



Identifying the Barriers for Access to Care and Treatment for Arterial Hypertension and Diabetes in Lima, Peru

Executive Summary

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Introduction

Non-Communicable diseases (NCDs) are the primary cause of death at the global level and their prevention and control constitute a challenge for health systems. At a variety of meetings, such as the United Nations High Level Meeting on NCDs among other efforts led by the World Health Organization (WHO), the global community has recognized the need to take urgent and lasting actions.

According to WHO data, 60% of deaths in Peru are attributable to NCDs, of which cardiovascular diseases and diabetes make up 19% and 2% of the burden of mortality, respectively. In this context, CRONICAS Center of Excellence in Chronic Diseases of the Universidad Peruana Cayetano Heredia (UPCH), with support from the Alliance for Health Policy and Systems Research of the WHO and the University of Geneva, conducted a study in 2013 with the **objective of identifying the barriers to access to medication and care for patients with arterial hypertension and diabetes**¹.

The goal of this study is to influence the development of proposals to strengthen the Peruvian health system and at the same time foster responsive policies that contribute to better health for people diagnosed with these diseases.

¹Patients with a diagnosis of either type 1 or type 2 diabetes mellitus were considered in this study.

Methodology

The methodology employed is based on the WHO manual, *“How to investigate the access to care for chronic non-communicable diseases in low-and middle-income countries”*. This manual is a tool to design, plan, and conduct studies with multiple methods and procedures that detail the current situation of NCDs, while also involving key stakeholders and the pertinent policy makers in this process. The WHO drafted this manual based on the Rapid Assessment Protocol for Insulin Access (RAPIA), a methodological instrument promoted by the International Insulin Foundation (IIF).

This study combines the following four levels of analysis: macro, intermediate, local, and individual. **Mixed techniques for qualitative and quantitative information gathering, processing, and analysis were used**; and a convenience sample was selected, in which 140 interviews were held with key informants. The study was conducted in the city of Lima and the interviews were conducted in the following manner:

- National level: public servants from the Committee of Experts on NCDs from the General Directorate of Health from the Ministry of Health (MINSa for its acronym in Spanish), specialists from patients' organizations, and professionals associated with arterial hypertension and/or diabetes care.
- Intermediate level: directors and coordinators of micro-networks and MINSa, Social Health Insurance (EsSalud), Armed Forces, and private sector health facilities.
- Local level: staff in MINSa, EsSalud, Armed Forces, and private sector health facilities.
- Individual level: patients with arterial hypertension and/or diabetes, or their caretakers, who receive health care in MINSa, EsSalud, Armed Forces, and private sector health facilities.

Main Findings

The results presented in this executive summary focus on the most important findings at the local and individual levels. Additional interviews conducted at other levels allowed for the validation and better understanding of the findings. The study also contains information regarding the panorama of health policies on arterial hypertension and diabetes health care in Peru, which is available in the study's Final Report².

This report presents the main findings organized in ten sections:

1. The Peruvian health system and the National Health Strategy for the Prevention and Control of Non-Communicable Diseases.
2. Management of arterial hypertension and diabetes: the use of clinical practice guides.
3. Participation of personnel and patients in activities or programs concerning arterial hypertension and diabetes.
4. Health insurance coverage for patients with arterial hypertension and/or diabetes.
5. Access to medical appointments: deficient organization at the level of primary care.
6. Problems in obtaining access to medication for the treatment of arterial hypertension and diabetes.
7. Affordability of medication: prohibitive costs for the general population.
8. Patients with reduced treatment adherence.
9. Problems in obtaining access to laboratory exams at the level of primary care.
10. Self-monitoring of arterial pressure and glucose levels: equipment that is inaccessible to patients.

²Available at <http://www.cronicas-upch.pe/Identificando-Barreras>

1 The Peruvian health system and the National Health Strategy for the Prevention and Control of Non-Communicable Diseases

Institutions and actors from the public and private sectors and individuals (patients and caretakers) participate in the Peruvian health system. The following institutions compose the public sector: MINSA, the governing body that leads, regulates, and promotes national health policy; the Regional/ Local Directorates of Health; Social Health Insurance (EsSalud); and the health units from the Armed Forces (police, army, marines, and air force). The private companies that act as insurers and/or service providers are categorized as private sector. Professional associations and societies, academic organizations and non-governmental organizations also actively participate in the Peruvian health system.

The creation of the National Health Strategy for the Prevention and Control of Non-Communicable Diseases in 2004 was one of the State's actions in response to NCDs. This strategy established a work plan for the 2004-2012 period, which was primarily oriented to promote healthy lifestyles and prevent and control prioritized NCDs such as arterial hypertension and diabetes mellitus type 2.

The objectives and goals established in the 2004-2012 General Plan of the National Health Strategy for the Prevention and Control of Non-Communicable Diseases were only partially achieved. This partial progress is due to multiple factors, such as the initial lack of a budget line for the plan and the insufficient number of professionals assigned to the technical team responsible for leading the activities, among others.

Despite MINSA's formulation of a proposal based on multi-sectoral and multi-disciplinary efforts, as of July 2014, the new plan for the 2014-2021 period has yet to be approved.

2 Management of arterial hypertension and diabetes: the use of clinical practice guidelines

National clinical practice guidelines allow health professionals to orient their patient treatment, as well as to support the demands for required goods and services for provision of the necessary care.

At the national level, **there is a clinical practice guideline for the prevention and control of arterial hypertension at the primary care level, which was approved by MINSA in July 2009³. However, as of July 2014, there is no similar guideline for the care of diabetes.**

With regards to the knowledge of any type of clinical practice guideline for the management of patients with these diseases, **the majority of MINSA primary health care professionals—doctors, nutritionists, and nurses—stated that they are unaware of any type of clinical practice guideline**, whether that be at the local, national, or international levels. Physicians at more complex health facilities did cite access to and use of international guidelines and protocols from their own institutions.

In the majority of health facilities, the existing clinical practice guidelines are not well-known or used by the nursing and nutrition health professionals. However, the nursing professionals from EsSalud stated familiarity with these documents, especially those who are responsible for the coordination of the programs on arterial hypertension and diabetes.

3 Participation of personnel and patients in activities or programs concerning arterial hypertension and diabetes

Patient associations fulfill an important role in the socialization of information among members, and also serve as a source of information and education that frequently complements that provided by medical professionals during doctor's appointments. However, **no patient with hypertension interviewed stated knowing or being associated with any patient association; only those diagnosed with diabetes and who receive care in MINSA hospitals were aware of the existence of a patient association.** The main reasons for lack of participation in these associations are time constraints, scarce economic resources for transportation costs, or a physical handicap that makes mobility difficult.

It was also found that there is a program for patients with arterial hypertension and another for patients with diabetes in EsSalud health clinics. Both are led by nursing professionals; professionals of medicine and nutrition also provide attention in select sessions.

³Ministerial Resolution N° 491-2009/MINSA approves the "Clinical Practice Guideline for the Prevention and Control of Hypertensive Diseases in Primary Health Care".

4 Health insurance coverage for patients with arterial hypertension and/or diabetes

According to the 2011 National Survey of Households (ENAHO for its acronym in Spanish), 64.5% of the national population has some type of health insurance. In the last decade, health insurance coverage has increased considerably, mainly due to the growth of *Seguro Integral de Salud* (SIS) that is targeted to populations living in poverty or extreme poverty. **Despite the progress made in extending health insurance coverage, a third of the population still is not covered by any health care insurance.**

In the sample of patients interviewed, all of those who received care in EsSalud and Armed Forces health facilities had insurance; 23% of the patients interviewed who received care in MINSA facilities and 31% of those interviewed from the private sector stated that they lacked any type of health insurance.

5 Access to medical appointments: deficient organization at the level of primary care

The availability of medical appointments was one of the main difficulties found in the hospitals of MINSA and the Armed Forces, as well as in the EsSalud clinics. Due to the high flow of patients and the reduced number of professionals—mainly specialists—in the public sector, appointments are given one month after the date they are requested (see Chapter 5 of the Final Report).

While the availability of medical appointments did not represent a difficulty in MINSA primary health facilities, the lack of needed equipment and services for the continued control of arterial hypertension and diabetes was a problem. As a consequence, **hospitals are swamped with patients due to an excess of referrals for the control of people with arterial hypertension or diabetes who should be able to be treated in primary health care facilities.**

In the same manner, patients with comorbidity of arterial hypertension and diabetes do not receive treatment in MINSA health posts or centers, but rather in MINSA hospitals where the

specialists, mainly cardiologists and endocrinologists, are located. Additionally, the general medicine professionals at the level of primary health care argue that they are unprepared to care for patients with both diseases.

The majority of patients with hypertension and/ or diabetes who were interviewed indicated that they received the diagnosis during an out-patient appointment, after having had several symptoms. However, **one-third of the patients interviewed were diagnosed after going to the emergency room in a public hospital or private clinic for some dysfunction or other complication of their disease.**

6

Problems in obtaining access to medication for the treatment of arterial hypertension and diabetes

Timely access to medicine is an essential component of successful control of disease. However, the study found that the difficulty in obtaining access to medication occurs at several levels. This includes, for example, patient and medical staff distrust of the effectiveness of generic medicines. Furthermore, insurance policies cover the total or partial costs of generic medicines. In spite of this, the public health facilities visited experience a series of difficulties that prevent them from ensuring a stock of available medication to respond to the demand.

In public sector pharmacies, there are frequently periods of shortage during which a limited variety of medicines are available. Additionally, if the medication prescribed is brand-name or recently unveiled, it is unlikely that any public sector insurance would cover its cost. In any of these situations, insured patients—just as the uninsured do—would have to pay for the medication.

Thus, while health insurance decreases some of the treatment costs, such as those for doctor's appointments or exams, the difficulties that arise with medication are similar to those faced by uninsured patients. Both groups have to pay a significant amount for their prescribed medications.

Generally, **private sector and MINSA patients purchase their medication in private pharmacies. For example, 76% of the total patients interviewed in MINSA facilities stated that they purchased their pills in private pharmacies.**

Moreover, another reason that patients insured through MINSA acquire medication in private pharmacies is the delay between the date of the prescription and the date of the subsequent

medical appointment. In other words, the prescriptions should reflect the cycle of treatment necessary until patients' subsequent medical appointments. However, patients do not always obtain the subsequent doctor's appointment on the indicated date. As such, there are days for which patients run out of medication and have to purchase it in private pharmacies.

In the case of patients in the EsSalud and Armed Forces health systems, they experience a delay in receiving their medication due to its scarcity or shortage. While in both institutions patients eventually receive their medication, during the period of shortage, they have to purchase it in private pharmacies or interrupt their medical treatment.

Insulin-dependent patients interviewed acquire insulin and syringes in private pharmacies due to temporary shortage in some hospitals and the lack of these products in MINSA health posts and centers.

7

Affordability of medication: prohibitive costs for the general population

There is a wide gap between what patients pay in a private pharmacy when they purchase their own medication for arterial hypertension or diabetes compared to what they would pay if they acquired these in the public facilities where they receive their health care. According to information obtained from the Observatory of Medicine Prices of the General Directorate of Medication, Supplies and Drugs (DIGEMID for its acronym in Spanish), between July and August 2013, the **end price of medication to control arterial hypertension in the private sector was five times more than the cost of the same medication in the public sector.** For example, the medication captopril in 25 and 50 mg dosages and enalapril in 5, 10, and 20 mg dosages—two of the primary medications sold for arterial hypertension in private pharmacies—cost S/. 0.30 Peruvian Nuevos Soles and S/. 0.10 Peruvian Nuevos Soles, respectively. While in the public sector facilities, the unit price is S/. 0.02 Peruvian Soles. **Similar results were found for the oral medication to treat diabetes. Although a great deal of this medication was exempted from import tariffs and Value Added Tax (VAT)⁴, the majority of anti-diabetes medication had higher retail prices in the private sector.**

The monthly cost for the majority of medicine prescribed to patients with arterial hypertension is under S/. 15 Peruvian Nuevos Soles. However, there is some medication with

⁴According to the following executive decrees: DS N° 016-2006-SA, DS N° 005-2008-SA, DS N° 005-2009-SA, and DS N° 007-2010-SA."

extremely high prices. A monthly supply of losartan potassium 50 mg costs S/. 141 Peruvian Nuevos Soles while a monthly supply of irbesartan 300 mg costs S/. 222 Peruvian Nuevos Soles. These amounts, respectively, are 19% and 30% of the minimum monthly wage in the country. Of note, in 2014, the monthly minimum wage was S/. 750 Peruvian Nuevos Soles.

The study showed that in the patients interviewed, metformin 850 mg is the most used anti-diabetes medication. In the case of patients who have to pay these costs out-of-pocket, a month-long cycle of this medication costs S/.45.30 Peruvian Nuevos Soles. The combined medication of glibenclamide-metformin 5mg-500mg and glimepiride-metformin 4 mg-1000 mg for a month-long cycle costs S/.150 Peruvian Nuevos Soles and S/. 248 Peruvian Nuevos Soles, respectively, which constitute 20% and 30% of the monthly minimum wage. The diabetes treatments that require insulin are a larger challenge for those who pay for treatment of out-of-pocket. Thus, including the costs of insulin and self-monitoring, the insulin-dependent patient can have monthly medication costs of S/. 405.70 Peruvian Nuevos Soles, which is the equivalent of 54% of the monthly minimum wage⁵.

These results show that taking into account the monthly minimum wage, **some medications prescribed for arterial hypertension, such as insulin and the aforementioned combined medication for diabetes treatment are cost-prohibitive and inaccessible to the general population.**

8 Patients with reduced treatment adherence

Treatment adherence is essential for the patient's control of his/ her disease. This not only entails appropriately taking prescribed medication, but also following recommendations such as attending follow-up medical appointments and making lifestyle changes, among others.

The majority of patients who receive care in MINSA primary health care facilities stated that while they had received pharmacological treatment, they had not received information about lifestyle changes that could help to control the disease. In addition to the pharmacological treatment. This finding is different from what occurs in patients who use MINSA, EsSalud, Armed Forces, and private sector health facilities: they stated that professionals in these facilities told them to make lifestyle changes, such as an increase in physical activity, or a reduction in the consumption of certain foods, etc.

⁵It should be noted that the monthly costs for medications for patients who need insulin will vary considerably depending on the dose required, the frequency with which glucose is monitored, the frequency with which syringes and needle are used, among others."

Health professionals interviewed explained that one reason for reduced treatment adherence is the insufficient education that patients receive during the medical appointment about their disease. These professionals indicated that a large group of patients do not fully understand their disease, the treatment that they should follow, and the possible health complications.

More than half of the patients interviewed mentioned not complying with their pharmacological treatment for a variety of reasons, among which are: the lack of economic resources to acquire them, not carrying their medication with them when they are outside the home, forgetfulness, not tolerating the secondary effects, or believing that they have their disease under control.

Additionally, patients with diabetes and arterial hypertension comorbidity tend to be more abreast of their health compared with those patients that have a single disease. They comply more often with their arterial pressure and glucose check-ups and go to more healthcare appointments. However, this group is not necessarily stricter in their compliance with their pharmacological treatment. Adherence tends to decrease in these patients because they have a larger number of medications, trying to remember their indications and purchasing them is more complicated.

9

Problems in obtaining access to laboratory exams at the level of primary care

One of the main difficulties that patients face in obtaining access to laboratory exams is the scarcity of reagents for blood tests in the laboratories located in public facilities. For example, **in the first weeks of the month in MINSA hospitals, it is extremely common to find that the reagents for glycosylated hemoglobin, creatinine, or microalbuminuria have been depleted.** According to some of the heads of health facilities interviewed, the annual projections for the purchase of reagents are not in accordance with the true demand, which is one of the reasons for the shortage of reagents.

Additionally, **certain tests such as glycosylated hemoglobin, creatinine, or glucose tolerance cannot be done in MINSA primary care health posts or centers. Thus, when patients require any of these tests, they are referred to area hospitals. This creates an increased burden on the system and increases patients' time and expenses.**

10 Self-monitoring of arterial pressure and glucose: equipment that is inaccessible to patients

The equipment for self-monitoring, such as the blood glucose meter and tensiometer, are not covered by any health insurance policy. **It is rare that patients purchase this equipment since they generally are unable to afford it and/or their knowledge and practice about how to operate these instruments remains limited.** For example, those who have a glucose meter have to purchase the costly supplies to conduct the test, and the test strips and lancets could reach S/. 217 Peruvian Nuevos Soles monthly.

Faced with this situation, some patients decide to measure their blood pressure or glucose in private pharmacies or MINSA health centers in the areas where they live. Patients with both arterial hypertension and diabetes are the only group in which the majority has some self-monitoring equipment in their homes.

Furthermore, the public health facilities do not sell the equipment or additional supplies necessary for self-monitoring, such as the reactive test strips for the blood glucose meter. In some MINSA and EsSalud facilities, there is a stock of these supplies in the warehouse, but they are exclusively intended for the service of patients' glucose measurement in the facility.

Conclusions

The conducted study presents a perspective of the current situation of the management of arterial hypertension and diabetes in Lima, Peru. The findings described allow for an understanding of patients' primary barriers to care and access to medication with arterial hypertension and/or diabetes, mainly with regard to access to medical appointments, the difficulties faced in access to and the scarce accessibility to medication, the problems of reduced treatment adherence, and the difficulties in obtaining access to laboratory exams in primary care facilities and the self-monitoring equipment needed for control their arterial blood pressure and glucose.

Furthermore, the differences between institutions providing healthcare in Peru make this analysis more complex, and this study is the first step in researching the Peruvian health system. In addition, a detailed Final Report is also available from the investigators or at www.cronicas-upch.pe. This report also presents general recommendations in the context of the current Peruvian health system and its response to the need for better management of NCDs.