OECD Reviews of Health Systems: Peru 2025

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Foreword

The OECD Council decided to open accession discussions with Peru on 25 January 2022. On 10 June 2022, the Council adopted the Roadmap for the accession of Peru to the OECD Convention [C/MIN(2022)24/FINAL] (the Roadmap) setting out the terms, conditions and process for accession to the OECD. The Roadmap provides that in order to allow the Council to take an informed decision on the accession of Peru, Peru will undergo in-depth reviews by the OECD technical committees listed in the Roadmap, including the Health Committee.

This report was prepared to support the accession review discussion of the Health Committee with Peru on 10 June 2024, during its 35th session. In accordance with paragraph 28 of the Roadmap, the Health Committee agreed to declassify this report on 3 February 2025 and publish it under the authority of the Secretary-General, in order to allow a wider audience to become acquainted with its content. Publication of this document and the analysis and recommendations contained therein do not prejudge in any way the outcome of evaluations conducted as part of Peru's accession process to the OECD.

This report has benefited from the expertise and material received from many health officials, health professionals, civil society and other health experts that the OECD review team interviewed during a fact-finding mission on 18-21 March 2024, and bilateral teleconferences. The report also reflects information provided in February 2024 to the Accession Survey on Health Data Capacity, the Accession Review Policy Questionnaire, as well as the regular OECD Health Data Questionnaires received in April 2024.

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Acronyms and abbreviations

AMR	Antimicrobial Resistance
CENARES	National Center for the Supply of Strategic Resources for Health
CEABE	Strategic Goods Supply Center
CENATE	National Centre for Telemedicine
CNS	National Health Council
DTP-3	Diphtheria, tetanus, and pertussis
DIGEMID	General Directorate of Medicines, Supplies and Drugs
EHR	Electronic Health Records
ENAHO	National Household Survey on Life Conditions and Poverty
ENESM	National Specialised Mental Health Survey
ENDES	Demography and Family Health Survey
ENSAP	National School of Public Health
ENSUSALUD	National Healthcare User Satisfaction Survey
EPS	Healthcare provider entities (Entidades Prestadoras de Salud)
EsSI	Sistema Servicio de Salud Inteligente
EsSALUD	Seguro Social de Salud
FUA	Formato Único de Atención
GORE	Regional government (Gobiernos Regionales)
GOLO	Local government (Gobiernos Locales)
HIS-MINSA	Health Information System (Sistema de Información de Salud)
HTA	Health technology assessment
IAFA	Institution administering health insurance fund
IETSI	Institute for Health Technological Assessment and Research
INEI	Instituto Nacional de Estadística e Informática
INFORHUS	National Health Personnel Register
INS	National Health Institute (Instituto Nacional de Salud)
IP	Benefit exchange agreements (Intercambio de Prestaciones)
IPRESS	Healthcare Provider Institutions (Instituciones Prestadoras de Servicios de Salud)
JUS	Juntas de Usuarios
LAC	Latin and American Countries
MAIS	Comprehensive Healthcare Model (Modelo de Atencion Integral de Salud)
MAIS-BFC	Comprehensive Healthcare Model based on the Family and Community
MCI	Model of Integrated Care by Life Course for the Person, Family and Community
MEF	Ministry of Economy and Finance
MINSA	Ministry of Health
MIDIS	Ministry of Social Development
OPP	Out-of-pocket payments
PEAS	Minimum benefit package (Plan Esencial de Aseguramiento en Salud)
PEN	Peruvian sol
PpR	Payment by result (Presupuestos por Resultados)
PROFAM	Programa Nacional de Formación en Salud Familiar y Comunitaria
PNUME	List of essential medicines

RENETSA	National Network of Health Technology Assessment
RENIEC	National Registry of Identification and Civil Status
REUNIS	National Health Information System (Repositorio Único Nacional de Información en Salud)
RIS	Integrated Health Networks (Redes Integradas de Salud)
RNT	National Telehealth Network
SERUMS	Servicio Rural y Urbano Marginal en Salud
SIHCE	Electronic Health Record Information System
SIS	Seguro Integral de Salud
SISMED	Integrated Supply System for Medicines and Medical and Surgical Supplies
SNCDS	National Co-ordinated and Decentralised Health System
SUSALUD	National Superintendence of Health
PNMS	National Multisectoral Health Policy 2030
UE	Executing Units (Unidades Ejecutoras)

Executive summary

Over the past four decades, Peru has made remarkable progress in improving most population health indicators. The country has significantly increased life expectancy, reduced infant and maternal mortality rates, and expanded healthcare coverage. Life expectancy rose by approximately 13 years since 1980, reaching 72.4 years in 2022, while infant mortality declined from 83 deaths per 1 000 live births in 1980 to 11 in 2021. Maternal mortality also halved from 101.9 deaths per 100 000 live births in 2002 to 51.9 in 2023. These improvements have been largely driven by healthcare reforms, notably the introduction of the Universal Health Insurance Law in 2009. As a result, insurance coverage increased from 61% in 2009 to over 97% in 2023, with the Seguro Integral de Salud (SIS) playing a crucial role in covering poor and underserved populations.

However, Peru continues to grapple with a health system that remains both segmented and fragmented, with multiple public sub-systems serving different population groups, leading to inequality in access to care. In Puno – the Andean region with a high density of indigenous people, the proportion of people reporting unmet medical needs is almost double that of Metropolitan Lima areas (40% compared to 23%). Unmet medical needs are more often reported among women (33%) than men (29%), and women face longer waiting times for a medical consultation than men. Peru's healthcare infrastructure also requires urgent improvements. Many public healthcare facilities are deemed inadequate, posing risks to patient safety and service delivery. Overall, the health system still lacks the integration and co-ordination needed to ensure equitable access to high-quality care for all Peruvians. Addressing these challenges requires strengthening quality governance, investing in high-impact healthcare service improvements, and curbing inefficiencies. In this context, the Review identifies scope for Peru to build a stronger healthcare system, and to strengthen existing policies and practices to improve access, care quality, efficiency and resiliency.

The persistent fragmentation and segmentation of its health system affects its access, quality and efficiency. The system is divided into two main sub-systems: EsSalud, a contributory system covering salaried workers and their families, and SIS, a non-contributory system financed through general taxation for poor and vulnerable populations. These systems operate separate networks of providers with different governance and financing structures, leading to inefficiencies, service duplication in some areas, and gaps in access in others, particularly rural regions. To address these issues, Peru should enhance benefit exchange agreements (*intercambios prestacionales*), allowing SIS and EsSalud affiliates to access services across networks for a basic set of healthcare services. A more unified approach could also be achieved by harmonising the minimum benefit packages across both sub-systems, following examples from Chile, Colombia and Mexico. However, such reforms must balance expanding access with maintaining service quality to ensure public support.

Improving healthcare quality governance and establishing an interoperable health information infrastructure are also essential steps toward a more integrated health system. Peru's healthcare data systems remain highly fragmented, preventing effective measurement of health outcomes and service quality. The development of a unified national health data system is a step in the right direction, but broader participation across all sub-systems is needed to ensure its effectiveness. Standardising and mandating the reporting of quality and outcomes indicators would facilitate better monitoring and comparison of care

quality across providers. Policy makers should also enhance their utilisation of information systems and more effectively integrate data into the decision-making process. When it comes to quality governance, there is scope to further strengthen quality initiatives at system level as right now the scope and depth of initiatives depends on regional or local capacity to assume quality assurance mechanisms.

To bring improvement in health infrastructure and invest towards high-impact interventions, Peru will have to mobilise additional health resources. Although SIS funding has increased nearly fourfold in the past decade, Peru's healthcare system remains underfunded compared to regional and international standards. In 2022, the country allocated only 6.2% of its GDP to health, less than Costa Rica (7.2%), Colombia (7.6%), and Chile (10.0%). In addition, public spending remains significantly below the OECD average, leading to high out-of-pocket expenditures (which accounted for 27% of total health spending in 2022). However, financial sustainability remains a concern in a context of tight fiscal space, and continuing to improve efficiency of health expenditure is needed. The budgeting process is highly restrictive, with funds allocated by line items, limiting flexibility in resource distribution. Transferring recurrent costs such as maintenance and labour expenses to the Ministry of Health could improve efficiency and enable better workforce planning. Beyond improving budgeting process, there is also huge potential for efficiency gains throughout the health system. Implementing risk-adjustment formulas to ensure adequate SIS funding based on population health needs, increasing accountability for public healthcare facilities, and adopting results-based budgeting for key health objectives are necessary steps. Strengthening primary healthcare is also crucial, particularly through the implementation of Integrated Health Networks and improved diagnostic capacity. Given the rising burden of non-communicable diseases such as obesity and the persistence of infectious diseases like dengue, investing in prevention and health promotion is another key step for consideration. Furthermore, optimising pharmaceutical procurement and expanding the availability of generic medicines could generate cost savings while improving treatment accessibility.

The COVID-19 pandemic exposed Peru's vulnerabilities in health crisis preparedness, with the country experiencing the highest excess mortality rates among Latin American and OECD countries in 2020 and 2021. While Peru has since improved its emergency response capabilities through national pandemic plans and strategic policies, effective regional implementation remains a challenge. Strengthening regional oversight and ensuring sufficient technical and organisational capacity at the local level will be critical to enhancing resilience against future health crises. But Peru should also address workforce shortages which further exacerbate Peru's healthcare challenges. Strategies to retain healthcare workers, such as salary improvements and targeted incentive programmes, are necessary to close these gaps. Expanding nursing training and integrating community health workers into primary healthcare could also enhance service delivery and promote preventive healthcare efforts.

Peru's near achievement of universal health coverage is a significant milestone. However, the country still faces challenges to ensure that high-quality services are accessible to all Peruvians. This means providing the right care, at the right time, responding to patient's needs and preferences, while minimising waste of scarce resources. By implementing targeted reforms and learning from international best practices, Peru can build a more resilient and inclusive health system that meets the needs of its diverse population.

1 Assessment and recommendations

This chapter summarises the in-depth assessment conducted as part of Peru's accession review and presents key recommendations to enhance the performance of the health system across critical dimensions, including access, quality, sustainability, efficiency, and resilience. While significant progress has been made in population health indicators and access to care – particularly following the introduction of the Universal Health Insurance Law in 2009 – substantial inequalities in access to high-quality care persist among different population groups. These disparities stem from the fragmentation and segmentation of Peru's health system, compounded by inadequate health infrastructure, a low supply of healthcare workers, and significant geographical imbalances in workforce distribution. Addressing these challenges requires strengthening quality governance and health information systems, investing in high-impact healthcare service improvements, and reducing inefficiencies.

Peru has well designed policies and institutions that other countries could learn from and that deserve to be better known internationally. However, given Peru's limited resources, efforts to enhance value for money will be essential to freeing up the resources needed for further investment in improving the quality and accessibility to care, especially for women, disadvantaged ethnic groups and population groups living in rural areas.

Peru has made good progress in delivering appropriate healthcare over the past decade, yet further efforts can help reduce the large inequalities in access to care

Over the past 40 years, Peru has significantly improved most general population health indicators. Notably, Peru has achieved large gains in average life expectancy of approximately 13 years since 1980, reaching 72.4 years in 2022. Infant mortality has declined sharply in the last decades, from 83 deaths per 1 000 live births in 1980 to 11 deaths in 2021. Maternal mortality also decreased from 101.9 deaths per 100 000 live births in 2002 to 51.9 deaths in 2023. The expansion of healthcare coverage has contributed to these improvements. Peru introduced a Universal Health Insurance Law in 2009 and has made substantial progress towards universal coverage since then. Insurance coverage has continued to increase, from 61% of the population in 2009 to 83% in 2017 and reaching more than 97% in 2023. Affiliation to Seguro Integral de Salud (Integral Health Insurance – the public insurer) has been the key instrument behind the expansion of healthcare coverage. The past reforms were strongly progressive, being specifically designed to reach poor and vulnerable population. Affiliation increased more rapidly in the poorest population and in rural areas (from 2005 to 2022 for example, coverage of Integral Health Insurance for rural populations increased from 25% to 85%), and access to healthcare services became much more equally distributed. In 2019 for example – before the COVD-19 pandemic – 77% of children aged less than one year were recorded as having received routine vaccination in both urban and rural areas. Likewise, out-of-pocket payments have decreased by more than 22% over the last decade.

However, there are still large inequalities in access to healthcare. In Puno, for example (the Andean region with a high density of indigenous people), the proportion of people reporting unmet medical needs is almost double that of Metropolitan Lima areas (40% compared to 23%). Unmet medical needs are more often reported among women (33%) than men (29%), and women face longer waiting times for a medical consultation than men. Similar ethnic and regional inequalities are observed in OECD Member countries including Colombia, Chile and Mexico. Other populations, such as the lesbian, gay, bisexual, transgender, intersex (LGBTI) community, also faced difficulties in accessing healthcare.

Peru needs to reduce the fragmentation of its health system

The segmentation and fragmentation of Peru's health system has an adverse impact on the access to care, quality and efficiency. Peru is facing a dual challenge with a health system that is segmented (it is divided into different sub-systems that serve various segments of the population) and fragmented (these sub-systems lack the necessary integration and co-ordination). The social health insurance (EsSalud) and the Integral Health Insurance (SIS) cover different groups of the population, provide different levels of coverage, and have separate networks of providers with separated governance structures and financing systems. EsSalud operates an exclusive network accessible only to those affiliated to the social health insurance system, which covers around 26% of the population (all salaried formal workers and their families). Meanwhile, services for those affiliated with SIS are provided by public health facilities directly owned by the Ministry of Health in the metropolitan region of Lima and by regional governments elsewhere in the country. SIS covers around 62% of the population as of 2023, mainly poor individuals, vulnerable groups, entrepreneurs and self-employed workers. While SIS is primarily non-contributory and financed by

general taxation, EsSalud is a contributory system which is financed almost exclusively through labour-related contributions.

Fragmentation means that in some regions there is duplication of services with hospitals of both networks operating alongside, while in other regions – most often rural areas – there is only access to the SIS public sector. This results in an inefficient allocation of health resources and inequalities in access to quality care. Many patients, especially those covered by EsSalud, are forced to rely on hospitals for primary healthcare. In 2022, only 32% of Peruvians accessed a public primary health centre first when they sought care. To promote equal access across the sub-systems, a further use of benefit exchange agreements (*intercambios prestacionales*) – which make it possible for affiliates of either SIS or EsSalud to access health services offered by the network to which they are not affiliated – is recommended for a basic set of services such as primary healthcare services. This would improve access to preventive and comprehensive care and lead to a more efficient use of healthcare supply.

In addition, to reduce fragmentation of the health system, Peru would benefit from progressively harmonising the minimum benefit package between SIS and EsSalud. Chile, Colombia and Mexico, OECD Member countries with similarly fragmented health systems, have taken steps to encourage convergence in benefit packages across different health insurance systems. A key challenge will be to define the level of services offered in the common benefits package. If too restricted, then people in the social health insurance would see their breadth of services reduced relative to the current system, which would reduce support for the reform.

A more unified health system can be achieved through stronger quality governance and an interoperable health information infrastructure

In Peru, there are few quality initiatives at the system level. Each health facility has the responsibility to implement quality management processes – such as implementing clinical practice guidelines, developing patient safety protocols and undertaking audits – but these are implemented sporadically, and monitoring depends on regional or local capacity to assume quality assurance mechanisms. Quality and outcome indicators are also irregularly collected and analysed. The Ministry of Health's evaluation process for health facilities is focused on assessing compliance with regulations, but the system focuses on compliance with minimum service readiness standards (such as registering infrastructure, equipment and stock of pharmaceuticals in the information systems) and entails sanctions rather than rewarding and supporting improvement initiatives. Centralised functions for quality assurance and stronger oversight of local and regional activities would be beneficial. The role of the National Health Superintendence (SUSALUD) could be strengthened by setting national quality standards for all sub-systems, monitoring compliance with these quality standards, and providing incentives for quality improvements. Similar national inspectorates for health are in place in OECD Member countries. These include the *Haute Autorité de Santé* in France, which provides independent verification that quality standards are being met, identifies good practices and supports weaker facilities to improve their quality standards.

Peru would also benefit from an interoperable health information infrastructure to further improve the effectiveness of its health system in terms of accessibility, quality and efficiency gains. The Peruvian health information is not standardised across sub-systems and linkage of personal health data across healthcare settings is challenging. This means that it is not possible to comprehensively measure activities, care quality or outcomes nationally, to make comparisons across providers, and follow pathways of care particularly for patients with complex care needs. To do so, Peru is working on a unified national health data system (REUNIS) to be able to report a core set of information across all sub-systems. Yet mainly the Ministry of Health and regional governments' health data are reported to the REUNIS information system. Greater interoperability across all sub-systems, as well as standardised and mandatory reporting of indicators on resources, activities and quality of care would help to achieve a harmonised monitoring

system. Additional efforts are also needed to ensure greater reporting and comparability of the data according to OECD standards for national and international benchmarking. For example, Peru relies on survey data and reports life expectancy for five year blocks while most other countries rely on demographic statistics from life tables. Peru is also not able to report on employment, workforce migration, and health spending by type of services and providers. Many OECD LAC countries have started with the same limitations and gradually expanded the scope of their data submission.

The resilience and sustainability of Peru's health system can be improved

Health spending in Peru is low, indicating that the healthcare system is underfunded compared to other LAC and OECD countries. In 2022, Peru allocated 6.2% of its GDP to health, a lower share than in Costa Rica (7.2% of GDP), Colombia (7.8% of GDP) or Chile (10.0% of GDP). Likewise, the level of overall public spending in Peru is much lower than in other OECD and LAC countries. In 2021, overall public spending was at 23% of GDP, lower than in Chile (26%) or Mexico (27%) and nearly half the average in the OECD (40% of GDP). This leads to high out-of-pocket spending. In 2022, out-of-pocket payments accounted for 27% of the total health expenditure, almost 1.4 times higher than the OECD average of 19%.

While financial resources allocated to the Integral Health Insurance (SIS) increased around fourfold over the last decade (from PEN 517 million in 2010 to PEN 2 483 million in 2022), low level of public spending is an issue which directly relates to low government revenues – due to a relatively low tax burden and a narrow tax-base due to informality. The financial sustainability of the Peruvian health system is further challenged by a complex budgeting process. The Ministry of Economy and Finance has strict control over the Integral Health Insurance's budget, preventing reallocations across budget lines. This means that the Ministry of Health, regional governments or executing units may have funds for one line item, but need funds for another and are not allowed to reallocate funds across budget lines. Furthermore, government transfers to the Integral Health Insurance are calculated only on the basis of the variable costs of services and do not include recurrent costs such as maintenance and labour costs. This poses a challenge to the ability of regional and local governments to deliver healthcare services, as they may face limitations in their technical and financial capacities to manage these costs. Addressing this by transferring the payment of recurrent costs to the Ministry of Health would help ensuring the long-term financial sustainability of the healthcare system. This would also increase the ability of the Ministry of Health to further implement payment mechanisms that incentivise good care quality and hiring additional workers.

Peru would benefit from prioritising efforts to drive efficiency gains and reduce wasteful spending within the health sector in order to free up resources to improve the health infrastructure. As several other countries, Peru must address the need for further investments in the health system to improve quality and access, with limited public funding and competing priorities for allocating government funding. To increase efficiency, Peru would need to use risk-adjustment formulae to ensure that SIS is adequately resourced for their affiliated population and their health needs. Greater accountability for public health facilities directly owned by the Ministry of Health in the metropolitan region of Lima and by regional governments in improving population health outcomes and quality of care is also needed through better payment mechanisms. Adopting results-based budgeting for key horizontal health objectives and ensuring greater budget flexibility for regional and local governments will further enhance efficiency in public health spending.

Targeting prevention and health promotion is also necessary through the modernisation of the primary healthcare sector, the ongoing development of the Model of Integrated Care by Life Course for the Person, Family and Community and the roll-out of Integrated Health Networks. This is key to make sure primary healthcare can realise its key functions regarding public health, prevention and management of diseases, backed by sufficient laboratory and diagnostic capacity. This is particularly important given the health

needs of the population, characterised in recent years by rising obesity rates, persistently high prevalence of anaemia and still predominant infectious diseases, such as dengue.

Given that the majority of public healthcare facilities are evaluated by the Ministry of Health as being precarious or inadequate to provide proper patient care, Peru should also repurpose small, inefficient hospitals into intermediate care facilities (alongside a strengthening of telehealth applications and medical transportation not to compromise access to acute care for patients in remote areas). This would help to improve patient safety and increase allocative efficiency.

Improving the planning and procurement process for non-strategic medicines, ensuring greater availability of generics and integrating economic evaluation in health technology assessments are also key actions to increase efficiency in pharmaceutical spending.

While Peru improved health crises preparedness in recent years, a stronger workforce planning and incentives are needed to improve the resilience of its health system

The impact of COVID-19 on population health has been dramatic in Peru. The country had the highest yearly excess mortality in 2020 and 2021 among both LAC and OECD countries. Peru had an average of 437 excess deaths per 100 000 population in 2020 and 2021, almost four times as high as the OECD average of 114 excess deaths per 100 000 population and more than twice the LAC average. Poor determinants of health, weak information systems, shortages in key health personnels and limited co-ordination across sub-systems to provide appropriate care are all factors explaining poor health outcomes.

Peru's response to the COVID-19 pandemic led to improved crises preparedness through better established crises management. Between 2020 and 2022, MINSA implemented five national pandemic plans to address the COVID-19 pandemic, which were all consistent with the International Health Regulations. The development of the *National disaster risk policy for the year 2050* and *Strategic Action: Prevention and response to international public health emergencie*s plans have also led to improved crisis preparedness, alongside the strengthening of laboratory capacity to monitor surveillance of infectious diseases. Peru is also advancing towards a One Health approach by developing an integrated Antimicrobial Resistance (AMR) surveillance system that spans the health, agriculture, production, and environment sector, and the development of a "Framework Law for the Containment of Antimicrobial Resistance under the One Health Approach". However, the effectiveness of initiatives toward pandemic and health crisis preparedness hinges on robust regional implementation. Despite having clear national plans with identified funding sources, the success of these measures largely depends on regional decisions and implementations. Issues with technical and organisational capacity at the regional level could lead to suboptimal implementation of these critical health policies, calling for additional oversight from the central level.

The development of a stronger workforce planning strategy (spanning across sub-systems), taking into account medium and long-term needs, is needed to improve the resilience of Peru's health system. While Peru has already taken steps to strengthen its healthcare workforce policies – through for example the development of a National Health Personnel Register, the SERUMS and PROFAM programmes to increase the training of doctors in rural areas and in primary healthcare, Peru still faces challenges to increase health workforce and address geographical imbalances. Peru has for example a low density of physicians per capita, with 1.6 per 1 000 habitants in 2022, slightly lower than the average in the LAC region (2 per 1 000), and well below the OECD average of 3.8. Like other countries in the region and across the OECD, Peru faces significant geographical disparities in the supply of physicians, with rural areas being particularly short of doctors. In 2021, only 9.8% of doctors were located in rural areas

compared to 14.8% in 2013. Strategies to retain health workforce in the profession should also be strengthened, for example through plans to improve salaries for healthcare workers employed by the public sector and those working in rural areas. Investing in nursing training and integrating community health workers offer another potential development for Peru to improve resilience of its health system while carrying out health prevention and health promotion activities.

Box 1.1. Policy Recommendations to strengthen the performance of Peru's health System

Peru can consider the following recommendations to improve its health system performance and strengthen its sustainability and resilience, and bring Peru closer to OECD standards, best policies and practices:

Improve access and quality

- Increase the use of exchange of services between SIS and EsSalud for basic primary healthcare services.
- Harmonise progressively the minimum benefit package between SIS and EsSalud and offer affiliates secondary insurance for services that are not included in the basic benefit package.
- Continue to promote the use of telemedicine to better reach remote populations. Improve connectivity to ensure teleconsultation capabilities in less developed and remote regions.
- Strengthen primary healthcare in Peru to fully realise its key functions regarding public health, prevention and management of chronic conditions. Consider evaluation of medical school curriculum, and make sure the PROFAM training programme is offered in all medical schools and made compulsory for practising as primary care physicians. Primary healthcare should be backed by sufficient laboratory and diagnostic capacity.
- Continue to introduce changes in payment systems for both primary healthcare and hospital care to reward care quality (for example by allocating weighted capitation to health facilities rather than regional units, use payments for a package of services and consider introducing add-on payments to encourage care co-ordination and effective management of chronic diseases).
- Develop a robust national quality assurance framework at system level, unified across sub-systems. Increase oversight of local and regional activities. Enhance the role of SUSALUD to set national quality standards, monitor compliance with quality standards, and provide incentives for quality improvements. Consider a gradual introduction of a voluntary hospital accreditation system.
- Continue to unify the information system and strengthen national data collection, standardisation, linkage, and analysis of health data to improve care quality. Improve co-ordination between SIS and EsSalud to achieve greater interoperability of EHRs. Ensure the national health data governance strategy is adopted by 2025.
- Adopt OECD standards for national and international benchmarking capacity to improve data quality and coverage, notably for indicators on healthcare quality, health outcomes and healthcare activities. Yearly reporting of key health status indicators, such as life expectancy at birth, is important.

Strengthening efficiency and financial sustainability

- Consider ways to raise public revenue to secure additional funding for the Peruvian health system, notably by leveraging efficiency gains.
- Reduce complexities of the health budgeting mechanisms to ensure more flexibility in budget reallocations for regional and local governments. Transfer payments of recurrent costs (maintenance and salaries) to Ministry of health, backed by additional resources from the MEF.
- Move away from historical spending and allocate SIS resources according to the number of affiliates and their health needs. Increase the use of results-based budgeting towards key horizontal health objectives.

- Modernise primary healthcare by increasing competencies of general practitioners and making family training compulsory.
- Improve allocative efficiency by repurposing small and less productive hospitals into intermediate care facilities to consolidate resources in larger hospital centres. Ensure timely access to urgent care through telehealth applications and medical transportation from rural to better-equipped general hospitals in urban areas. Implement hospital payment systems that incentivise quality.
- Strengthen the planning behind the procurement of medicines through information systems that allow for a better estimation of health demand. Increase stewardship from the Ministry of Health to support regions with insufficient planning or administrative capacity for carrying out purchases directly.
- Ensure greater availability of generics by making mandatory the requirement for private pharmacies to maintain 30% generics in stock for essential medicines. Integrate economic evaluation in health technology assessments.

Improving resilience and preparedness

- Invest in national workforce planning based on population needs and on regional distribution of healthcare workers. Increase INFORHUS reporting requirements for all sub-systems to assess human resource needs. Provide support to regional authorities that lack the sufficient scale, technical and financial capacity to assess their own health workforce needs and formulate policy options.
- Implement adequate incentive structures to improve recruitment and retention of health workers. Provide higher level of financial incentives, combined with non-financial incentives, for physicians and nurses to work in remote and underserved regions.
- Monitor and regulate dual practice. Allow physicians and nurses to have more than one position in the public sector.
- Invest in nurses' profession through training and education programmes to support advanced practice. Integrate community health workers more formally into the health system, particularly in remote areas serving indigenous populations.
- Continue to strengthen multisectoral co-operation to tackle AMR. Fill gaps in policy implementation to improve management and surveillance across all relevant stakeholders, notably through a more consistent application of guidelines for antibiotic use, systematic monitoring to inform policy, and comprehensive national campaigns to raise AMR awareness.
- Develop a policy response at national, regional and local level to revert the decreasing trend in childhood vaccination. This includes maintaining strong quality standards, national public communication campaigns, health literacy and outreach programmes.
- Strengthen pandemic risk preparedness through the national disaster risk policy for the year 2050, backed by adequate operational plans at the regional level.

2 Overview of Peru's health system

This chapter provides an overview of Peru's health system, beginning with a summary of the country's socio-economic context, followed by an analysis of its health and healthcare needs. The first section shows that while Peru has made significant progress in improving general population health indicators, rising obesity rates, persistently high levels of anaemia, and the continued prevalence of infectious diseases pose increasing public health challenges. The second section examines the structure of the health system, highlighting the key actors within the government-funded healthcare sector. The third section focuses on the health information infrastructure underpinning healthcare delivery. It presents the large amount of digital health data that is collected but also highlights the lack of standardisation across sub-systems and the challenges in linking personal health data across healthcare settings.

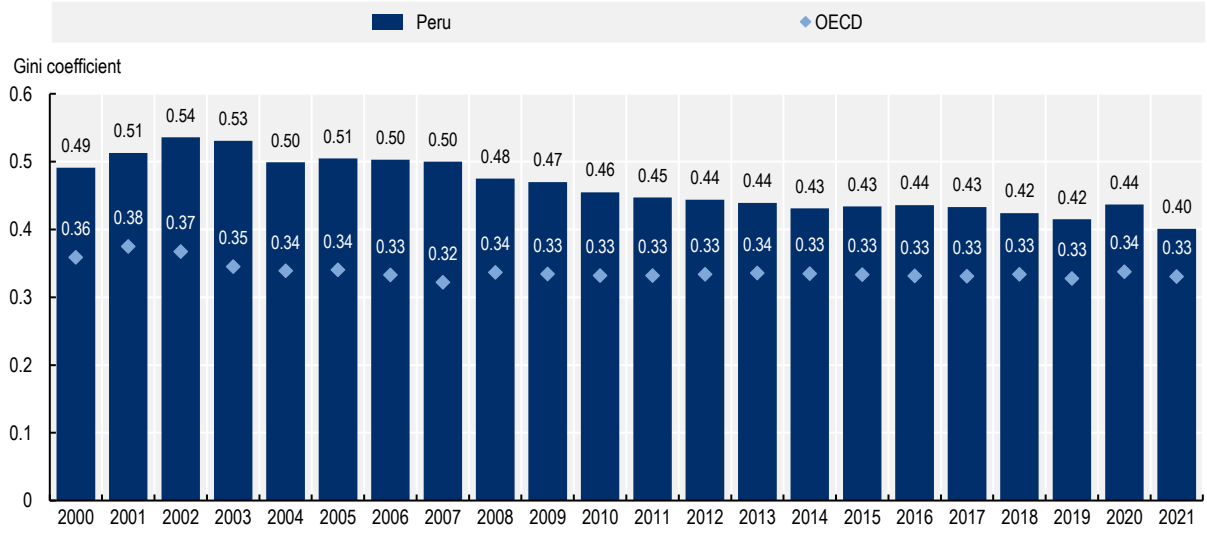
Health status and healthcare needs

The socio-economic context in Peru today

Peru is the third largest country in Latin America and is extremely diverse, both geographically and socio-economically. The country is divided into 26 regions, bordered by Ecuador and Colombia to the north, Brazil to the east, Bolivia and Chile to the south and the Pacific Ocean to the west. Peru is crossed by the Andes Mountain chain which, together with the Amazon jungle in the north-east, creates a geographically complex environment. In 2022, Peru had approximately 34.1 million inhabitants (World Bank, 2024[1]), with most people living on the Pacific coast, and fewer in the mountain ranges and rainforests. Mestizos are the largest ethnic group in Peru, comprising about 60% of the population, including people of mixed indigenous and European descent. According to the 2017 Census, the Quechua population is the largest indigenous group, comprising about 20% of the population, while the Aymara population is estimated at 5% of the total population, the Afro-Peruvians at 4% of the population and the white population (from European descent) at 6% of the population (OECD, 2023[2]).

Between 2000 and 2019, Peru enjoyed sustained economic growth with an average annual growth rate of 5.1%, driving progress towards higher living standards, and emerging as one of the fastest growing and most stable economies in Latin America (OECD, 2023[2]). Macroeconomic stability, trade openness, and a favourable international environment allowed the country to become an upper middle-income economy, with per capita income rising from USD 2040 in 2002 to USD 7 126 in 2022 and poverty dropping from 60% to 33% over the same period (World Bank, 2024[3]). There has also been a significant reduction in inequality, with the Gini coefficient decreasing from 0.49 in 2000 to 0.40 in 2021 (Figure 2.1). However, Peru still faces considerable economic and social challenges, with marked disparities across regions. For example, the region Moquegua has a GDP per capita almost 8 times as high as that of San Martín.

Figure 2.1. Income inequality has steadily decreased in Peru between 2000 and 2021, though it remains higher than the OECD average

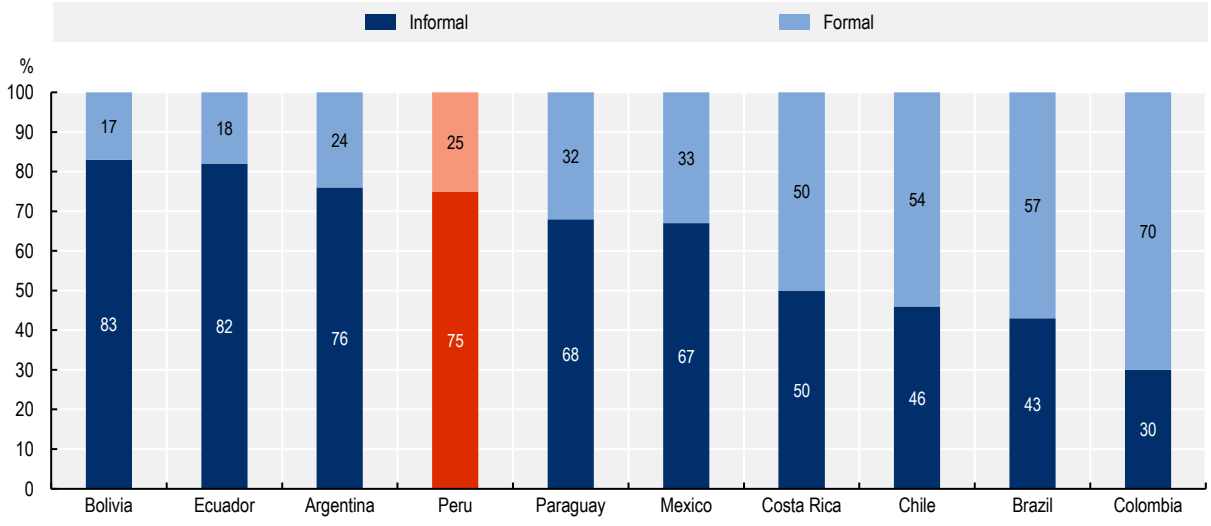


Source: World Bank (2024).

In addition, convergence to higher living of standards slowed after the commodity price boom ended in 2015 and in 2020, the COVID-19 pandemic had a severe impact on both lives and livelihoods, resulting in higher excess mortality and a sharper economic contraction than in most countries in the world, and reversing some of the gains in poverty reduction (OECD, 2023[2]). The pandemic also revealed pre-existing structural weaknesses, such as one of the highest levels of informality in the Latin America region (Figure 2.2), with around 75% of workers without any access to social protection mechanisms, savings or credit, including state-guaranteed, to fall back on. Informality, which is associated with high levels of poverty, income inequality and social exclusion, is high among women, rural populations and indigenous and Afro-Peruvians.

In addition, the COVID-19 pandemic brought stress to the Peruvian health system which already experienced important structural challenges. Peru is facing a dual challenge with a health system that is segmented (it is divided into different sub-systems that serve various segments of the population) and fragmented (these sub-systems lack the necessary integration and co-ordination). While Peru made substantial progress towards universal coverage since the introduction of Universal Health Insurance Law in 2009, there is broad recognition that there is room for ensuring that high-quality services are accessible to all Peruvians. The fragmentation of the Peruvian health system, the gaps in human resources and the limited health information infrastructure hamper the delivery of efficient, sustainable and good quality care.

Figure 2.2. Informal employment in Peru compared to other countries in the region, 2020-22

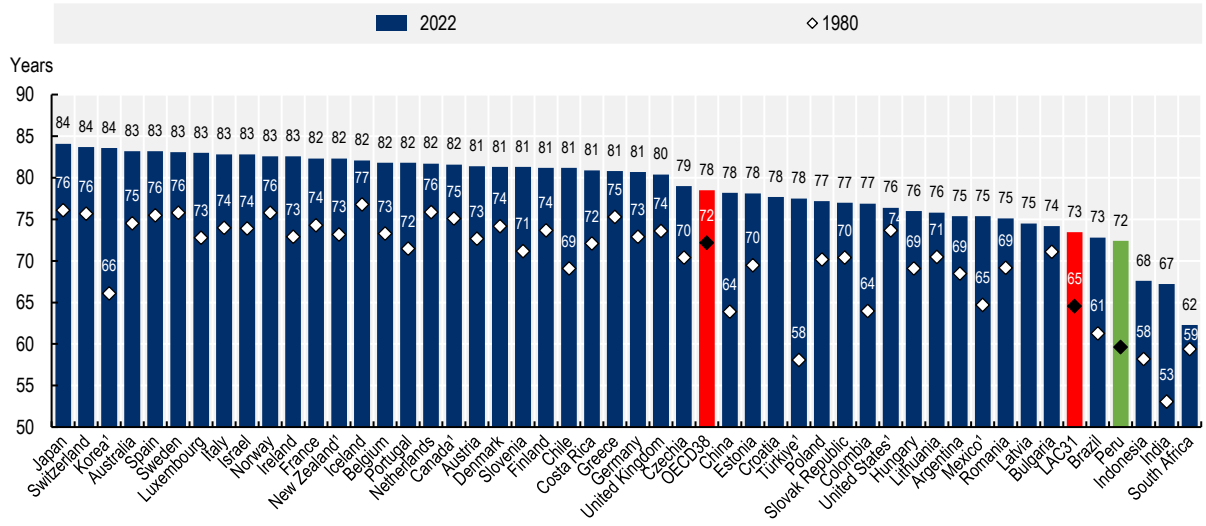


Source: ILO, System of Labour Information and Analysis of Latin America and the Caribbean (SIALC).

Peru has achieved considerable gains in life expectancy

Peru's life expectancy increased by 13 years over the past four decades. In 2022, life expectancy at birth stands at 72.4 years (Figure 2.3), 6.1 years below the OECD average and also relatively low when compared to other Latin American and Caribbean (LAC) countries, including Mexico (75), Colombia (77), Costa Rica (81) and Chile (81).

Figure 2.3. Life expectancy in Peru is amongst the lowest in OECD countries, but higher than the LAC average



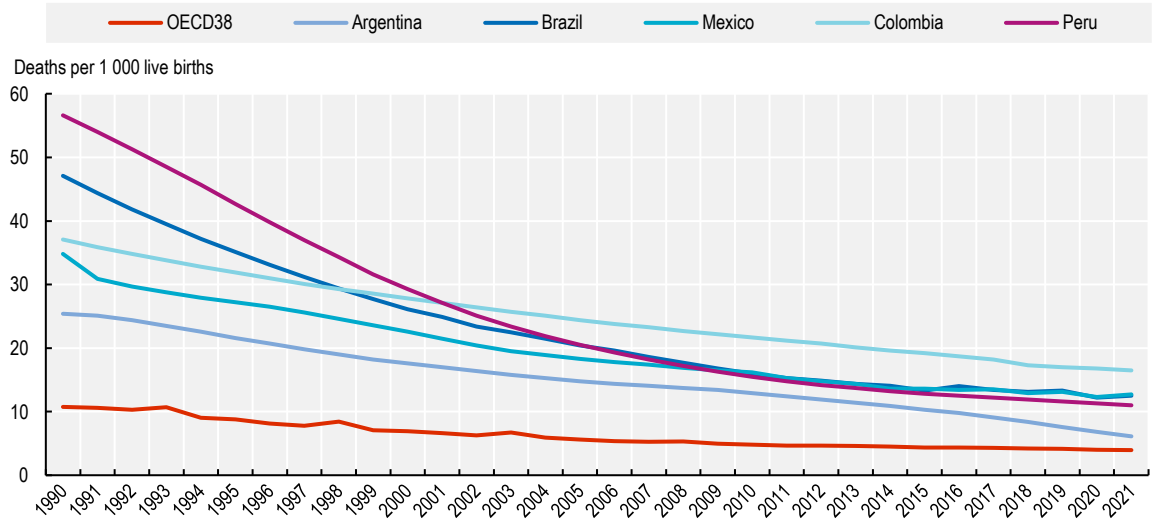
1. Data for 2021.
Note: Latest available data for the United Kingdom is from 2020. No 1980 data for Latvia and Croatia, data for Slovenia from 1982. Data from the World Bank Development Indicators was used to calculate the LAC average.
Source: OECD Health Statistics 2023, World Bank 2024.

Peru is marked by a slightly lower gender gap in life expectancy than OECD countries. On average, Peruvian women live nearly 5 years longer than men, whose life expectancy is 70.1 years. This is lower than the average OECD gender gap of 5.2 years in 2022.

Infant mortality in Peru has declined sharply in the last decades, from 83 deaths per 1 000 live births in 1980 to 11 deaths in 2021. This trend has occurred in parallel to a sharp decrease of infant mortality in other countries of the LAC region, such as Mexico, Brazil, Argentina and Colombia. Despite all selected countries drastically reducing infant mortality rates in the last decades, they remain above the OECD average of 3.9 deaths per 1 000 live births in 2021 (see Figure 2.4). Data from the 2017 National Census also revealed disparities by ethnic groups in Peru. Among women in reproductive age self-identifying as indigenous or originating from the Andes, 2.9% of children born alive died, compared to 2% among women from other ethnicities (INEI, 2018[4]).

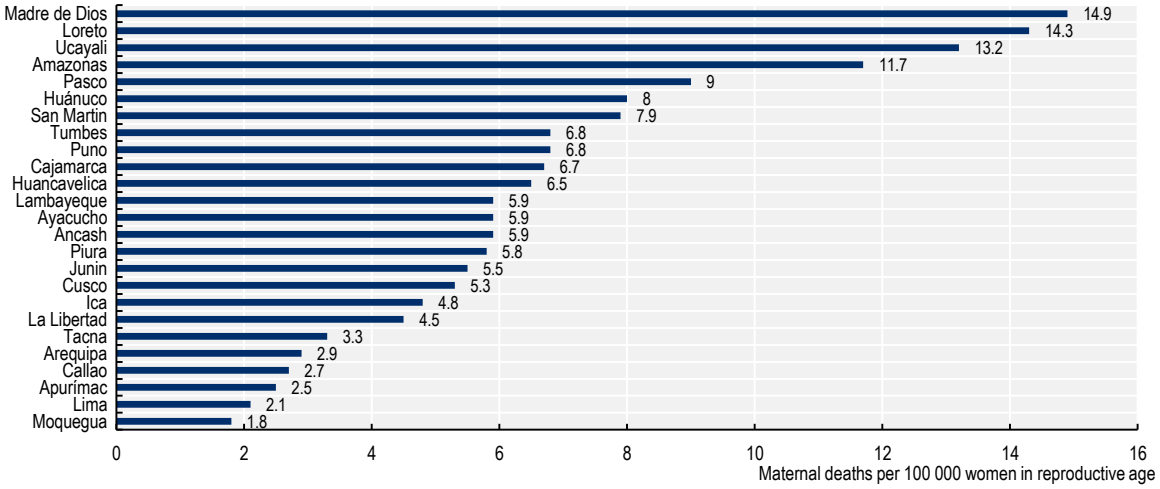
Although maternal mortality also decreased from 101.9 deaths per 100 000 live births in 2002 to 51.9 deaths in 2023, there was an increase to 80.9 deaths in 2020 and 87.4 in 2021, which could be explained by the reduced supply of health services and increased barriers to access during the COVID-19 pandemic (CDC, 2021[5]). Moreover, when looking at maternal mortality as a share of women in reproductive age, there are wide inequalities across geographical regions in Peru, with Madre de Dios region having 8.3 times the maternal mortality rate of Moquegua as of 2021 (Figure 2.5) (CDC, 2021[5]).

Figure 2.4. Evolution of infant mortality, OECD, Peru and selected countries, 1990-2021



Note: Brazil data is based on estimates.
Source: OECD Health Statistics 2023, and Peru's submission to the 2024 OECD Health Statistics Questionnaire.

Figure 2.5. Maternal mortality rate across Peruvian regions, 2017-21



Source: CDC (2021[5]), Análisis de Situación de Salud (ASIS) 2021.

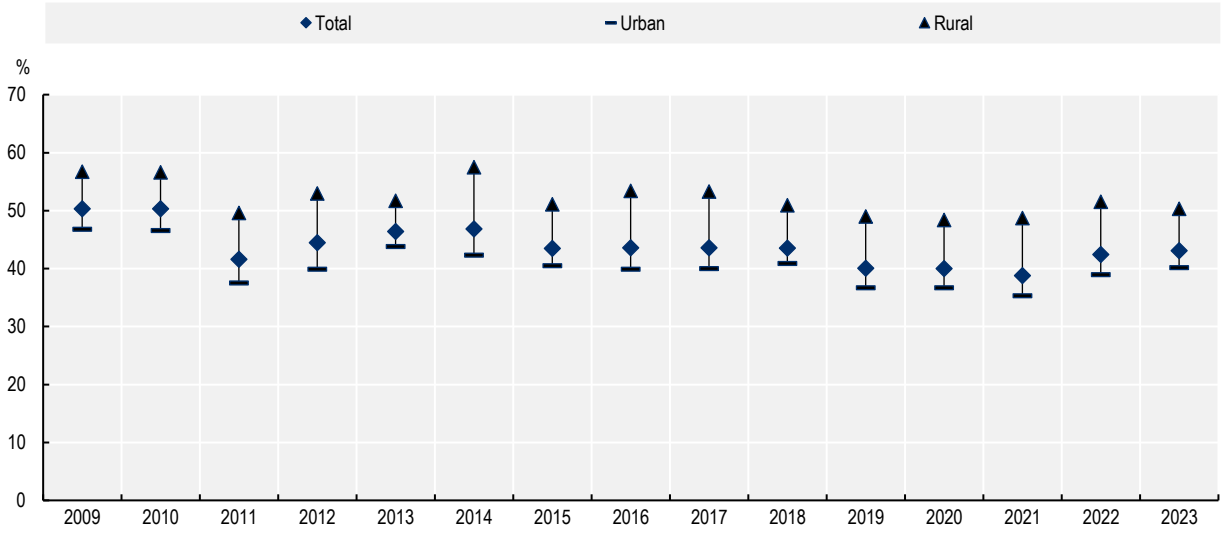
The high prevalence of anaemia remains a major public health concern in Peru

Anaemia remains one of the largest and longest standing public health concerns in the country, primarily stemming from malnutrition, due to either an insufficient or imbalanced diet lacking iron. As of 2023, on average, 43% of children aged between 6 and 35 months suffered from anaemia (Figure 2.6). There are significant differences in prevalence between urban (at 40%) and rural areas (at 50%), as well as between regions. In 2022, Puno had the highest prevalence of anaemia (at 67% of children aged 6-35 months), well above the prevalence in Moquegua (at 28%) (Figure 2.7). Peru has pursued several strategies to address this issue including the Multisectoral Plan to Fight Anaemia, the National Plan for the Reduction and Control of Maternal and Child Malnutrition 2017-21 and more recent strategies such as "*Niños de hierro*" and "*Cuna*

Más con punche contra la anemia" from the Ministry of Health (MINSA) and the Ministry of Social Development (MIDIS), respectively.

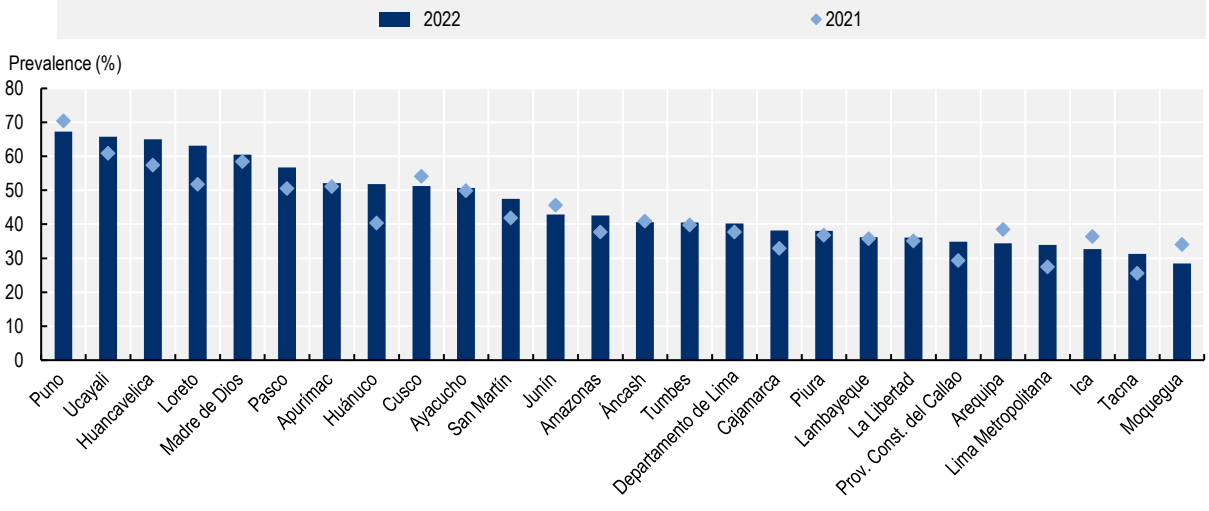
In 2021, chronic malnutrition affected 11.5% of children under the age of five, decreasing from 13.1% in 2016. By area of residence, chronic malnutrition affected girls and boys residing in rural areas significantly more (24.4%) than those in urban areas (6.8%) (INEI, 2021[6]).

Figure 2.6. Prevalence of anaemia among children between 6 and 35 months by geographical area, 2009-23



Note: Data for 2023 is from a press release as ENDES 2023 dataset was not yet publicly available at the time.
Source: Elaboration using data from the Demography and Family Health Survey (ENDES) 2022 and 2023.

Figure 2.7. Prevalence of anaemia among children between 6 and 35 months by region, 2021-22

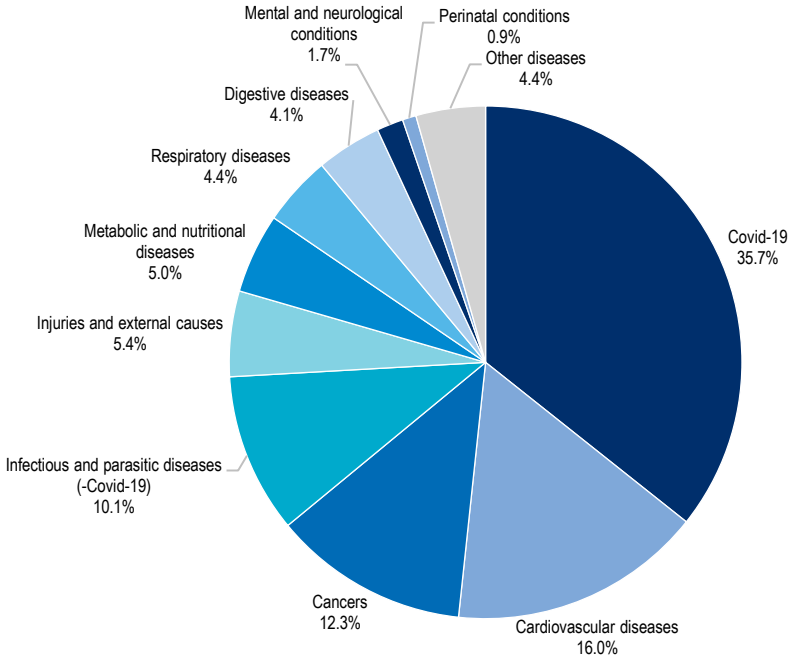


Source: ENDES, 2022.

The impact of COVID-19 on population health has been dramatically high

In 2021 the leading causes of death were COVID-19 (35.7%), followed by cardiovascular diseases (16%), cancers (12.3%), and infectious and parasitic diseases other than COVID-19 (10.1%) (Figure 2.8).

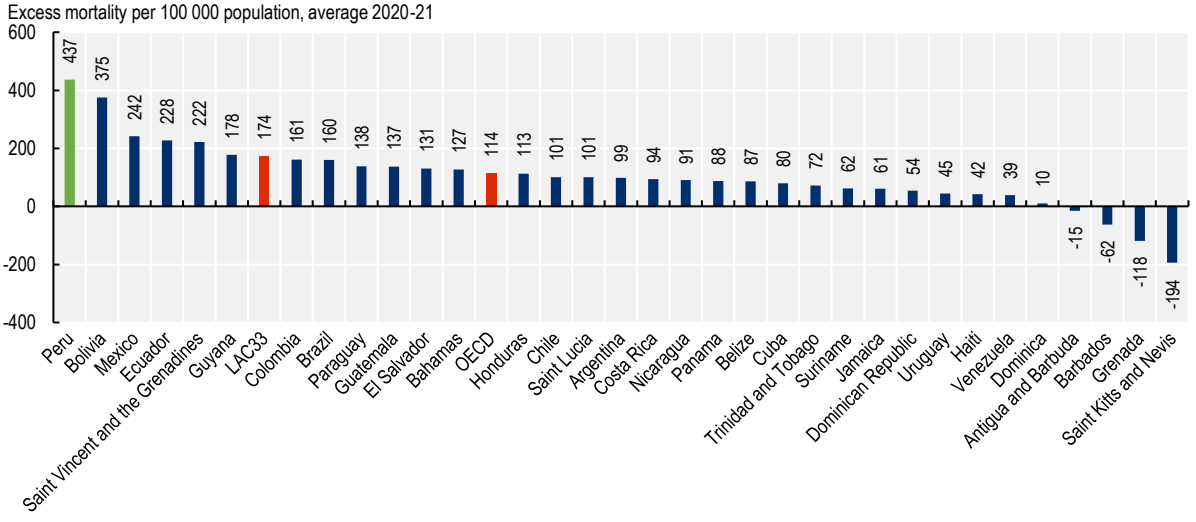
Figure 2.8. Causes of mortality in Peru by disease group, 2021



Source: MINSA (2021[7]), *Repositorio Único Nacional de Información en Salud,* www.minsa.gob.pe/reunis/data/tasas_mortalidad.asp and CDC (2021[5]), *Análisis de Situación de Salud (ASIS) 2021*, Centro Nacional de Epidemiología, Prevención y Control de Enfermedades (CDC) del Ministerio de Salud, www.gob.pe/institucion/ensap/informes-publicaciones/4509305-analisis-de-situacion-de-salud-asis-2021 (accessed on 21 February 2024).

Excess mortality provides a more complete understanding of the impact of COVID-19 across countries, as it is unaffected by country-specific variations in the recording of COVID-19-specific deaths, and accounts for both deaths directly attributable to COVID-19 and deaths indirectly linked to the virus. Peru had the highest yearly excess mortality in 2020 and 2021 among comparable Latin American countries, with an average of 437 excess deaths per 100 000 population, almost four times as high as the OECD average of 114 excess deaths per 100 000 population (Figure 2.9). Other key metrics, such as life expectancy, maternal mortality and access to preventive services also worsened during the pandemic. For example, life expectancy in Peru decreased by 3.8 years (compared to 0.7 years on average across the OECD) between 2019 and 2021, while maternal mortality increased by 55% over the same period.

Figure 2.9. Excess mortality due to COVID-19 pandemic, 2020-21

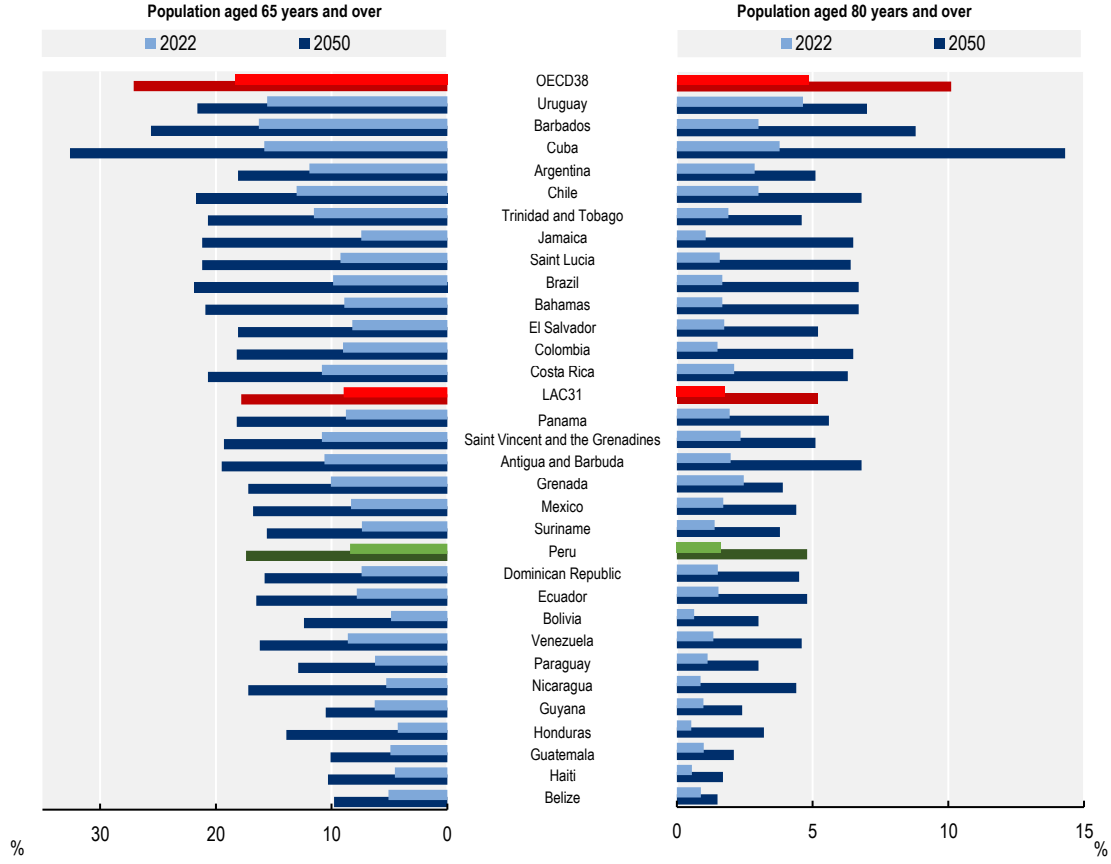


Source: WHO (2022[8]), Global excess deaths associated with COVID-19 (modelled estimates).

The share of population aged over 65 is increasing

Although Peru has a relatively young population compared to OECD countries, the share of the population aged 65 and over is expected to increase from 8.4% in 2022 to 17.4% in 2050, while the share of those aged 80 and over is expected to increase from 1.6 in 2022 to 4.8 in 2050. These rates are very much on par with the demographic projections for other LAC countries (Figure 2.10).

Figure 2.10. Share of the population aged over 65 and 80 years, 2022 and 2050

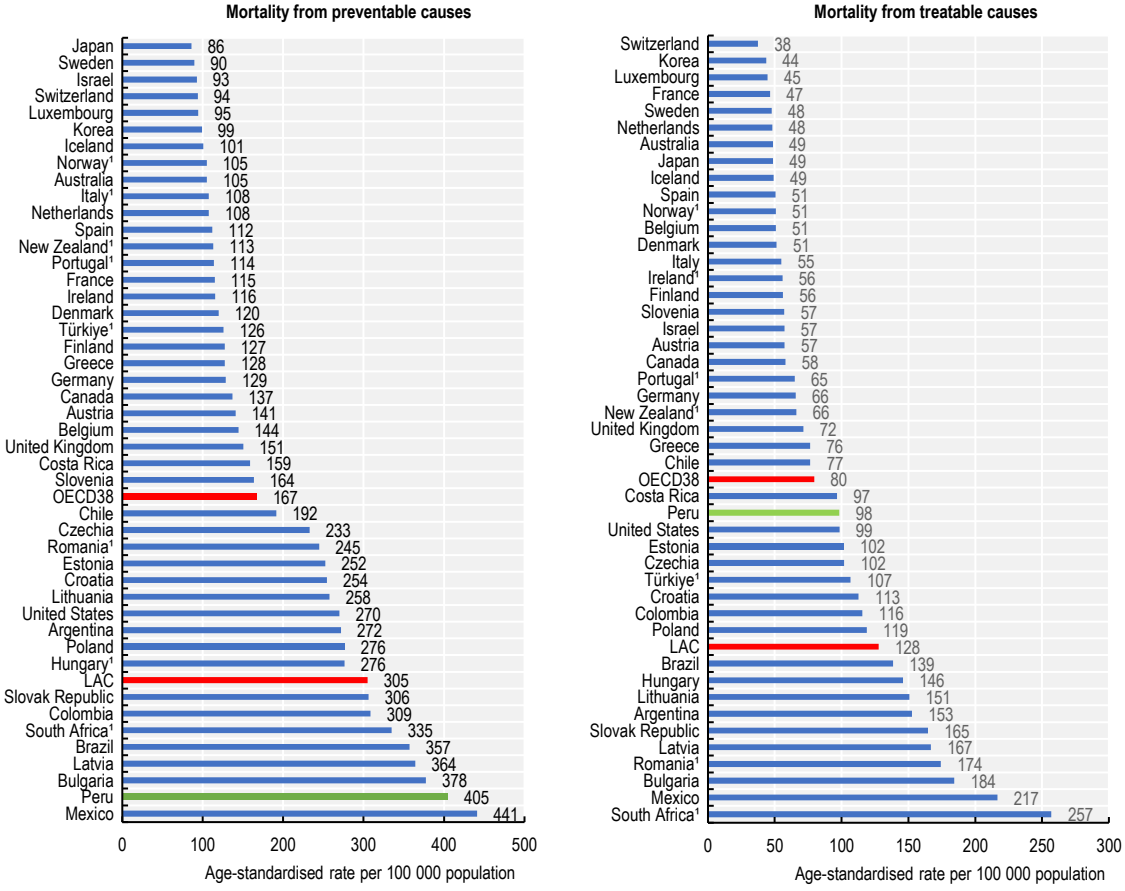


Source: OECD Health Statistics 2021 and UN World Population Prospects 2022.

A large number of premature deaths could be avoided, notably through more effective public health policies

Peru has high levels of preventable and treatable mortality. Figure 2.11 presents two different indicators of avoidable mortality, the left panel presents preventable mortality and shows that after Mexico, Peru has the second highest rate of preventable mortality, more than two times the OECD average. This indicates that in Peru, much more people are dying from diseases that could have been prevented through effective public health and prevention interventions to control the wider determinants of health, such as lifestyle or environmental factors. The right panel presents amenable mortality, which are the proportion of deaths that could have been avoided through better quality care, including better secondary prevention and treatment. Peru has 24% higher amenable mortality (at 98 per 100 000 population) than the OECD average (at 80 per 100 000 population).

Figure 2.11. Mortality rates from avoidable causes, 2022 (or nearest year)

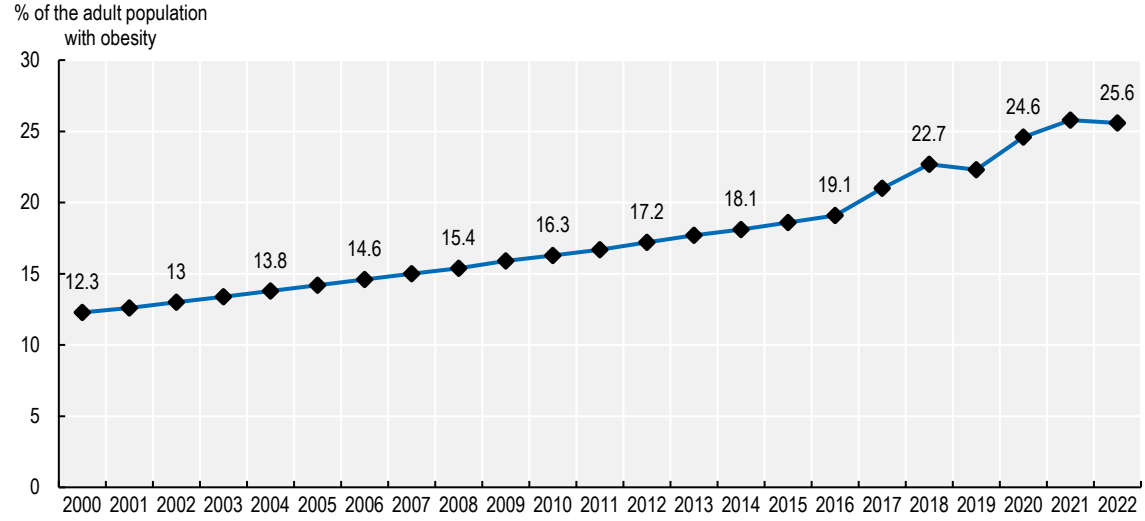


1. Most recent data point corresponds to 2016-19.
Note: LAC average is calculated from the seven countries present in the graph.
Source: OECD Health Statistics 2023, based on WHO Mortality Database.

Some risk factors for chronic conditions are increasing in Peru. While the prevalence of smoking is amongst the eight lowest among OECD countries and has decreased from 16.5% in 2010 to 9.5% in 2022, alcohol consumption increased slightly from 5.2 in 2010 to 5.7 in 2019, as opposed to most OECD countries where it fell during the same period. However, consumption levels of alcohol in Peru are still low compared to the average among OECD countries (8.6 Litres per person).

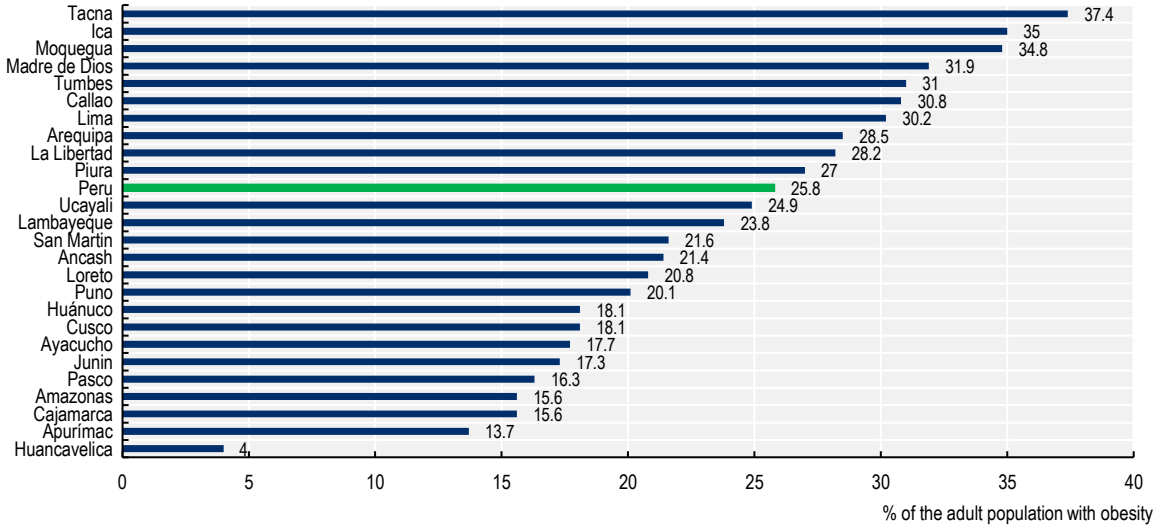
Obesity levels in Peru are well above the OECD average, and the share of the Peruvian adult population with obesity has more than doubled over the past two decades, from 12.0% in 2000 to 25.6% in 2022 (29.8% among women and 21.2% among men) (Figure 2.12). For the younger population, UNICEF has reported that obesity affects 16% and 5.5% of children aged 6-13 and adolescents aged 12-17, respectively. Additionally, it is predicted that by 2030, 16.1% of children between the ages of 5-9 will suffer from obesity (UNICEF, 2023[9]). Targeted public health policies require further strengthening to promote healthier lifestyles and reduce obesity and overweight population rates, especially in Metropolitan Lima and other urban areas which show much higher prevalence than rural areas (Figure 2.13) (CDC, 2021[5]).

Figure 2.12. Share of the adult population with obesity, 2000-22



Source: Peru's submission to the 2024 OECD Health Statistics Questionnaire.

Figure 2.13. Share of the adult population with obesity across regions, 2021



Source: CDC (2021[5]), *Análisis de Situación de Salud (ASIS) 2021*, Centro Nacional de Epidemiología, Prevención y Control de Enfermedades (CDC) del Ministerio de Salud, www.gob.pe/institucion/ensap/informes-publicaciones/4509305-analisis-de-situacion-de-salud-asis-2021 (accessed on 21 February 2024).

In 2017, it was evaluated that most of the risk factors that generate the greatest burden of disease are modifiable, such as malnutrition, high body mass index, dietary risks, high fasting glucose and high systolic pressure, alcohol consumption, air pollution, tobacco, among others. The main challenge is to implement multisectoral policies to control the social determinants of health, so that all sectors (from housing to education) have an active participation in the reduction of communicable and non-communicable diseases.

The share of the population aged 15 and over with a diabetes mellitus diagnosis has increased from 3.3% in 2017 to 5.1% in 2022. Moreover, from 2020 to 2022 there was a slight increase from 39.9% to 40.6% in the share of Peruvians aged 15 and over with at least one chronic condition (obesity, diabetes mellitus or

hypertension).The prevalence of people living with chronic conditions was significantly higher in urban areas (42.9%) than in rural (30.5%), and affected women (42.7%) more than men (38.3%) (INEI, 2022[10]).

Mental health disorders are the second leading cause of disability in Peru, but there has been remarkable progress in the provision of community mental health services

According to the 2019 Burden of Disease study conducted by the *Centro Nacional de Epidemiología, Prevención y Control de Enfermedades*, mental and behavioural disorders are the second leading cause of disease. Peru had 17.7 disability adjusted life years (DALYs) for mental health disorders per 1 000 population in 2019 (MINSA, 2019[11]). For young and adult population, anxiety, depression, self-harm and somatic symptoms are the most common mental health disorders (accounting for 38% of mental health disorders), followed by headaches (23%), substance use disorders (16%, with alcohol use disorders accounting for 10%), and schizophrenia and bipolar disorder (10%) (PAHO, 2023[12]). However, in 2021, the number of deaths by suicide (2.73 deaths per 100 000 population) was well below the OECD average of 9.9 deaths per 100 000 population.

Peru initiated a mental health reform in 2012 with the approval of Law N° 29 889, to implement a new mental health care model at community level, shifting away from the historical, more hospital-centric, model that was marked by large inequalities in access to treatment (Toyama et al., 2017[13]). This led to the inclusion of mental health care within the public universal health insurance plan and the creation of a results-based budget programme in 2014 ("Budget Programme 0 131. Control and Prevention of Mental Health") which through a set of interventions made it possible to sustain and channel funding to install new services, expanding community mental health provision across the country (Toyama et al., 2017[13]; PAHO, 2023[12]). More recently, the adoption of the Mental Health Law in 2019 (Law N° 30947) established a comprehensive legal framework to ensure the right to health and well-being through access to promotion, prevention, treatment and rehabilitation services for mental health. The law emphasises the importance of integrating mental health services into the general healthcare system, promoting community-based care, and ensuring that the rights and dignity of those with mental health issues are respected (see Box 2.1). Overall, annual funding for mental health grew by 223% (in nominal terms) in the years 2015 to 2022 (decreasing by 0.8% in 2021 due to the prioritisation of other interventions during the COVID-19 pandemic). The share of public health sector budget allocated to mental health increased from 1.4% in 2015 to 2.6% in 2023. This has resulted in an expansion of community-based mental health services between 2015 to 2022 (Table 2.1). This is the result of co-ordinated efforts between MINSA, regional governments and hospitals, together with local governments, community and local organisations (PAHO, 2023[12]), leading to the creation of new mental health services, such as community mental health centres, inpatient mental health and addiction units in general hospitals, sheltered homes, and residences. Figure 2.14 shows the increasing role that community mental health centres (CSMC) have had in the provision of mental health services, treating around 24% of mental health disorders in health facilities belonging to MINSA and regional governments (GOREs) in 2021.

Additional achievements from the mental health reform include an increase in mental health care coverage, with the number of mental health cases treated more than doubling from around 719 000 in 2014 to 1.6 million in 2022; an expansion in the list of publicly covered medicines suitable for treating mental health conditions (from 1 to 20), and improved training for health workers in mental health promotion, prevention, and recovery (Carrillo-Larco et al., 2022[14]; PAHO, 2023[12]). The number of psychologists in MINSA and GOREs facilities increased from 5.5 per 100 000 inhabitants in 2015 to 17.4 in 2022, a figure that is above the rate for the region of the Americas (5.4 per 100 000) (PAHO, 2023[12]). By the end of 2022, of the 1 270 psychiatrists registered with the Peruvian Medical Association, 669 were working in a health facility belonging to MINSA, Regional Health Directorates (Dirección Regional de Salud – DIRESA) or Regional Health Management (Gerencia Regional de Salud – GERESA), an increase of 60.5% compared to 2019.

Table 2.1. Community mental health service provision, 2014-22

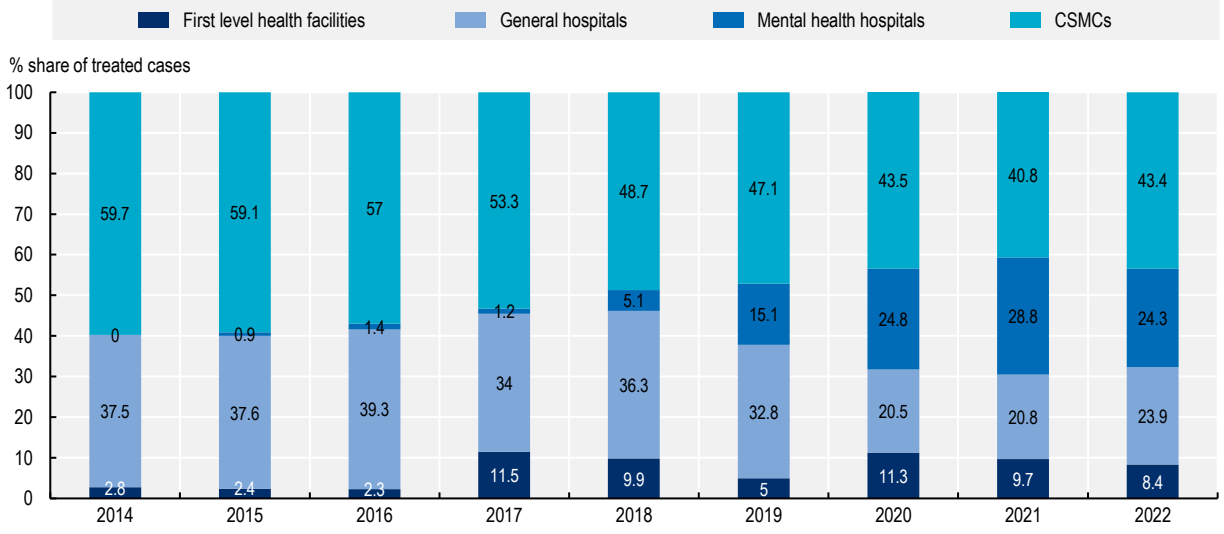
Mental health services	2014	2022
Community mental health centres (CSMC)	0	248
Mental health and addiction hospitalisation units in general hospitals (UHSMA)	3	43
Sheltered homes (HP)	4	87
IPRESS belonging to the first level of care with psychology professionals	997	1 430
Hospitals with child and adolescent abuse care modules	20	36

Source: PAHO (2023[12]), *Avances y desafíos de la reforma de salud mental en el Perú en el último decenio*, https://iris.paho.org/handle/10665.2/58312 (accessed on 15 April 2024).

The mental health reform also led to updating the system for coding and recording interventions, implementing a platform for monitoring activities and indicators, and developing the mental health module of the electronic medical record with the support of MINSA's General Office of Information Technology (OGTI). Additionally, the *Centro Nacional de Epidemiología, Prevención y Control de Enfermedades* has launched sentinel epidemiological surveillance of prioritised mental health problems, while the first National Specialised Mental Health Survey (ENESM) is being carried out by the Honorio Delgado-Hideyo Noguchi National Institute of Mental Health (INSM HD-HN) (PAHO, 2023[12]).

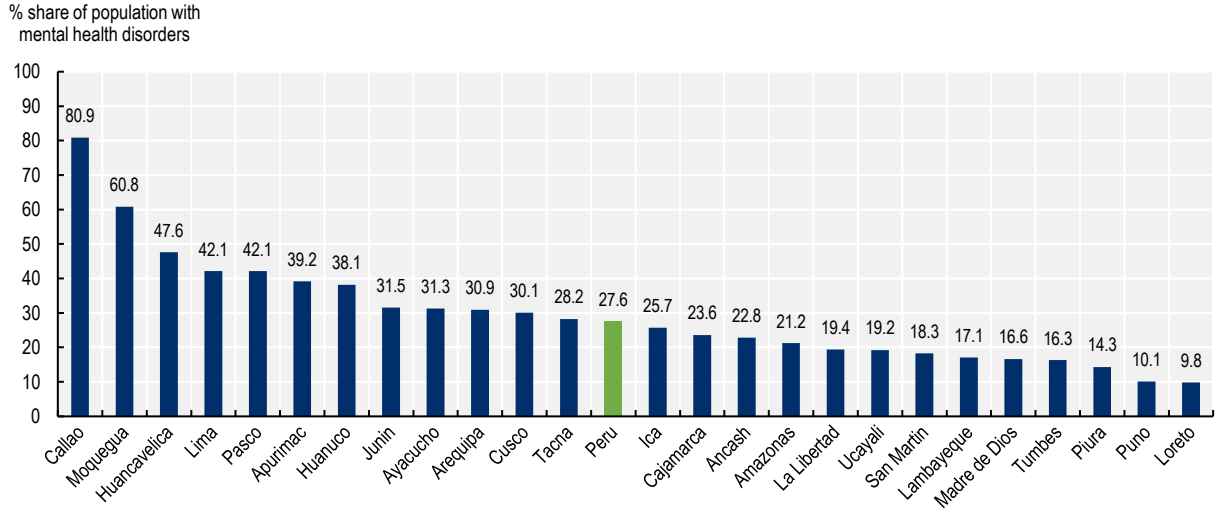
Despite these major achievements, there are still significant gaps that need to be addressed in the availability of mental health services across regions. As shown in Figure 2.15, the share of the population with mental health disorders that received care varies from 9.8% in Loreto (in the Amazonia) to 80.9% in the region of Callao (in the Lima metropolitan area), with an average of 27.6% for the country as a whole. In addition, professional training is still based on a biomedical and hospital-centric model, with difficulties to incorporate community-based approaches in the deployment of clinical, psychosocial and management interventions (PAHO, 2023[12]).

Figure 2.14. Share of treated cases of mental health disorders across level of care, 2014-22



Note: Covers MINSA and GOREs health facilities.
Source: PAHO (2023[12]), *Avances y desafíos de la reforma de salud mental en el Perú en el último decenio*, https://iris.paho.org/handle/10665.2/58312 (accessed on 15 April 2024).

Figure 2.15. Share of population with mental health disorders that received care, 2022



Source: PAHO (2023[12]), *Avances y desafíos de la reforma de salud mental en el Perú en el último decenio*, https://iris.paho.org/handle/10665.2/58312 (accessed on 15 April 2024).

Box 2.1. The Mental Health Law in 2019 aimed to develop a more inclusive, accessible, and holistic mental health care system in Peru

The implementation of the Mental Health Law in 2019 emphasised five key priority areas:

1. **Access**: The law aimed to improve access to mental health services by integrating them into the general healthcare system, making it easier for individuals to receive care within their community rather than through specialised hospitals. The overarching objective is to reduce stigma and barriers to access.
2. **Community-based Care**: The law aimed at developing mental health services that are closer to where people live, work and study to better provide early intervention, prevention, and continuous support for individuals with mental health conditions and their families.
3. **Rights and Dignity of Patients**: A strong emphasis is placed on respecting the rights and dignity of individuals with mental health conditions, ensuring they are treated with respect and without discrimination. This includes the right to informed consent, the right to be involved in treatment decisions, and the protection of their privacy and autonomy.
4. **Prevention and Promotion**: Mental health promotion and the prevention of mental health disorders is at the core of the Mental Health Law. It called for public policies and programmes to tackle the social determinants of mental health, such as education, employment, housing, and social inclusion.
5. **Intersectoral Approach**: Given the wide range of determinants affecting mental health, the law promotes an intersectoral approach involving various sectors such as health, education, labour, and social welfare, to address the comprehensive needs of individuals and encourage integration into society.

Source: Carrillo-Larco, R. et al. (2022[14]), "Peru − Progress in health and sciences in 200 years of independance", *The Lancet Regional Health – Americas*, Vol. 7/100 148, https://doi.org/10.1016/j.lana.2021.100148.

The National Multisectoral Health Policy 2030 aims at improving healthcare and addressing social determinants of health

The National Multisectoral Health Policy 2030 (PNMS) called "Peru, Healthy Country" is a comprehensive policy led by the Ministry of Health, and developed in consensus with various sectors, regional and local governments, focusing on social determinants of health and strategic interventions across the lifespan. It combines a territorial and a Health in All Policies approach. The Plan has three priority objectives:

1. Improve the population's healthy habits, behaviours and lifestyles.
2. Ensure that the population has access to quality, timely and comprehensive health services.
3. Improve the living conditions of the population that create vulnerability.

By the year 2030, the PNMS seeks to reduce disability adjusted life years by 5% and reducing years of life lost due to premature mortality and disability. The multi-sectorial plan focuses on 15 national health priorities, including the progressive implementation of Integrated Health Networks; the promotion of telemedicine services to support Integrated Health Networks and facilitate access to care. Other health priorities include addressing public health challenges such as anaemia, chronic child malnutrition, maternal and neonatal mortality, metaxenic diseases (malaria, dengue, chikungunya), cancer, overweight and obesity and mental health disorders, among others.

The PNMS 2030 Multisectoral Strategic Plan defines multisectoral actions undertaken by 16 participating sectors that are relevant actors for health interventions and for addressing the social determinants of health. Progress in the implementation of the PNMS 2030 is monitored through the national monitoring system administered by the National Strategic Planning System (SINAPLAN). This entails the production of monitoring and compliance reports on the implementation of the PNMS 2030 and implementation plans.

The health system and its governance

The health system in Peru is decentralised and segmented

There are various stakeholders within the Peruvian healthcare system. The Ministry of Health (MINSA) is the governing body of the health system, having the mandate to formulate, define, co-ordinate, execute, supervise, and evaluate the set of policies and services linked to the health sector. The implementation of national policies and programmes and the execution of activities are carried out by eight health sub-systems (MINSA, Regional Governments, the social health insurance EsSalud, Armed Forces Health, National Police of Peru, Local Governments, the National Penitentiary Institute from the Ministry of Justice and the nonprofit and for-profit private sector). Some functions are also transferred to the regional government of the special regime of the metropolitan area of Lima.

The health sector has a territorial approach to manage the organisation of health promotion, prevention, recovery and rehabilitation through the Integrated Health Network Directorates (DIRIS) in the metropolitan area of Lima, and the Regional Health Directorates (DIRESA) and Regional Health Managers (GERESA) at the regional level, whose functions are to direct, execute, control and manage resources to implement health sector policies in their region in accordance with national policies and sectoral plans.

MINSA, as the directing and co-ordinating authority in the public health sector, is also responsible for enforcing compliance with the regulatory framework and monitoring performance and achievements at national, regional and local levels, being allowed to directly intervene and take corrective actions while also providing technical support for the proper execution of decentralised functions. MINSA is also responsible for the co-ordination between regional and local governments in the implementation of national and sectoral policies and evaluating their compliance. MINSA elects the head of the regional health directorates (*Dirección Regional de Salud* – DIRESA) and local hospitals.

Furthermore, the National Superintendence of Health (SUSALUD), a governing body part of the Ministry of Health, is responsible for authorising, controlling, and supervising the good performance of the health system. SUSALUD was created with the mission of promoting, protecting and defending the health rights of the Peruvian population, and ensuring that healthcare services are timely, equitable, safe, and of good quality. It oversees and registers provider institutions (Institutiones Prestadoras de Servicios de Salud, IPRESS), as well as the different insurance funds (Instituciones administradoras de fondos de aseguramiento en salud, IAFAS). SUSALUD regulates the collection, transfer, dissemination and exchange of information generated or achieved by the IAFAS, IPRESS and IPRESS Management Units; as well as promotes conciliation mechanisms for the resolution of conflicts between the different stakeholders of the health system.

The regional governments are competent to promote and regulate activities and/or services in agriculture, fisheries, industry, agribusiness, commerce, tourism, energy, mining, roads, communications, education, health and the environment, in accordance with the law; but they also have shared competencies in public health. Regional governments as governing bodies have political and economic autonomy, being responsible for implementing regional health policies in accordance with national health policies. They are in charge of health service provision (with the exception of facilities located in the metropolitan region of Lima, which include those managed by the Ministry of Health and all national specialised hospitals in the country), and for organising the delivery of public health services in co-ordination with the local governments. Regional governments also manage the regional hospitals, most of the health centres and health posts. Local governments are responsible for executing health promotion and prevention campaigns in their communities. It is recognised that still many regional governments have insufficient capacity to implement national health policies and achieve targets.

In addition to its decentralised nature, the health system in Peru is highly segmented, with multiple health insurances. Compared to many other OECD countries, health insurance is composed of several sub-systems:

- The public insurer called the Integral Health Insurance (*Seguro Integral de Salud*, SIS) covers around 62% of the population as of 2023, mainly poor individuals, vulnerable groups, entrepreneurs and self-employed workers. It provides free healthcare services for certain health conditions established in the Essential Health Insurance Plan (PEAS) and is primarily financed by general taxation. There are two insurance schemes within SIS: the subsidised regime which provides fully subsidised healthcare (SIS Gratuito, SIS Para Todos) and the semi-contributory regime who are required to pay an enrolment fee (SIS Emprendedor, SIS Micro-empresas, SIS Independiente). SIS is an independent public institution under MINSA governance.
- The social health insurance, which is a contributory system, called *Seguro Social de Salud* (EsSalud), provides healthcare, but also pension and welfare coverage. It is an independent public institution managed by the Ministry of Labour and Employment Promotion. It covers around 26% of the population, all salaried formal workers and their family. It is financed exclusively by labour charges (9% payroll tax contribution).
- Healthcare provider entities (EPS) which are private health insurers that complement EsSalud. They are private companies that offer coverage to EsSalud affiliates to opt out of EsSalud's network and use private health providers. They are financed by EsSalud contribution from formal workers who decide to opt-out of EsSalud's network, and charge premiums, co-payments, deductibles and financial caps. It is held by around 8% of the population.
- Other private supplementary healthcare providers, which are contributory systems targeting higher-income groups, with voluntary private health insurance based on ability to pay. They charge premiums, co-payments, deductibles and financial caps.

- The armed forces and national police have also their own closed sub-systems, which are financed through budgets derived from the Ministry of Defence and the Ministry of Home Affairs (Police) respectively.

Each regime replicates fundamental health care system activities with separated governance structures, and with separated financing, service delivery mechanisms and working with their own healthcare providers. Not only does each regime have their own funds, resulting in no risk pooling between them, but they are also managed by different ministries: the SIS budget is managed by the Ministry of Economy and Finance (MEF), the EsSalud budget by the Ministry of Labour and Employment Promotion (financed by contributions from public and private employers, with budgetary autonomy under the National Fund for the Financing of State Entrepreneurial Activity – FONAFE)[1], and the budgets of the army and police sub-systems are financed by the Ministries of Defence and Home Affairs, respectively.

In Peru, the budgeting process is rather complex and mainly based on historical spending. Budgeting is divided into budgetary units (*pliegos)*. Though there are five budgetary units at the national level in the health sector, which include the Ministry of Health, the National Superintendence of Health (SUSALUD), the Integral Health Insurance (SIS), the National Institute of Health and the National Cancer Institute (INEN), each regional government (GORE) is also a budgetary unit. The resources of each *pliego* are in turn managed by executing units (*unidades ejecutoras*, UE), which may include entire networks of health facilities as well as individual hospitals.

At the primary care level (also called first level of care), SIS agrees with regional governments on capitation-based transfers to the executing units, while for secondary and tertiary levels (second and third levels of care), transfers are based on a combination of fee-for-service, add-on payments and payments for packages of services. SIS pays its network of providers for variable costs only (such as procedures, medicines, and supplies), while capital (infrastructure and equipment) and human resources are covered by regional authorities through other budget lines. Budget execution by regional executing units is difficult, due to both the complexity of budgetary regulations and insufficient planning and management capacity at that level of government.

Other organisational and financial arrangements undermine effective governance from the part of the Ministry of Health. For example, there is a strong focus on highly vertical programme budgeting, a legacy of a disease-focused financing system which may not be suitable for a long-term integrated strategy. In fact, such a fragmentary approach has led to challenges in tracking spending towards the minimum benefit package (PEAS), which is split into different programmes or budgetary allocations (WHO, 2020[15]). In addition, it is reported that there is unequal allocation of resources across budget programmes which do not reflect evolving healthcare needs in Peru.

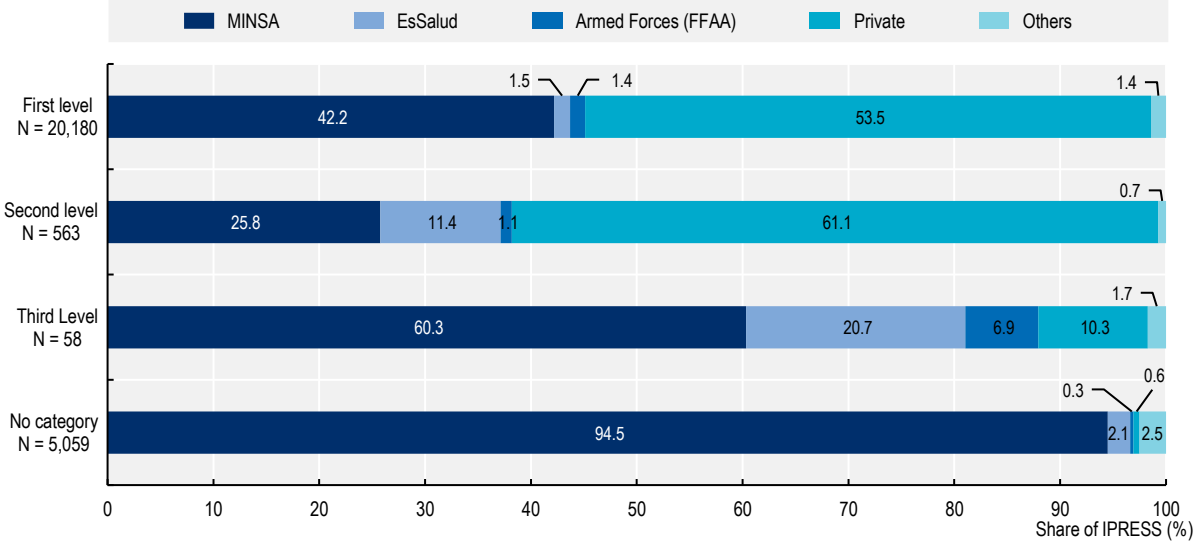
As each sub-system has and operates its own provider network, the regimes provide services that differ significantly, resulting in inequities. The Ministry of Health and the GORES have an extensive network of primary healthcare centres (first level of care), which is the main network from SIS health services but infrastructure and equipment are found inadequate. For example, 42% of primary healthcare facilities in the country belong to the SIS network, while only 1.5% belong to the EsSalud network (Figure 2.16). However, the latest evaluation from the MINSA indicates that in virtually all Peruvian regions (25 regions out of 26), more than 90% of SIS primary care facilities are precarious, obsolete, inoperative or with insufficient equipment. EsSalud has a better provision of more complex healthcare interventions.

In 2006, to strengthen the provision of services, SIS insurance fund and EsSalud signed an Interinstitutional Co-operation Framework Agreement, establishing guidelines for the use of benefit exchange agreements (*intercambio de prestaciones*, IP) and constituting a step towards addressing institutional fragmentation between the two largest national health networks (MINSA, 2006[16]). Through IPs – signed between the relevant IAFAS and regional governments and setting out the payment mechanisms (regulated by Supreme Decree No. 006-2020-SA), benefits, and obligations regarding service provision – it is possible for affiliates of either SIS or EsSalud to access health services offered by

the network to which they are not affiliated. The overarching objective is to expand coverage and efficiently allocate resources at the national level. In 2012, complementary provisions were made for IPs between SIS and EsSalud through the Supreme Decree No. 005-2012-TR, with the subsequent signing of 27 IPs on the same year. In 2019, Legislative Degree No. 1302 was passed with the aim of regularising the IP process and, during the COVID-19 pandemic, the Legislative Decree No. 1466 was issued to facilitate the exchange of services and allow adequate provision of preventive and curative services to all COVID-19 patients. As of 2024, a total of 74 IPs have been signed between regional governments and the different IAFAS.

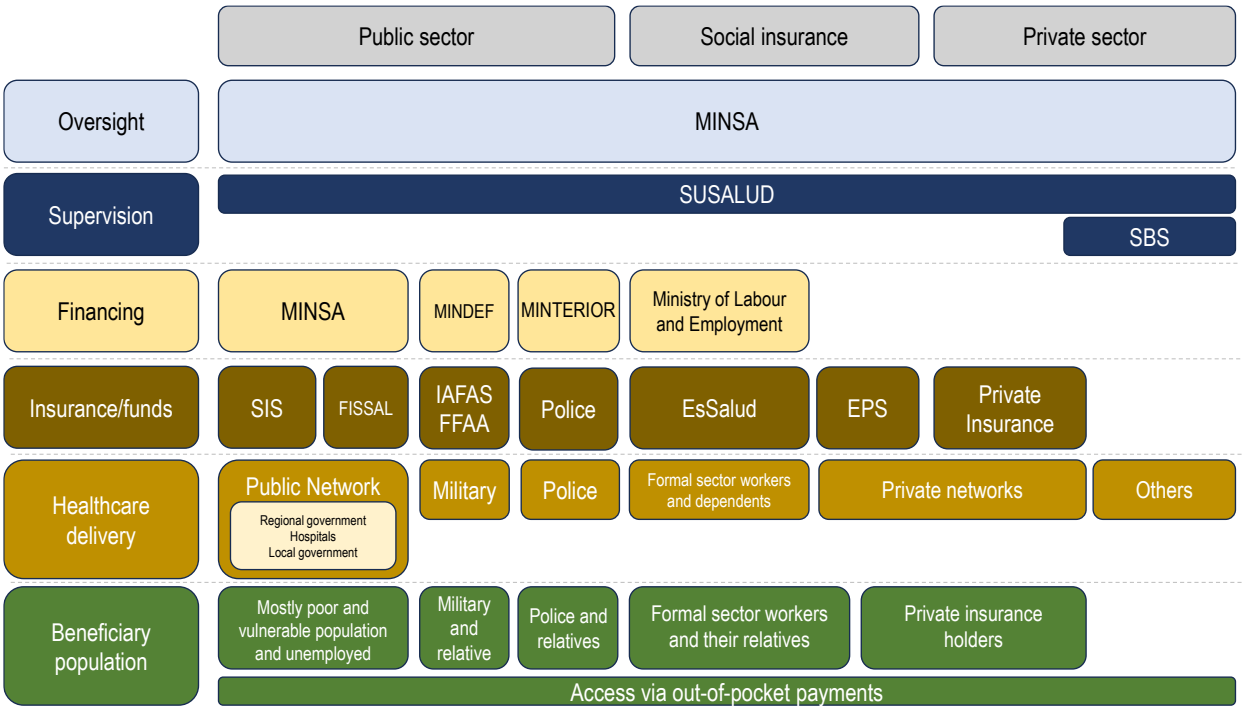
However, the extent to which these mechanisms are being used is still very limited, mainly due to lengthy negotiations about the definition of a common tariffs and standards of service for a large set of procedures, which stifles implementation of service exchanges. An exception to this being the Legislative Decrees No. 1302 and 1466 which facilitated the exchange of services and allowed adequate provision of preventive and curative services to all COVID-19 patients regardless of affiliation. Although these were successful initiatives to further promote exchanges of services across sub-systems, they are no longer in force.

Figure 2.16. Share of public health service provider institutions (IPRESS) by sub-systems, 2024



Note: Most of the IPRESS under "No category" correspond to active Level I facilities, clinics and private medical support centres, which for various reasons have not yet been assigned a category.
Source: RENIPRESS – SUSALUD as of 23 February 2024, www.minsa.gob.pe/reunis/data/Monitoreo_Sistema_HISMINSA.asp.

Figure 2.17. Structure of the Peruvian Health System



Note: MINSA (Ministry of Health); SUSALUD (National Superintendence of Health); SBS (Banking and Insurance Superintendence); MINDEF (Ministry of Defense); MINTERIOR (Ministry of the Interior) FISSAL (Intangible Health Solidarity Fund); IAFAS (Administrative institution of Health Insurance Fund); FFAA (Armed Forces); EPS (Healthcare Provider Entities), SIS (Comprehensive Health Insurance scheme), EsSalud (Social Health Insurance of Peru).
Source: Videnza Consultores (2021[17]), The Peruvian health system, https://doi.org/10.6084/m9.figshare.14977839.v1.

Table 2.2. Main health financing arrangements in Peru's health system, 2023

Health insurance institution		Beneficiaries	Financing arrangement	Population coverage
Comprehensive Health Insurance (SIS)	SIS Cost-Free	Poor and vulnerable populations	Non-contributory, financed by general taxation	62.2%
	SIS For Everyone	People without insurance	Non-contributory, financed by general taxation	
	SIS Entrepreneur	Independent workers and families	Semi-contributory, indirectly through NRUS	
	SIS Microenterprise	Microenterprise workers and families	Semi-contributory, employer contributions	
	SIS Independent	General public without other insurance	Semi-contributory, monthly premiums	
Social Health Insurance (EsSalud)		Working population and their families, and retirees	Contributory, financed by labour charges	26.5%
Healthcare Provider Entities (EPS)		For working population who partially opt out of EsSalud network	Contributory, 25% of the ESSALUD payment plus voluntary monthly premiums	8%
Other private health insurance		Higher income groups and employees who affiliate to EPS rather than EsSalud	Monthly premiums	

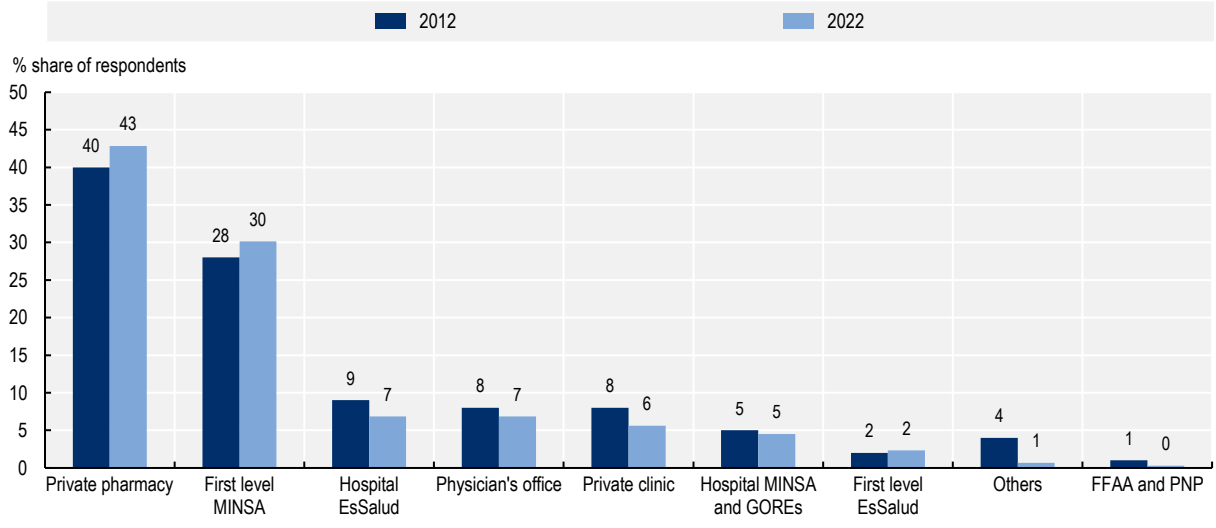
Source: OECD Secretariat based on Peru's responses to Accession Review Health Policy Questionnaire.

The limited co-ordination between sub-regimes leads to inefficient allocation of the country's health resources

Healthcare services are provided through Institutions of Health Services Provision (IPRESS). There are public, private and mixed IPRESS, and they are under the supervision of SUSALUD. IPRESS are organised into three levels of care: the first level ranges from basic service posts (I-1) to maternal and child health centres offering 24-hour care and regular deliveries (I-4). The second level of care includes hospitals with specialties and basic services (delivery, surgery, diagnostic imaging, pathology, blood banks, rehabilitation and hospitalisation). At the third level are hospitals with a higher concentration of technology, services in all medical specialties and some sub-specialties. In addition, the third level includes the treatment of cancer and other complex diseases (radiotherapy, haemodialysis).

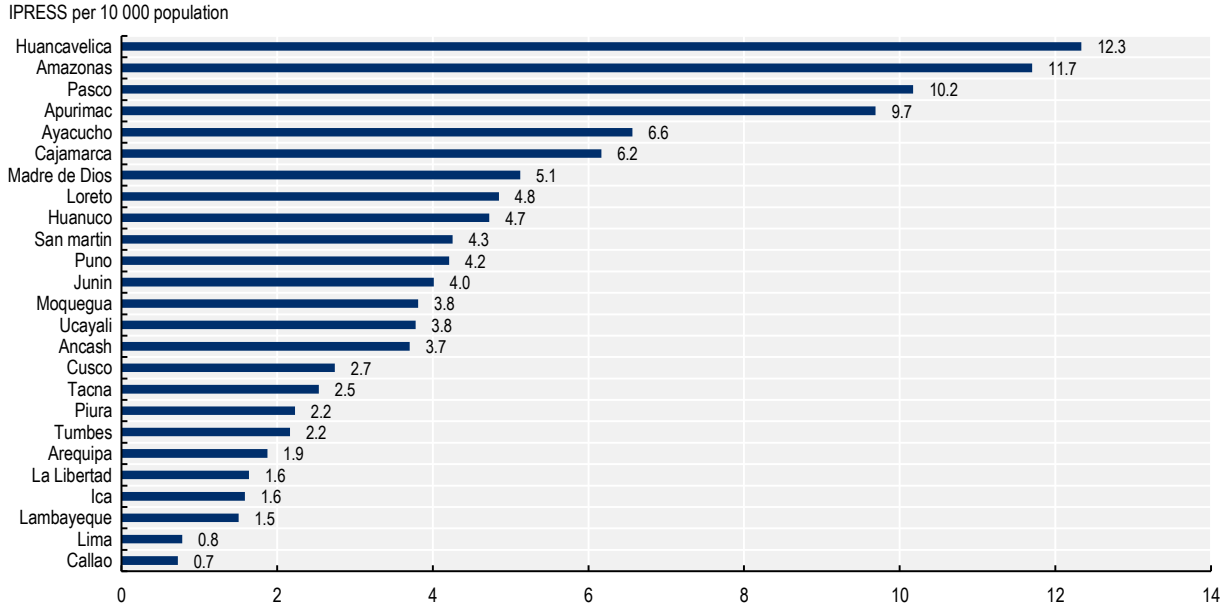
There is an inefficient allocation of the country's health resources, with some duplication of healthcare supply in some areas, while other areas face the challenge of no supply of healthcare services. As mentioned in the previous section, SIS has the largest network of primary healthcare facilities, with 42% of primary healthcare facilities providing services to SIS affiliates (compared to 1.5% belonging to EsSalud network). There is also unequal distribution of resources across regions, with primary healthcare services concentrated in rural areas and hospital services concentrated in urban areas. In Lima and Callao regions (metropolitan areas of Lima), there is less than one primary healthcare facility per 10 000 population, compared to over nearly 12 in Amazonas and Huancavelica region (Figure 2.19). The uneven allocation of health facilities across sub-regimes and regions translates into limited referral systems and weak co-ordination across service levels. Within EsSalud network, for example, evidence shows that 40% of users are ascribed to a hospital as their first point of contact with the health system because of a lack of primary healthcare facilities. This is also confirmed by the 2022 ENAHO survey, which shows that while there are 8 820 public primary care centres in the country, only 30% went to a MINSA primary health centre when they perceived a health need, and 2% sought care in an EsSalud primary healthcare centre (Figure 2.18).

Figure 2.18. Places where the population with a health problem sought care, 2012-22



Note: Respondents were allowed to choose multiple options.
Source: National Household Survey (ENAHO) 2022.

Figure 2.19. First-level of public healthcare service provider institutions (IPRESS), 2023



Source: INEI (2023[18]), Situación de la Población Peruana: Una mirada hacia los jóvenes 2023, as of 26 February 2024.

A recent analysis of health facilities productivity also suggests that when taking into account the resources allocated to each level of care, there are large gap in productivity level between level I, II and III facilities. Accordingly, level I is more productive than level II, and level II is more productive than level III. On average, level I produces 8.1 visits per assigned medical or dental staff, while level II produces 3.5 visits, and level III produces 1.7 visits (World Bank, 2021[19]). While 80% of level I facilities have medical staff producing more than 5 visits per day, 30% of level III facilities produce less than 1 visit per day. The productivity gap between levels of care suggests that there is room for improving the allocation of resources within the Peruvian Health System.

Patient engagement is supported by the National Health Council and the National Health Superintendence

Patient participation is effective in decision-making and policy formulation through the National Health Council (CNS), a consultative body of the Ministry of Health and of the National Co-ordinated and Decentralised Health System (SNCDS). The CNS is the national space for dialogue and co-ordination to achieve national health priorities.

In addition, SUSALUD aims to protect and guarantee people's right to high-quality, timely, and readily available healthcare. It is the main agency responsible for patient engagement and handling complaints. SUSALUD carries out regular surveys, including the ENSUSALUD, and undertake several patient engagement initiatives through in-hospital representatives and health literacy initiatives. ENSUSALUD, for example, evaluates the degree of satisfaction of users receiving healthcare services in 24 regions from all healthcare providers (SIS, EsSalud, military/police forces and private providers). The survey is a very good tool to make comparison of performance indicators of healthcare services in different regions and different sub-systems; on key indicators including accessibility of hospitals, quality of consultations, waiting time data by type of insurance scheme or type of provider.

SUSALUD has also developed user groups (called *Juntas de Usuarios*, JUS) to promote patient's empowerment to drive improvement in healthcare quality and ensure patient's rights and duties are

respected in the Peruvian health system. JUS are embedded in hospitals to encourage patients to share their views, concerns and reflections on healthcare services, and work with other patient interest groups. They promote citizen participation in health, promoting accountability and safeguarding the exercise of health rights at all levels of care. To date, 22 JUS have been created in Amazonas, Arequipa, Ayacucho, Apurímac, Cajamarca, Callao, Cusco, Huánuco, Junín, Lambayeque, La Libertad, Loreto, San Martín, Piura, Puno, Ucayali, Tumbes and Lima.

Patients' complaints and denunciations of inadequate medical practice are also collected by SUSALUD as a way to promote patient empowerment. Table 2.3 shows that the number of enquiries and complaints submitted to SUSALUD has grown by 71% in the period between 2018 and 2022, increasing from 83 768 to 143 125. In 2022, the most frequent categories of complaints related to difficulties in accessing health services (28.6%) and access to information (27.2%). Around 22% of these complaints were related to difficulties in accessing medicines and health products, and 22.7% were related to not receiving necessary or sufficient information (SUSALUD, 2022[20]).

Table 2.3. Causes of patient complaints submitted to SUSALUD, 2018 and 2022

Causes	2018		2022	
	Total	%	Total	%
Access to health services	38 002	45.4	40 971	28.6
Access to information	30 547	36.5	38 976	27.2
Healthcare and recovery	4 859	5.8	16 324	11.4
Confidentiality and informed consent	133	0.2	117	0.1
Protection of other rights	8 214	9.8	16 546	11.6
Others	2013	2.4	30 191	21.1
Total	83 768	100	143 125	100

Source: SUSALUD (2022[20]), *Anuario Estadístico 2022, Superintendencia Nacional de Salud*, https://cdn.www.gob.pe/uploads/document/file/4873728/ANUARIO%20ESTADISTICO%20SUSALUD%202022.pdf?v=1689889186 (accessed on 29 March 2024).

Patient engagement is also made possible through various civil society organisations (NGOs, professional associations, academics, popular and grassroots organisations, etc.) which are effective in encouraging expression of patients' views on health services with a focus on social justice, equity and equality.

Health data infrastructure and its governance

Peru has a large amount of digital health data, but the health information infrastructure is siloed

MINSA has overall responsibility for the management and organisation of the national health information system. It is responsible for the strategic planning, administrative support, development, integration and operation of health information. MINSA is responsible for a number of information systems, including System for vital facts (*Sistema de hechos vitales*), System for disability (*Sistema de discapacidad*), Integrated system for emergency services (*Sistema integrado de egresos de emergencia*), Geographic information system (*Sistema de información geográfica*), and HIS-MINSA (*Sistema de Información de Salud*).

By Ministerial Resolution (No. 780-2015-MINSA), The HIS-MINSA (*Sistema de Información de Salud*) is the main information system for collecting and reporting health and healthcare activities. It is a mandatory reporting system used in all first, second and third levels of care for facilities under the authority of the

Ministry of Health and regional governments. It records healthcare activities around health promotion, prevention, vaccination services, prenatal and childcare, and allows to perform epidemiological surveillance. It can be processed and consulted by health professionals. In addition, for second and tertiary levels of care (hospitals and specialised hospitals), specific systems are used for hospital management, such as SIS-GALENPLUS, the Hospital Management System, or other developed locally or acquired systems by hospitals themselves. These hospital systems record information on resources, processes and activities such as bed management, scheduling surgeries, outpatient appointments and prescribing. SIS-GALENPLUS currently operates in 62 hospitals under MINSA and Regional Governments.

The Integral Health Insurance (SIS) also generates a significant volume of health data because each IPRESS facility completes a standard digital form (*Formato Único de Atención*, FUA) to report on administrative information, diagnostics, consultation or surgery on a dedicated software called "ARFSISWEB". The FUA is completed on a monthly basis, and the digital files are sent to the regional levels in the Health Directorates which, after quality control, are transmitted to MINSA's General Office of Statistics and Informatics (OGEI) to ensure that public health facilities send the necessary information. MINSA used it for validation of services during audits or for payment purposes. The SIS and HIS MINSA data are made accessible to the public through the National Platform of Open Data (*Plataforma Nacional de Datos Abiertos)*, which is an open data platform. In 2024, 96 datasets were published on the national Open Data Platform, including for the health sector, education, social development among other sectors. For the health sector, the data focused on the number of SIS affiliation, care provided to SIS affiliates, health coverage for cancer care, chronic kidney diseases, and rare diseases.

However, HIS MINSA or the Plataforma Nacional de Datos Abiertos provide only a partial view of the national picture as the various sub-systems (EsSalud, the health systems of the military and police force, as well as the private health sector) also have their own information systems and collect their own indicators with different timeliness coding practices and coverage. Health information systems were developed in siloes, hindering integration of information and patient tracking through the health system. The lack of interoperability hinders resource management and decision-making.

Apart from MINSA, other national institutions, such as the National Statistics and Informatics Institute (*Instituto Nacional de Estadística e Informática*, INEI) and the National Health Institute (*Instituto Nacional de Salud*, INS) play an important role in the collection and dissemination of national health information in Peru. INEI is a crucial institution for the Peruvian health information system, responsible for producing statistical information on demographic and vital health statistics and household's questionnaire. Among the most important sources are the National Household Survey on Life Conditions and Poverty (ENAHO), the Demography and Family Health Survey (ENDES) and the National Healthcare User Satisfaction Survey carried-out in conjunction with SUSALUD (ENSUSALUD). INS which is responsible for the regulation, promotion, and diffusion of public health research, collects data around food, nutrition and diseases surveillance. SUSALUD also manages a wide range of health information from health providers and insurance funds. These include health resources, ambulatory care, emergencies, surgeries, and births from both public and private institutions through SETI-IPRESS administrative system. The information is made accessible to the wider public in a user-friendly way.

Overall, the health information system has been widely developed over the past decades and Peru generates a large amount of digital health data. However, mirroring its health system, the health information infrastructure is siloed and suffers from limited co-ordination between the different sub-systems. This makes it inherently difficult to undertake comprehensive analysis of system performance, to provide sound comparisons of performance across providers, and to compare different population segments. As mentioned in the following section, Peru is working on a unified national health data system (called REUNIS) to be able to report a core set of information across all sub-systems. This is an excellent initiative.

Data reporting in Peru is more limited than in current OECD Member countries

Peru's capacity to share internationally comparable data on health is still more limited compared to current OECD Member countries. There are several gaps in data availability and reporting between Peru and OECD Member countries. In April 2024, Peru submitted data on health spending, health status, healthcare activities and healthcare quality indicators in line with the OECD frameworks. However, some increased effort would still be needed to ensure greater reporting and comparability of the data according to OECD standards. For example, Peru relies on survey data and reports life expectancy for 5-year blocks while most other countries rely on demographic statistics from life tables. Peru was however able to report on maternal and infant mortality, and on risk factors for health. For the Joint Non-Monetary Healthcare Activities Questionnaire and the Joint Health Accounts Questionnaire, Peru submitted data on hospital resources and activities as well as health spending by financing schemes and source of revenue respectively, even though key information is still missing on health employment, workforce migration, and health spending by type of services and providers. Many OECD LAC countries have started with the same limitations and have gradually expanded the scope of their data submission. There are also issues related to the Healthcare Quality and Outcomes questionnaires. Peru submitted data on avoidable admissions, acute care, patient experience and long-term care, but for now many of the reported indicators do not cover the whole healthcare system, making international comparison difficult. In addition, there is no data available on five-year cancer survival rates, prescribing in primary care and mental health care.

In addition, the focus of the health information infrastructure has been on resources, service coverage and activities. Current data collection on care quality is mainly based on population surveys to assess the perceived quality of healthcare, notably through the ENAHO, ENDES and ENSUSALUD surveys. While these are insightful instruments, Peru also needs to rely on administrative data to measure care quality. Quality aspects need to be incorporated into national monitoring of the health system to support clinical improvements of medical effectiveness and patient safety. If Peru wants to achieve more uniformity in its health system, and mitigate its fragmentation, efforts should be made to ensure that services are delivered with a high and equally distributed degree of quality across all insurance sub-systems. Consistent with the OECD framework for healthcare quality indicators, Peru should collect and report regularly on overall volume of antibiotics prescribed in primary healthcare or patient safety indicators for example.

Due to the fragmentation of health information system, data reporting is still incomplete. Administrative data used to construct some quality indicators is only collected from public institutions which lead to both underestimations and inaccuracies of performance level. To report valid quality indicators, Peru needs to collect data from all sub-systems in a standardised way to get a comprehensive picture of system performance at the national level and improve international comparability.

To collect and report on quality indicators, Peru will have to address issues with coding practices for principal and secondary diagnoses, and with linking data across information systems. The OGTI reported that coding of secondary diagnoses is recorded mainly by public health facilities, while only the principal diagnosis is recorded by other health facilities. Coding practices also vary according to the geographic region, mainly due to heterogeneity in training of health workers performing the coding. On linking databases, good examples exist with linking census data with outpatient database to monitor anaemia in children. However, other attempts to link hospital databases to monitor healthcare utilisation and care quality failed due to invalid unique patient identifiers.

The use of Electronic Health Records (EHR) has been promoted since 2017 through several regulations and ministerial resolutions (Ministerial Resolution N° 1344-2018/MINSA; N°214-2018/MINSA; N° 618-2019-MINSA, N° 816-2020/MINSA; N°356-2022/MINSA and No. 080-2022-MINSA). The SIHCE (Electronic Health Record Information System) developed by MINSA is being deployed in primary care facilities thanks to the successful implementation of a unique patient identifier in the first level of care. So far, 4 354 IPRESS of MINSA and GOREs have been using the SIHCE. In hospitals and specialised hospitals, different information systems are used. EsSalud also uses its own medical record in its general

hospitals, polyclinics, and specialised facilities. The Health Services Management System is called EsSI (Servicio de Salud Inteligente) which includes comprehensive information ranging from auxiliary tests, diagnoses, prescriptions, and treatments. Accordingly, around 400 EsSalud health facilities are using EsSI since 2019. Peru needs to continue efforts in nationally implementing Electronic Health Records (EHR), that facilitates interoperability across SIS, EsSalud and other sub-systems. A close co-ordination will be required to facilitate linkages of information.

The Digital Agenda for the Health Sector 2020-25 aims to further develop the National Health Information System

Peru has launched an ambitious digital health strategy to leverage the potential of digital health data, EHR and telemedicine. The Digital Agenda for Health 2020-25 is a strategic framework to guide the digital transformation of the health sector over a five-year period. This agenda is part of a broader effort to modernise the country's health system, improve the quality of health services and make them more accessible to the population, especially in remote and underserved areas. The 2021 Budget Law (Law No. 31084) granted an amount of PEN 150 million to finance the strengthening of electronic medical history, electronic prescription telemedicine and telemedicine at the national level. In addition, the 2022 Budget Law granted PEN 90 million to finance the integration of Health Information Systems and the implementation of Electronic Medical Records, Electronic Prescription and Telehealth at the national level.

The Digital Agenda focuses on six strategic areas:

1. Introduction of EHRs: Establish a unified and interoperable system of EHR that can be accessed across different levels of healthcare facilities.
2. Telemedicine and digital health services: Promote the expansion of telemedicine services to improve access to healthcare for people living in remote areas. This includes the use of digital platforms for medical consultations, follow-up and remote diagnostics, minimising the need for physical travel to healthcare facilities.
3. Health information systems: Strengthen health information systems to support decision-making at all levels of the health sector. This includes integrating and analysing health data to monitor health trends, manage resources more efficiently, and respond effectively to public health emergencies.
4. Digital literacy and capacity building: Improve the digital skills of health workers and administrators to ensure they can effectively use digital health technologies. This includes training programmes and workshops on the use of EHRs, telemedicine platforms, and data management systems.
5. Infrastructure and connectivity: Improve digital infrastructure and ensuring reliable internet connectivity in health facilities across the country, particularly in rural and underserved areas.
6. Cybersecurity and privacy: Establish robust cybersecurity measures and data protection protocols to protect patient information and ensure privacy and confidentiality in the digital health environment.

The Digital Agenda gives further impetus to the development of the unified National Health Information System that was launched in 2016 through the *Repositorio Único Nacional de Información en Salud* (REUNIS) under the Strategic Sectorial Plan for the period 2016-21 (Plan Estratégico Sectorial Multianual 2016-21). REUNIS aims at generating quality, timely and complete information through the exchange of health data to achieve interoperability between all sub-systems to define better health policies. The OGTI is responsible for REUNIS administration.

During the COVID-19 pandemic, REUNIS was used as the national health information system, linking data between COVID-19 infections, hospitalisation and mortality databases. The REUNIS portal presents more than 50 dashboards with health statistics and indicators to track the performance towards national health strategies. As of 2024, REUNIS contains information on health data and healthcare activities from health

facilities belonging to the Ministry of Health and regional governments, and only immunisation activities registered within the EsSalud network. It currently does not have comprehensive, system-wide comparable data at the national level.

Peru's Digital Agenda for the Health Sector 2020-25 represents a significant step towards leveraging technology to improve healthcare delivery and outcomes. In total, there are 119 targeted actions to be achieved in the digital Agenda. Ongoing efforts to digitalise the Peruvian health system should accelerate given that as of March 2024, only 25 of these actions have been completed (representing a 21% compliance rate).

References

Carrillo-Larco, R. et al. (2022), "Peru − Progress in health and sciences in 200 years of independance", *The Lancet Regional Health - Americas*, Vol. 7/100148, https://doi.org/10.1016/j.lana.2021.100148. [14]

CDC (2021), *Análisis de Situación de Salud (ASIS) 2021*, Centro Nacional de Epidemiología, Prevención y Control de Enfermedades (CDC) del Ministerio de Salud, https://www.gob.pe/institucion/ensap/informes-publicaciones/4509305-analisis-de-situacion-de-salud-asis-2021 (accessed on 21 February 2024). [5]

INEI (2023), *Situación de la Población Peruana: Una mirada hacia los jóvenes 2023*, Instituto Nacional de Estadística e Informática. [18]

INEI (2022), *Perú: Enfermedades no transmisibles y transmisibles*. [10]

INEI (2021), *"Perú: Encuesta Demográfica y de Salud Familiar 2021 - Nacional y Departamental*, https://proyectos.inei.gob.pe/endes/2021/INFORME_PRINCIPAL/INFORME_PRINCIPAL_ENDES_2021.pdf (accessed on 21 February 2024). [6]

INEI (2018), *Población indígena u originaria de los Andes*, Instituto Nacional de Estadística e Informática. [4]

MINSA (2021), *Repositorio Único Nacional de Información en Salud*, https://www.minsa.gob.pe/reunis/data/tasas_mortalidad.asp (accessed on 22 April 2024). [7]

MINSA (2019), *Carga de Enfermedad en ef Peru: Estimación de los años de vida saludables perdidos, 2019*, https://www.dge.gob.pe/portal/docs/tools/CargaEnfermedad/CargaEnfermedad2019.pdf. [11]

MINSA (2006), *Minsa y EsSalud firman convenio para iniciar compra conjunta de medicamentos y equipos médicos*, https://www.gob.pe/institucion/minsa/noticias/41477-minsa-y-essalud-firman-convenio-para-iniciar-compra-conjunta-de-medicamentos-y-equipos-medicos. [16]

OECD (2023), *Embracing a One Health Framework to Fight Antimicrobial Resistance*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/ce44c755-en. [2]

PAHO (2023), *Avances y desafíos de la reforma de salud mental en el Perú en el último decenio*, Organización Panamericana de la Salud, https://iris.paho.org/handle/10665.2/58312 (accessed on 15 April 2024). [12]

SUSALUD (2022), *Anuario Estadístico 2022*, Superintendencia Nacional de Salud, https://cdn.www.gob.pe/uploads/document/file/4873728/ANUARIO%20ESTADISTICO%20SUSALUD%202022.pdf?v=1689889186 (accessed on 29 March 2024). [20]

Toyama, M. et al. (2017), "Peruvian Mental Health Reform: A Framework for Scaling-up Mental Health Services", *International Journal of Health Policy and Management*, Vol. 6/9, https://doi.org/10.15171/ijhpm.2017.07. [13]

UNICEF (2023), *Análisis del panorama del sobrepeso y obesidad infantil y adolescente en Perú*, https://unicef.org/lac/informes/analisis-del-panorama-del-sobrepeso-y-obesidad-infantil-y-adolescente-en-peru (accessed on 22 February 2024). [9]

Videnza Consultores (2021), *The Peruvian health system*, https://doi.org/10.6084/m9.figshare.14977839.v1. [17]

WHO (2022), *"Global excess deaths associated with COVID-19 (modelled estimates)"*. [8]

WHO (2020), *Budgeting for results in health: Key features, achievenments and challenges in Peru*, World Health Organization, https://www.who.int/publications/i/item/9789240004436. [15]

World Bank (2024), *Population, total - Peru*, https://data.worldbank.org/indicator/SP.POP.TOTL?locations=PE (accessed on 20 April 2024). [1]

World Bank (2024), *The World Bank In Peru*, https://www.worldbank.org/en/country/peru/overview (accessed on 20 April 2024). [3]

World Bank (2021), *Financiamiento para la cobertura universal de salud en el Perú después de la COVID-19*, https://www.bancomundial.org/es/country/peru/publication/financiamiento-para-la-cobertura-universal-de-salud-en-el-per-despu-s-de-la-covid-19. [19]

Notes

[1] Transfers made by the Peruvian Ministry of Labor and Employment Promotion to ESSALUD during the years 2020, 2021 and 2022 were exceptional in response to the health emergency caused by the pandemic.

3 Access and quality of care in Peru's healthcare system

This chapter begins by analysing access to healthcare in Peru, highlighting key achievements toward universal health coverage while also addressing the remaining challenges to provide accessible healthcare services of high quality to the whole population. These challenges include the need for stronger healthcare infrastructure, increased workforce density and better distribution across Peru's diverse geographical regions, and a more robust primary healthcare system. The second section examines the quality of care in Peru and ongoing policy efforts. Quality indicators suggest that significant improvements are needed, particularly through stronger quality governance at the system level, enhanced collection of health system performance data, and the implementation of new payment models to support the standardisation of care.

Ensuring access to care

Peru has nearly achieved UHC, but the benefit packages and levels of access to care vary between insurance funds

The enactment of the Universal Health Insurance Law in 2009 was an important step towards achieving universal health coverage in Peru, with the aim of improving health outcomes and reducing health inequalities. Since then, Peru has continuously sought to expand healthcare coverage, notably with the Urgency Decree 017-2019 and the Urgency Decree 046-2021 approved during the COVID-19 pandemic.

In May 2009, Peru approved the Universal Health Insurance Law, broadening the right of access to healthcare. The Law aimed to extend health coverage to the entire population, with a particular focus on the uninsured and vulnerable groups. It sought to ensure access to comprehensive, continuous and specialised health services throughout the country, improve equity in the provision of health services and promote the right to health for all Peruvians. In addition, the definition of the Essential Health Insurance Plan (PEAS) in 2010 was an integral part of Peru's efforts to achieve universal health coverage. It established a basic package of health benefits for all citizens. All available insurance schemes in Peru are required to cover the essential services included in the PEAS, which consists of a package of preventive, recuperative and rehabilitation interventions. SUSALUD supervise adequate funding of the PEAS.

At its inception, SIS eligibility was limited to poor children and poor pregnant women but it was progressively extended. SIS expanded its coverage in 2007 (with increased eligibility to all uninsured poor population), and in 2013 (with increased eligibility to all vulnerable population). More recently, with the promulgation of the Urgency Decree 046-2021, Peru went a step further with the affiliation of all Peruvians with no health insurance in the national territory, regardless of their socio-economic status, who have theoretical access to the PEAS benefit package. With the new regulation, SIS finances the affiliation, the provision of healthcare to the entire population, both with regards to the PEAS and the complementary plans. In addition, priority is given to joint activities with RENIEC (National Registry of Identification and Civil Status, which is responsible for the identification of persons born in the national territory), in particular for population of Amazonian and the Andean native communities who previously lacked health insurance. RENIEC works with SUSALUD to identify those with and without health insurance, ensure their identification and provide affiliation to SIS.

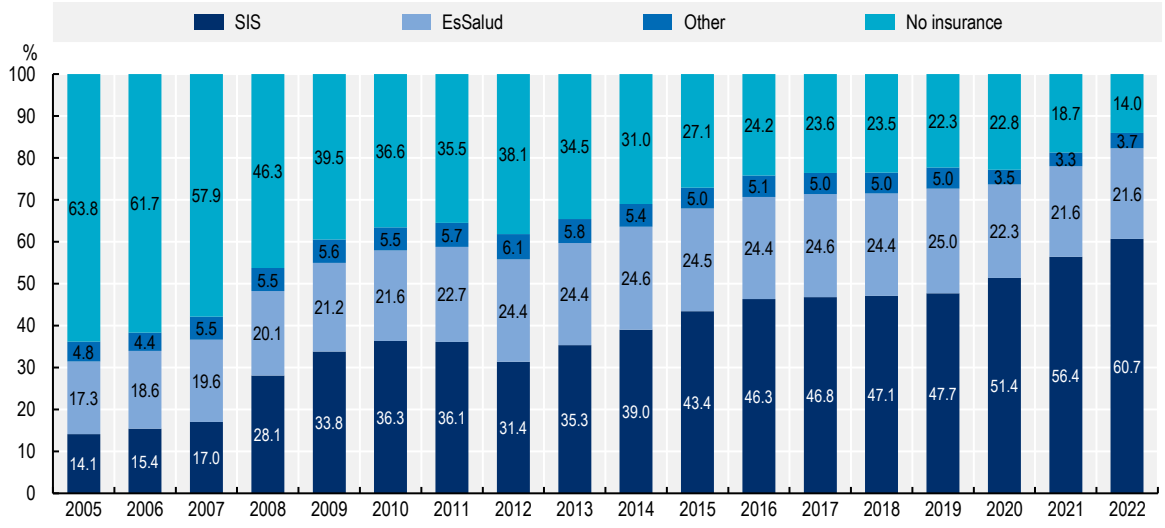
The share of the population affiliated to an insurance scheme has considerably increased in the last 15 years. Approximately 44% of the population had healthcare coverage in 2002 compared to more than 97% of the Peruvian population in 2023 according to the *Registro Nominal de Asegurados*. The remaining 3% of the population not covered by SIS mainly include some extremely poor people living in remote Andean and Amazonian areas, or undocumented migrants who are not yet registered in the National Registry of Identification and Civil Status. To reach these vulnerable populations, SIS has been carrying out campaigns with social workers travelling to remote areas, and the Ministry of Health also established a simplification process in 2023 to regularise undocumented migrants.

In addition, according to the National Household Survey (ENAHO, *Encuesta Nacional de Hogares*), population reporting to have some type of health insurance grew from 36.2% in 2005 to 85.9% in 2022, meaning that 14% of the population report not having any health insurance in 2022. This signals a lack of awareness, which will translate into poor healthcare access for some population groups. In 2021, SUSALUD made available the mobile application "Susalud Contigo" which allows citizens to use their national identity card to see which insurance scheme they are covered by and based on this, what the nearest facility where they can seek care is. This is a very good initiative that should be further communicated to the Peruvian population to increase awareness of health insurance status.

According to the ENAHO survey, the increase in health insurance coverage can mostly be attributed to SIS, which went from 14.1% of Peru's population insured through the scheme in 2005 to 60.7% in 2022.

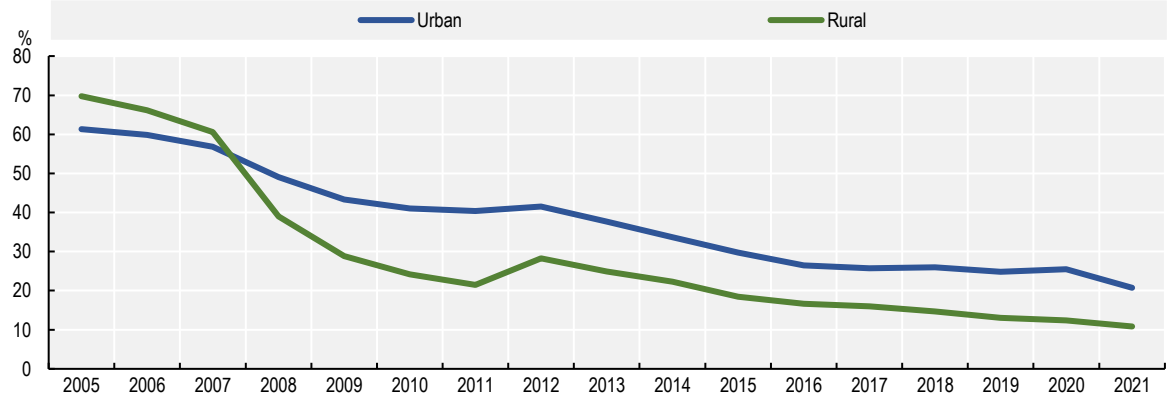
EsSalud coverage, on the other hand, saw a more discreet increase in coverage, from 17.3% to 21.6% between 2005 and 2022 (see Figure 3.1). There are disparities in coverage between urban and rural areas. While in 2005 the share of Peruvians with no health insurance was higher in rural than in urban areas (69.7% and 61.3%, respectively), current values show that this trend has inverted, with urban regions having a share of uninsured population almost two times higher than in rural areas (15.4% and 8.5%, respectively) in 2022 (Figure 3.2). The increase in coverage in rural areas is mainly due to an expansion of the SIS. From 2005 and 2022, coverage of SIS for rural populations went from 25.1% to 85.3%.

Figure 3.1. Reported health insurance coverage by insurance scheme, 2005-22



Note: The value for "No insurance" is calculated as the residual value of all the insurance schemes combined. The value for "other" for 2022 is calculated by excluding SIS and EsSalud insurance shares from the total value of insured population.
Source: INEI (2022), *Compendio Estadístico Perú 2022* https://cdn.www.gob.pe/uploads/document/file/3839281/Compendio2022_Tomo_I.pdf?v=1668543365, for 2015-21; INEI (2014), *Compendio Estadístico Perú 2014* for 2005-14 www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1173/COMPENDIO2014.html; PERU Instituto Nacional de Estadística e Informática INEI for 2022, www.inei.gob.pe/estadisticas/indice-tematico/sociales/.

Figure 3.2. Evolution of uninsured population by geographical area, 2005-21



Source: INEI (2022), *Compendio Estadístico Perú 2022*, https://cdn.www.gob.pe/uploads/document/file/3839281/Compendio2022_Tomo_I.pdf?v=1668543365; INEI (2014), *Compendio Estadístico Perú 2014*, www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1173/COMPENDIO2014.html.

The PEAS package of services has been continuously expanded, such that it now covers 85% of the disease burden in 2024 compared to 65% in 2016. The PEAS was lastly updated through Supreme Decree No. 023-2021-SA, following a collaborative review process involving MINSA working group and a Multisectoral Commission established by Supreme Resolution No. 021-2019-SA. This updated list covers 153 health conditions, for example in obstetrics and gynaecological care, paediatric care, neoplastic conditions, transmissible conditions, and non-communicable conditions including mental health, chronic conditions and acute care. It emphasises prevention and early detection to prevent complications and includes procedures for the recovery and emergency care of prioritised conditions.

While all insurance plans have the obligation to cover healthcare services in the PEAS, evidence suggest that the benefit package under EsSalud is more generous than under the SIS plan both in terms of scope and depth of coverage (Carrillo-Larco et al., 2022[1]). Under EsSalud for example, not only ambulatory and inpatient care are covered, but also high-cost treatments as well as medicines with no cost-sharing. Under SIS, before the Urgency Decree 046-2021, there were caps on healthcare spending related to the PEAS for more expensive services included in the supplementary plans. In a previous OECD report, it is reported that overall financial coverage is 100% for less expensive services, but for other services, effective financial coverage drops (OECD, 2017[2]). The Complementary Plans and the Intangible Solidarity Fund for Health (FISSAL) were designed to cover more expensive services (such as cancers or renal failures), but again caps on healthcare spending limit healthcare coverage in practice. In addition, the lack of infrastructure and low supply of health workers has hindered effective implementation of the PEAS under SIS (Neelsen and O'Donnell, 2016[3]).

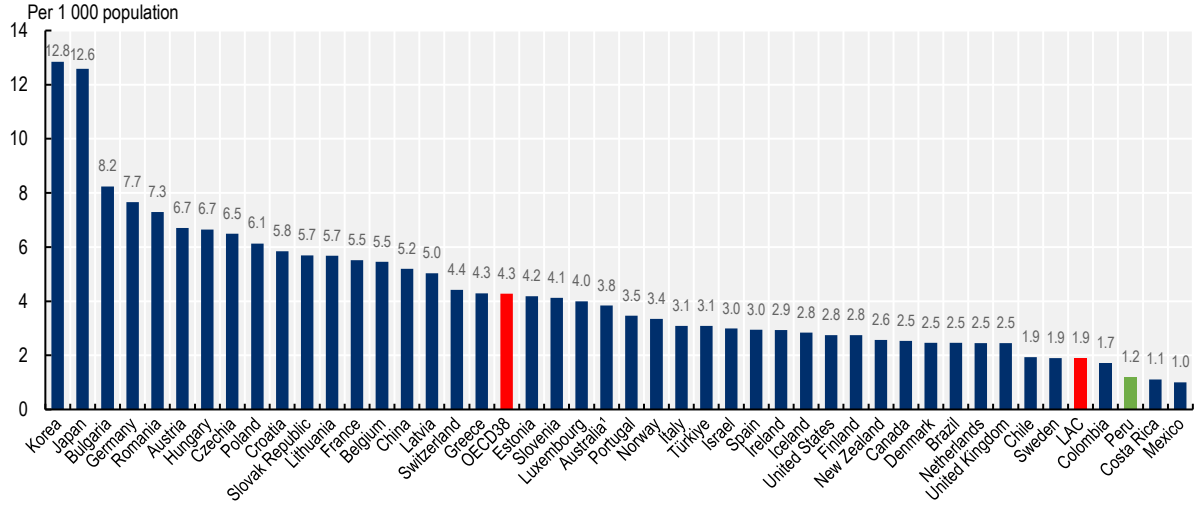
Ensuring that entitlement set on the PEAS can actually be realised in practice under SIS, and making sure all Peruvian population has access to the same benefit package should be high in the political agenda. To this end, Peru should progressively harmonise the minimum benefit package between SIS and EsSalud, and offer the option of secondary insurance to all SIS and EsSalud affiliates for services that are not included in the basic benefit package. In the OECD, 81% of countries offer supplemental insurance in addition to compulsory and social health insurance. Experience from other countries, which have faced similar issues, suggests that a key consideration will be the level of services offered in the harmonised package. If too restricted, then people in the more generous of the systems become sceptical about the benefits of harmonisation, and progress in aligning the systems becomes difficult. Progressive convergence between SIS and EsSalud can be achieved by explicitly defining the benefit package using economic evaluations to assess the costs and benefits of health services and interventions to update the PEAS. Chile, Colombia and Mexico are OECD Member countries with fragmented health systems that have taken steps to achieve equal benefit packages between insurance systems, specifically for a set of primary and community care services.

In addition, in order to promote equal access across the sub-system, Peru should facilitate the use of benefit exchange agreements between sub-systems through the purchase and sale of a basic set of services. This is highly advisable in order to reduce fragmentation and improve the efficient use of resources, particularly in the area of primary healthcare. As mentioned in Section 1, about 40% of EsSalud members are attributed to a hospital as their first contact with the healthcare system due to a lack of primary healthcare facilities. Allowing EsSalud affiliates to use MINSA and GORE primary healthcare facilities would reduce fragmentation of care, improve access to care and lead to more efficient use of care. A first step would be to standardise payment for primary healthcare services with a weighted capitation model for all SIS and EsSalud primary healthcare facilities (from level I-1 to I-4), and to allow EsSalud affiliates to use SIS primary healthcare facilities when needed (with reimbursement to SIS). The use of exchange of services was encouraged during the COVID-19 pandemic with Legislative Decree No. 1466. This was a very good practice for optimising the use of resources while expanding access to quality care.

The healthcare infrastructure is lower than in current OECD Member countries

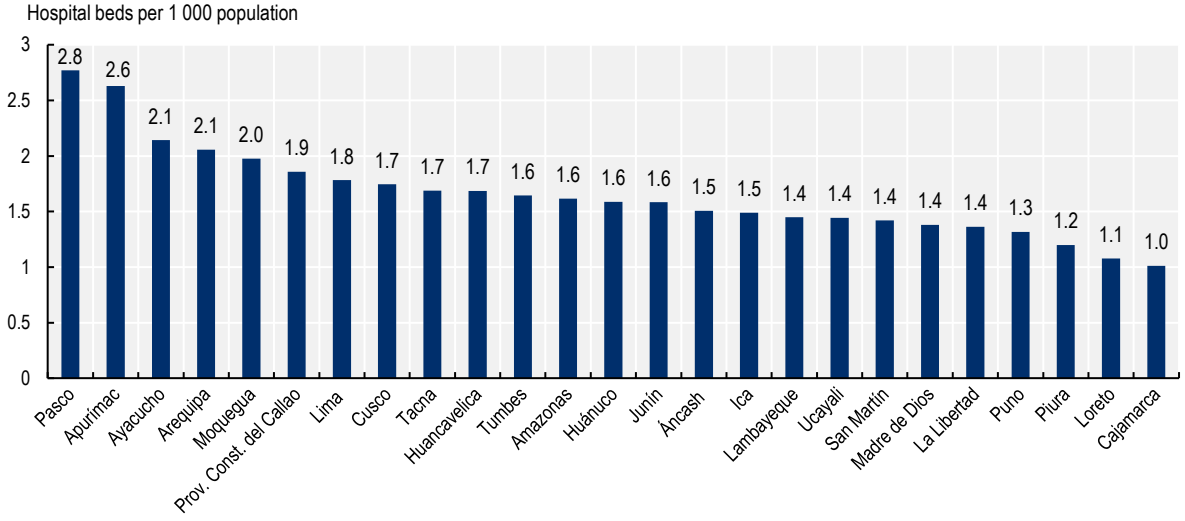
Peru reported a density of 1.2 hospital beds per 1 000 population in 2022, which stood as the second lowest rate when compared with OECD countries but on par with other LAC such as Costa Rica and Mexico (with 1.1 and 1.0 respectively) (Figure 3.3). There are large regional disparities in hospital beds capacity. Beds per 1 000 population range from above 2.0 in Ayacucho, Arequipa, Apurimac and Pasco, to half that in remote areas including Puno, Piura, Loreto and Cajamarca (Figure 3.4).

Figure 3.3. Hospital beds per 1 000 population, 2022 (or nearest year)



1. Data from 2017.
Source: Peru's submission to the 2024 OECD Non-Monetary Healthcare Statistics Questionnaire. Oher countries' data from 2023 OECD Health Statistics. LAC average comes from the World Bank Development Indicators.

Figure 3.4. Regional disparities in hospital beds density per 1 000 population across regions



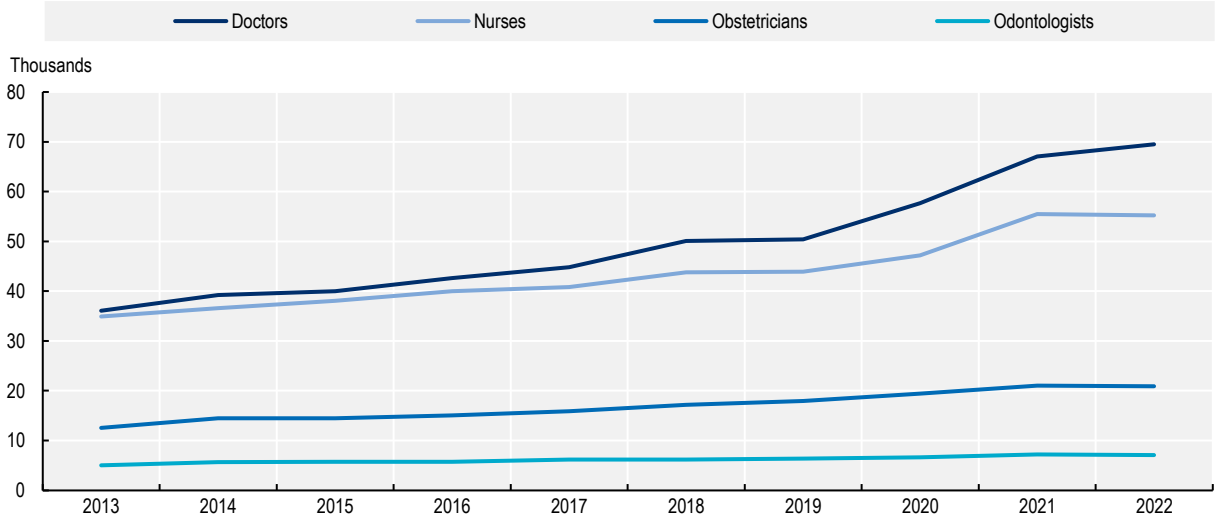
Source: Beds from INEI (2022), *Compendio Estadístico Perú 2022,* https://cdn.www.gob.pe/uploads/document/file/3839281/Compendio2022_Tomo_I.pdf?v=1668543365; Population estimates from INEI (2023) www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Compendio2023/cap03/ind03.htm

Overall healthcare infrastructure in Peru is generally regarded as deficient. A comprehensive and detailed list of minimal infrastructure requirements for healthcare units in each level of care – including structural, security and telecommunication standards – is set out in *Normas Técnicas de Salud de Infraestructura y Equipamiento* nº 113, 110 and 119. These standards support regular evaluations on the compliance of healthcare providers with Ministry of Health regulations. The latest evaluation indicates hospitals' infrastructure is very precarious, with all units in 16 out of 25 regions classified as having inadequate equipment (a health facility is considered to have inadequate installed capacity if the infrastructure and equipment are not compliant with the *Normas Técnicas de Salud de Infraestructura y Equipamiento*) (MINSA, 2021[4]). In addition, in 25 out of the 26 regions of Peru, more than 90% of primary healthcare facilities were classified as "inadequate". All PHC units located in the regions of Callao, Lambayeque, Loreto, Madre de Dios, San Martin and Ucayali received this classification. These are the most vulnerable regions, in terms of both geographical location and economic development.

Over time, the number of health professionals has grown, yet their density remains low and their distribution across different geographical areas is uneven

According to the Observatory of Human Resources for Health (ORHUS), there was a total of 187 170 health professionals in 2022, including 55 190 medical doctors (14%), 69 515 nurses (18%) and 20 900 obstetricians (5%). The supply of medical doctors almost doubled between 2013 and 2022, and the number of nurses also increased by more than 50% over the same period (Figure 3.5). Among medical doctors, 33 543 are working in a MINSA or GOREs health facility, 16 387 are working in the EsSalud network, and 5 584 are working in the private sector. Among nurses, 47 428 are working in a MINSA or GORE health facility, 18 166 are working in the EsSalud network, and 1 564 in the private sector.

Figure 3.5. Evolution of health professionals in Peru across all sub-sectors, 2013-22

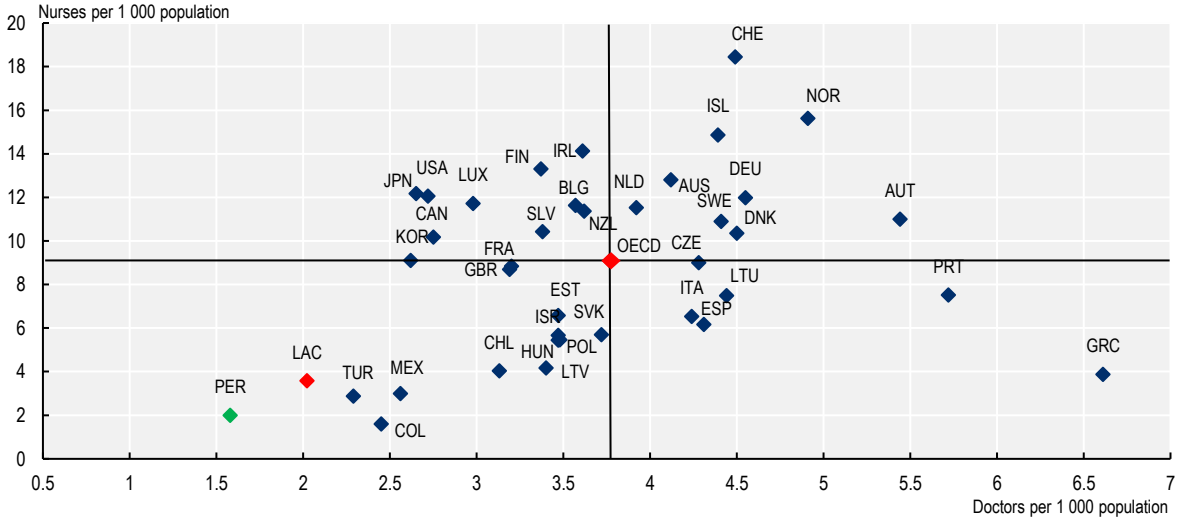


Note: The data present the number of health professionals working in the Peruvian health system, covering all sub-systems.
Source: ORHUS (2022[5]), *Información de Recursos Humanos en el Sector Salud, Perú 2022*, Observatorio de Recursos Humanos en Salud, https://bvs.minsa.gob.pe/local/MINSA/7050.pdf (accessed on 6 May 2024).

Looking at the number of health professionals per thousand population suggests that Peru has a low density of physicians per capita, with 1.6 per 1 000 habitants in 2022, slightly lower than the average in the Latin America and Caribbean region (2) and less than half the OECD average (3.8) (Figure 3.6). The density has increased by 27% over the past decade, from 1.1 doctors per 1 000 population in 2013. Peru

also faces the issue of misdistribution of healthcare workers between geographical areas. In 2021, only 9.8% of doctors were located in rural areas, a share that has progressively decreased since 2013 (at 15%) (MINSA, 2022[6]).

Figure 3.6. The density of physicians and nurses is among the lowest across OECD countries

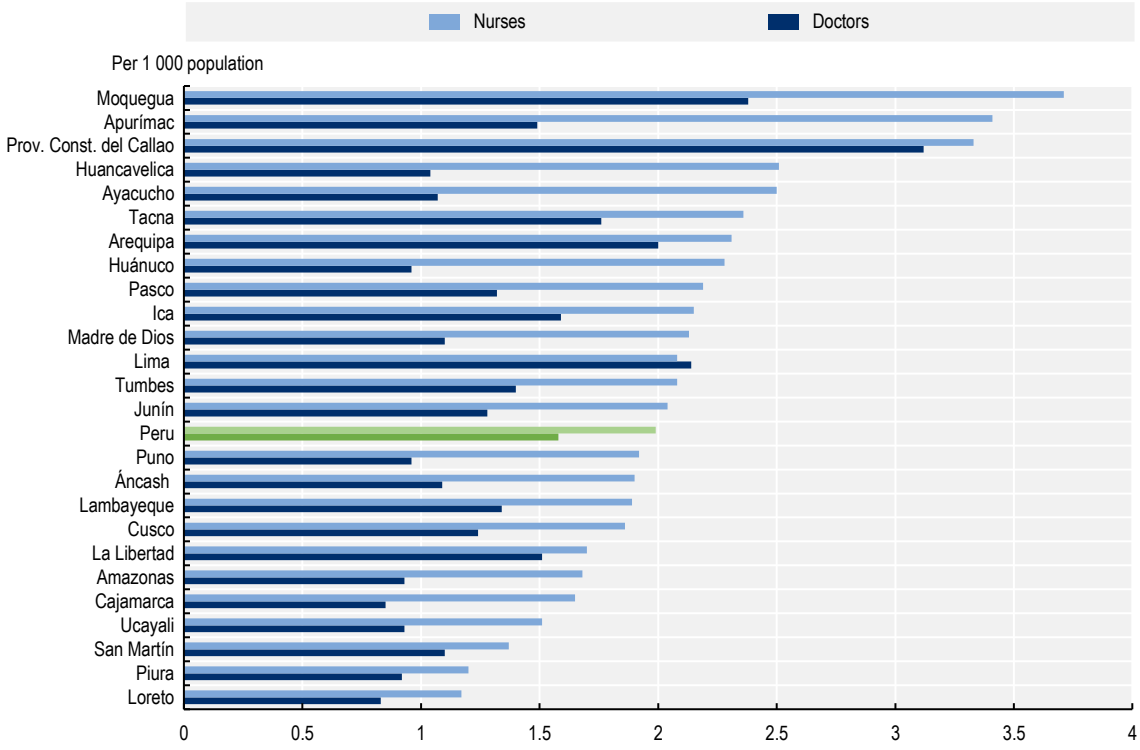


Source: Peru data from Ministerio de Salud, https://files.minsa.gob.pe/s/EpdZ38cL32w6NmJ; other countries from OECD Health Statistics 2024.

Peru also ranks as one of the lowest in terms of density of nurses per capita when compared with OECD countries, although the density increased by 68% between 2013 and 2021. In 2022, Peru reported 2 nurses per 1 000 population, in sharp contrast with the OECD average of 9.1 and only above Colombia (1.6). As is the case for physicians, only a minority (14%) of nurses work in rural areas in 2021 (MINSA, 2022[6]).

Regional disparities in workforce availability create bottlenecks in access to healthcare in some rural areas. Only six out of the 26 regions had a higher density of doctors per capita than the national average (Prov. Const del Callao, Moquegua, Lima, Arequipa, Tacna and Ica), two of them located in the metropolitan area of Lima. Overall, remote and scarcely populated regions have some of the lowest densities for both doctors and nurses. This is particularly the case for regions located in the Peruvian Amazonia, such as Loreto (0.8 and 1.2), San Martín (1.1 and 1.4) and Ucayali (0.9 and 1.5, respectively) (see Figure 3.7).

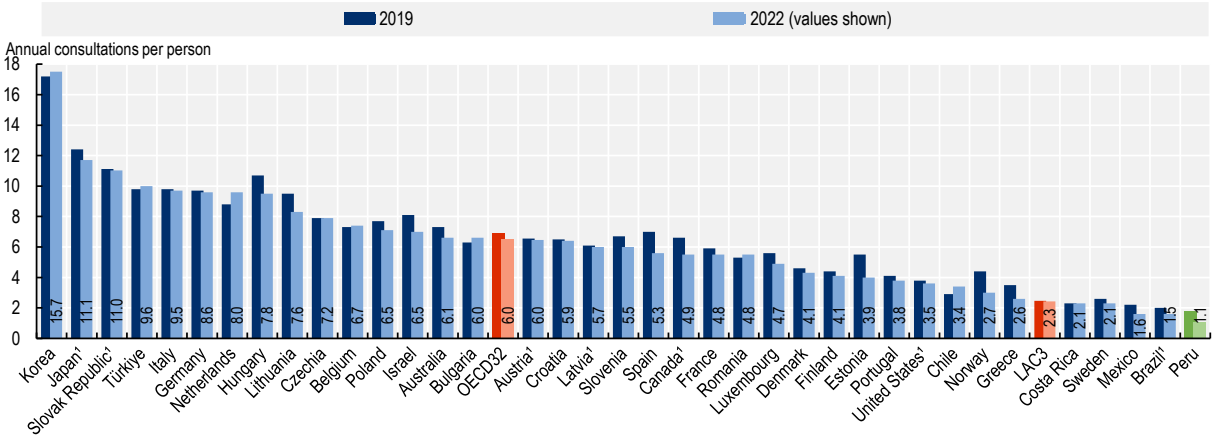
Figure 3.7. Rate of doctors and nurses by region, 2022



Note: Data on the number of doctors and nurses refers to 2022. Population data used to calculate the rate of health workforce refers to a projection of 2023.
Source: Ministerio de Salud, https://files.minsa.gob.pe/s/EpdZ38cL32w6NmJ.

Another commonly used measure of healthcare access relates to medical consultations. Figure 3.8 shows that Peru has the lowest doctor consultations per capita among OECD and LAC countries. In 2022, Peru had 1.1 doctor consultations per capita in the public healthcare system, lower than the OECD average of 6.0 and the LAC average of 2.3 consultations. This could signal some deficiencies in care provision.

Figure 3.8. Average number of in-person doctor consultations per person, 2019 and 2022

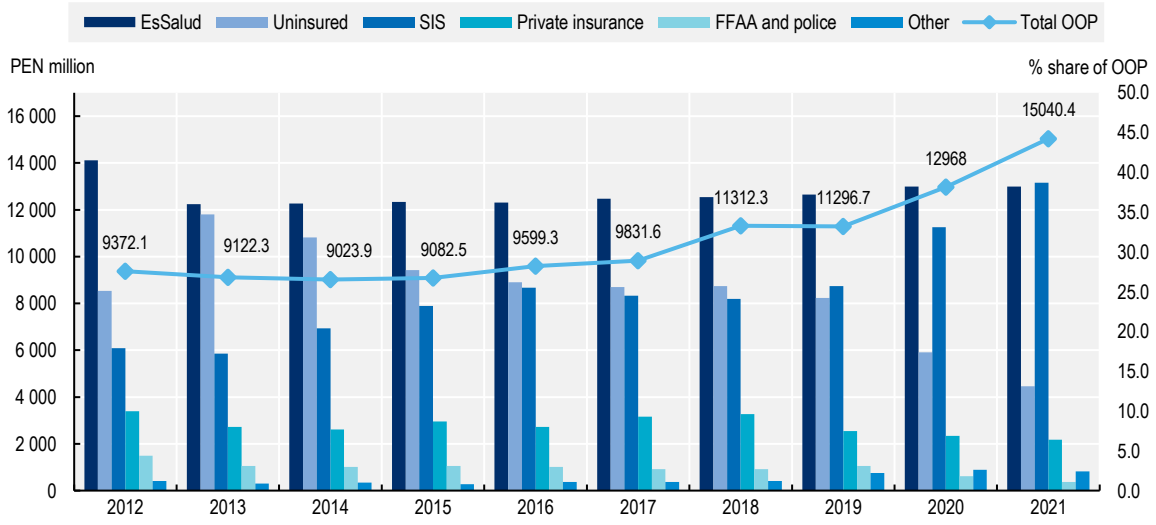


1. Latest data available from 2021, Peru data from 2022.
Source: OECD Health Statistics 2024, Peru's submission to the Non-Monetary Healthcare Statistics Questionnaire.

Out-of-pocket payments are still high, constituting a financial barrier to access

Although out-of-pocket payments have decreased by more than 20% over the last decade, their level in 2022 is still much higher than in other OECD countries. In 2022, out-of-pocket payments (OOP) accounted for 27% of the total health expenditure, 1.4 times higher than the OECD average of 19%. This high level of OOP payments suggests that there is room to improve insurance coverage in Peru and that public health financing is limited. Direct payments for services covered by the PEAS but not provided by health facilities partly explain the high level of OOP payments. Using data from the ENAHO survey, it is estimated that historically, EsSalud affiliates faced the largest share of total OOP spending (see Figure 3.9). Over time, OOP spending for SIS affiliates has been increasing and as of 2021 it has slightly surpassed EsSalud OOP expenditures. Medicines made up 32.2% of out-of-pocket healthcare expenditures in 2021, followed by dental services and consultations (DIGEMID, 2021[7]).

Figure 3.9. Out-of-pocket expenditure across type of expenses, 2012-21

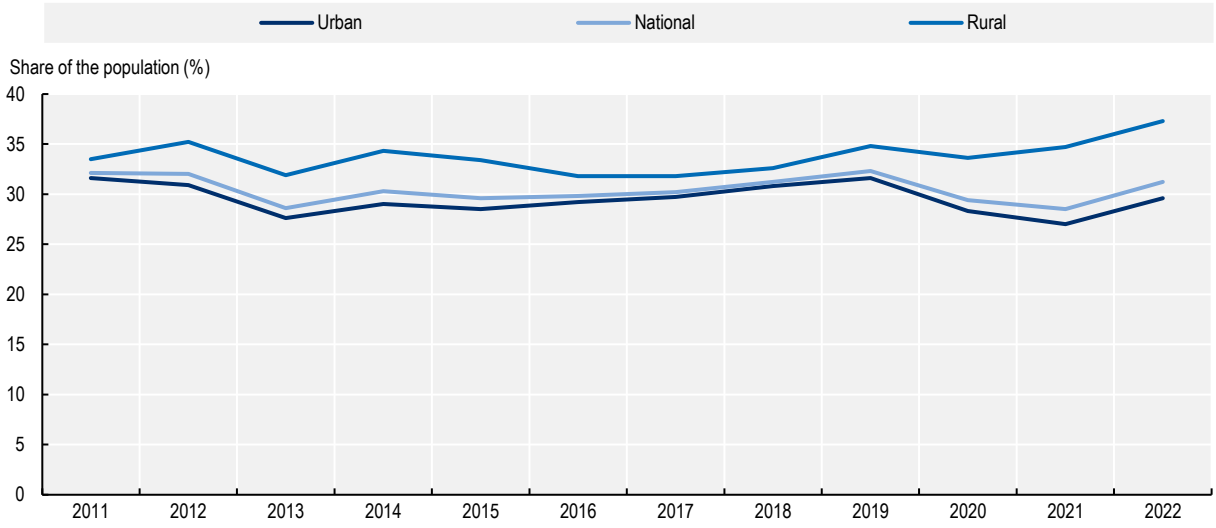


Source: DIGEMID using data from ENAHO surveys.

Unmet healthcare needs are particularly high in less populated areas and for populations of indigenous origin

Limited access to services is evidenced by the percentage of the population reporting unmet healthcare needs. Based on data from the National Household Survey (ENAHO), the proportion of people reporting unmet healthcare needs has remained constant at around 32% for the last decade, with higher rates of unmet need reported in rural areas (37%) than urban areas (30%) (Figure 3.10). There is large variation in the proportion of people reported unmet medical needs by regions. The regions reporting the highest rates of unmet medical needs are Puno, Ayacucho, Pasco and Ancash (regions which have one of the highest poverty rates), with percentages above 40%. On the other hand, the lowest rates of unmet healthcare needs are concentrated in the generally more urban regions of Tumbes, Metropolitan Lima and the Constitutional Province of Callao with 17.7%, 23.3% and 21.6%, respectively. Unmet medical needs are more often reported among women (33.2%), people aged 60 and over (37.7%) and people with disabilities (42.0%). Moreover, populations of indigenous origin (42.9%) or native language (43.5%) also report highest rates of unmet medical needs (INEI, 2023[8]).

Figure 3.10. Share of the population reporting unmet medical needs by area of residence, 2011-22



Source: INEI (2023[8]), Perú: Medición de la Pobreza Multidimensional, Dimensiones e Indicadores (Revisión 2023), https://cdn.www.gob.pe/uploads/document/file/5402872/4833930-informe-tecnico-medicion-de-la-pobreza-multidimensional-revision-2023%282%29.pdf?v=1712328912 (accessed on 1 March 2024).

Almost half of the population (48%) cited no need for medical consultation as the reasons for not seeking care, with slight differences between urban (50%) and rural areas (46%). This is followed using home remedies or self-medication (about 37% in urban areas and 46% in rural areas). The geographical location (17% in urban areas and 5% in rural areas) and the financial cost were also given as reasons (4.5% in urban areas and 5.1% in rural areas). Interestingly, 44% of people living in rural areas mentioned no insurance, lack of time and mistreatment by health personnels.

Other populations, such as the lesbian, gay, bisexual, transgender and intersex (LGBTI) community, have also faced difficulties in accessing healthcare (Romani et al., 2021[9]). In Peru, an analytical cross-sectional study by INEI suggested that factors associated with non-use of health services by the LGBTI community were low socio-economic status and lack of trust in health personnel (Romani et al., 2021[9]). Accordingly, survey results suggested that almost half of LGBTI participants reported experiencing anxiety or depression in the past 12 months. International evidence from the United States (United States Census Bureau, 2022[10]; Australian Bureau of Statistics, 2024[11]) and Australia supports this finding, which is linked to the stigma and discrimination they face, making access to mental health services a priority. In an attempt to increase access to services for this population, the Peruvian Government published a presidential decree in May 2024, which classified trans identities as mental health conditions within the Essential Health Insurance Plan (PEAS). While the intention was to increase access to mental health care for the population, the decree was not in line with OECD practices and it received strong criticism from Peruvian human rights organisations and activists (Human Rights Watch, 2024[12]). In June 2024, Peru amended the decree to no longer consider transsexuality and transvestism as mental illnesses (MINSA, 2024[13]) and publicly reaffirmed its willingness to protect the rights of all, including on the basis of sexual orientation and gender identity.

Waiting times differ significantly across insurance schemes and geographical areas

Self-reported data from the 2022 ENAHO survey highlights a significant difference in waiting times both between networks (SIS and EsSalud) and geographical areas (Table 3.1). While Peruvians have to wait on average almost 1.7 days to obtain an appointment, there is a wide gap between urban (2.7 days) and

rural areas (9 hours). The difference in waiting times between EsSalud and SIS follows a similar trend. EsSalud affiliates wait on average over 4.8 days to obtain an appointment, while SIS affiliates wait over 17 hours. Women wait longer for an appointment than men (1.8 days compared to 1.6 days), with the difference being more pronounced among those affiliated to the SIS network, with women having to wait 54% longer than men (20 hours compared to 13 hours).

Table 3.1. Average waiting times for medical consultations, by coverage scheme and geographical areas

Geographical area	Average days until appointment is made
National	**1.7**
SIS	0.7
EsSalud	4.8
Urban	**2.7**
SIS	1.2
EsSalud	5.2
Rural	**0.4**
SIS	0.3
EsSalud	2.1

Note: "Rural" includes "área de empadronamiento local" as well as urban areas with 500 and 1999 inhabitants, "urban" includes all urban centres with 2000 or more inhabitants (INEI methodology).
Source: Encuesta Nacional de Hogares (ENAHO), 2022 (authors' analysis).

Peru has aspirational plans to transform primary healthcare

In Peru, a wide variety of primary healthcare providers exists. The Ministry of Health and EsSalud have both four types of primary healthcare providers, with a total of 8 820 primary healthcare facilities in 2024. Nearly 36% are categorised as level I-1 (with non-medical health professionals); 23% are categorised as level I-2 (with technical staff, a nurse or obstetrician and a doctor), 16% as level I-3 (includes multidisciplinary health teams) and 2% as level I-4 (includes a multidisciplinary health team able to manage birth delivery). In rural areas, the capacity of primary healthcare is very precarious and limited. For example, as of 2024, in the region of Amazonas and Huancavelica, 68% and 63% of primary healthcare facilities belonged to level I-1, the most basic primary facilities.

Despite the large number of first level of healthcare facilities, many patients have direct access to hospitals because first level of healthcare facilities lack medicines, equipment and ambulances. This points to a weak referral system, and limited co-ordination between primary healthcare and the rest of the health system. The ENAHO survey shows that in 2022 only 32% of Peruvians accessed a primary healthcare centre first – either using SIS or EsSalud facilities – when they sought care.

Peru has set out plans to reinvigorate primary healthcare through major reforms including the Comprehensive Healthcare Model (Modelo de Atención Integral de Salud, MAIS), the Comprehensive Healthcare Model based on the Family and Community (MAIS-BFC) and the Model of Integrated Care by Life Course for the Person, Family and Community (MCI). The overarching objective of these plans was to improve the living conditions and health status of the population by strengthening the community and family approach of primary healthcare. Recently, the main features of the MCI include:

- A life course perspective: The model recognises that health and well-being are influenced by factors and events throughout a person's life. It aims to address health needs at every stage of life, from prenatal care and childhood through adolescence, adulthood and old age.

- Person, family and community-centred: The model places the individual, their family and the community at the centre of healthcare. It emphasises the role of family and community support in the health and well-being of individuals and promotes an enabling environment for health.
- Multisectoral approach: Recognising that health is influenced by a wide range of factors beyond the healthcare system, the MCI advocates collaboration across sectors, including education, housing and social services, to address the broader determinants of health.
- Cultural sensitivity: The model recognises the diverse cultural contexts in Peru and aims to provide culturally appropriate care that respects the traditions and preferences of different communities.
- Technology and innovation: MCI supports the use of technology and innovation to improve healthcare delivery, including electronic health records, telemedicine and mobile health initiatives to increase access to care.
- Integrated care: MCI aims to integrate different levels of care, from primary to specialised services, to ensure continuity and co-ordination of care. This integration extends to public health interventions, social services and community involvement.

The development of MCI started in 2020 and involves multidisciplinary health teams to deliver integrated packages of health services according to population health needs throughout the life course. The prioritised health interventions include health promotion and risk prevention with a territorial approach, intercultural adaptation, non-communicable diseases, mental health, oral health and cancer prevention among other preventives intervention. The ambition is to have primary healthcare teams in charge of providing care, not only focusing on diseases, but attending all the health needs in the community. This includes sending reminders for preventive visits, addressing risk factors for health and developing a comprehensive health plan (MINSA, 2022[14]). This would help to achieve a more efficient and patient-centred health system in Peru.

To support the development of MCI, MINSA has issued Health Sector Reform Guidelines and Measures, one of them being the Strengthening of Primary Healthcare to develop new model of primary healthcare based on a territorial organisation to provide comprehensive, continuous and high-quality care. The overarching objective is to ensure efficient delivery of services, notably by increasing the capacity of primary healthcare to provide health promotion, prevention and management of chronic diseases. MINSA, in collaboration with the National School of Public Health, also has developed specific training sessions on Integrated Healthcare Model by Life Course for the Person, Family and Community as part of the PROFAM programme.

Yet the regional and Ministry of Health network of primary healthcare centres are still not responsive to the current epidemiological profile of a growing burden of chronic conditions. A recent evaluation of the Infrastructure and Equipment Gap of the Health Sector pointed out that 90% of health centres presents inadequate installed capacity, assessed as precarious, obsolete, inoperative or with insufficient equipment (GOPBM/MINSA, 2021[15]). This means that patients with conditions that could be effectively managed by primary healthcare (such as chronic conditions or mental health disorders) are in most of the case referred to hospitals due to the lack of adequate infrastructure or care network. A recent evaluation in three districts from the Northern Lima Health Region confirmed insufficient capacity to provide comprehensive care for non-communicable disease like diabetes. Results indicated that only 13% of facilities had metformin treatment available. None of them had the capability for measuring glycated hemoglobin or albuminuria, and only 30% had permanent availability of blood glucose metres. This led many avoidable referrals for laboratory tests or treatment to better control type2 diabetes mellitus (Bellido-Zapata et al., 2018[16]). Another study shows that 34.1% of a sample of low income population had never had a blood pressure assessment; 65.2% had never had a serum cholesterol assessment; and 75.6% had never had a diabetes screening (Flores, O., Bell, R., Reynolds, R., and Bernabé, A, 2018[17]). These findings suggest that screening for hypertension and diabetes can be further strengthened at primary healthcare level, with a greater focus on disadvantaged population.

These facts give strong arguments to continue strengthening primary healthcare in Peru to fully realise its key functions regarding public health, prevention and management of chronic conditions. There is a clear need to increase the capacity of primary healthcare to better meet population health needs through compulsory specialty training. While the specialty of family medicines is provided in 21 regions, evidence shows the minimum competencies that professionals should achieve are not guaranteed by the training (Fraser, 2022[18]). This demonstrates the need to evaluate the quality of training and make sure the curriculum responds to the country's public health challenges (anaemia, obesity, and malnutrition for example) and population health needs. Peru should consider evaluating the quality of medical school curriculums. This will raise standards of care and ensure patient safety, but also improve the public trust and confidence in physicians. Making sure the National Training Programme in Family and Community Health (PROFAM) is offered in all medical schools and made compulsory to practise as primary healthcare physicians is also one option for consideration.

To modernise and increase the capacity of primary healthcare, MCI model should also be backed up with appropriate public network of laboratories, diagnostic services, emergency services and transport. Once this is achieved, Peru could strengthen the referral system so that primary healthcare facilities can better control and direct the patient's into specialist care. This would help realise the key objectives of the Peruvian health system, which is to ensure more co-ordinated and integrated delivery of healthcare services (see also the section on Integrated Health Network – RIS).

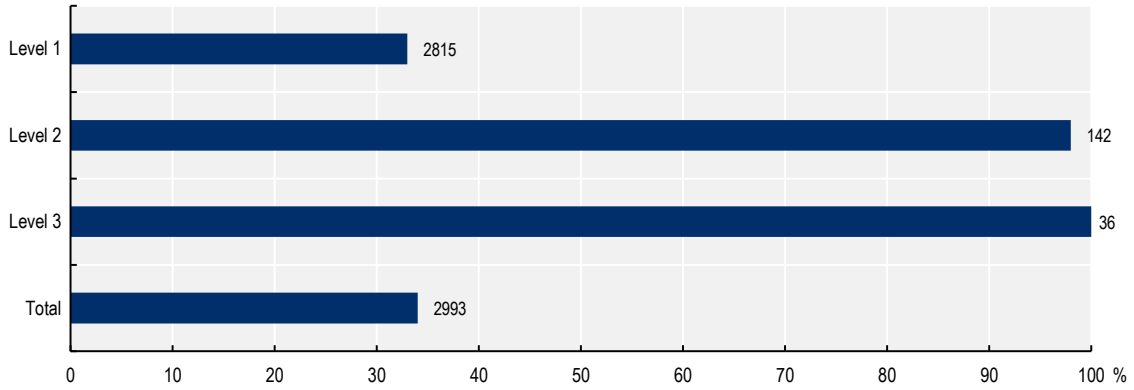
The COVID-19 pandemic accelerated the deployment of telemedicine

The COVID-19 pandemic led to significant changes in national telemedicine legislation. Before the COVID-19 pandemic, telemedicine was limited to interactions between health professionals to support smaller health facilities (such as rural primary healthcare facilities or small hospitals) to get tele-expertise from larger hospitals or health institutes. Virtual consultations between doctors and patients were not recognised as medical acts and doctors were not allowed to prescribe remotely. As part of the National Telehealth Plan 2020-23, a series of regulatory documents[1] established the organisation, strengthening and sustainability of telemedicine in Peru in order to allow the implementation and development of tele-health, bringing specialised health services closer to the Peruvian population. There are also complementary regulations on the protection of personal data, the payment of telemedicine services by SIS (*Institución Administradora de Fondos de Aseguramiento en Salud del Estado Peruano*) and connectivity, which allow the safe and sustainable development of telemedicine services. MINSA's Telemedicine Directorate is responsible for updating the current regulations.

MINSA and EsSalud networks of providers have developed a centralised offer of telehealth services. Through SIS, MINSA offers telehealth services through its National Telehealth Network (RNT) to provide four telemedicine services: tele-orientation, tele-consultation, tele-monitoring, and tele-expertise. These services have been defined in the Supreme Decree No. 005-2021-SA, which approved the regulation of the Telemedicine Framework Law. To facilitate access to telemedicine, MINSA has developed in 2020 the "*Teleatiendo*" health information system which allows to request online consultations. The platform was initially developed to monitor COVID-19 patients but was later expanded to patients with underlying health conditions including hypertension, diabetes, cardiovascular diseases or cancer. The platform is currently in full development and is used by more than 1 000 health facilities (mostly at the first level of care). The system includes digital signatures, electronic prescriptions or electronic billing, enhancing the efficiency and reach of healthcare services across Peru. Since its deployment, the RNT has provided more than 35 million telemedicine consultations nationwide and more than 480 000 electronic prescriptions have been generated for citizens. As of 2024, 2 993 health facilities use the RNT to provide the four services. While nearly 100% of IPRESS at the second and third levels of care show full participation in the RNT, adherence has been slower at the first level (34%) (Figure 3.11).

Between 2022 and 2024, the Ministry of Health will provide equipment to 678 primary healthcare centres to further deploy telemedicine. This is part of the Optimization, Marginal Expansion, Rehabilitation and Replacement Investment Projects.

Figure 3.11. Participation of IPRESS facilities to the National Telemedicine Network, by level of care



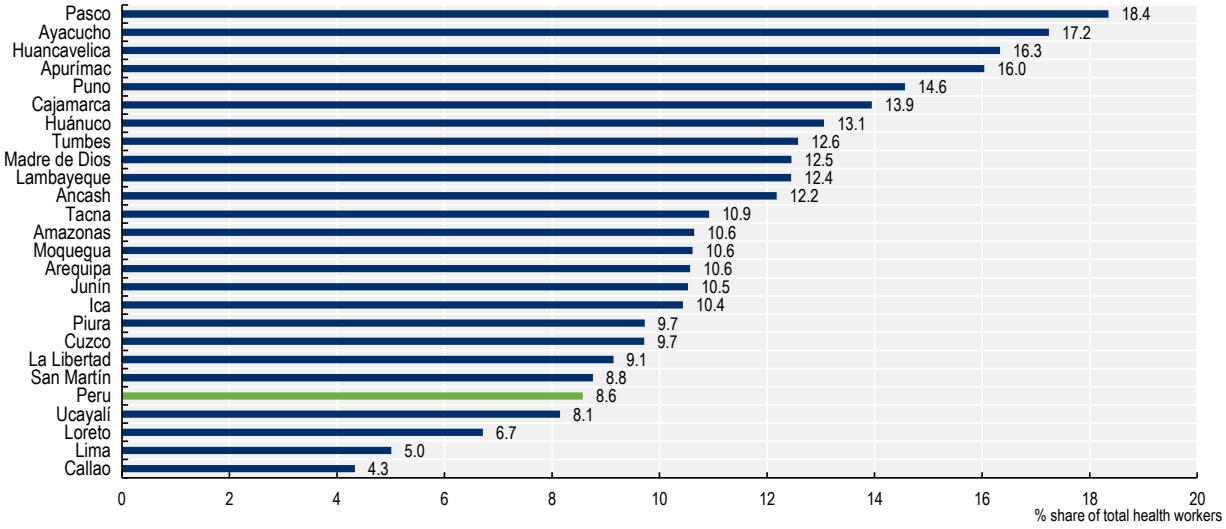
Source: General Directorate of Telehealth, Referral and Emergencies (DIGTEL), and Peru responses to the 2023 Accession Review Health Policy Questionnaire.

Within EsSalud network, the use of tele-health started in 2014 with the development of the National Centre for Telemedicine (CENATE). As of 2024, 70.3% of EsSalud health providers are part of the National TeleEsSalud Network, with the aim to reach 100% by the same year. As of March 2024, over 200 000 teleconsultations have been carried out nationally within EsSalud network.

Between 2020 and 2023, the Directorate of Telemedicine, in partnership with the National School of Public Health (ENSAP), certified more almost 35 600 health professionals in telemedicine through courses and diplomas. In 2022, 14 975 health professionals participated in telemedicine courses. Despite this achievement, trained telemedicine workers only represent 9% of all health workers, with marked regional disparities (Figure 3.12). Pasco and Ayacucho have the highest proportion of health workers trained in telemedicine (18.4 and 17.2% respectively), while this figure is the lowest in Lima (5%) and in Callao (4.3%). This can be partially attributed to the “Telehealth at the first level of care – SERUMISTAS” course that focuses on professionals serving remote areas and comprised 49.8% of all telemedicine trainings between 2020 and 2023.

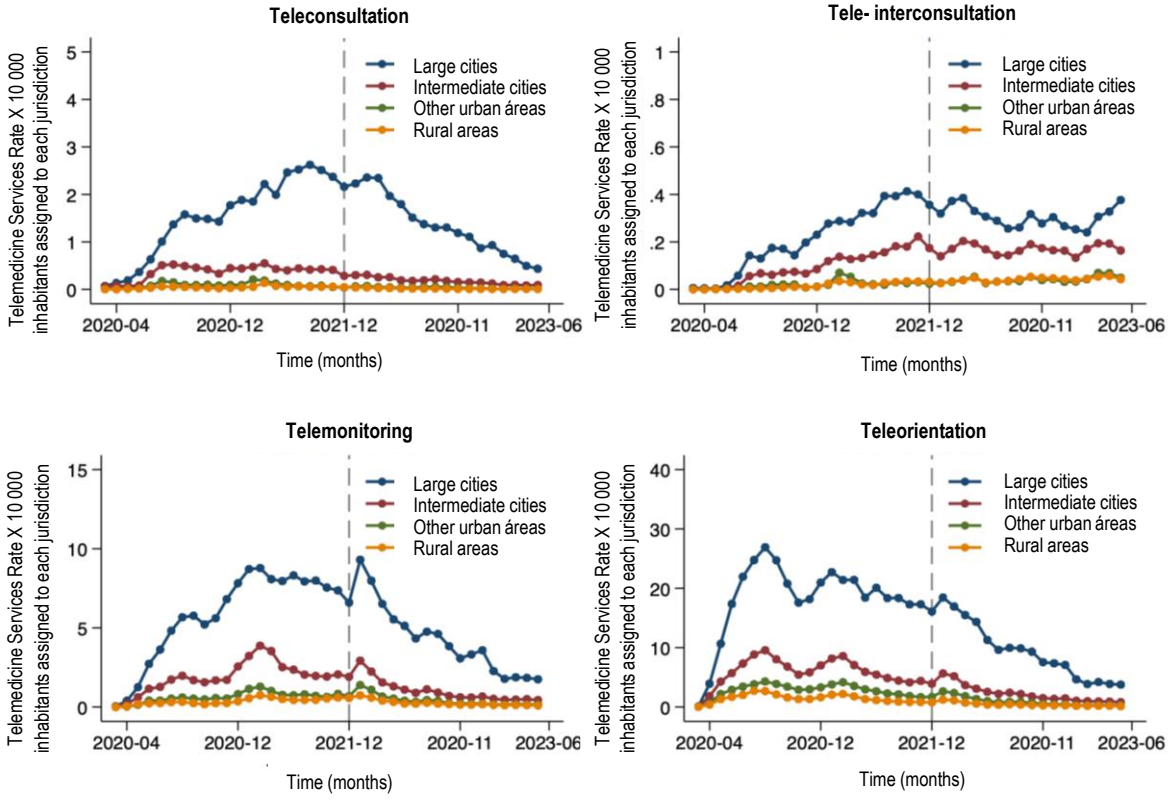
These developments have led to a rapid uptake of telemedicine services. Although this took place during the COVID-19 pandemic, and the reopening of health facilities has almost completely reversed the trend, it lays the groundwork for further initiatives to expand access to care. Peru needs to capitalise on the use of telemedicine and take advantage of its benefits as a new model of healthcare delivery. One of the main challenges for Peru will be to better reach rural and remote areas, where the use of telemedicine has lagged significantly behind large urban centres (Figure 3.13). About 15% of Peru’s population lacks home internet access, with a significant gap between urban (11%) and rural areas (34%). This means that a large part of the population in rural areas lack the necessary basic technological tools and skills for a teleconsultation. Internet connectivity in rural areas should be prioritised in Peru. The WiLD Multihop Network project has been very successful to provide 3G services to eight villages in the Amazon villages (Alvarez-Risco, Del-Aguila-Arcentales and Yanez, 2021[19]). It allowed to connect 15 primary healthcare centres to the regional Hospital of Loreto. Similar project should be undertaken to implement telehealth programmes in remote areas, particularly in the Amazonian forest and Andeans, to allow specialists to reach patients throughout the country. This would be a key step for bridging the digital divide and enhancing telehealth services across Peru, promoting a digital transformation of the healthcare system.

Figure 3.12. Percentage of health workers trained in telemedicine, by region



Note: Human workers certified in telemedicine courses for the period 2020-23 are considered trained.
Source: National School of Public Health ENSAP database, Información de recursos humanos del sector salud, Perú 2021.

Figure 3.13. Use of telehealth according to geographic location in Peru, 2020-23



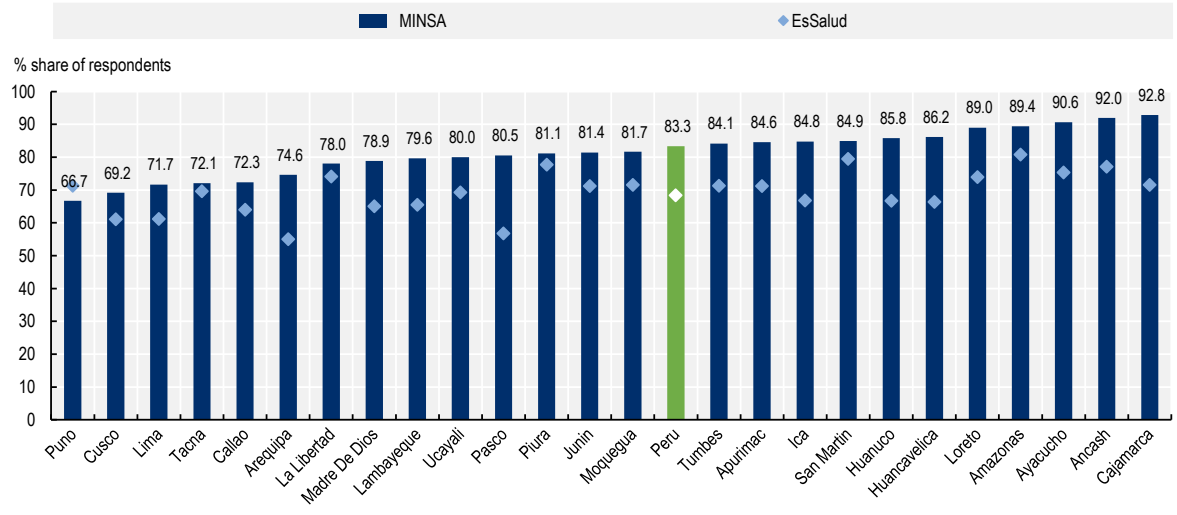
Source: Peru's responses to Accession Review Health Policy Questionnaire.

Improving quality of care

Quality of care indicators suggest that there is room to improve care quality in the Peruvian health system

Based on 2022 data from the ENAHO survey, 83.3% of individuals who were treated at a MINSA health facility in the last 12 months rated the service they received as "good or very good" (Figure 3.14). The regions that reported the highest percentage of satisfaction were Cajamarca (92.8%), Ancash (92.0%) and Ayacucho (90.6%). On the other hand, Puno (66.7%), Cusco (69.2%) and Lima (71.7%) indicated the lowest percentages of satisfaction with the health service received. For EsSalud the percentage of respondents who rated the care they received as "good or very good" was lower, namely 68.4%, and this was the case for all regions except Puno. Lower user satisfaction among EsSalud most likely relates to longer waiting times (see Table 3.1).

Figure 3.14. Percentage of users who rated care quality as "good or very good" in MINSA and EsSalud health facilities, 2022

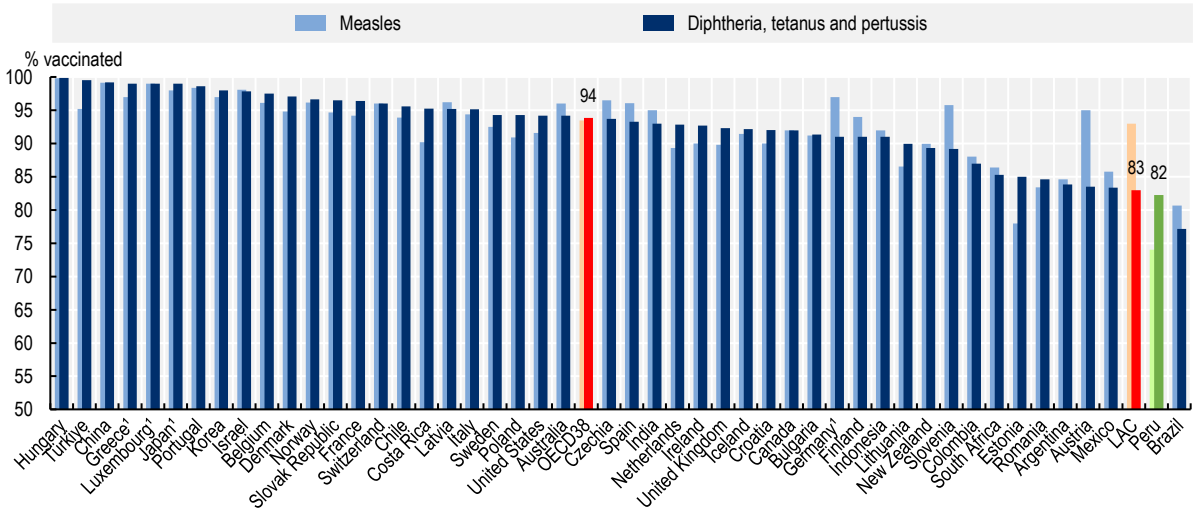


Source: Authors' own elaboration based on National Household Survey on Life Conditions and Poverty (ENAHO), 2022.

Other key metrics, such as declining vaccination rates, are signs that there is room to improve care quality. Childhood vaccination programmes are one of the most effective and cost-effective health policy intervention to control communicable disease. Peru established a comprehensive vaccination programme for its population: 18 vaccine types are included in its national immunisation programme, while other countries in the region usually offer 13 vaccines (PAHO, 2022[20]). However, Peru does not meet the WHO's recommendation of 90% vaccination coverage to effectively protect its population against diseases such as diphtheria, tetanus, and pertussis (DTP-3). In 2022, only 82% of children received the DTP-3 vaccine at 1 year of age (Figure 3.15). This is 11% lower than the average across OECD countries at 93%, but above the LAC average of 81%. Measles vaccination rates in Peru are also below WHO recommendations to prevent the spread of the disease (95%). In Peru, the measles vaccination rate was 74% in 2022, lower than both the LAC average (83%) and the OECD average (93%).

A worrying trend can also be seen in the change in immunisation coverage over the last two decades. Peru has seen a sharp decline in the percentage of children who have been vaccinated against measles, DTP-3, and polio. For example, measles vaccination coverage among children aged 1 year decreased by 25% between 2000 (97%) and 2022 (72%).

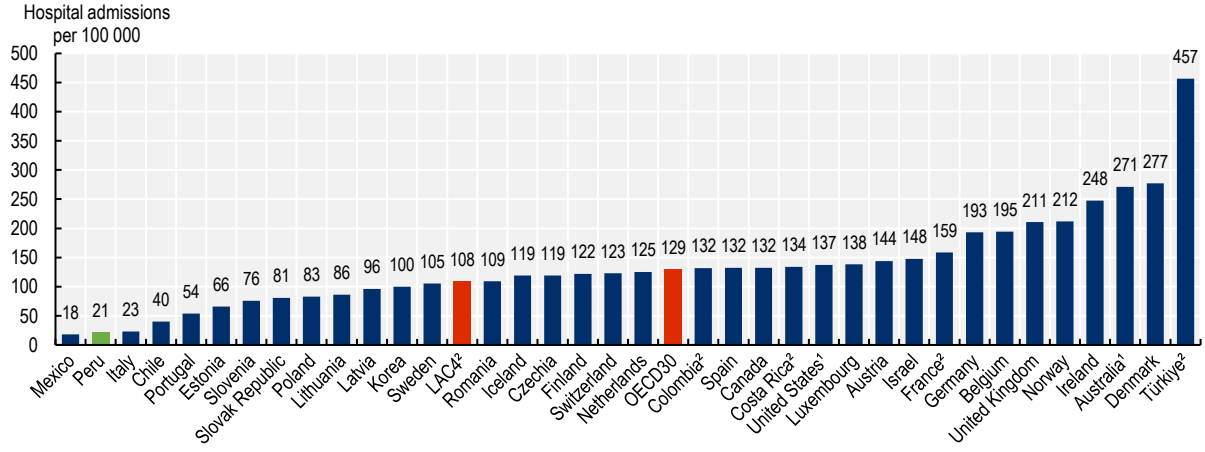
Figure 3.15. Vaccination rates for measles and diphtheria, tetanus and pertussis (DTP-3) are amongst the lowest in the OECD, 2022



1. WHO/UNICEF estimates.
Note: LAC average comes from WHO/UNICEF.
Source: WHO/UNICEF.

As mentioned in Section 1, Peru also had 23% higher amenable mortality (at 98 per 100 000 population) than the OECD average (at 79 per 100 000 population) in 2021. This suggests that better care quality, including better secondary prevention and treatment, is needed to reduce avoidable mortality. At the same time, Peru reports one of the lowest rates of avoidable admissions for asthma and COPD in the OECD in 2022 (20.7 per 100 000 population compared to 129 in the OECD) (Figure 3.16). While low rates of avoidable admissions for COPD and asthma generally suggest high quality care for people living with these chronic conditions, it can also reflect problems in access to care for the Peruvian population that lead to underutilisation of hospital resources, or alternatively difficulties in data reporting.

Figure 3.16. Asthma and chronic obstructive pulmonary disease hospital admission in adults, 2021



1. Data from 2020. 2. Data from 2019.
Note: Peru data from 2022.
Source: OECD Health Statistics 2023, Peru's submission to the 2024 OECD Healthcare Quality and Outcomes Questionnaire.

Peru is committed to ensure patient safety and care quality, but there is limited quality governance at the system level

In Peru, the Health Quality Management System (Ministerial Resolution No. 519-2006/MINSA, "Sistema de Gestión de la Calidad en Salud") defines standards of care for health service providers at national, regional and local levels. The Functional Unit for Quality Management in Health (UFGHS), under MINSA, was established by Ministerial Resolution N°896-2017/MINSA to design, organise the quality management system and define indicators and standards of care. Accordingly, each health facility should have organisational units with technical teams to develop health quality management processes regulated by MINSA. The Health Quality Management System is designed to enhance the quality and safety of healthcare services, ensuring that they meet established standards and are responsive to the needs of the population. The evaluation of user satisfaction, implementation of patient safety rounds, adverse event reporting or healthcare hand hygiene monitoring are all processes that health facilities should theoretically implement (Box 3.1).

Box 3.1. Processes defined as part of the Health Quality Management System in Peru

Peru's commitment to ensure patient safety and care quality is demonstrated by its Health Quality Management System. These align with international health quality standards to improve patient satisfaction, health outcomes, and overall system performance:

- Evaluation of external user satisfaction of Health Facilities and Medical Support Services
- Healthcare quality audits (*RM N° 502-2016/MINSA, NTS 029-V.2 Norma Técnica de Salud de Auditoría de la Calidad de la Atención en Salud*).
- Registration, notification and analysis of adverse health events (*RM No. 727-2009/MINSA Technical Document "National Health Quality Policy"*).
- Application of surgery safety checklists (*RM Nº 1 021-2010/MINSA, Technical Guide for the Implementation of the Surgery Safety Checklist*").
- Monitoring and evaluation of the correct technique and 5 moments of hand hygiene in healthcare (*RM N° 255-2016/MINSA, Technical Guide for the Implementation of the Hand Hygiene Process in Health Facilities*).
- Patient safety rounds (*RM N° 163-2020-MINSA, Sanitary Directive N°92-MINSA/2020/DGAIN "Sanitary Directive on Patient Safety Rounds for risk management in healthcare*").
- Accreditation of facilities (*RM N° 456-2007/MINSA, NTS Nº 050-MINSA/DGSP-V.02 "Norma Técnica de Salud para la Acreditación de Establecimientos de Salud y Servicios Médicos de Apoyo*").
- Elaboration and implementation of projects for continuous improvement of healthcare quality (*RM Nº 095-2012/MINSA, Technical Guide "Guide for the Elaboration of Improvement Projects and the Application of Techniques and Tools for Quality Management"*).

Source: Peru's responses to Accession Review Health Policy Questionnaire.

While the Health Quality Management System constitutes a key principle to ensure that all citizens have access to high-quality healthcare services, the implementation of these activities remains unknown. For example, information on healthcare quality audits, application of surgical safety checklists or effective use of clinical guidelines and standardised monitoring of these activities is lacking. Quality initiatives are implemented sporadically by health facilities, and monitoring depends on regional or local capacity to

assume quality assurance mechanisms. In addition, the implementation of these activities varies by sub-regimes.

At system level, the UFGCS of the Ministry of Health periodically evaluates Institutes, DIRIS, and Regional Managements, Health of the Armed Forces and Police, and ESSALUD, through the compliance with indicators defined as part of the Quality Management System. UFGCS, for example, monitors patient safety indicators including healthcare-associated infections through the Technical Standard N ° 163 – MINSA/2020/CDC. All IPRESS are mandated to report healthcare associated infections for surveillance and monitoring purposes (MINSA, 2021[21]). The OECD Hospital Survey on Patient Safety Culture collected data from 17 sites in Peru between 2021 and 2022. The results show that, on average, Peru scores close to the other OECD countries, with higher scores in organisational learning, reporting patient safety events, and hospital management support for patient safety, while scoring lower in staffing and workplace, as well as response to error.

In addition, MINSA has an "accreditation" model which is more an evaluation process for health facility to assess compliance with MINSA regulations. The accreditation focuses on compliance with minimum service readiness standards (such as registering infrastructure, equipment or stock of pharmaceuticals in the information system) and entails sanctions rather than rewarding and supporting improvement initiatives. Contrary to national accreditation programme for hospital nationwide, this evaluation model does not foster a quality improvement cycle.

There are some good local examples such as in the National Institute of Child Health of San Borja, a public-private partnership. The Institute is a specialised and highly complex hospital, paediatric and surgical centre. It has a well-developed quality assurance mechanism, which includes surgery safety checklist, hand washing campaigns and training sessions of health professionals (Box 3.2). The National Institute of Child Health also provides support to other regions by training healthcare workers in remote areas when there are specific needs. In 2023 for example, 54 training were organised in remote areas.

Box 3.2. The strategies of the National Institute of Child Health of San Borja promote quality care

The National Institute of Child Health of San Borja (INSNSB) is a high complexity paediatric and surgical and specialised hospital centre. The hospital is in operation for nine years, receiving children and adolescents from other hospitals in the country, and staffed by both administrative and healthcare workers. It also conducts research and teaching at the national level.

In 2019, the INSNSB became the first "accredited" institution of the Ministry of Health, thanks to a concerted effort of healthcare, administration staff, and the institution's internal evaluation team. As part of the MINSA Health Quality Management System, the Institute has been carried-out the following quality initiatives:

- Implementation of the Surgery Safety Checklist,
- Quality of care audits,
- Mechanisms for the registration, notification, and analysis of the occurrence of health incidents and adverse events,
- Hand hygiene process at the institute,
- Patient safety rounds, and implementation of the WHO Surgical Safety Checklist
- Evaluation of external user satisfaction.

Overall, the National Institute of Child Health San Borja (INSNSB) has achieved the highest percentage of compliance with these criteria in recent years, demonstrating the institution's commitment to quality and continuous improvement. The National Institute of Child Health San Borja was the first establishment of the Ministry of Health accredited in the year 2019 and is expected to renew their accreditation in 2024.

Source: Interviews with National authorities and Peru's responses to Accession Review Health Policy Questionnaire.

Peru would need to strengthen its national quality assurance covering all service providers and across all sub-systems by developing a nationwide quality assurance approach. Core centralised functions would be needed around quality assurance mechanisms with a stronger steering role on the local and regional activities. This will help to achieve a more consistent and ambitious approach towards quality assurance. SUSALUD could play a stronger oversight role of the central level by setting a unifying national standards framework of quality that would apply to all sub-regimes, and by monitoring compliance to quality activities (rather than MINSA regulation). In addition, a progressive implementation of a voluntary accreditation for hospitals would be a key strategy to promote quality in hospital care. Ultimately, SUSALUD could play a stronger role toward producing overviews of current practice and current performance at national level, based on national standards on performance and mandatory performance reporting. For now, none of these functions are consistently and regularly performed by the central level.

Peru needs to strengthen its data infrastructure to capture quality and outcomes data comprehensively

Peru has the potential to improve its data infrastructure, particularly in terms of collecting comprehensive information on health system performance, including data on quality and outcomes. As already mentioned, the Peruvian health information is not standardised across sub-systems and linkage of personal health data across healthcare settings is challenging. This means that it is difficult to comprehensively measure care quality or outcomes nationally, to make correct comparisons across providers, and follow pathways of care to evaluate the quality and effectiveness of care. Peru is already working towards the development of a unified national health data framework (REUNIS) to be able to report a core set of information on care quality and outcomes nationally, across all-sub-systems. This is a very good development that will require interoperability across all sub-systems, use of EHR as well as standardised and mandatory reporting of indicators for all sub-systems.

In addition, the health information currently reported to MINSA mainly focus on maternal and child health, public health and infectious diseases, covering activities or inputs. However, there is a growing need to expand the epidemiological data collected to include a wider range of non-communicable diseases, which are becoming increasingly prevalent such as the management of chronic conditions (diabetes, heart failures), care co-ordination, and patient experience and outcome measures. While Peru seeks to modernise primary healthcare through the development of MCI and integrated care networks, Peru needs ultimately to ensure that the ongoings reforms do not adversely affect outcome of care and exacerbate health inequalities. At hospital levels also, data on quality and outcomes of hospital care should be collected and be made accessible to the population and providers. This would help people to make informed choices, build public confidence in the public system, facilitate peer to peer benchmarking and steer improvement in care quality.

Peru should also align its reporting of health and healthcare quality indicators with those recommended by the OECD as part of the "Health Statistics", "Healthcare activities" and "Healthcare Quality and Outcomes Indicators" frameworks. While Peru submitted data for these OECD Data Questionnaires, increased effort is necessary to ensure validity and comparability of the data according to OECD standards. For now, many

of the reported indicators do not cover the whole healthcare system making international comparison difficult. This is for example the case of many of the reported healthcare activities indicators that only cover facilities under the authority of the Ministry of Health and regional governments. Low rates of avoidable admissions for asthma and COPD can – beyond problem in access to care – also reflect difficulties in recording and monitoring hospital activities across all sub-systems. Another key issue relates to data quality. While most other countries rely on demographic statistics from life tables to report on life expectancy at birth, Peru relies on survey data for 5-year blocks, which is a less valid and reliable source of information and limits the analysis of shocks to the health system, such as the effects of the COVID-19 pandemic.

Improving data's quality and coverage will allow for international benchmarking and provide valuable insights into the variation in performance between different regions and sub-systems. This alignment would not only benefit Peru but also provide valuable data to the international community, especially as Peru progresses toward near achievement of universal health coverage.

New payment systems for MINSA and regional facilities promise to standardise care and improve quality

The MINSA network implemented a unified national remuneration policy for first level of healthcare and hospital providers. The remuneration has two main components: i) basic payment and ii) additional components which include fee-for-services and payment by package of services. The payment mechanisms vary according to the level of complexity of healthcare facilities.

For first level of healthcare facilities (level I-1 and I-2), a weighted capitation component is applied as a basic payment mechanism since 2013 as defined under the Ministerial Resolution N°446-2021-MINSA. The capitation formula allocates resources based on needs depending on socio-economic (poverty level and social vulnerability), demographic (population density), geographical factors (rurality) and health status (disability adjustment). The model helps ensure that regions and local municipalities with higher population and social needs owing to less favourable socio-economic situations or higher disability levels receive the necessary funding to provide care. This weighted capitation model, which aims to encourage population health management and more proactive care based on population health needs, is well aligned with many OECD countries' policies in this area, as done for example in Chile or Portugal. However, first level of healthcare facilities at levels I-3 and I-4 are still reimbursed on a fee-for-service system for their basic payments, highlighting a potential area for policy evolution towards capitation across all primary care facilities. In order to better incentivise proactive population health management, it is also recommended to allocate capitation payments to health facilities rather than regional governments (which have the autonomy to decide financial allocation to health facilities). In addition, the basic payment (before making adjustment) is based on a SIS actuarial study published in 2015 using 2012 data. The health needs of the population have evolved over the past 10 years, and it is advisable to undertake a new actuarial study to ensure that resources are based on the current population health needs.

In 2024, SIS has innovated by introducing payments which are part of the additional component. For level I-1 to level I-4 facilities, this includes a payment for surgical package for childbirth delivery (including C-Section). The additional component also includes add-on payments for outpatient specialist services including specialist consultations, rehabilitative services for diabetes, hypertension and chronic kidney disease, vaginal delivery and mental health care.

In addition, level I-3 and I-4 facilities have to meet some process indicators to get the additional components. These add-on payments, also used in several other OECD countries (OECD, 2020[22]), include:

- 2 medical consultations for the follow-up and control of hypertensive patients.
- 30% of hypertensive patients have reached the therapeutic goal.

- 50% of diabetic patients have received renal function screening.
- 95% of diabetic patients with glycosylated haemoglobin dosage.

Hospitals at levels II and III continue to be reimbursed on a fee-for-services basis for basic payments, with additional payments for a package of surgical services. The latter include C-section, extracapsular and phacoemulsification type of cataract treatment, conventional inguinal hernia repair in adult patient, conventional and laparoscopic cholecystectomy in adult patients. The payment covers drugs supplies and medical devices, while health personnels are paid by the Ministry of Economy and Finance under regional budget lines.

The current changes in both primary healthcare and hospital care are good steps to move towards rewarding quality of care. International experience provide evidence that capitation payment helps prioritise prevention while payment for a package of services help to standardise care. Add-on payments also encourage desirable behaviours and activities for the management of chronic diseases (OECD, 2020[22]).

The development of integrated healthcare network receives large attention in Peru but is hampered by the fragmentation of the health system

Peru started to implement Integrated Health Networks (*Redes Integradas de Salud*, RIS) in 2018 as part of its efforts to reform the healthcare system to provide comprehensive, continuous and co-ordinated care to the population. The creation of Integrated Health Networks aims to improve access to primary healthcare and to promote collaboration between different levels of care and providers (Box 3.3). The organisation model is characterised by the delimitation of the population and the territory, into territorial health units.

The regulation of Law N° 30885 granted both the regional health authority and the Metropolitan Lima health authority the function of monitoring, supervision, and evaluation of the RIS (DS N° 019-2020-SA, 2020). With support from the International Development Bank and World Bank project on the roll-out of integrated health network (Videnza, 2021[23]), networks in Peru have the following key attributes:

- It is based on a territorial and population delimitation. This objective is to foster population health management, within a defined geographical area, taking into account local determinants of health and aiming to reduce health inequalities;
- The population is assigned to a multidisciplinary health team which has a co-ordinating role to provide a portfolio of first contact health services that includes individual health and public health interventions;
- Integration across levels of care, from primary health centres to specialised and tertiary hospitals. This approach is designed to facilitate the referral and counter-referral system, ensuring that patients receive the right level of care at the right time and in the most appropriate setting. Healthcare services are complementary, from 12 to 24-hour shifts to ensure care continuity;
- Providing a wide range of health services including public health services, promotion, prevention, recovery, rehabilitation and palliative care, and addressing the social determinants of health.

According to MINSA, there are 155 RIS in 2024, among which 26 RIS are in the Metropolitan area of Lima and 129 RIS are in the 25 regions. In addition, 66 management teams have been formed to carry-out supervision and for organising the provision of public health services, as well as the referral and counter-referral flows from multi-disciplinary teams to hospitals and specialised institutes. The management teams have followed a specific training to manage the RIS, which was developed in co-ordination with the World Bank, the International Bank for Reconstruction and Development, the Fundación San Marcos and the Universidad Santo Thomas (Chile). In addition, since 2020, in co-ordination with the ENSAP, training programmes related to RIS roll-out were developed for health personnels from all DIRESA, GERESA and DIRIS, from the Central Administration of MINSA and attached agencies, as well as health personnels from all health insurance funds.

Although initially the RIS is organising the provision of services within MINSA and GORES health facility, the overarching objective over the long term is to integrate other public, private and mixed IPRESS into existing RIS. This will allow to have a more unified health system.

However, a number of challenges have been reported as barriers in the implementation of integrated healthcare networks (Videnza, 2021[23]; Parra Moscoso, 2017[24]). These include for example limited health personnels and technological equipment, low interoperability of information systems and lack of organisational guidelines which hamper an adequate system of referrals and counter-referrals. Overall, the fragmentation of the health systems has led to differences in the logistics management of each sub-system, which prevent from achieving the advantages of an integrated system, such as economies of scale in procurement. In addition, the payment system is prospective on a per capita basis and per package of services for C-Section delivery for some facilities. However, there exist other payment mechanisms that incentivise providers from different levels of care to work effectively together. Add-on payments for co-ordination between level of care, and bundled payments for chronic conditions are additional payments that Peru could consider progressively to foster implementation of integrated care. Evidence across OECD countries shows that bundled payments have been found effective at containing rising costs, increasing the quality of care, enabling higher patient satisfaction and better adherence to medication and treatment protocols (OECD, 2020[22]).

Box 3.3. Organisation of the Integrated Health Network in Villa El Salvador

The RIS Villa El Salvador (RIS VES) in Lima Province, is one of 20 RIS planned to be implemented in Peru over the coming years. With activities beginning in 2023, RIS VES assigns patients with specific conditions (diabetes mellitus, depression, cervical and breast cancer, arterial hypertension and pregnant women) towards primary healthcare centres. The overarching objective is to deliver health promotion and prevention intervention timely, and to organise appropriate referral to specialised care at the Emergency Hospital of Villa El Salvador when medically necessary.

Training programmes have been delivered to the multidisciplinary health teams to support them in providing comprehensive care for these underlying health conditions. Clinical laboratory and pathology services have also been strengthened within the health network, backed by a single information system. It is expected to increase timely access to appropriate care and services, improve care continuity, and availability of medical support services.

Source: General Directorate of Health Insurance and Benefit Exchange (DGAIN).

The National Law on Cancer represents a significant step toward improving cancer care, yet insufficient medical technology and low screening rates remain challenges

Cancer is a growing public health issue in Peru, as it is in many OECD countries. Excluding COVID-19, it is the second leading cause of mortality, accounting for 12.3% of all deaths in 2021, following cardiovascular disease (which caused 16% of all deaths in the same year). A previous simulation model predicts that by 2030, the annual number of new cancer cases will increase by 72% compared to 2012 (Carrillo-Larco et al., 2022[1]).

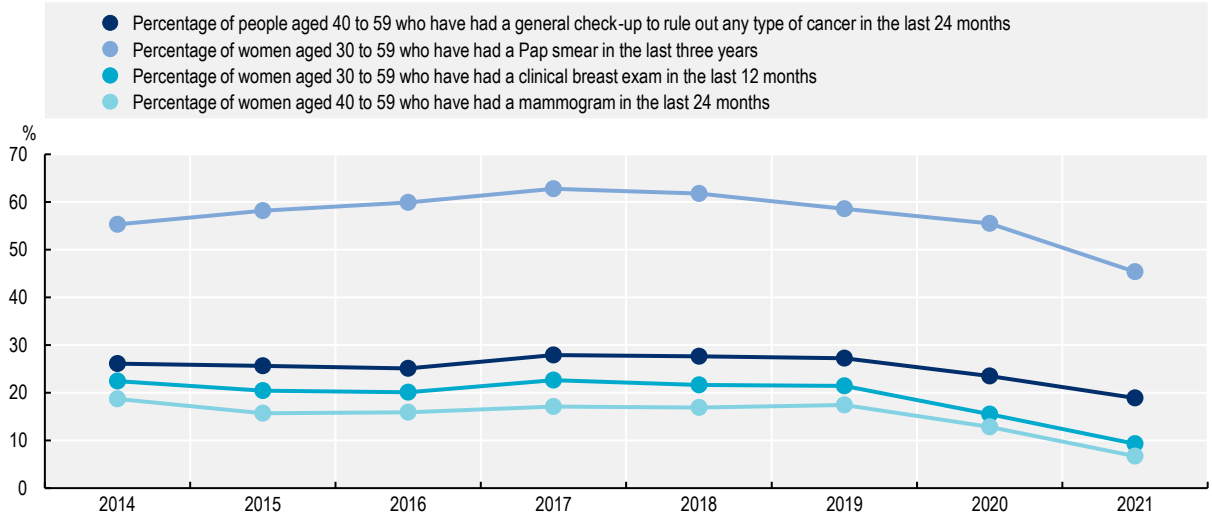
In 2013, Peru took steps to improve the quality and accessibility of cancer care through the implementation of the National Plan for Cancer Control, known as Plan Esperanza. This initiative led to the establishment of a National Registry of Cancer and a National Observatory of Cancer, bolstering cancer research and epidemiological studies. At the individual level, Plan Esperanza aimed to enhance counselling on health promotion, cancer prevention, early detection, and diagnostic improvements. Financial support for the

strategy came from an objectives-specific budget approved by the Ministry of Economy and Finance (Carrillo-Larco et al., 2022[1]).

As a result of Plan Esperanza, the number of people receiving cancer care increased significantly, rising from 25 359 in 2012 to 78 284 in 2015. Additionally, there was improved coverage of prevention and screening activities for cervical cancer and breast cancer. Screening coverage for women aged 30 to 49 years with cervical cytology increased from 7% in 2012 to 12.5% in 2015. However, available data highlight that enhancing the quality of cancer care within the Peruvian health system remains a critical challenge. Primary healthcare providers and facilities continue to grapple with ensuring broader coverage for cancer screening. For instance, from 2014 to 2018, there was minimal to no improvement in breast cancer screening coverage, despite the country adopting a population-based approach (PAHO/WHO, 2015[25]).

According to ENAHO data, there has been an overall decrease in screening rates for breast and cervical cancer screening rates over the last eight years (Figure 3.17). As of 2021, only 9.3% of women aged 30-59 reported having a clinical breast exam in the past year, compared to 22.4% in 2014. Similarly, the proportion of women aged 40-59 who reported having a mammogram in the last two years declined from 18.7% to 6.7% during the same period (INEI, 2022[26]). These declines were accelerated by the pandemic. However, even before the pandemic, the proportion of women undergoing cervical screening (specifically pap smears) had already started to decline. In 2017, the proportion stood at a high of 62.8%, but by 2021, it had fallen to 45.4%.

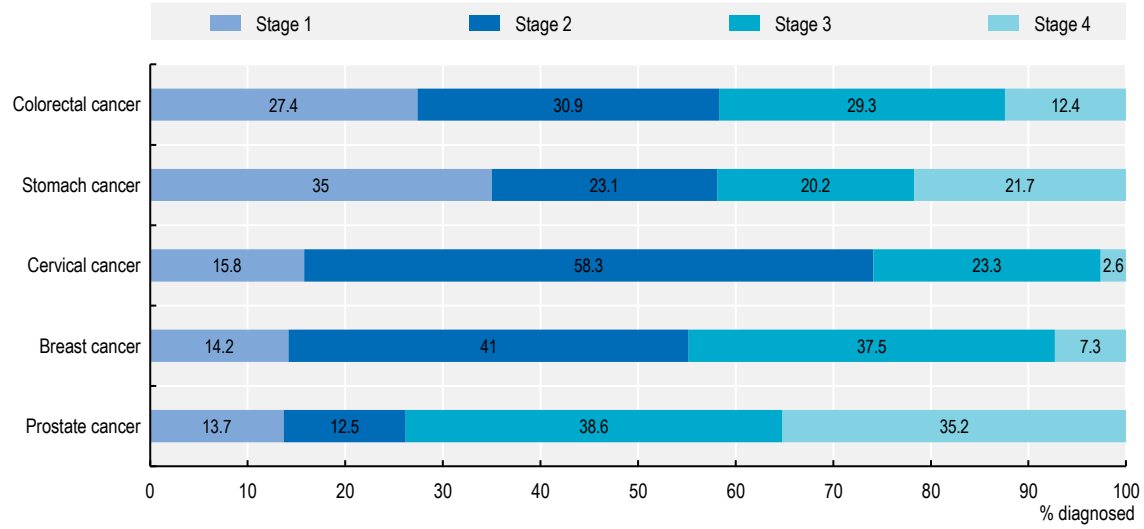
Figure 3.17. Rates of breast and cervical cancer screening, 2014-21



Source: Evolución de los Indicadores de Programas Presupuestales, 2013-21.

The insufficient supply of medical technologies poses a significant challenge to early disease detection and contributes to delayed diagnoses in Peru. According to the Ministry of Health, the number of mammograms has significantly decreased over time, plummeting from 51 906 in 2019 to 13 844 in 2021. Overall, the low participation in breast and cervical screening programmes leads to disease diagnosis at later stages. In Peru, only one out of every seven breast cancers and one out of every six cervical cancers are diagnosed at stage 1 (Figure 3.18).

Figure 3.18. Distribution of clinical stages at diagnosis by type of cancer, 2016



Note: Data from the Fondo Intangible Solidario de Salud (FISSAL).
Source: Plan Nacional de cuidados integrales del cáncer (2020 – 2024), http://bvs.minsa.gob.pe/local/MINSA/5341.pdf.

The Esperanza Plan was updated in 2020 with the National Comprehensive Cancer Care Plan (2020-24) to broaden its scope. This updated plan incorporates strategies for palliative care, extends cancer treatment to children and teenagers, and enhances the availability of cancer services across Peru, particularly beyond the metropolitan area of Lima (Box 3.4). In 2022, Supreme Decree No. 004-2022-SA approved the National Law on Cancer (Law No. 31336), which was subsequently modified in 2023 by Law No. 31870. The primary objective of this legislation is to guarantee universal, free, and priority health coverage for all cancer patients, regardless of the specific cancer type. The law emphasises promoting prevention and early detection, training of health workers, and institutionalising epidemiological surveillance by establishing a national registry of cancer patients.

The Law also creates the National Oncology Network, composed of regional oncology institutes and oncology centres across Peru, which are responsible for implementing – alongside the National Institute of Neoplastic Diseases – the National Policy for Fighting Cancer. The Network will seek to promote the implementation of specialised centres that deliver comprehensive cancer diagnosis, care, and follow-up at the national level.

Finally, additional provisions from Law No. 31870 allow MINSA to use differentiated purchasing mechanisms of products related to cancer care as well as promoting the centralised purchasing of strategic resources for prevention and control of cancer through the National Center for the Supply of Strategic Resources for Health (CENARES). In 2022, the “Oncologic Traffic Light” (Semáforo Oncológico) platform was launched. Developed by ten oncology patient associations, this platform monitors and reports on the implementation of the National Law on Cancer. It categorises tasks using characteristic colors: red (overdue), amber (due), and green (completed).

The National Law on Cancer represents a significant step toward improving cancer care, enhancing access, and promoting better health outcomes for all Peruvians.

Box 3.4. National Comprehensive Cancer Care Plan (2020-24)

The National Comprehensive Cancer Care Plan aims to Increase access to comprehensive cancer care through strategic actions with intercultural adaptation, health promotion, primary prevention, secondary prevention, early diagnosis, timely treatment, including palliative care delivered at the primary healthcare and community level. The new plan aims to consolidate efforts made to ensure that cancer care and prevention strategies are equitable and accessible to all Peruvians.

Key objectives include:

- Decrease the prevalence of cancer risk factors in the population.
- Increase the operational capacity and quality of health services for comprehensive cancer care.
- Improve the availability of medical supplies and technologies for comprehensive cancer care.
- Develop the model of integrated cancer care with a life course approach among IPRESS.
- Strengthen decentralised cancer services for timely comprehensive cancer care.
- Develop and integrate information systems for comprehensive cancer care.
- Develop clinical and public health research to improve decision making in comprehensive cancer care.
- Increase human resources and strengthen competencies for comprehensive cancer care.
- Increase financial protection for comprehensive cancer care.

Source: MINSA (2021[27]), Plan Nacional de cuidados integrales del cáncer (2020 – 2024), http://bvs.minsa.gob.pe/local/MINSA/5341.pdf.

References

Alvarez-Risco, A., S. Del-Aguila-Arcentales and J. Yanez (2021), “Telemedicine in Peru as a Result of the COVID-19 Pandemic: Perspective from a Country with Limited Internet Access”, *Am J Trop Med Hyg*, Vol. 105/1, https://doi.org/10.4269/ajtmh.21-0255. [19]

Australian Bureau of Statistics (2024), *Mental health findings for LGBTQ+ Australians*, https://www.abs.gov.au/articles/mental-health-findings-lgbtq-australians. [11]

Bellido-Zapata, A. et al. (2018), “Implementation and application of the “Clinical practice guideline for diagnosis, treatment and control of type 2 diabetes mellitus at primary care level”, in a network of public healthcare facilities in Lima”, *Acta Médica Peruana*, Vol. 35/1, http://www.scielo.org.pe/pdf/amp/v35n1/a03v35n1.pdf. [16]

Carrillo-Larco, R. et al. (2022), “Peru − Progress in health and sciences in 200 years of independance”, *The Lancet Regional Health - Americas*, Vol. 7/100148, https://doi.org/10.1016/j.lana.2021.100148. [1]

DIGEMID (2021), *Gasto de bolsillo en salud y medicamentos. Período 2020 al 2021.*, Dirección General de Medicamentos, Insumos y Drogas, https://repositorio-digemid.minsa.gob.pe/items/ff39a476-eb94-435d-8670-c422cc94be1e. [7]

Flores, O., Bell, R., Reynolds, R., and Bernabé, A (2018), "Older adults with disability in extreme poverty in Peru: How is their access to health care?", *PloS One*, Vol. 13/12, https://doi.org/10.1371/journal.pone.0208441. [17]

Fraser, B. (2022), "Efforts to improve medical education in Peru hit obstacles", *The Lancet*, Vol. 400, https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(22)02356-X.pdf. [18]

GOPBM/MINSA (2021), *Diagnosis of gaps of infrastructure and equipment of the health sector*, https://www.minsa.gob.pe/Recursos/OTRANS/08Proyectos/2021/DIAGNOSTICO-DE-BRECHAS.pdf. [15]

Human Rights Watch (2024), *Peru Walks Back Anti-Trans Guidance in Health System*, https://www.hrw.org/news/2024/06/27/peru-walks-back-anti-trans-guidance-health-system. [12]

INEI (2023), *Perú: Medición de la Pobreza Multidimensional, Dimensiones e Indicadores (Revisión 2023)*, Instituto Nacional de Estadística e Informática, https://cdn.www.gob.pe/uploads/document/file/5402872/4833930-informe-tecnico-medicion-de-la-pobreza-multidimensional-revision-2023%282%29.pdf?v=1712328912 (accessed on 1 March 2024). [8]

INEI (2022), *Perú: Evolución de los Indicadores de los Programas Presupuestales, 2013 - 2021*, Instituto Nacional de Estadística e Informática, https://cdn.www.gob.pe/uploads/document/file/3407415/Per%C3%BA%3A%20Evoluci%C3%B3n%20de%20los%20Indicadores%20de%20Programas%20Presupuestales%2C%202013-2021.pdf?v=1657735085 (accessed on 17 April 2024). [26]

MINSA (2024), *Minsa orders the cessation of the use of the term transsexualism in the chapter on Mental and Behavioral Disorders of the ICD-10*, https://www.gob.pe/institucion/minsa/noticias/977793-minsa-dispone-cese-del-uso-del-termino-transexualismo-en-el-capitulo-de-trastornos-mentales-y-del-comportamiento-de-la-cie-10. [13]

MINSA (2022), *Compendio Estadístico: Información de Recursos Humanos del Sector Salud Perú 2013-2021*, https://digep.minsa.gob.pe/bibliografica.html. [6]

MINSA (2022), *Technical Document "Model of Comprehensive Health Care for the Life Course for the Person, Family and Community (MCI)*, https://cdn.www.gob.pe/uploads/document/file/496394/resolucion-ministerial-030-2020-MINSA.pdf. [14]

MINSA (2021), *Diagnóstico de Brechas de Infraestructura y Equipamiento del Sector Salud*, https://www.minsa.gob.pe/Recursos/OTRANS/08Proyectos/2021/DIAGNOSTICO-DE-BRECHAS.pdf. [4]

MINSA (2021), *Plan Nacional de cuidados integrales del cáncer (2020 – 2024)*, http://bvs.minsa.gob.pe/local/MINSA/5341.pdf. [27]

MINSA (2021), *Situación epidemiológica de las Infecciones Asociadas a la Atención en Salud (IAAS)*, https://www.dge.gob.pe/portalnuevo/wp-content/uploads/2021/09/SDSS-IAAS_Primer-semestre-2021.pdf. [21]

Neelsen, S. and O. O'Donnell (2016), *Progressive Universalism? The Impact of Targeted Coverage on Healthcare Access and Expenditures in Peru*, https://papers.tinbergen.nl/16019.pdf. [3]

OECD (2020), *Realising the Potential of Primary Health Care*, OECD Health Policy Studie, OECD Publishing, Paris, https://doi.org/10.1787/a92adee4-en. [22]

OECD (2017), *OECD Reviews of Health Systems: Peru 2017*, OECD Reviews of Health Systems, OECD Publishing, Paris, https://doi.org/10.1787/9789264282735-en. [2]

ORHUS (2022), *Información de Recursos Humanos en el Sector Salud, Perú 2022*, Observatorio de Recursos Humanos en Salud, https://bvs.minsa.gob.pe/local/MINSA/7050.pdf (accessed on 6 May 2024). [5]

PAHO (2022), *La pandemia de COVID-19 provoca el mayor retroceso en la vacunación de los últimos 30 años*, https://www.unicef.org/peru/comunicados-prensa/pandemia-covid19-provoca-mayor-retroceso-30-anos-vacunacion-situacion-peru (accessed on 19 March 2024). [20]

PAHO/WHO (2015), *Country Capacity Survey Results, Pan American Health Organization & World Health Organization*, https://ais.paho.org/phip/viz/nmh_ccs_resultstool.asp. [25]

Parra Moscoso, M. (2017), "Propuesta de un modelo de gestión pública de referencia-contrareferencia para optimizar la calidad de servicio al paciente en una microred hospitalaria de Lima ciudad 2017". [24]

Romani, L. et al. (2021), "Factors associated with the nonuse of health services in LGBTI people from Peru", *Rev Peru Med Exp Salud Publica*, Vol. 2, p. 38, https://doi.org/10.17843/rpmesp.2021.382.6149. [9]

United States Census Bureau (2022), *LGBT Adults Report Anxiety, Depression at All Ages*, https://www.census.gov/library/stories/2022/12/lgbt-adults-report-anxiety-depression-at-all-ages.html. [10]

Videnza (2021), *Redes integradas de salud en el Perú*, Videnza Consultores, https://www.redesarrollo.pe/wp-content/uploads/2021/07/Redes-integradas-de-salud-en-el-Peru.pdf (accessed on 8 March 2024). [23]

Notes

[1] These include i.Law No. 30421 and Telehealth Regulations, ii. Telehealth Technical Standard, iii.Administrative Directive on Synchronous and Asynchronous Telemedicine., iv.Administrative Directive on Tele-guidance and Tele-monitoring. v.Telemanagement Administrative Directive, vi.National Telehealth Plan 2020 – 2023.

4 The sustainability and resilience of Peru's healthcare system

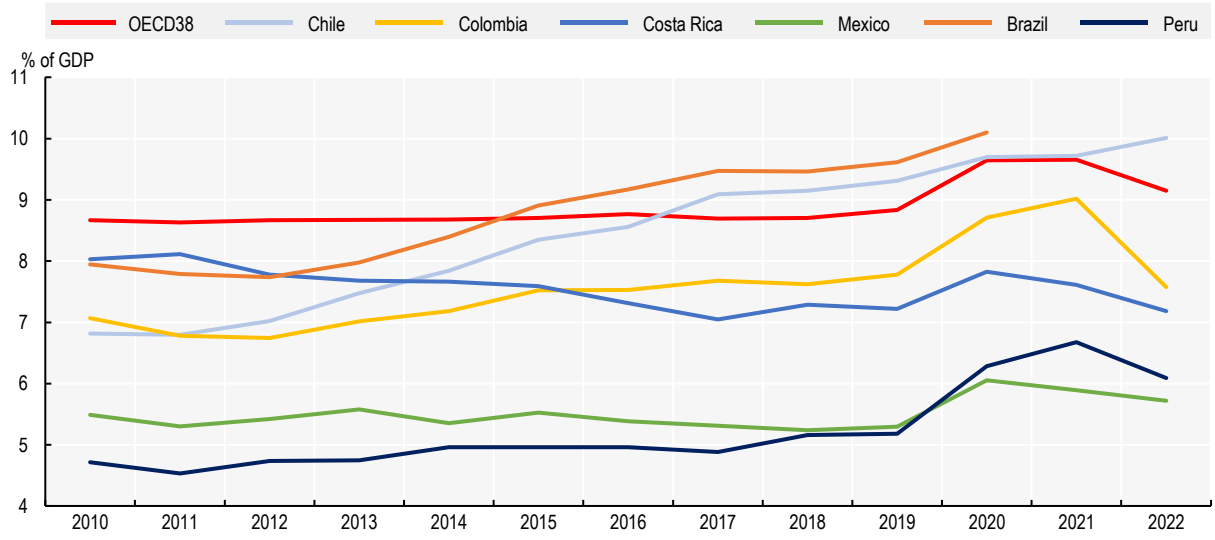
This chapter first examines the sustainability and efficiency of Peru's healthcare system. It highlights that while financial resources allocated to the Integral Health Insurance increased over the past decade, the financial sustainability of the Peruvian health system remains challenged by low public spending on health and a complex budgeting process. Facilitating a more efficient provision of healthcare could help secure additional funding for the Peruvian health system. When it comes to the resilience of health system, the chapter analyses Peru's preparedness for health crises and provides policy recommendations for implementing a One Health Approach to address antimicrobial resistance, strengthen the workforce planning strategy and revert the decreasing trend in childhood vaccination.

Strengthening health system financing and sustainability

The health system in Peru is underfunded, leading to high out-of-pocket spending

Healthcare in Peru is financed by a wide range of actors with the SIS, EsSalud, private health insurance and direct payment by private households being by far the most important payers. In 2022, Peru allocated 6.2% of its GDP to healthcare. This share is the second lowest in the OECD (after Mexico) and also below other Latin American countries such as Costa Rica (7.2% of GDP), Colombia (7.6% of GDP), Chile (10.0% of GDP) or Brazil (10.1% of GDP in 2020) (Figure 4.1). This corresponds to USD 924 per capita when adjusted for differences in purchasing power, 25% lower than across the LAC (at USD PPP 1 155). The share of health spending has been growing since 2010 up from 4.8% of GDP.

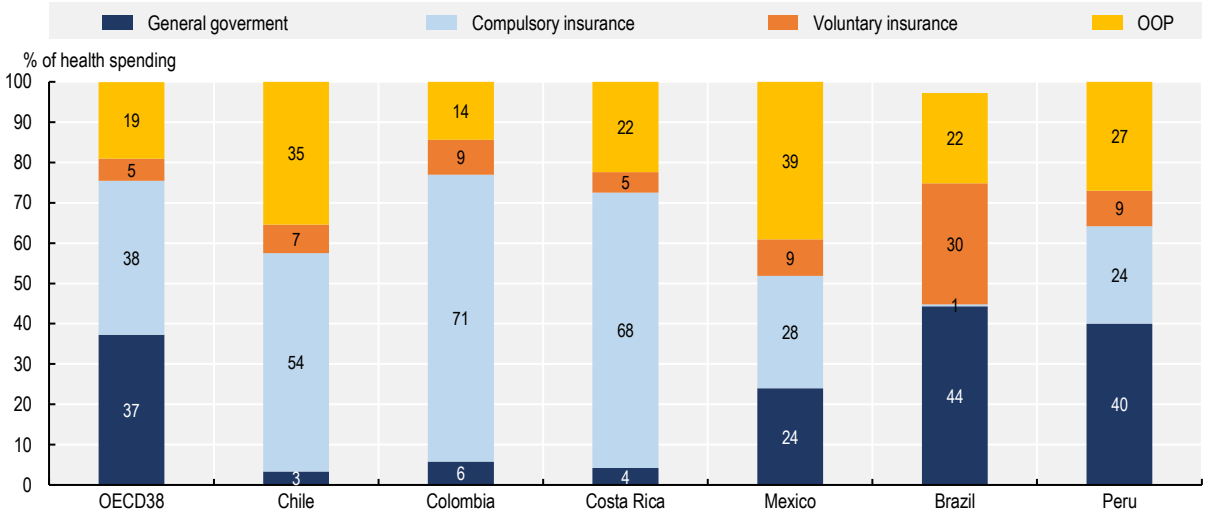
Figure 4.1. Health spending in Peru is amongst the lowest in the OECD



Source: OECD Health Statistics 2024 and Peru's submission to the 2024 OECD System of Health Accounts Questionnaire.

The country relies heavily on financing from the private sector, either via voluntary private health insurance or direct payments by household. In 2022, 64% of all spending was financed publicly (via SIS or EsSalud), 27% by out-of-pocket payments and 9% by private health insurance. While public health expenditures rose to 4.5% of GDP in 2021- slightly higher than in LAC (4% on average), OOP spending are still high (Figure 4.2). OOP spending in healthcare at 27% health spending, are now lower than in other LAC countries (at 32%), but still 42% higher than on average in the OECD. On a positive note, out-of-pocket spending decreased by more than 20% over the past two decades in Peru.

Figure 4.2. Composition of health spending by financing schemes in Peru in 2022

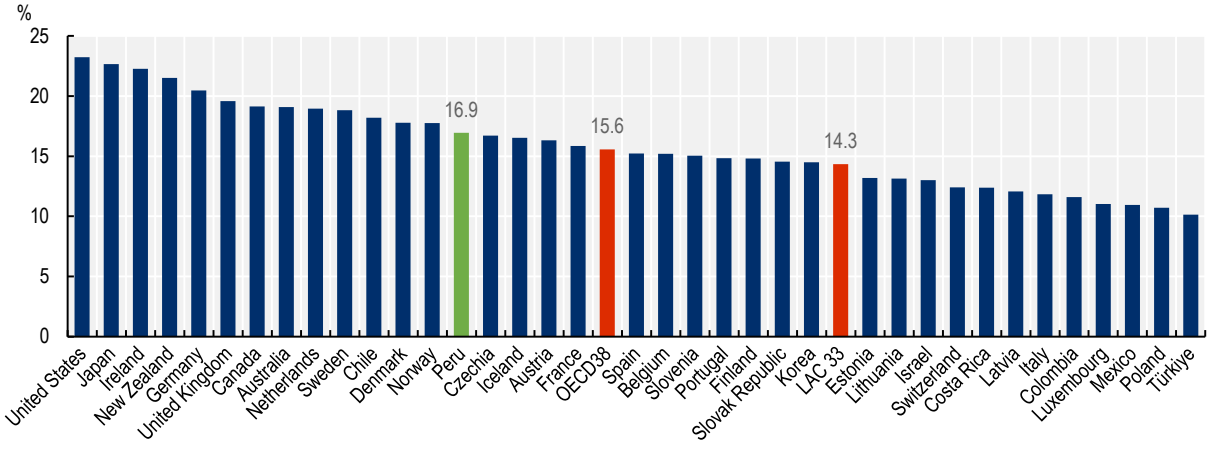


Source: OECD Health Statistics 2024 and Peru's submission to the 2024 OECD System of Health Accounts Questionnaire.

Peru devotes a similar share of its public budget to health as other OECD countries, but the level of overall public spending in Peru is half the OECD average

The level of public spending in Peru is much lower than in other OECD countries. In 2021, overall public spending is at 23% of GDP, compared to 40% of GDP in the OECD. This is also lower than in other LAC countries, such as Chile (26%) or Mexico (27%). However, comparing health spending from public sources with total government expenditure suggests that Peru devotes a similar share of its public budget to health as other OECD countries (Figure 4.3). According to the Global Health Observatory, Peru devoted 17% of its public budget to health, slightly higher than the OECD average of 16% and well above other LAC countries such as Brazil, Chile and Mexico, and the overall LAC average (14%) (WHO, 2021[1]).

Figure 4.3. Government health expenditure as percentage of total government expenditure



Source: OECD Health Statistics (2024), WHO Global Health Observatory.

Overall, low level of public spending is explained by low government revenues. According to the 2023 OECD Economic Survey, Peru is characterised by a relatively low tax burden and a narrow tax-base. The tax-to-GDP ratio is at 17%, well below the OECD average of 34% and the LAC average of 30% (OECD, 2023[2]). In addition, Peru has a narrow tax-base because of its large informal sectors, which means that Peru is unable to effectively collect payroll or consumption taxes. The low tax compliance lowers government revenues. While these issues have broader structural causes that go beyond the health system, these constrain the possibilities for meeting social needs and encouraging public investment in health infrastructure. Peru should therefore consider ways to raise public revenue to secure additional funding for the Peruvian health system. Leveraging efficiency gains and reducing wasteful spending in the health sector will help mobilise additional health resources to bring improvements in health infrastructure.

The Ministry of Economy and Finance has strict control over SIS's budget

SIS public budget for health comes from the central government resources (from the Ministry of Economy and Finance) from general taxation. Regional and local governments' health budgets are financed mainly by transfers from the central government (94%), donation and transfer from SIS. All the financial flows in the health sector cascade to the administrative offices of the public sector that manage resources, called "executing units" (*unidad ejecutoras*, UEs). At the regional government level, each of the 24 regional governments constitutes an executing unit, and there are 142 additional executing units (some hospitals and service networks mainly). Finally, at the local level, there are 199 provincial and 1 838 district executing units. Each executing unit receives funds from different institutions. Often, these come with different conditionalities, reporting mechanisms, even different performance targets, suggesting complex budgeting process which does not help to achieve transparency.

Budgeting is divided into budgetary units (*pliegos)*. Though there are five budgetary units at the national level in the health sector, which include the Ministry of Health, the National Superintendence of Health (SUSALUD), the Integral Health Insurance (SIS), the National Institute of Health and the National Cancer Hospital (INEN), each regional government (GORE) is also a budgetary unit. The resources of each *pliego* are in turn managed by executing units.

Annually, the Ministry of Economy and Finance, within the framework of Legislative Decree 1 440, submits the Multiannual Budget Allocation to the Council of Ministers for approval. In addition, the executing units evaluate their needs, based on historical spending, which are aggregated by the regional governments to formulate their budgetary requirements to the Ministry of Economy and Finance. Based on these requirements and the three-year Multiannual Budget Allocation, the MEF allocates an initial opening budget (the PIA) to each executing unit. The funds are allocated to SIS and regional governments. With the decentralisation of key competencies to the regions, regional governments have the autonomy to constitute a Budgetary Plan for their economic and financial administration.

The PIA is then adjusted during the budget execution according to needs and fulfilment of specific criteria such as performance ("Presupuesto Institucional Modificado, PIM). The budget execution starts on the 1 January, and the PIM is updated on a monthly basis. It is important to note that the PIA is a budget floor, which does not reflect how funds are going to be spent, but rather, which institution is responsible for deciding the allocation of resources and managing the funds throughout the fiscal year.

In addition, other transfer can take place during the year. This is mostly happening for the public sector, as SIS transfer resources to the executive units for primary healthcare providers and hospitals, and there are also transfers from MEF linked to good performance evaluations.[1] As the result, PIMs are generally higher than their initial budgets because of these transfers made by SIS and MINSA. Overall, the PIA does not show how resources should be prioritised and how annual policy objective should be achieved. It is recognised that budget execution by executing units is difficult due to insufficient planning and management capacity at regional and local government level (OECD, 2017[3]).

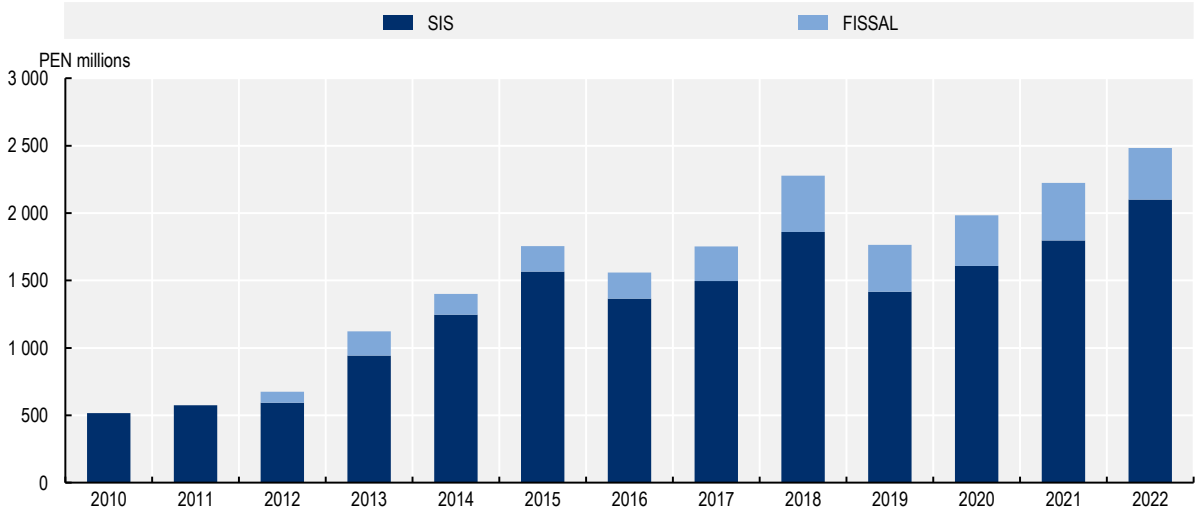
A recent analysis done by the Ministry of Economy and Finance for the National Comprehensive Plan for Cancer Control shows that while the Budget Programme 024 has been increasing from PEN 30 239 303 in 2011 to PEN 985 519 326 for the year 2018, the execution rates were only at 62% in 2019 (MINSA, 2021[4]). There are several factors explaining budget under-execution. These include a lack of regional and local capacity to manage and plan the health sector activities, shortages of health personnels and challenges in retention, as well as budget rigidities. Regions are tied to the general budget document, which is very detailed and divided into many budget line items. There is strong control to prevent reallocations across budget lines. This means that MINSA, regional governments or executing units may have funds for one line item, but need funds for another and are not allowed to reallocate the funds (OECD, 2017[3]). Recently to increase budget execution, the MEF has reduced delays in budget transfers. Increasing timeliness of transfers is important to leave sufficient time for receiving institution to spend funds.

Budgeting process should move away from historical budgets to better match its service obligations

The budgeting process, which is based on historical budgets, does not assure that SIS has access to resources that match the number of affiliates and the actual cost of providing health services. While the 2011 Law of Public Financing of the Subsidised and Semi-Contributory Regimes established that SIS would receive funding based on the premium and the number of beneficiaries, this has never been implemented in practice. The last actuarial study was carried out in 2015 using 2012 data. The 2015 study established an average expected cost of PEN 360 per affiliate per year. In 2024, SIS average expenditure per affiliate was PEN 96, which is almost three times lower the expected cost. This amount, however, exclude recurrent costs such as capital and labour which are paid by regional governments.

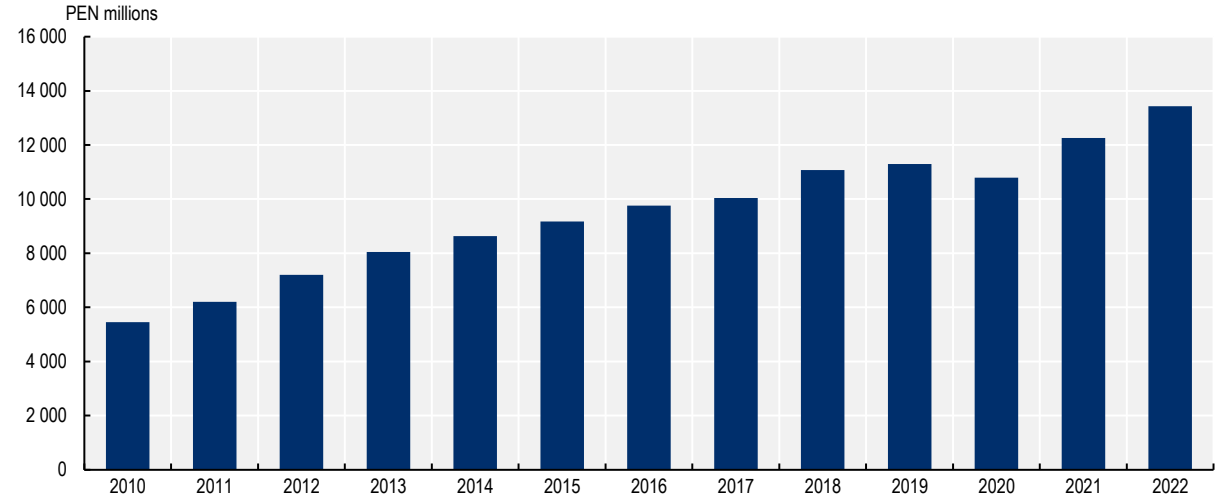
SIS financial resources increased almost 4-fold over the past decade, from PEN 517 million in 2010 to PEN 2 483 million in 2022 (Figure 4.4). SIS financial resources increased quicker that EsSalud one (Figure 4.5), but SIS affiliates doubled between 2020 and 2022 while EsSalud affiliates increased by 46% over the same period.

Figure 4.4. Evolution of the PIM, 2010-22



Source: Ministry of Economy and Finance (MEF), Gerencia Central de Gestión Financiera (GCGF).

Figure 4.5. Evolution of EsSalud revenues, 2010-22



Source: Ministry of Economy and Finance (MEF), Gerencia Central de Gestión Financiera (GCGF).

Peru should move away from allocating budgets based on historical expenditure for variable costs to better reflect its service obligations. This is even more important given the remarkable expansion of the compulsory health coverage over the past year. The Ministry of Health and the Ministry of Economy and Finance might want to conduct a new actuarial study to ensure that SIS receives a budget that better matches the number of beneficiaries. The social health insurance (EsSalud) is a good practice example in this regard, with actuarial studies conducted on a regular basis to analyse epidemiological data and predict the expected cost of providing care.

There are ways to achieve efficiency gains in Peruvian health system

Increasing the use of results-based financing (PpR) towards key health priorities and the health benefit packages

In addition to historical budgeting, Peru uses budgeting for results as a public management strategy to introduce incentives for public entities towards the achievement of results, improving the quality of public spending. The Budgeting for Results Programmes (Presupuestos por Resultados, PpR) was implemented in 2007 as part of the National Budget System Reform launched by the MEF. This initiative marked a transition from traditional budgeting methods, which allocated resources on historical basis, without a clear evaluation of the needs (like human resources and goods and services) to an approach centred on productivity and performance. The overarching objective was to improve public expenditure effectiveness by aligning resource allocation with government priorities and linking them to specific goals. The programme focuses on identifying the right mix of inputs to achieve the different intermediary products, which is a very good development.

In 2024, PPR programmes represented 40% of the total health budget. The Budgeting Programme can be Results Oriented Budgeting (PPoR), and Institutional Budgeting Programs (PPI). The PPoRs are intended to achieve results on the population and their environment, and are multisectoral and intergovernmental in nature, while the PPIs are intended to achieve sectoral results and institutional strategic objectives. In 2024, there were 12 programmes implying the health sector. Nine were PPIs, for which the Ministry of Health has the strategic and operational leadership, for example in the area of maternal and neonatal health, tuberculosis and HIV, non-communicable diseases, cancer or mental health (Table 4.1). It also

participated in the management of products related to the health function through three PPoRs: vulnerability reduction and emergency care due to disasters, early childhood development and reduction of violence against women.

Table 4.1. The PPR programme has nine programmes in the health sector

Budgeting for Results Programmes (Presupuestos por Resultados, PpR)		Execution
Institutional Budgeting Programs (PPI)	Maternal and neonatal health	90.1%
	TB-HIV/AIDS	95.0%
	Non-Communicable Diseases	95.8%
	Mental Health Monitoring and Prevention	94.0%
	Metaxenic Diseases and Zoonoses	96.3%
	Cancer Prevention and Control	93.6%
	Articulated Nutrition Programme	78.7%
	Reducing Mortality from Emergencies and Medical Emergencies	95.4%
	Prevention and management of secondary health conditions in persons with disabilities	97.1%
Results Oriented Budgeting (PPoR)	Disaster vulnerability reduction and emergency response	79.0%
	Specific products for early childhood development	97.9%
	Specific products to reduce violence against women	96.7%

Note: Budget execution was calculated using data from the Integrated Financial Administration System (SIAF).
Source: CGR (2023[5]), *Informe sobre presupuesto por resultados (PpR) en el Perú para el Informe de Auditoría a la Cuenta General de la República*, Contraloría General de la República, https://cdn.www.gob.pe/uploads/document/file/4922923/Informe%20T%C3%A9cnico%20002-2023-CG-OBANT%20-%20Programas%20Presupuestales.pdf (accessed on 17 April 2024).

The PpR established public spending accountability, mechanisms for data generation related to outcomes or outputs. It introduced evidence-based policy making and use of performance indicators to target the budget process. However, the budget document is designed at a very detailed level which does not allow for autonomy to MINSA and regional authorities to manage funds and take corrective actions (OECD, 2017[3]).

Evaluations of PpR programme in the health sector suggest positive results in terms of health budget improvement for specific areas and better health outcomes. In the area of maternal and child health, the PpR led to an increase in institutional deliveries performed by skilled workers from 89.2% in 2014 to 93.2% in 2021, increasing at a higher rate among women living in rural areas (68.5% in 2013 to 81.1% in 2021). Other improvements include a decrease in the prevalence of anaemia in the share of children between 6 months and three years of age from 46.4% in 2013 to 38.8% in 2021, as a result of the programme on articulated nutrition (INEI, 2022[6]).

While the implementation of PpR is a very positive development, the programmes are disconnected from other benefits packages such as PEAS and FISSAL, which are still based on historical budgeting methodology. According to a recent WHO analyses, approximately 40% of the services covered by PEAS are not part of the PpR (WHO, 2020[7]). Additionally, the current design of the PpR does not promote people-centred care, but rather focuses on specific health problems and vertical health interventions. For health benefit packages or other key health priorities, Peru could incorporate the use of PpR financing mechanisms to enhance efficiency, while allowing regional authorities some flexibility in fund management. Furthermore, the PpR could include a greater emphasis on activities related to integrated care, another key priority on the political agenda.

Rethinking hospital service delivery and payment systems

In 2023, 25 349 healthcare facilities, both public and private, were registered at RENIPRESS (the national Registry of Institutions of Health Services Provision), among which 616 were level II (558 small hospitals) and level III (44 large and specialised hospital centres). As evaluated by MINSA, the hospital sector within the SIS network is deemed to be more vulnerable than the primary healthcare sector. All hospital units in 16 out of 25 regions are classified as having infrastructure that is inadequate for ensuring proper patient care. In addition, previous evidence suggests allocative inefficiency in the Peruvian Health system with low productivity of Level III and Level II healthcare facilities (World Bank, 2021[8]). To achieve efficiency gain, Peru could repurpose small hospitals into intermediate care facilities to consolidate resources (such as staffing, equipment and infrastructure) in larger hospital centres. Strengthening of telehealth application (notably the use of tele-expertise services) and triaging patients according to the level of urgency will be necessary not to compromise access to acute care for patients in remote areas. In a similar vein, expanding medical transportation from rural to better-equipped general hospitals in urban areas will also be critical to ensure timely access to urgent care. Such reforms would help to achieve gains in allocative efficiency. The specialisation and concentration of hospital services is a reform that many OECD countries have undertaken to achieve efficiency gains, while promoting access and care quality (Denmark, Portugal for example).

Peru has also established Public and Private Partnership hospitals within SIS and EsSalud networks respectively. These are public institutions with administrative, financial and asset management autonomy under contracted private management. Hospital services are jointly provided by public and private parties sharing financial, technical and operational risk. The overarching objective is to improve general performance in the health sector and also ensure that private funds will finance a new set of urgent hospital investments. Overall, there are five PPP health projects in Peru, which have contributed to improve access to quality services, as demonstrated by the National Institute of Child Health of San Borja whose PPP contract is for the management of ten non-clinical services.

The payment transfers from SIS to regional authorities consist of two components. The basic payment is a fee-for-services mechanism, and the additional component is based on a payment for package of surgical services. The latter component has been introduced in 2024, and includes payments for C-section, extracapsular and phacoemulsification type of cataract treatment, conventional inguinal hernia repair in adult patient, conventional and laparoscopic cholecystectomy in adult patients. In 2023, payments started to be made through the pre-purchase of service, through a prospective payment mechanism. The current changes in hospital's payments are good steps to better standardised care and limit incentive for over-production.

To improve efficiency, many OECD countries have also introduced prospective case-based payment system based on Diagnosis-Related Groups (DRGs) to pay for hospital activity. With DRGs, patients are grouped into different patient groups reflecting the resource-intensity of the treatment. Different weights are associated with the various DRGs reflecting average treatment costs. After discharge, the hospital receives a payment reflecting the weight of the DRG. Peru should consider developing a mixed payment system for hospitals, which combines fee-for-service and payment for a package of services, and progressively transitions through the use of Diagnosis-Related Groups (DRGs). As demonstrated by previous OECD work on payment systems, this would necessitate a detailed hospital cost accounting system and meticulous monitoring of care quality.

Strengthening procurement planning would help to address medicines shortages

The General Directorate of Medicines, Supplies and Drugs (Dirección General de Medicamentos, Insumos y Drogas, DIGEMID), which is part of the Ministry of Health, regulates pharmaceuticals, medical devices and other health-related products for the various healthcare sub-systems in Peru. This responsibility covers

the regulation of the manufacture, import, export, storage, distribution and commercialisation of these products. DIGEMID is also responsible for evaluating products, inspecting pharmaceutical establishments and issuing certificates and relevant documents. DIGEMID also has a key role in pharmacovigilance, access to medication and proper and rational use of medicines.

MINSA, through DIGEMID, and in co-ordination with the different entities of health public sector (EsSalud, Health of Armed Forces) establishes a single national list of essential medicines (PNUME). The PNUME covers approximately 80% of the burden of disease and as of 2023, it included 796 essential medicines, which should be covered by all public sub-sectors. The PNUME is updated every two years, during which Complementary Lists (cancer, mental health, HIV etc) are introduced on an ad hoc basis and eventually added to the PNUME.

For the public sector, there are two main purchasers: the National Center for the Supply of Strategic Health Resources (Centro Nacional de Abastecimiento de Recursos Estratégicos en Salud, CENARES) on behalf of MINSA and the Strategic Goods Supply Center (Central de Abastecimiento de Bienes Estratégicos, CEABE) on behalf of EsSalud. There is centralised procurement for certain groups of medicines, through two main mechanisms:

- Centralised procurement for the purchase of strategic products, which MINSA offers to all citizens of the country as a public health right, regardless of their socio-economic or insurance status. This is the case of vaccines, treatments against TB or HIV/AIDS, medicines or supplies against metaxenic diseases such as malaria, dengue, zika, chikungunya and others. CENARES directly purchases and distributes these drugs (Ugarte Ubilluz, 2019[9]).
- Corporate purchasing (*compras corporativas*) for the procurement of non-strategic products, which include some of the most frequently used medicines such as antibiotics, anti-inflammatory drugs, antihypertensives, antidiabetics, anti-ulcer drugs or sedatives. The budget for these drugs is allocated to each health entity in the national territory (hospitals, executing units, regional health directorates). First, hospitals, clinics, or regional governments interested in this scheme submit their yearly medication requirements to DIGEMID, which compiles a list of potential medications for purchase. Following this, CENARES conducts reverse auctions, setting a maximum price and allowing suppliers to offer lower bids competitively to secure the best prices for specific quantities. The process concludes with each participating entity or regional government formalising purchase agreements with the suppliers who offer the best terms for price and quantity. This mechanism offers the advantage of unifying purchases across the sub-regimes: regional governments, Armed Forces and National Police health systems as well as EsSalud (Ugarte Ubilluz, 2019[9]). In the case of drugs for oncology and rare diseases, which often pertain small quantities and from specific suppliers, these are purchased directly by each health entity and depend on the budget allocated by the MEF (Ugarte Ubilluz, 2019[9]).

Data from SUSALUD show that in 2022, the most frequent category of complaints were related to difficulties in accessing health services (28.6%) and particularly in accessing medicines or health products (22.2%) (SUSALUD, 2022[10]). The lack of available medicines in public facilities often results in patients having to buy the prescribed medicines out-of-pocket in private pharmacies. Not surprisingly, using ENAHO data, the DIGEMID has estimated that the category of medicines made up the highest share of out-of-pocket healthcare expenditures for 2020 and 2021, at 36.5% and 32.2% respectively (DIGEMID, 2022[11]).

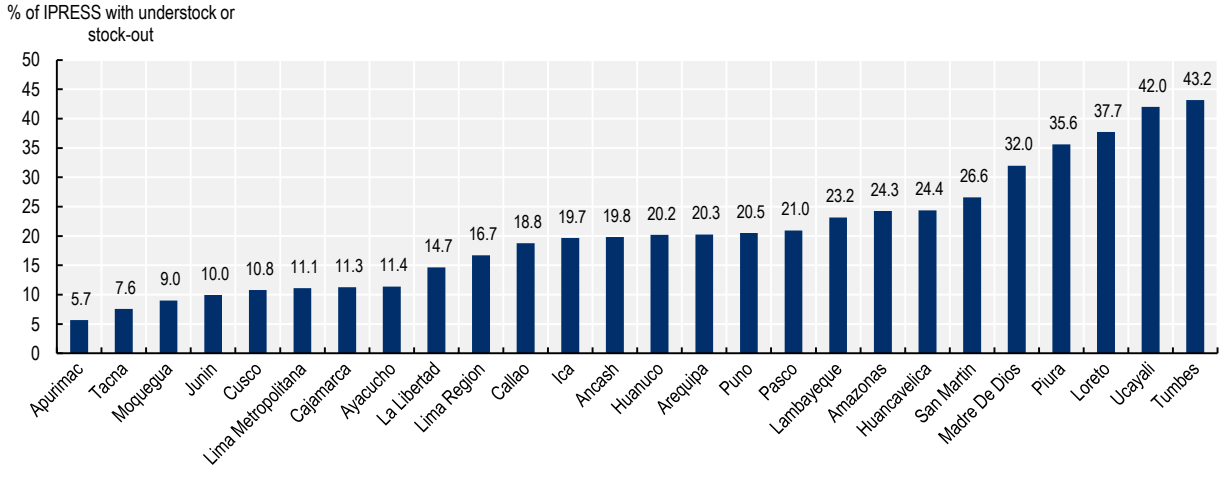
The lack of access to medicines as a result of shortages in public health facilities is reflected in the indicator published by the Integrated Supply System for Medicines and Medical and Surgical Supplies (SISMED), which measures the share of essential medicines with a stock greater than or equal to 2 months of available stock of the adjusted monthly average consumption, for the facilities belonging to MINSA and regional governments. As of February 2024, 20% or more of the health facilities in over half of regions were considered to be understocked or out-of-stock according to this indicator (Figure 4.6). Although this

indicator is used to inform procurement planning, SISMED calculates this at the end of the month by consolidating the information received from regional governments, meaning procurement planning is often done with outdated information instead of responding to current needs. Progress in this area can be found in EsSalud's facilities in Lima and Callao, where a system for inventory management makes it possible to see the stocks available in real time. Additionally, interoperability with EHR allows EsSalud to measure the extent to which prescribed medicines were dispensed to the patients (Videnza Consultores, 2020[12]; Videnza Consultores, 2021[13]; Videnza Consultores, 2022[14]; Movimiento Salud 2030, 2021[15]).

Other reasons for shortages include delays from the executing units from MINSA and regional governments in preparing and submitting their requests to CENARES, which results in delays for both budgeting and procurement. According to the MINSA, while the mechanism for corporate purchases has improved the affordability of products (by aggregating demand and lowering prices), it has also contributed to shortages of medicines in public health facilities since these purchases require regional or local governments, who often lack resources and expertise, to formalise their own purchase agreements with suppliers at the final stage. Additionally, for medicines that have to be purchased directly by regional governments, as is the case once stock-out has been reported, complex public procurement regulations and lack of administrative capacity at the regional level also results in delays for the acquisitions (Videnza Consultores, 2020[12]; Videnza Consultores, 2021[13]; Videnza Consultores, 2022[14]; Movimiento Salud 2030, 2021[15]).

Peru would need to strengthen the planning behind the procurement of medicines through information systems that allow for a better estimation of health demand so that the system can respond in a timely manner. Data from electronic health records and SISMED could be used to monitor dispensing and anticipate shortages so that authorities can be notified and engage in procurement. Additionally, MINSA could increase stewardship to support regions with insufficient planning or administrative capacity for carrying out their purchases. Purchase agreements for non-strategic products could be supported or delegated at central level as done with the centralised procurement for the purchase of strategic products (used for public health interventions), which are purchased directly by CENARES.

Figure 4.6. Share of health facilities (IPRESS) with understock or stock-out across regions, as of February 2024



Source: SISMED (2024[16]), *Resultado del indicador ficha No31 por región del marco de los Convenios de Gestión 2024*, https://app.powerbi.com/view?r=eyJrIjoiMmNjNTBmOWItZWM3NS00YTgxLTk5M2ItOGNjNWEyOTU3ODczIiwidCI6IjM0ZjMyNDE5LTFjMDUtNDc1Ni04OTZlLTQ1ZDYzMzcyNjU5YiIsImMiOjR9.

There is room for greater availability of generics

The development of generic markets is an opportunity to increase efficiency in pharmaceutical spending and reduce out-of-pocket payments for patients. Underutilisation of generic drugs can be a substantial source of inefficiency as generics have the same therapeutic effects as branded alternatives but are typically much less expensive. In 2019, DIGEMID conducted an evaluation of the availability of generic INN medicines for a set of 79 essential medicines in private pharmacies. For all regions excluding Lima, the average availability of generic medicines in private pharmacies was 42%, ie. on average 42% of the 79 medicines was available as generics in any given private pharmacy, whereas in Lima it was 40.5%. The availability of medicines varied widely across pharmacies, ranging from 1% to 76%. The availability of generic medicines in private pharmacies also varied widely across regions, ranging from an average of 29% in Pasco to 71% in Tumbes. Additionally, of the medicines assessed, 61% were in stock in less than 50% of pharmacies (Congreso de la República, 2019[17]).

In October 2019, emergency decree N°007-2019 made it mandatory for private pharmacies to maintain generics in stock for 34 essential medicines. In May 2024, Law Nº 32 033 20 made it mandatory for private pharmacies and health facilities to maintain 30% of their stock as generics for 434 essential medicines. This law is a step in the right direction towards bringing down out-of-pocket expenditures and realising efficiency gains in line with those of OECD countries where generics make up on average 53% of the volume sold in community pharmacy markets.

Further consolidating Health Technology Assessments to perform economic evaluations more systematically

Peru has taken important steps in developing its capacity for health technology assessment. In 2015, EsSalud's Institute for Health Technological Assessment and Research (Instituto de Evaluación de Tecnologías en Salud e Investigación, IETSI) started to carry out systematic reviews related to devices, equipment and medications. Additionally, the Center for Health Technology Evaluation (CETS) which belongs to the National Institute of Health (INS) has conducted several HTAs for the Ministry of Health in the past, although these assessments seem to have been of an informative character, ie. they did not provide a decision on whether the technology was recommended or not (Taype-Rondan et al., 2022[18]).

In 2020, the National Network of Health Technology Assessment (Red Nacional de Evaluación de Tecnologías Sanitarias, RENETSA) was created, with the aim of co-ordinating and harmonising the HTA activities across different sectors of the Peruvian health system. RENETSA is made up of DIGEMID, IETSI and CETS-INS, and is led by the latter. The establishment of RENETSA represents a significant step towards consolidating HTA practices in Peru, promoting the efficient use of healthcare resources. Moreover, on February 2022, a technical document describing the methodology to be followed by RENETSA when performing an HTA was issued through Ministerial Resolution N° 112 –2022/MINSA.

From 2021, the Cancer Law gave responsibility to RENETSA for the evaluation of high-cost oncological medicines not included in the PNUME, its Complementary Lists, or medical devices that are necessary for the treatment of oncological diseases, subject to multi-criteria evaluation (such as analysis of disease burden, therapeutic impact, safety profile, level of innovation, equity, or unmet need). Various stakeholders are involved in the process (including government agencies, academic institutions, healthcare providers) and the recommendations derived from this multi-criteria HTA is binding for the coverage of these technologies throughout the public sector. In addition, high-cost thresholds have been established to prioritise pharmaceutical products that require the development of health technology assessments. In a similar vein, the modification of the Rare and Orphan Diseases Law establishes that health technologies for the treatment of these diseases will also be evaluated through RENETSA's multi-criteria HTA. By December 2023, 170 HTA applications had been submitted and 20 recommendations for the coverage and use of high-cost cancer technologies had been issued by RENETSA.

So far, only DIGEMID[2] has carried out economic evaluations of oncology drugs as part of their evaluations, while those carried out by IETSI and CETS focus on safety, efficacy, and clinical effectiveness. In 2022, DIGEMID established the first cost-effectiveness (CE) threshold[3] for the analysis of interventions, health technologies and pharmaceutical products (Fernandez-Navarro, Gonzales-Saldaña and Araujo-Castillo, 2022[19]; Saldarriaga, 2023[20]), although the extent to which this has been used is not clear. Integrating economic assessments into routine HTA practices could improve decision-making for the reimbursement of medicines, especially in light of the high prices of novel medicines for oncology and rare diseases.

Ensuring adequate and efficient workforce

In Peru, the General Directorate of Health Personnel develops human resources for health policies and carries out monitoring and evaluation of existing human resources for health based on the 2017 Supreme Decree 008-2017-SA. In addition, Regional Health Directorates have regions dedicated to managing human resources at the local level, though these regions are not explicitly tasked with assessing needs.

Physician density is more than half the OECD average

Between 2013 and 2022, the number of physicians per 1 000 inhabitants increased by 27%. Despite these improvements, the density of physicians remained below the OECD average. In 2022, Peru has 1.6 physicians per 1 000 habitants, slightly lower than the average in the LAC region (2) and more than half the OECD average (3.8). In a similar vein, the density of general medical practitioners in Peru is very low. The number of primary healthcare physicians per 1 000 inhabitants increased from 0.2 to 0.3 inhabitants from 2009 and 2020, compared to an increase from 0.9 to 1.2 per 1 000 inhabitants from 2000 to 2020 in OECD countries (OECD, 2022[21]). Peru also faces the issue of misdistribution of healthcare workers between geographical areas. In 2021, only 9.8% of doctors were located in rural areas, a share that has progressively decreased since 2013 (at 15%) (MINSA, 2022[22]).

Nursing profession is in expansion, but still lower than the OECD average

Currently, there are 114 000 nurses in the country, which is equivalent to almost 2 nurses per 100 000 population. More than 70% of nurses work in MINSA or regional government health facilities, 17% in EsSalud facilities, and 7% in private facilities.

In 2022, Peru reported 2 nurses per 1 000 population, in sharp contrast with the OECD average of 9.1 and only above Colombia (1.6). While Peru ranks as one of the lowest in terms of density of nurses per capita in the OECD, the number of nurses per 1 000 habitants increased by 68% between 2013 and 2022. This trend points to large improvements in the availability of nurses in Peru. However, the uneven distribution between rural and urban areas follows a similar trend observed with physicians, with only 14% of nurses working in rural areas in 2021 (MINSA, 2022[22]).

Over the last two decades, the number of primary healthcare teams expanded rapidly in Peru. The number of PHC teams grew by 38% over the past decade, reaching 0.30 PHC teams per 1 000 inhabitants in 2020 (OECD, 2020[23]).

Investment in workforce planning and adequate incentive structures is needed to improve retention of health workers

Human health resources policies have been implemented in Peru to address geographic imbalances in the distribution of healthcare and close the gap between rural and urban areas. These include the creation of the National Health Personnel Register (INFORHUS) in 2013 to adequately monitor workforce level and plan for current and future needs. In addition, the Servicio Rural y Urbano Marginal en Salud (SERUMS)

programme requires health professionals seeking employment in the public sector to complete an internship in either rural or marginal urban areas, typically for one year. SERUMS regulate the practice of several healthcare workers including physicians, nurses, dentists, obstetricians or psychologists. In 2024, a total of 8 048 budgeted positions are available for health professionals who perform the SERUMS service in health facilities located in approximately 2 294 of the country's poorest districts. The SERUMS service is a mandatory requirement to apply for positions in public entities, to follow professional specialisation programmes and to receive public scholarships. Previous evaluation suggests only 25% of these professionals remain in the public sector one year after completing their SERUMS internship (OECD, 2017[24]). Other evidence shows that the lack of medical equipment and supplies, as well as excessive workload (with both clinical and administrative work) are the main problems reported by physicians under the SERUMS programme (Taype-Rondan et al., 2016[25]).

Peru has also sought to increase the competencies of physicians in family and community medicine through the development of the Programa Nacional de Formación en Salud Familiar y Comunitaria (PROFAM). PROFAM is implemented by the Ministry of Health through the National School of Public Health. The diploma in family medicine and community health offers a comprehensive and integrated approach to care. It includes strategic training in areas such as mental health, public health, and public management. Although this training is not mandatory for primary care practice, it is a necessary requirement to receive a financial bonus when practicing in primary healthcare practices. According to information provided by MINSA, there were five training actions executed in the PROFAM self-training modality in 2017, with a total of 23 512 participants. In the second phase in 2018, 21 training actions were executed, with a total of 74 994 participants.

Emigration of healthcare workers is a driving factor explaining the shortage of health workforce in Peru. According to the ENSUSALUD survey, around 7% of healthcare workers intend to emigrate, notably due to burnout syndrome, poor working conditions, and low wages. These factors pose significant barriers in attracting and retaining healthcare workers in the public sector and in remote areas. Notably, there are salary differences across regions, to the detriment of rural healthcare workers. For example, the monthly average salary for nurses in urban areas is PEN 2 981, compared to PEN 2 818 in rural areas. The monthly average salary for doctors in urban areas is PEN 6 208, compared to PEN 5 430 in rural areas. Peru needs to implement adequate incentive structures to improve the recruitment and retention of health workers. One option for consideration is to provide a higher level of financial incentives than the one currently provided (which were PEN 1 850 and PEN 1 350 monthly for physicians and nurses respectively as of 2024) to attract and retain them in underserved areas. Some OECD countries, such as Chile, combine financial and non-financial incentives to attract and retain physicians in underserved communities.

One issue that may explain problems in accessing SIS or EsSalud services is the widespread use of "dual practice", which means that many physicians split their time between public and private practice. While the regulation prohibits doctors from having more than one job in the public sector, physicians still have opportunities to take on additional tasks in the lucrative private sector. The incentive for physicians is to obtain better incomes, in the face of low public salaries. Peru needs to properly monitor and regulate dual practice. In 2023, SUSALUD launched a National Platform for Care Shifts named TuASUSALUD, where citizens can access the scheduled hours of health personnel in both public and private establishments, thereby improving transparency and avoiding physicians being scheduled in different places at the same time. Across OECD countries that have taken measures to increase physicians' time to treat patients in the public sector include Ireland and Israel. Part of their strategies include a pay raise for public doctors that forgo the option to work in the private sector. Another option for consideration would be to allow physicians to have more than one job in the public sector. In the context of the dengue emergency, the government has issued the Supreme Decree 004-2024-SA that allows specialist doctors and nurses to temporarily have more than one position in the public sector. The authorisation should be maintained over the long term to address shortages of health workers in the Peruvian Health System.

In addition, Peru would need to invest in the nursing professions. Extensive international evidence supports the transfer of roles traditionally performed by doctors to nurses and other allied health professionals. An initial step would be to train more nurses while investing in advanced practice training. In 2022, 80% of OECD Member countries have increased or are planning to increase training capacities in nursing education. This strategy aims at addressing physician shortages, and reducing pressure on doctor. Community health workers offer another potential avenue for Peru to carry out health prevention and health promotion, communicating with communities in their own language and bridging the gap between traditional and modern medicines. The involvement of community health workers is especially important to support healthcare delivery in the Andes and Amazonas regions, which are very remote areas with populations of indigenous origin. To date, the training and participation of community health workers have not been formalised in Peru.

Designing effective human health resources policies most importantly requires high-quality and comprehensive data that can be used for monitoring health labour market dynamics and evaluating the impact of policies. Global experiences underscore the centrality of investments in information systems that provide reliable and up-to-date information on human resources for health. This helps inform further investigations and policy development. In Peru, both the Ministry of Health and regional authorities use INFORHUS to assess human resources for health needs. However, data on health workers employed in sub-systems are often unavailable due to the lack of reporting requirements for EsSalud and private providers. The dearth of data on the availability of health workers in other sub-regimes undermines efforts to assess human resources for health needs. This partly explains why Peru does not regularly publish recent work focusing on human resources for health assessment. The last reports evaluating the supply of and demand for specialists, and making an assessment of regional goals, were published in 2011 and 2013.

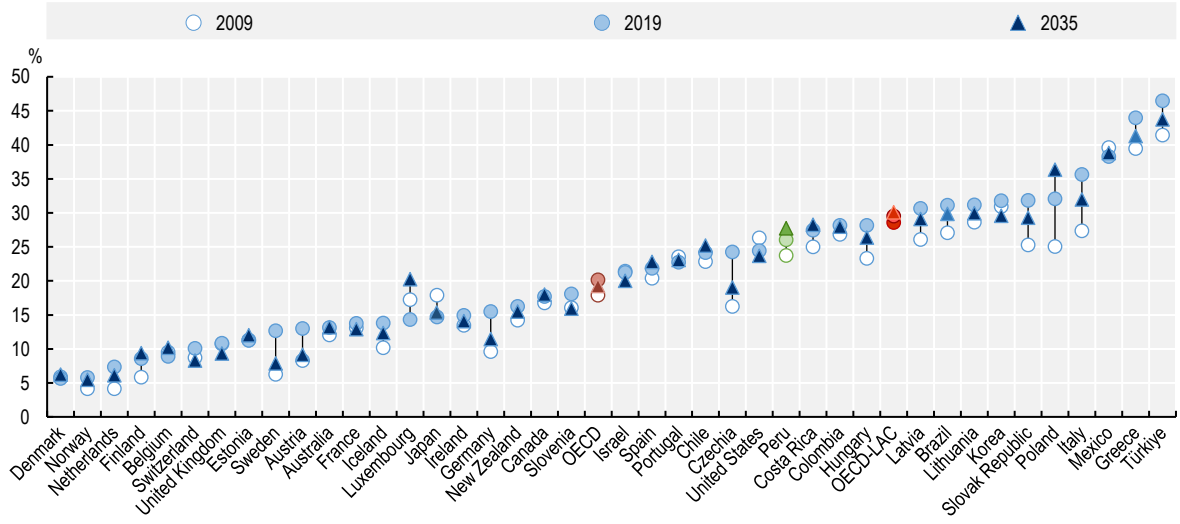
MINSA could also provide support to regional authorities that lack the sufficient scale, technical, and financial capacity to assess their own needs and formulate policy options. Following the 2013 assessment of regional human resources for health goals up to 2015, the Ministry of Health published a set of technical guidance notes in 2014. These were published to lay out methodological approaches that can be used to calculate human resources for health gaps at primary, secondary, and tertiary care. This is a good practice that MINSA should replicate.

Prevention and preparedness

Although the national policy landscape for AMR has seen significant improvements, there remain gaps in the practical implementation of these policies

While antibiotics have significantly improved population health, the overuse of antibiotics exerts selective pressure on microorganisms leading to antimicrobial resistance (AMR). In the last 20 years, Peru exhibited the highest growth rates in total antibiotic consumption. In Peru, total antibiotic consumption more than double, rising from 4.5 DDD per 1 000 inhabitants per day in 2000 to 10 DDD per 1 000 inhabitants per day in 2015. By comparison, in the OECD, over the same period, total consumption grew on average across countries by 9% from 21.4 to 23.3 DDD per 1 000 inhabitants per day. Overall, resistance proportions, averaged across 12 priority antibiotic-bacterium combinations, are projected to increase in Peru by 1.7 percentage points between 2019 and 2035 (OECD, 2023[26]).This is compared to an average reduction of 1 percentage point across the OECD. By 2035, AMR rates in Peru will average 27%, compared to 20% across the OECD and 30% in LAC countries (Figure 4.7).

Figure 4.7. Peru will see an increase in antimicrobial resistance proportions between 2019 and 2035



Note: For countries on the left of this graph, resistance proportions are higher in 2035, compared to 2019. For countries on the right, rates are lower in 2035. Otherwise, countries are sorted left to right based on ascending resistance proportions in 2019. Averages for different country groups are unweighted.
Source: OECD (2023[26]), *Embracing a One Health Framework to Fight Antimicrobial Resistance,* https://doi.org/10.1787/ce44c755-en.

Peru has been making progress in implementing policies to strengthen the resilience of its health system to Antimicrobial Resistance (AMR). The Multisectoral Plan to combat antimicrobial resistance for 2019-21 was approved through Supreme Decree 010-2019-SA. Currently, a new plan for 2024-26 is under development. In addition, Peru has established a permanent Multisectoral Commission against AMR via the Supreme Decree 010-2019-SA. This commission aims to improve surveillance systems to monitor progress towards national targets. The National Institute of Health's portal provides public access to information on antibiotic use and AMR.

Remarkably, Peru is advancing towards a One Health approach by developing an integrated Antimicrobial Resistance (AMR) surveillance system that spans four main sectors: health, agriculture, production, and environment. These sectors cover human health, animal health, food, and the environment. MINSA will be involved, along with the Ministry of Agrarian Development and Irrigation, the Ministry of the Environment, and the Ministry of Production. The integrated surveillance system is bolstered by the development of a new "Framework Law for the Containment of Antimicrobial Resistance under the One Health Approach". This law aims to establish essential public mechanisms for co-ordination, management, and budgetary allocations to address antimicrobial resistance comprehensively under the One Health approach.

While the implementation of the national policy against AMR clearly demonstrates Peru's commitment to addressing this public health issue by adopting a One Health Approach, a recent OECD analysis identifies some gaps in the level of policy implementation (OECD, 2023[26]). Firstly, although a National Action Plan against AMR has identified funding sources, is being implemented, and involves relevant sectors, it lacks an operational plan. Additionally, while Peru has guidelines in place for optimizing antibiotic use in human health for all major syndromes, they are not implemented across all healthcare facilities. Monitoring and surveillance are also not utilised to inform policy action, update treatment guidelines, and essential medicines lists, and data on antibiotic use are not shared with prescribers (OECD, 2023[26]). Regarding AMR awareness, there are no nationwide, government-supported activities to raise AMR awareness and facilitate behaviour change among priority stakeholders, with regular monitoring of these activities. Some awareness activities are carried out at local and regional levels about the risks of AMR and actions to

address it, targeting some but not all relevant stakeholders. Peru also provides training and professional education opportunities to raise awareness of AMR among health professionals in the human health sector, though AMR is not systematically incorporated into pre-service training curricula for all relevant human health cadres (OECD, 2023[26]).

Peru has increased its crisis outbreak preparedness by bolstering its laboratory capacities

Despite Peru's long history in risk reduction and disaster response, the resilience of its health system was tested during the COVID-19 pandemic. The pandemic placed significant pressure on the health system, exposing weaknesses in crisis preparedness and management. Since 2019, Peru has aligned its policies with the International Health Regulations (IHR) and submits annual reports to the WHO on its compliance with disaster risk reduction measures. In 2019, Peru's average score for IHR core capacity was 59. This was lower than the score in both other OECD and LAC countries such as Argentina (64), Brazil (92), Chile (76) and Costa Rica (77) (WHO, 2022[27]). However, the average of 15 IHR core capacity scores has improved by 6% between 2021 and 2022. Still in 2023, the State Party Self-Assessment Annual Report suggests particular vulnerability in the area of co-ordination of functions, funding, human resources, emergency planification and management, supply chain management, health service delivery, prevention and control of infections and on risk communication and community involvement. For each area, Peru's score stands at 20%.

Three different institutions are in charge of risk preparedness and management in the health sector: 1. DIGER (which deals with risk reduction in health infrastructure); 2. CDC (which is responsible for epidemiological surveillance) and 3. RENACE network (which makes weekly and monthly reports/notifications of epidemiological outbreaks). Following the COVID-19 pandemic, several policy reforms have been instituted in Peru to improve outbreak risk management and preparedness. Between 2020 and 2022, MINSA implemented five national pandemic plans to address the COVID-19 pandemic. These plans for COVID-19 were consistent with the International Health Regulations (IHR), and in line with the *Strategic Action: Prevention and response to international public health emergencie*s. They have focused on strengthening specific risk management approach and processes toward preparedness and response. The objective is to improve multisectoral organisation and co-ordination; prevent and control community transmission of COVID-19, improve timely detection of COVID-19 cases, strengthen response capacity and infection prevention, implement active vaccination against COVID-19 and strengthen the availability of strategic supplies. The country also has a National Disaster Risk Policy for the year 2050, with six objectives:

- Enhance the comprehension of disaster risks to inform decision-making processes at both the population and state entity levels.
- Optimise the conditions for territorial use, taking into account disaster risks.
- Refine the co-ordinated implementation of disaster risk management across the territory.
- Bolster the integration of disaster risk management in both public and private investments.
- Guarantee the provision of care for the population during emergencies and disasters.
- Improve the recovery process for the population and livelihoods affected by emergencies and disasters.

Peru is highly committed to implementing a One Health approach to outbreak preparedness and risk management. The country shows a strong commitment to transparency to improve its response capacity. Peru has officially requested a voluntary external evaluation from PAHO in the context of IHR capacities, which consists of an assessment of the country's capacity to prevent, detect and respond rapidly to public health threats.

It's noteworthy that Peru has made significant strides in bolstering its testing capacity. An advanced laboratory infrastructure and enhanced surveillance capacity are crucial for monitoring the virus and are critical for preparation and response to health emergencies. However, during the COVID-19 pandemic, the limited laboratory capacity posed a challenge to the implementation of adequate and decentralised molecular testing (Herrera-Añazco et al., 2021[28]). The network of laboratories managed by the INS was strengthened after the pandemics. In 2021-22, The INS certified 100 laboratories, located in the 25 regions, which have appropriate technologies and infrastructure to carry-out molecular testing for COVID-19 and other infectious disease. This is an important step to monitor case notification, trace people and make sure they receive appropriate care. Yet there are still some pending challenges to strengthen Peru's laboratory capacity. These include developing a transportation system that provide primary cold chain services and enables real time tracking of transported specimens, expanding specimen storage capacity and monitoring specimen stability, and developing a standardised packaging system for specimen transfer (USAID, 2023[29]).

The effectiveness of these national initiatives, however, hinges on robust regional implementation. Despite having a clear national plan with identified funding sources, the success of these measures largely depends on regional decisions and implementations. Issues with technical and organisational capacity at the regional level could lead to suboptimal implementation of these critical health policies.

The decrease in vaccination coverage increases the risk of outbreaks due to preventable diseases

With decreasing vaccination rates, the risk of vaccine-preventable diseases outbreak increases in Peru. While the Peruvian Government has increased spending on the purchase of vaccines and has established comprehensive vaccination programmes (MINSA, 2018[30]), the vaccination coverage in Peru has experienced a persistent decline in the last two decades. In 2000, coverage for measles, DTP-3, and polio vaccines were all above 90% for their target population, while latest estimates for 2022 indicate 74% coverage for measles and 82% for DTP-3 (Figure 3.15).

The decline, in spite of greater spending in this area, signals that other factors are critical to guarantee the success of immunisation programmes. These include enough health personnels, strong vaccine quality standards, raising awareness among the population and good communication campaigns to reduce misinformation. Lack of quality and communication issues have been among the main drivers of the drop in Polio vaccination coverage. Polio vaccination coverage sharply declined in Peru in 2013 (from 92% of one-year-old vaccinated to 71% the following year) due to severe quality issues with the oral vaccine and a global shortage of a safer, injectable version (MCLCP, 2014[31]).

The COVID-19 pandemic further impacted vaccine uptake due to social distancing measures and public fear of infection, resulting in a nearly 20% drop in coverage for the third dose of the DTP-3 vaccine in 2020 (at 72%) compared to 2019 (at 88%). To reverse this trend, Peru must enhance its response through strong quality assurance, effective national communication campaigns, improved health literacy and outreach vaccination programmes. These strategies need to be implemented at national, regional and local levels to address public health concerns and vaccine hesitancy effectively.

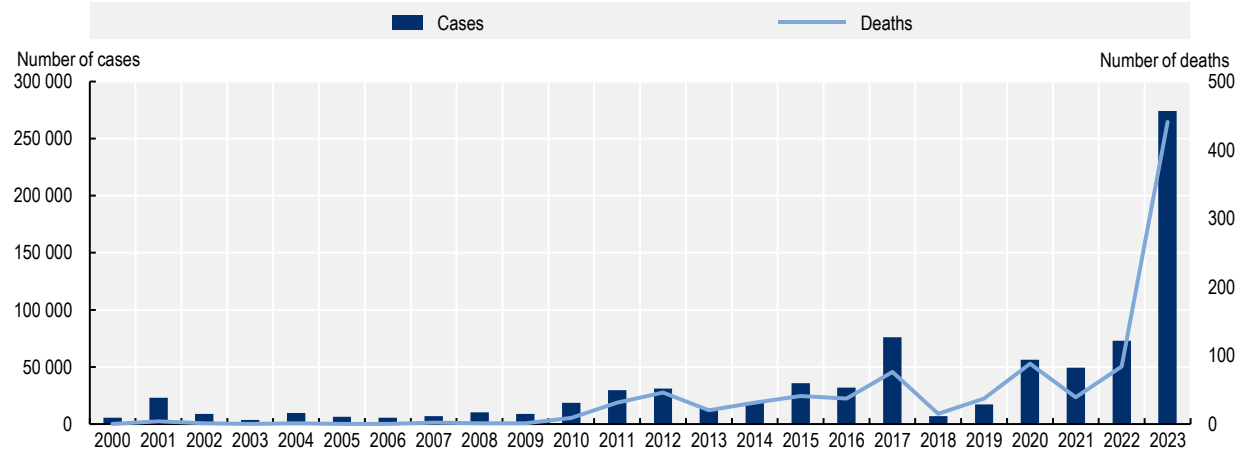
The threats associated with climate change include the need to respond to air pollution and to vector-borne diseases

Climate change is a key challenge for the Peruvian health system because it is linked to different type of diseases including spread of tropical diseases and their vector, as well as air pollution health risk.

Partly due to the global increase in rising temperatures, Peru faces climate-related health challenges including El Niño, a meteorological phenomenon spanning the Pacific that affects South America through the El Niño-Southern Oscillation, causing increased temperatures and heavy rainfall (Cai, McPhaden and

Grimm, 2020[32]). Increasing temperatures and frequency of floods increase the suitability of vectors, with particular attention to the mosquito *Aedes aegypti*, which is a vector of dengue, Zika, Chikungunya and yellow fever. Of these, dengue is of particular concern. Peru is currently one of the three most affected countries by the disease in the region, along with Brazil and Bolivia. Peru has experienced a steady rise since 2010 and has peaked in 2023 with 274 227 cases, almost four times higher than the previous year and almost as many as all cases between 2000 and 2021 combined (Figure 4.8). In February 2024, with dengue threatening to overwhelm hospitals, a health emergency was declared in 20 regions (MINSA, 2024[33]).

Figure 4.8. Number of cases of and deaths from dengue in Peru, 2000-23

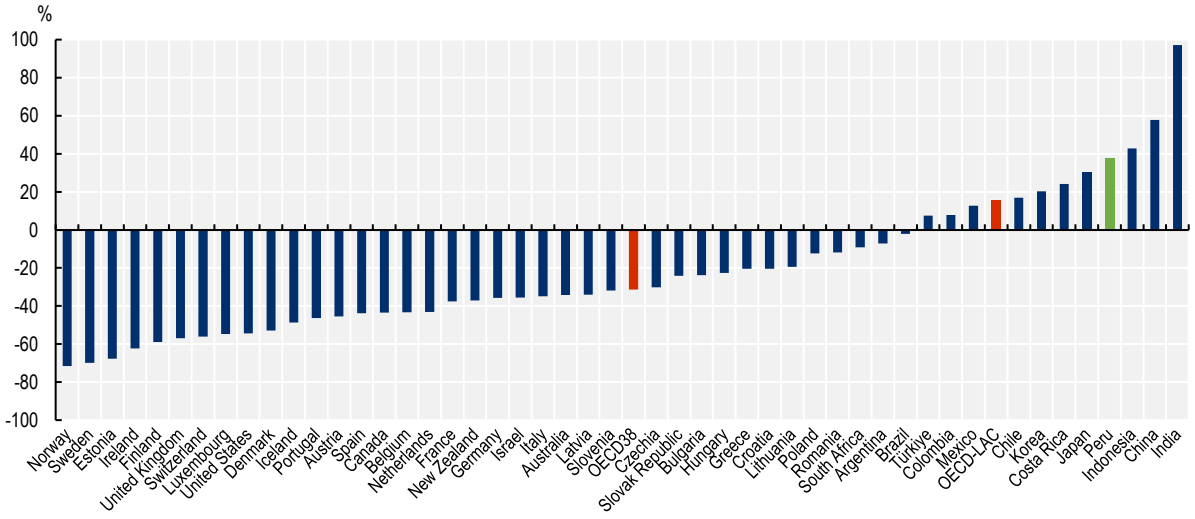


Source: PLISA (Health Information Platform for the Americas), PAHO.

Peru needs to also address air pollution, which is already a major cause of death and disability in Peru. While the OECD average saw a reduction of 31% in premature deaths attributable to ambient pollution between 2000 and 2019, Peru has experienced a significant rise of 38% (Figure 4.9), reaching 274.3 premature deaths per 1 000 000 inhabitants by 2019. This figure is higher than neighbouring countries such as Colombia (259.6), Ecuador (244.1), and Brazil (206.6), but lower than Chile (307.5) and Bolivia (337.5). Peru faces the highest exposure to fine particulate matter (PM2.5) in the Americas as of 2019, 31.1 micrograms per cubic metre compared 13.9 for the OECD and 15 for the LAC region (OECD, 2024[34]).

Adequate policy actions should be developed to mitigate and prepare the health impact of these environmental and climate risks. Peru has been taking steps towards addressing the issue of climate change for some time, with the National Climate Change Commissions adopted in 2013 and the National Climate Change Strategy in 2003 (Carrillo-Larco et al., 2022[35]). More recently, Peru has adopted the 2018 Framework Law for Climate Change, set up a Climate Change Commissions in 2020 and adopted the 2021 National Environmental Policy with the aim to reduce air, water and soil pollution. Regulatory frameworks include environmental quality standards, and local-level Action Plans for improving air quality ranging from information and environment education, as well as improving urban and transport planning. Critically, there is no nationwide infrastructure for air quality monitoring, which limits monitoring of compliance with Air quality Standards to take corrective measures or implement improvement plans.

Figure 4.9. Change in premature deaths attributable to ambient particulate matter pollution, 2000-19



Source: OECD Environment Statistics, 2020.

References

Cai, W., M. McPhaden and A. Grimm (2020), "Climate impacts of the El Niño–Southern Oscillation on South America", *Nat Rev Earth Environ*, Vol. 1, pp. 215–231, https://doi.org/10.1038/s43017-020-0040-3. [32]

Carrillo-Larco, R. et al. (2022), "Peru − Progress in health and sciences in 200 years of independance", *The Lancet Regional Health - Americas*, Vol. 7/100148, https://doi.org/10.1016/j.lana.2021.100148. [35]

CGR (2023), *Informe sobre presupuesto por resultados (PpR) en el Perú para el Informe de Auditoría a la Cuenta General de la República*, Contraloría General de la República, https://cdn.www.gob.pe/uploads/document/file/4922923/Informe%20T%C3%A9cnico%20002-2023-CG-OBANT%20-%20Programas%20Presupuestales.pdf (accessed on 17 April 2024). [5]

Congreso de la República (2019), *Ley que declara a los medicamentos, productos biológicos y dispositivos médicos como parte esencial del derecho a la salud y dispone medidas para garantizar su disponibilidad*, https://www.leyes.congreso.gob.pe/Documentos/2016_2021/Proyectos_de_Ley_y_de_Resoluciones_Legislativas/PL0449420160620.pdf (accessed on 18 April 2024). [17]

DIGEMID (2022), *Gasto de bolsillo en salud y medicamentos. Período 2020 al 2021*, Dirección General de Medicamentos, Insumos y Drogas. [11]

Fernandez-Navarro, M., J. Gonzales-Saldaña and R. Araujo-Castillo (2022), "La importancia de la estandarización de la evaluación metodológica en las evaluaciones de tecnologías sanitarias", *Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo*, Vol. 15/Supl. 1. [19]

Herrera-Añazco, P. et al. (2021), "Some lessons that Peru did not learn before the second wave of COVID-19", *The International Journal of Health Planning and Management*, Vol. 36/3, pp. 995-998, https://doi.org/10.1002/hpm.3135. [28]

INEI (2022), *Perú: Evolución de los Indicadores de los Programas Presupuestales, 2013 - 2021*, Instituto Nacional de Estadística e Informática, https://cdn.www.gob.pe/uploads/document/file/3407415/Per%C3%BA%3A%20Evoluci%C3%B3n%20de%20los%20Indicadores%20de%20Programas%20Presupuestales%2C%202013-2021.pdf?v=1657735085 (accessed on 17 April 2024). [6]

MCLCP (2014), *Alerta - Situación de la vacunación a los menores de 3 años*, https://www.mesadeconcertacion.org.pe/sites/default/files/8._alerta_vacunas_06-05-14.pdf (accessed on 21 March 2024). [31]

MINSA (2024), *Gobierno aprueba declaración de emergencia sanitaria a 20 regiones por un plazo de 90 días debido al incremento del dengue*, https://www.gob.pe/institucion/minsa/noticias/911809-gobierno-aprueba-declaracion-de-emergencia-sanitaria-a-20-regiones-por-un-plazo-de-90-dias-debido-al-incremento-del-dengue. [33]

MINSA (2022), *Compendio Estadístico: Información de Recursos Humanos del Sector Salud Perú 2013-2021*, https://digep.minsa.gob.pe/bibliografica.html. [22]

MINSA (2021), *Plan Nacional de cuidados integrales del cáncer (2020 – 2024)*, http://bvs.minsa.gob.pe/local/MINSA/5341.pdf. [4]

MINSA (2018), *Norma Tecnica de Salud que Establece el Esquema Nacional de Vacunacion*, https://docs.bvsalud.org/biblioref/2018/11/948769/rm-719-2018-minsa.pdf. [30]

Movimiento Salud 2030 (2021), "Gestión presupuestaria del sector salud en el Perú Desafíos y recomendaciones", https://bvs.minsa.gob.pe/local/MINSA/5471.pdf (accessed on 8 April 2024). [15]

OECD (2024), *Air pollution exposure* (indicator), https://doi.org/10.1787/8d9dcc33-en (accessed on 15 April 2024). [34]

OECD (2023), *Embracing a One Health Framework to Fight Antimicrobial Resistance*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/ce44c755-en. [26]

OECD (2023), *OECD Economic Surveys: Peru 2023*, OECD Publishing, Paris, https://doi.org/10.1787/081e0906-en. [2]

OECD (2022), *Primary Health Care for Resilient Health Systems in Latin America*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/743e6228-en. [21]

OECD (2020), *Realising the Potential of Primary Health Care*, OECD Health Policy Studie, OECD Publishing, Paris, https://doi.org/10.1787/a92adee4-en. [23]

OECD (2017), "Financing and budgeting practices for health in Peru", *OECD Journal on Budgeting*, Vol. 2, https://doi.org/10.1787/16812336. [3]

OECD (2017), *OECD Reviews of Health Systems: Peru 2017*, OECD Reviews of Health Systems, OECD Publishing, Paris, https://doi.org/10.1787/9789264282735-en. [24]

Saldarriaga, E. (2023), “Un paso incompleto en la dirección correcta: el Instituto Nacional de Salud del Perú establece el rango de costo-efectividad”, *Revista de Saúde Pública*, Vol. 56, p. 106. [20]

SISMED (2024), *Resultado del indicador ficha No31 por región del marco de los Convenios de Gestión 2024*, https://app.powerbi.com/view?r=eyJrIjoiMmNjNTBmOWItZWM3NS00YTgxLTk5M2ItOGNjNWEyOTU3ODczIiwidCI6IjM0ZjMyNDE5LTFjMDUtNDc1Ni04OTZlLTQ1ZDYzMzcyNjU5YiIsImMiOjR9 (accessed on 8 April 2024). [16]

SUSALUD (2022), *Anuario Estadístico 2022*, Superintendencia Nacional de Salud, https://cdn.www.gob.pe/uploads/document/file/4873728/ANUARIO%20ESTADISTICO%20SUSALUD%202022.pdf?v=1689889186 (accessed on 29 March 2024). [10]

Taype-Rondan, A. et al. (2022), “Características metodológicas de las evaluaciones de tecnologías sanitarias elaboradas en Perú, 2019-2021”, *Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo*, Vol. 15/Supl. 1. [18]

Taype-Rondan, A. et al. (2016), “Problems perceived and experienced by health professionals rendering social service in Ancash, Peru. 2015”, *Revista de la Facultad de Medicina*, Vol. 65/3, https://doi.org/10.15446/revfacmed.v65n3.59055. [25]

Ugarte Ubilluz, O. (2019), *Estrategias para mejorar el acceso a medicamentos en el Perú*, UNMSM. Facultad de Medicina, http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1025-55832019000100019. [9]

USAID (2023), *Strengthening Laboratory Capacity to Improve the Availability and Accuracy of COVID-19 Diagnosis in Peru: Recommendations and Training Plan to Improve Specimen Collection, Handling, and Transport*, https://www.lhssproject.org/sites/default/files/resource/2023-04/LHSS_Peru_Recommendations%20and%20Training%20Plan%20to%20Improve%20Specimen%20Collection%20Handling%20and%20Transport_FY23_04-03-23%20sxf.pdf. [29]

Videnza Consultores (2022), “Situación actual del mercado de salud peruano”, https://www.comexperu.org.pe/upload/articles/publicaciones/situacion-actual-del-mercado-de-salud-peruano-informe.pdf (accessed on 8 April 2024). [14]

Videnza Consultores (2021), “Abastecimiento de recursos estratégicos en salud”, https://www.redesarrollo.pe/wp-content/uploads/2021/07/Abastecimiento-de-recursos-estrategicos-en-salud.pdf (accessed on 8 April 2024). [13]

Videnza Consultores (2020), “El abastecimiento de medicamentos en el Perú: retos y oportunidades”, https://videnza.org/el-abastecimiento-de-medicamentos-en-el-peru-retos-y-oportunidades/ (accessed on 8 April 2024). [12]

WHO (2022), *Compliance with the International Health Regulations*, https://apps.who.int/gho/data/node.main.UHCIHR?lang=fr. [27]

WHO (2021), *Global Health Observatory*. [1]

WHO (2020), *Budgeting for results in health: Key features, achievenments and challenges in Peru*, World Health Organization, https://www.who.int/publications/i/item/9789240004436. [7]

World Bank (2021), *Financiamiento para la cobertura universal de salud en el Perú después de la COVID-19*, https://www.bancomundial.org/es/country/peru/publication/financiamiento-para-la-cobertura-universal-de-salud-en-el-per-despu-s-de-la-covid-19. [8]

Notes

[1] Examples include Budgetary Support Agreements (Convenio de Apoyo Presupuestario CAP) and from the Performance and Social Outcomes Stimulus Fund (Fondo de Estímulo de Desempeño y Logro de Resultados Sociales, FED), and transfers made by the Social Development Ministry (MIDIS) for positive results in performance evaluations.

[2] https://repositorio-digemid.minsa.gob.pe/collections/66fd6322-24a5-4e2f-9850-0c3679e70687.

[3] https://repositorio-digemid.minsa.gob.pe/collections/37f318c9-7711-4d56-a3d0-cfd8b7c973c0. The methodology was developed by DIGEMID and submitted to the Ministerial Office and the entities of the sector; the entities provided their databases and, from the application of the methodology, the threshold was calculated to be subsequently processed by DIGEMID, with the respective technical report for the approval of the Ministerial Resolution.

OECD Reviews of Health Systems: Peru 2025

Peru has made remarkable progress in delivering healthcare services over the past decades, leading to large improvements in most general population health indicators. Health insurance coverage has increased steadily since the 2009 health reforms. The country is now close to achieving universal health coverage, with the Integral Health Insurance (Seguro Integral de Salud) playing a crucial role in reaching poor and underserved rural communities. However, Peru continues to grapple with a health system that remains both segmented and fragmented, with multiple public sub-systems serving different population groups. The health system still lacks the integration and co-ordination needed to ensure equitable access to high-quality care for all Peruvians. Addressing these challenges requires strengthening quality governance, investing in high-impact healthcare service improvements, and curbing inefficiencies. This review assesses the performance of Peru's health system and provides key recommendations for achieving a more equitable, efficient, and sustainable healthcare system aligned with OECD standards.

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