Need to strengthen primary health care for the management of type 2 diabetes.
- The role of diabetes associations is critical in addressing the wide economic, social and psychological aspects of diabetes.

RECOMMENDATIONS FOR PERU

- Ensure the availability of insulin, oral diabetes medicines and diabetes related supplies in all sectors to guarantee UHC and improved diabetes management.
- Investigate ways of including selfmonitoring in UHC packages for different diabetes populations where clinically relevant.
- Promote the implementation and use of existing guidelines and policies.
- Increase opportunities for exchange between civil society, people living with diabetes and decision/policy makers.
- Improve and implement comprehensive training of health professionals and models of delivery of care.
- Develop data collection tools to register patients and improve clinical management, health system planning and knowledge of diabetes.







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