

PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Comprehensive case study from Peru



Alliance for
Health Policy and
Systems Research



World Health
Organization

PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Comprehensive case study from Peru

WHO/HIS/HSR/17.32

© World Health Organization 2017

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. Primary health care systems (PRIMASYS): comprehensive case study from Peru. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

The named authors alone are responsible for the views expressed in this publication.

Editing and design by Inis Communication – www.iniscommunication.com

Contents

Abbreviations	1
Background to PRIMASYS case studies	2
1. Introduction to Peru primary health care study	3
2. Methodology	5
2.1 Sources of information	5
2.2 Quantitative databases	6
3. Overview of primary health care statistics.	8
3.1 Development of current Peruvian health care system	9
3.2 Geographical distribution of health care facilities	9
3.3 Equity	10
4. Historical context timeline	16
5. Governance: equity, civil rights and universal coverage	21
6. Classification and decentralization of health care facilities.	24
7. Financing	31
8. Human resources	36
9. Process elements.	39
9.1 Planning and implementation	39
9.2 Regulatory processes	40
9.3 Monitoring and health information systems	41
10. Elements of results	43
10.1 Equitable access	43
10.2 Appropriate service provision through involvement of users	44
10.3 Quality and safety of care	45
11. Paths and policy considerations to strengthen PHC system	46
Annex 1. Key informants interviewed.	49
Annex 2. Databases used for quantitative information	51
References	52

Figures

Figure 1. PRIMASYS framework of structure, processes and outcomes of primary care systems. . . .	5
Figure 2. Primary health care timeline in Peru.	17
Figure 3. Budget, population, human resources and health facilities by level of health care.	19
Figure 4. Organizational structure of the Peruvian health system	23
Figure 5. Model of standardized and progressive health care	26
Figure 6. Conceptual framework for information and communication technologies for the Ministry of Health.	41

Tables

Table 1. Demographic, economic, and health indicators of Peru	8
Table 2. Poverty incidence (%), Peru, 2010–2015	10
Table 3. Population in extreme poverty (%), Peru, 2010–2015	10
Table 4. Population with a chronic health problem (%), Peru, 2010–2015	10
Table 5. Population with a non-chronic health problem (%), Peru, 2010–2015	10
Table 6. Population with chronic health problem that sought health care (%), Peru, 2010–2015 . .	10
Table 7. Population with non-chronic health problem that sought health care (%), Peru, 2010–2015	11
Table 8. Facility where the patient sought health care (%), Peru, 2011–2015	11
Table 9. Population affiliated by type of insurance (%), Peru, 2010–2015.	12
Table 10. Population access to first-level primary health care facilities within one hour, Peru, 2011 .	13
Table 11. Reasons for not seeking care at a health facility, Peru, 2010–2015 (%)	14
Table 12. Human resources within Ministry of Health and regional governments by geographical area, Peru, 2013–2015	15
Table 13. Characteristics of projects and interventions in primary health care	17
Table 14. Categorization of health facilities, Peru, August 2016	30
Table 15. Categorization of primary-level health facilities, Peru, August 2016.	30
Table 16. Priorities to strengthen primary care and redefine the health system	47

Abbreviations

CAS	administrative contract for services (contrato administrativo por servicios)	MOCEPS	Standardized and Progressive Health Care Model (Modelo de Cuidado Estandarizado y Progresivo de la Salud)
CHW	community health worker	NGO	nongovernmental organization
CLAS	local health administration committees (comités locales de administración de salud)	PARSalud	Health Sector Reform Programme
DIRESA	regional health directorate (dirección regional de salud)	PHC	primary health care
ENAH0	National Household Survey	PROFAM	National Training Programme in Family and Community Health (Programa Nacional de Formación en Salud Familiar y Comunitaria)
ENDES	Demographic and Family Health Survey	RIAPS	integrated primary health care networks (redes integradas de atención primaria de salud)
GDP	gross domestic product	SIS	Comprehensive Health Insurance (Seguro Integral de Salud)
GERESA	regional health management (gerencia regional de salud)	SISFAC	Individual, Family, and Community Health Information System (Sistema de Información para la Salud Individual, Familiar y Comunitaria)
IAFAS	institutions administering health insurance funds (instituciones administradoras de fondos de aseguramiento en salud)	SISMED	Integrated Supply System for Pharmaceutical Products, Medical Devices and Health Products (Sistema Integrado de Suministro de Medicamentos e Insumos Médico-Quirúrgico)
ICD-10	International Classification of Diseases and Related Health Problems, 10th Revision	SNCDs	Coordinated and Decentralized National Health System (Sistema Nacional Coordinado y Descentralizado de Salud)
IGSS	Institute for Management of Health Services (Instituto de Gestión de Servicios de Salud)	SUSALUD	National Superintendence of Health (Superintendencia Nacional de Salud)
INEI	National Institute of Statistics and Informatics	TB	tuberculosis
IPRESS	health service provider institutions (instituciones prestadoras de servicios de salud)	UBAP	Basic Unit of Primary Care (Unidad Básica de Atención Primaria)
MAIS	Comprehensive Health Care Model (Modelo de Atención Integral de Salud)	WHO	World Health Organization
MAIS-BFC	Comprehensive Health Care Model based on the Family and Community		

Background to PRIMASYS case studies

Health systems around the globe still fall short of providing accessible, good-quality, comprehensive and integrated care. As the global health community is setting ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries. A wide array of stakeholders, including development agencies, global health funders, policy planners and health system decision-makers, require a better understanding of primary health care systems in order to plan and support complex health system interventions. There is thus a need to fill the knowledge gaps concerning strategic information on front-line primary health care systems at national and subnational levels in low- and middle-income settings.

The Alliance for Health Policy and Systems Research, in collaboration with the Bill & Melinda Gates Foundation, is developing a set of 20 case studies of primary health care systems in selected low- and middle-income countries as part of an initiative entitled Primary Care Systems Profiles and Performance (PRIMASYS). PRIMASYS aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness

and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance.

The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries. Furthermore, the case studies will serve as the basis for a multicountry analysis of primary health care systems, focusing on the implementation of policies and programmes, and the barriers to and facilitators of primary health care system reform. Evidence from the case studies and the multi-country analysis will in turn provide strategic evidence to enhance the performance and responsiveness of primary health care systems in low- and middle-income countries.

1. Introduction to Peru primary health care study

The concept of primary health care (PHC) has multiple dimensions of analysis, from philosophical approaches with ethical and moral principles and supported in evidence, to pragmatic approaches that include demographic and epidemiological analyses. A first reflection allows separation of health care from the classical concept of medical care as curative and restorative. As mentioned by Dr David Tejada, current developments and what is said about PHC differs from what was outlined by the International Conference on Primary Health Care, Alma-Ata, 1978: "In Peru, there is no primary health care as established by Alma Ata" (1).

According to Alma Ata, PHC is:

...essential care based on methods and technologies that are practical, scientifically grounded, and socially acceptable, made available to all individuals and families in the community, through their integral participation, and at a cost that the community and the country can afford, in each and every stage of its development, with a spirit of self-responsibility and self-determination. Primary care is an integral part of both the national health system, of which it is the central and core function, and the global social and economic community development. It represents the first point of contact of individuals, family, and community with the national health system, bringing health care as close as possible to where people live and work, constituting the first element of a permanent health care process.

Interviewees offered their own opinions on the meaning and extent of PHC:

The ethereal initial approach, "like the air we breathe, makes it more complex to define what is needed at the first level of care."

"The first level of care is the family, the school, the workplace."

"Primary health care is not synonymous with care services delivered by first-level health care facilities."

Considered simplistically, PHC is a nuclear part of the health care system: the gateway through which users make initial contact with health care services. Unfortunately, that definition does not allow sufficient recognition of the importance and complexity of the role that PHC should play in the overall process of individual and collective health care. As a strategy, PHC is an activity that must take place at all levels of care, including the third level, for example at the National Cardiovascular Institute or the National Institute of Neurological Sciences. Health care services should not be conceived as only diagnostic, restorative and rehabilitative, but as part of a comprehensive approach that includes preventive and promotional activities and allows for preservation and care of people's health. Under this concept, several characteristics must be defined if the services are intended for primary care (2, 3).

The first level of care is conceived with a basic level of skills, resolving capacity, equipment, technology, and financing. Semiologically, it has penetrated the population as a simple and low-quality service reduced to being the entry point to the system, as one interviewee stated: "It is a sort of procedure office that does not solve anything." This perception closely correlates with reality when looking at health posts (category I-1 of health care facilities). As population coverage increases, so does dissatisfaction; demand increases faster than supply capacity. Peru is highly urban and has undergone a rapid and unorganized urbanization processes. According to one interviewee, in Peru, "there are health services in the two main public subsystems that are primary care oriented, but do not meet all primary care attributes (for example, 80% of resolution, anticipation of problems, joint decision-making with the person, family and community)".

The gap between the first level and the second and third levels has widened. This requires redefining the functions, competencies, and technologies of health care delivery, and integrating approaches at the first level of care. A variety of mechanisms exist that could

be developed. Identifying and recognizing gaps is a critical issue in first-level health care facilities.

This document describes the current situation of the Peruvian health system, with an emphasis on PHC.

2. Methodology

A “systems lens” highlights the interconnected nature of different functional elements of primary care systems, both with each other and also with processes and conditions that are external to the conventional boundaries of the health care sector. Primary care systems may be understood to encompass the organizations, resources, procedures, norms and efforts and time of people that collectively function towards delivering services at the first point of care and serving the aims of better health and equity in a society. The systems lens also suggests that the performance of primary care systems cannot be viewed merely in terms of its eventual outputs and outcomes, but must also be understood in terms of related and underlying structures and processes that explain these outcomes. While this remains an underresearched area, there is ample evidence from high-, middle- and low-income countries alike to indicate that structural elements of a primary care system and key processes are critical in shaping its outcomes, as encapsulated in the PRIMASYS framework (Figure 1).

2.1 Sources of information

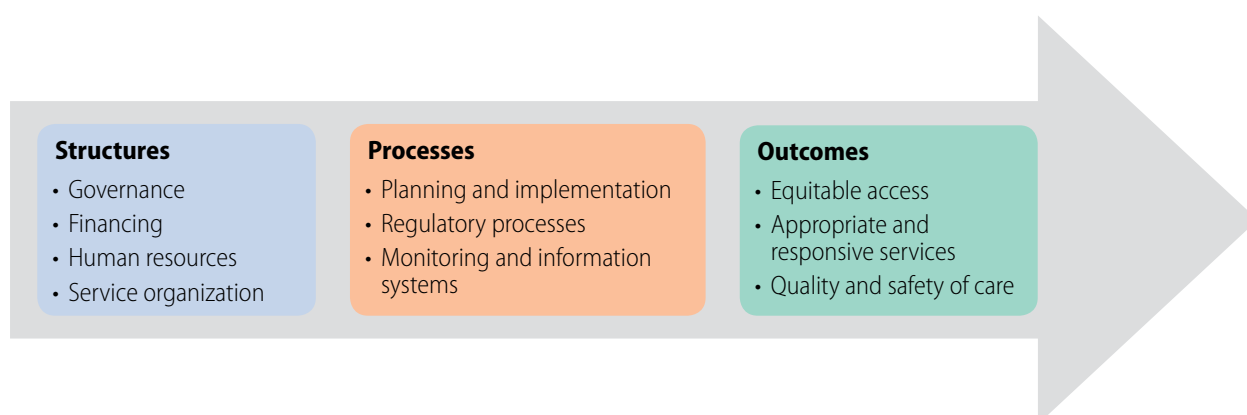
Sources for this report included a literature review, in-depth interviews with key informants and the use of national and sectoral databases to allow an approximation of the characteristics of the national population and the organization of health care

facilities in the country. Three people with expertise in public health, public policies, health organization, and monitoring and evaluation were involved in the execution of this activity.

Development of the Peruvian case study involved two research phases:

Phase 1 (preliminary enquiry), in which basic information was collated on the health and health systems profile of the country and its subnational entities. Discussions with key informants at this stage also yielded basic information on how primary care services are organized and on the history and context of PHC reforms in Peru, contributing to the identification of additional questions around pathways of change that were of specific relevance to the country, and that would be explored in phase 2. Key informants were drawn from among known academicians, member of international organizations working in Peru, former health authorities, civil society actors, health system officials, and bureaucrats. Care was taken to ensure that the selection of key informants was diverse, representing a spread of different constituencies and perspectives, and a range of expertise on different aspects of primary care systems (thus adopting a maximum variability approach). The discussions with key informants focused on the context and current situation of primary care systems in the country.

Figure 1. PRIMASYS framework of structure, processes and outcomes of primary care systems



Phase 2 (main phase), in which core elements of enquiry on the primary care systems were investigated. Each of the questions in this phase used one or more of the available modes of enquiry: (a) review of secondary sources; and (b) interviews with relevant stakeholders, followed by thematic synthesis and triangulation of the emerging data from different sources, and preparation of a brief narrative report citing all sources.

Annex 1 presents a list of key informants selected from academia, members of international organizations with work experience in the country, civil society representatives, authorities from health care organizations and bureaucrats, based on their availability and expertise in the evolution of PHC policies, governance, financing, human resources, planning and implementation, regulatory processes, and monitoring and information systems within the health care field.

2.2 Quantitative databases

Information in a country comes from different sources, managed by different actors and in different information systems. This diversity can be positive because it represents a variety of spaces for different functions that add up to the specificity required. However, in many cases it can be negative, due to the different criteria used for registration, storage, data management and exploitation of information. As is the case for other countries, Peru has information from national surveys and population censuses that provide representative information at the national and regional levels, and even in some cases at the subregional levels (such as urban/rural). However, the high cost of information gathering constitutes a weakness, as it is not possible to obtain information with a shorter periodicity than annual. In addition, the cross-sectional information available generally represents a past reality, and any interventions are inevitably based on outdated data.

Administrative records comprise another source of information, and can provide data on the population

that receives a (public or private) service. Even though the data are biased, in that they are subject to the effective demand for the service, they can include complementary information that facilitates follow-up processes. Additional difficulties are related to poor-quality control processes of the registry, inefficient storage of data, absence of storage and processing standards, and lack of transparency (compromising effective use of the data).

Finally, specific studies constitute a third source of information. These are research studies that are related to a specific objective, and as such they are not performed periodically.

Quantitative information can be derived from national surveys, including the Demographic and Family Health Survey (ENDES, for its Spanish initials)¹ and National Household Survey (ENAH); population censuses (including population projections); human resources censuses (carried out by the Ministry of Health); administrative records from the Ministry of Health databases; the Health Information System; Comprehensive Health Insurance (SIS); and the Integrated Supply System for Pharmaceutical Products, Medical Devices and Health Products (SISMED). Annex 2 shows the main databases from which quantitative information was drawn for this report.

Sociodemographic information was obtained from the national estimates of the National Institute of Statistics and Informatics (INEI), which comes from population projections, national accounts (economic indicators) and vital statistics (including estimation of life expectancy at birth). In the case of health indicators, the causes of death were estimated from administrative records of mortality, based on the International Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), and from estimations of infant and maternal mortality, as well as the immunization coverage from ENDES.

Expenditure estimates were obtained from World Bank data for the country. The number of doctors

¹ To facilitate identification, all initials of Mexican institutions are provided as they are originally written in Spanish.

and nurses per 1000 people was obtained from the registers of the professional colleges (Peruvian Medical Association and Peruvian Nursing Association, compiled by INEI). The additional information by geographical area was obtained from data of the Observatory on Human Resources for Health of the Ministry of Health. Geographical accessibility information was obtained from the Health Sector Reform Programme (PARSalud), which

has estimated georeferenced information based on cost of resistance in each area (measured in time), estimated from geospatial information on soils, roads, rivers, topography and rainfall.

Poverty information, population with a health problem that has required health care, or numbers who have not sought care have been estimated from ENAHO.

3. Overview of primary health care statistics

Peru is a middle-income country (estimated GDP per capita, PPP: US\$ 15 501) with a population of more than 31 million people (2015), and an annual population growth rate of 1.1%. The national life expectancy at birth is around 75 years, higher in females. The population density is 24.2 per square kilometre, though this differs markedly between and within regions, as urban centres such as Lima have much greater population concentrations, while forested regions, such as Amazonas, Loreto, Madre de Dios and Ucayali, have a more dispersed population. Within each region, greater concentrations of population are located in the main cities. Only one third of the population lives in rural areas.

The main causes of death are neoplasia (around 20% die from this cause) and influenza and pneumonia (13.8% of deaths), though there is good access to timely institutional care. In the last decade an effort has been made to implement a national network of oncology services in order to improve coverage. During the period of the Millennium Development Goals, child health was prioritized in an effort to attain health targets. Despite those efforts, the infant mortality is about 15.3 per 1000 live births, and the under-5 mortality rate is 18 per 1000 live births. The maternal mortality ratio is 93 per 100 000 live births, with a diminishing trend in the last three years (Table 1).

Table 1. Demographic, economic, and health indicators of Peru

Indicator	Results	Source	Year
Total population of country	31 151 643	INEI	2015
Sex ratio: male/female	1.004	INEI	2015
Population growth rate (% annual)	1.1	INEI	2015
Population density (people/sq km)	24.2	INEI	2015
Distribution of population (rural/urban)	0.30	INEI	2015
GDP per capita (US\$)	15 501	INEI	2015
Income or wealth inequality (Gini coefficient)	0.35	INEI	2015
Life expectancy at birth (years)	75.1	INEI	2015
Top 5 main causes of death (ICD-10 classification):		Ministry of Health	2014
Malignant tumours (neoplasms) (C00–C97)	19 360 (20.1%)		
Influenza and pneumonia (J09–J18)	13 349 (13.8%)		
Other bacterial diseases (A30–A49)	7 222 (7.5%)		
Other external causes of accidental traumatism (W00–X59)	5 686 (5.9%)		
Other forms of heart disease (I30–I52)	4 740 (4.9%)		
Infant mortality rate (per 1000 live births)	15.3	INEI	2015
Under-5 mortality rate (per 1000 live births)	18	INEI	2015
Maternal mortality rate (per 100 000 live births)	93	INEI	2004–2010
Immunization coverage under 1 year (including pneumococcal and rotavirus), %	69.4	INEI	2015
Total health expenditure as proportion of gross domestic product (GDP)	5.5	World Bank	2014
PHC expenditure as % of total health expenditure	ND		
% total public sector expenditure on PHC	ND		

Indicator	Results	Source	Year
Per capita public sector expenditure on PHC	ND		
Public expenditure on health as proportion of total expenditure on health	60.6	World Bank	2014
Out-of-pocket payments as proportion of total expenditure on health	72.7	World Bank	2014
Voluntarily health insurance as proportion of total expenditure on health	ND		
Proportion of households experiencing catastrophic health expenditure	ND		

ND = not determined.

3.1 Development of current Peruvian health care system

The segmented and fragmented Peruvian health care system is “the product of the superposition of diverse organizational structures coming from different health system stages, tributaries of diverse conceptions and bearers of varied interests, cultural patterns, forms of financing, and models of government, of management, and of provision; accumulated like geological strata, some of them going back to the colonial world” (4).

In the 1970s, the first efforts to model the health system started when the government implemented a health welfare policy and took over the management of the national hospital network, which had been managed as a public charity since colonial times. The public subsystem was organized as the central pillar of the health care system (5). The reforms introduced a populist state system, characterized by the massive appropriation of public goods, large hospitals, and diverse economic, corporate and trade interests that had hitherto been managed privately.

In the 1930s, the social security health insurance system (EsSalud) emerged as a proposal for social protection for the working population, thereby constituting the social support system of the national industrialization period of the 1960s and 1970s. Created in 1933, the Workers’ Social Security National Fund was the first entity intended to provide health care services. It opted to build its own network of facilities, for both political and economic reasons. The creation of the Employees’ Social Security in 1948, a differentiated entity from the Workers’ Social Security

National Fund, led to greater segmentation of the system. This situation was reversed 25 years later with the integration of both organizations to form the Social Security of Peru and then, in 1980, the Peruvian Institute of Social Security, an autonomous entity. The service networks of police and military institutes, providing health care to the police and armed forces respectively, constitute, in practice, social insurance modalities for particular segments of the population under the protection of national defence and internal order policies.

The private health subsector has been in existence since colonial times. This subsector is quite dissimilar and complex, ranging from business or corporate entities acting as both insurer and provider, to private, individual providers, the so-called “private practice”, which in turn accommodates a range of possibilities, both for profit and not for profit. The first model is increasing in scale, due of the dynamism and expansion of the health care market; the second is in progressive decline, partially due to the increasing use of technology in health care, which forces the physician to join a health care company that provides such technology. Finally, non-profit health care providers are usually initiatives supported by different religious groups or nongovernmental organizations (NGOs) linked to such groups.

3.2 Geographical distribution of health care facilities

Population access to health care facilities has been analysed for public sector facilities, which cover the majority of the population in Peru, whether they are beneficiaries of SIS (43% of the population in 2015)

or self-finance health care at these facilities. Public sector facilities account for 51.87% of total health care facilities. Access to first-level health care facilities differs markedly between urban and rural areas: 95.9% of the urban population can access these facilities within approximately one hour of travel, compared to 75.5% of the rural population.

Numbers of health care personnel are greater in urban areas than in rural areas. Nursing technicians comprise the highest proportion of health care personnel, closely followed by nursing staff, and then by physicians in urban areas and by obstetricians in rural areas.

3.3 Equity

Poverty remains a major problem in Peru, although there has been significant progress in reducing it. By 2015, considering financial poverty, about 21.8% of the population was categorized as poor and 4.1% as extremely poor. However, in rural areas those figures were 45.2% for total poverty and 13.9% for extreme poverty (Tables 2 and 3). These conditions affect access to health care.

Table 2. Poverty incidence (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	30.8	27.8	25.8	23.9	22.7	21.8
Urban	20.0	18.0	16.7	16.1	15.3	14.5
Rural	61.0	56.1	53.0	48.0	46.0	45.2

Source: ENAHO, 2010–2015.

Table 3. Population in extreme poverty (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	7.6	6.3	6.0	4.7	4.3	4.1
Urban	1.9	1.4	1.4	1.1	1.0	1.0
Rural	23.8	20.5	19.7	16.0	14.6	13.9

Source: ENAHO, 2010–2015.

The National Household Survey (ENAHO) shows that about one in three people had a chronic (or non-chronic) health problem in the last two weeks before the survey. However, not everyone sought care, with this difference being significantly lower for the rural population. In 2015, 42.3% of the urban population sought care for a chronic problem or 56.7% when the problem was not chronic, as opposed to 37.3% or 45.4% in rural areas for chronic or non-chronic problems, respectively. In 2015, those who sought health care went to pharmacies (16.0%), with their higher risks associated with self-medication and quality of care, followed by Ministry of Health facilities (15.9%) (Tables 4, 5, 6, 7 and 8).

Table 4. Population with a chronic health problem (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	31.8	36.3	36.7	35.4	35.8	34.9
Urban	34.7	39.2	39.8	37.7	37.6	36.4
Rural	23.8	27.8	27.7	28.3	29.9	30.0

Source: ENAHO, 2010–2015.

Table 5. Population with a non-chronic health problem (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	36.2	33.3	32.7	31.2	31.8	31.4
Urban	34.8	31.9	30.8	29.5	30.3	29.8
Rural	40.2	37.4	38.2	36.1	36.8	36.5

Source: ENAHO, 2010–2015.

Table 6. Population with chronic health problem that sought health care (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	39.8	38.7	40.0	39.2	39.0	41.3
Urban	41.5	39.9	41.2	39.7	39.9	42.3
Rural	33.3	33.9	34.9	37.0	35.1	37.3

Source: ENAHO, 2010–2015.

Table 7. Population with non-chronic health problem that sought health care (%), Peru, 2010–2015

	2010	2011	2012	2013	2014	2015
National	49.7	49.3	49.6	52.0	52.3	53.6
Urban	53.8	52.4	53.3	54.2	55.9	56.7
Rural	39.6	41.8	40.6	57.2	42.8	45.4

Source: ENAHO, 2010–2015.

Table 8. Facility where the patient sought health care (%), Peru, 2011–2015

		Total patients	Ministry of Health	EsSalud	Both	Armed/ police forces	Private	Pharmacy	Home	Other
National	2011	43.8	14.6	6.1	0.1	0.4	6.6	15.0	0.2	0.9
	2012	44.5	13.9	6.2	0.1	0.5	8.0	15.0	0.2	0.7
	2013	45.2	15.7	6.2	0.1	0.4	7.7	14.4	0.2	0.5
	2014	45.2	15.1	6.3	0.1	0.4	7.4	15.4	0.1	0.4
	2015	47.1	15.9	6.8	0.1	0.3	7.0	16.0	0.4	0.6
Urban	2011	45.5	11.3	7.6	0.1	0.5	7.8	17.1	0.2	0.9
	2012	46.5	10.9	7.8	0.1	0.7	9.5	16.7	0.2	0.7
	2013	46.0	12.2	7.8	0.1	0.5	9.1	15.8	0.2	0.5
	2014	47.1	11.9	7.9	0.1	0.5	8.8	17.4	0.1	0.4
	2015	48.7	12.7	8.5	0.1	0.4	8.3	17.8	0.4	0.5
Rural	2011	41.6	27.0	1.2			3.0	9.0	0.1	1.2
	2012	41.4	25.3	1.1			3.6	10.3	0.1	0.9
	2013	45.7	27.0	1.3			3.3	9.9	0.2	1.0
	2014	39.2	25.2	1.2			3.2	8.9	0.1	0.6
	2015	41.8	26.3	1.2			2.9	10.4	0.1	0.8

Source: ENAHO, 2011–2015.

The availability (or lack) of health insurance can influence (or limit) the possibility to access health care services. An examination of the percentage of the population that benefits from some type of health insurance (SIS, EsSalud, or private) shows that there is a greater proportion of the rural population insured (usually SIS). There is also a difference in the

relative percentage of the population benefiting from different types of health insurance. In urban areas the proportion of SIS and EsSalud beneficiaries is almost equivalent (even more EsSalud beneficiaries before 2015), with 7% privately insured. In rural areas, most people are SIS beneficiaries, while those privately insured represent less than 1% (Table 9).

Table 9. Population affiliated by type of insurance (%), Peru, 2010–2015

	Year	Total	EsSalud	SIS	Other insurance
National	2010	63.5	21.6	36.3	5.5
	2011	64.5	22.7	36.1	5.7
	2012	61.9	24.4	31.4	6.1
	2013	65.5	24.4	35.3	5.8
	2014	69.0	24.6	39.0	5.4
	2015	73.0	24.5	43.4	5.0
Urban	2010	59.0	27.8	24.1	7.1
	2011	59.6	28.8	23.4	7.4
	2012	58.5	30.9	19.7	8.0
	2013	62.3	30.4	24.5	7.4
	2014	66.2	30.4	28.9	7.0
	2015	70.3	30.4	33.5	6.4
Rural	2010	75.9	4.4	70.6	0.8
	2011	78.4	5.1	72.7	0.7
	2012	71.8	5.2	66.1	0.5
	2013	75.1	5.9	68.6	0.6
	2014	77.7	6.4	70.8	0.5
	2015	81.6	5.6	75.5	0.5

Source: ENAHO, 2010–2015.

Table 10 shows the inequitable access to PHC facilities nationwide, as the rural areas and the regions with higher poverty have less access than the more affluent locations. The National Household Survey shows that of those who reported a disease and decided to seek care, most went to Ministry of Health or regional government health care facilities, even in the case of the rural population.

Lack of money was reported as a major reason for not seeking medical consultation; nonetheless,

it is necessary to consider the additional cost of transportation in rural and dispersed areas, and, for both rural and urban settings, the indirect cost of leaving the workplace, whether that be in work premises or at home. Most people cited no need for medical consultation as the reason for not going (around 48% in urban areas and 39% in rural areas in 2015), followed by the use of home remedies or self-medication (about 33% in urban areas and 40% in rural areas). The remoteness of the facilities and the lack of trust in them were also given as reasons (by about 15% and 26% in urban and rural areas, respectively) (Table 11).

Table 12 shows a slight increase in the number of health professionals and technicians during 2013–2015. In spite of this, there is unequal distribution of health professionals, with urban populations better served than rural populations. The degree of inequity varies by professional group, with most inequity in the distribution of physicians, followed by nurses.

Human resources for health are essential to the effective implementation of health policies, the structuring of health care systems, and the provision of adequate services. Nonetheless, it is still a great challenge to provide regions and remote areas with the number of health personnel needed to adequately supply all kinds of care. Human resource policies have been implemented with the objective of assessing and closing existing gaps in the country, giving due attention to both specialized care and first-level care. However, there are still major gaps in the supply of health professionals in poor and dispersed areas, such as the Amazon basin. The available data indicate that there 2.17 physicians per 1000 population, and 2.51 nurses per 1000 population (2015).

Table 10. Population access to first-level primary health care facilities within one hour, Peru, 2011

	Population access to first-level facilities				Urban population access to first-level facilities				Rural population access to first-level facilities						
	Category >=I-4	Category >=I-3	Category >=I-2	Category >=I-1	No access	Category >=I-4	Category >=I-3	Category >=I-2	Category >=I-1	No access	Category >=I-4	Category >=I-3	Category >=I-2	Category >=I-1	
Amazonas	39.6	57.8	62.8	75.9	24.1	60.8	80.0	84.1	90.0	10.0	15.9	32.9	39.0	60.0	40.0
Ancash	74.5	85.2	89.9	93.8	6.2	86.9	94.8	97.8	99.1	0.9	46.6	63.4	72.2	81.8	18.2
Apurímac	73.9	79.6	84.4	91.1	8.9	87.9	92.1	95.6	98.6	1.4	51.0	59.4	66.1	78.7	21.3
Arequipa	90.5	95.9	98.3	98.6	1.4	94.2	98.3	99.8	99.8	0.2	40.9	63.8	79.1	82.3	17.7
Ayacucho	57.4	74.0	82.4	89.2	10.8	71.8	87.6	94.7	98.3	1.7	29.0	47.1	58.2	71.2	28.8
Cajamarca	27.0	67.4	75.3	87.4	12.6	40.5	83.4	89.3	96.7	3.3	9.5	46.6	57.3	75.3	24.7
Callao	52.1	52.1	52.1	52.1	47.9	52.1	52.1	52.1	52.1	47.9					
Cusco	76.0	76.8	81.6	84.1	15.9	93.0	93.6	95.1	96.4	3.6	46.5	47.5	58.1	62.7	37.3
Huancavelica	52.4	72.9	78.1	86.4	13.6	72.1	88.4	91.8	96.2	3.8	33.1	57.9	64.8	76.8	23.2
Huánuco	49.8	72.1	77.4	81.4	18.6	70.6	89.9	92.9	94.6	5.4	23.4	49.3	57.8	64.6	35.4
Ica	97.0	99.2	99.7	99.7	0.3	97.5	99.7	99.9	99.9	0.1	91.0	93.6	97.0	97.3	2.7
Junín	84.6	87.7	91.0	93.0	7.0	94.0	96.1	97.8	98.8	1.2	51.1	57.6	66.8	72.4	27.6
La Libertad	84.1	88.9	95.2	95.6	4.4	93.1	95.8	98.8	98.9	1.1	42.7	56.9	78.3	80.1	19.9
Lambayeque	96.3	98.2	98.9	99.0	1.0	99.4	99.8	99.9	99.9	0.1	76.5	87.9	92.7	93.2	6.8
Lima	93.7	95.4	96.2	96.4	3.6	94.8	95.9	96.4	96.5	3.5	53.6	74.2	86.3	89.8	10.2
Loreto	60.4	74.0	77.2	90.9	9.1	81.1	93.2	94.8	99.4	0.6	12.3	29.6	36.4	71.2	28.8
Madre de Dios	81.0	82.5	85.7	94.9	5.1	91.3	92.5	93.2	98.7	1.3	42.1	44.6	57.4	80.4	19.6
Moquegua	85.0	95.1	96.8	97.8	2.2	92.9	99.2	99.8	100.0	0.0	37.8	70.1	79.1	85.0	15.0
Pasco	75.7	78.1	83.6	89.3	10.7	92.0	94.3	96.4	98.6	1.4	43.3	46.2	58.2	70.8	29.2
Piura	91.1	93.8	95.2	97.4	2.6	97.6	98.7	99.1	99.6	0.4	60.6	70.7	77.0	86.8	13.2
Puno	83.9	89.0	91.7	93.6	6.4	92.3	95.6	97.0	98.1	1.9	67.7	76.2	81.4	84.8	15.2
San Martin	68.3	80.9	82.0	87.7	12.3	81.7	93.7	94.6	97.6	2.4	31.0	45.1	46.8	60.2	39.8
Tacna	89.8	97.3	98.9	99.6	0.4	92.7	98.9	99.9	99.9	0.1	37.7	69.2	79.5	93.2	6.8
Tumbes	98.7	99.9	99.9	99.9	0.1	99.8	100.0	100.0	100.0	0.0	79.3	98.4	98.4	98.8	1.2
Ucayali	73.2	82.3	85.3	93.4	6.6	90.0	96.8	97.6	99.4	0.6	12.1	29.8	40.7	71.6	28.4
Peru	77.3	85.2	88.3	91.6	8.4	87.5	93.1	94.7	95.9	4.1	39.0	55.5	64.5	75.5	24.5

Source: PARSalud: Consultancy to establish the geographical access of the population to health facilities, 2012.

Table 11. Reasons for not seeking care at a health facility, Peru, 2010–2015 (%)

Level	Year	Lack of money	Far away/ lack of trust	Home remedies/ self-medication	Not necessary	Other
National	2010	13.6	14.8	28.7	38.5	28.3
	2011	12.9	15.3	27.9	40.5	26.8
	2012	11.5	16.0	30.7	41.2	26.6
	2013	10.4	16.3	30.9	43.1	24.0
	2014	8.5	17.0	34.2	43.5	23.9
Urban	2015	6.9	18.2	35.1	46.2	22.0
	2010	13.0	12.0	26.4	41.2	29.0
	2011	12.4	13.1	25.5	43.1	26.6
	2012	10.6	13.2	28.3	43.9	26.1
	2013	9.7	13.7	29.5	46.4	22.7
Rural	2014	7.5	14.3	32.3	46.9	23.3
	2015	6.3	15.2	33.4	48.6	21.8
	2010	15.5	22.1	35.0	31.1	26.4
	2011	14.5	21.5	34.8	33.1	27.5
	2012	13.9	23.5	37.1	33.7	28.0
	2013	12.3	23.8	35.0	33.6	27.8
	2014	11.1	24.6	39.7	34.0	25.5
	2015	8.6	26.4	40.0	39.5	22.6

Source: ENAHO 2010–2015.

Table 12. Human resources within Ministry of Health and regional governments by geographical area, Peru, 2013–2015

Level	Year	Total	%	Physicians	%	Nurses	%	Midwives	%	Dentists	%	Nurse technicians	%
National	2013	150 925		18 724		22 666		10 925		3 186		29 912	
	2014	169 393		20 492		25 779		12 782		3 844		34 865	
	2015	169 849		20 662		25 824		12 699		3 901		34 858	
Urban	2013	126 782	84.0	15 947	85.2	17 968	79.3	7 664	70.2	2 194	68.9	22 831	76.3
	2014	141 776	83.7	17 636	86.1	20 443	79.3	8 873	69.4	2 639	68.7	26 492	76.0
	2015	142 550	83.9	17 906	86.7	20 760	80.4	8 855	69.7	2 678	68.6	26 605	76.3
Rural	2013	24 143	16.0	2 777	14.8	4 698	20.7	3 261	29.8	992	31.1	7 081	23.7
	2014	27 617	16.3	2 856	13.9	5 336	20.7	3 909	30.6	1 205	31.3	8 373	24.0
	2015	27 299	16.1	2 756	13.3	5 064	19.6	3 844	30.3	1 223	31.4	8 253	23.7

Source: Ministry of Health (6).

4. Historical context timeline

In Peru, from colonial times onwards, health care was conceived as hospital reparative care without State participation, with provision mainly through public beneficence until the 1930s, when the Ministry of Health was created. It was not until the 1960s that the Ministry of Health began building health care facilities with German credit, marking the start of preventive health programmes. Several hospital facilities emerged as first-level health care facilities, which were then modified and expanded due to popular demand.

Three historical periods can be identified in the development of PHC strategy in Peru, which has a long history dating back to the 1930s. The first period extends until the 1980s, and was mainly focused on theoretical reflection on the scope of PHC and development of various initiatives led by notable figures in the country's history of public health, such as the developments instigated by Dr Manuel Núñez Butrón in Puno. In 1933, Dr Núñez Butrón "created the first sanitary brigade in Isla, a community near Juliaca (capital city of Puno), to improve the situation of the native communities decimated by typhus and smallpox, intoxicated by alcohol and coca, plunged in ignorance, and exploited by the *hacendado*, the *gamonal* and the *tinterillo*". He recruited *rijcharis* – sanitarians or health promoters – from among the indigenous people, marking the start of his doctrine of *rijcharism*. Its symbols were pure water and soap, and a pencil and notebook. He also founded the newspaper *Runa Soncco* (Heart of the Indigenous People); its first issue was published on 28 April 1935, the same year that the Ministry of Health was founded. Unfortunately, it only published 10 issues, concluding on 24 June 1948. *Runa Soncco* was practically a health card written in simple language so that it could be understood by the indigenous populations of the area (7, 8).

The second period began after the International Conference on Primary Health Care, Alma-Ata, 1978, and is characterized by the development of various PHC experiences, although it is recognized that these were generally of a selective type and confined to specific areas of the country, financed by bilateral international and multinational cooperation (Figure 2). Amongst these initiatives were the Rural Medicine Programme in Puno, the Primary Health Care Project in Loreto (Red Barnet and Cayetano Heredia Peruvian University, 1992–1998), the Primary Health Care and Basic Sanitation Project in Cajamarca (1991–2000) (9), Project 2000 (1993–2002) (10), the Basic Health and Nutrition Project (1994–2000), the New Initiative Project, the Basic Health for All Programme (1992–2000) (11) and the project on local health administration committees (*comités locales de administración de salud*, CLAS) (1994–2006) (12). Table 13 presents a brief analysis of the characteristics of projects and interventions in PHC.

The third period began in 2003, when the Ministry of Health formulated and formalized, through Ministerial Resolution No. 729–2003-SA/DM, the Comprehensive Health Care Model (Modelo de Atención Integral de Salud, MAIS), which is considered a fundamental reform in public health and marks the beginning of this period of PHC. MAIS was a new approach centred on health care needs to guide the organization and functioning of health services (13). The most important changes and advances of this period were (a) the inclusion of extramural health care through the introduction of basic health teams and modalities for mobile provision of health care services for dispersed populations (using itinerant teams or brigades for comprehensive health care); (b) the definition and approval of technical norms for health care delivery at various life stages; and (c) the formation of networks and micro-networks to provide health services on behalf of the Ministry of Health.

Figure 2. Primary health care timeline in Peru

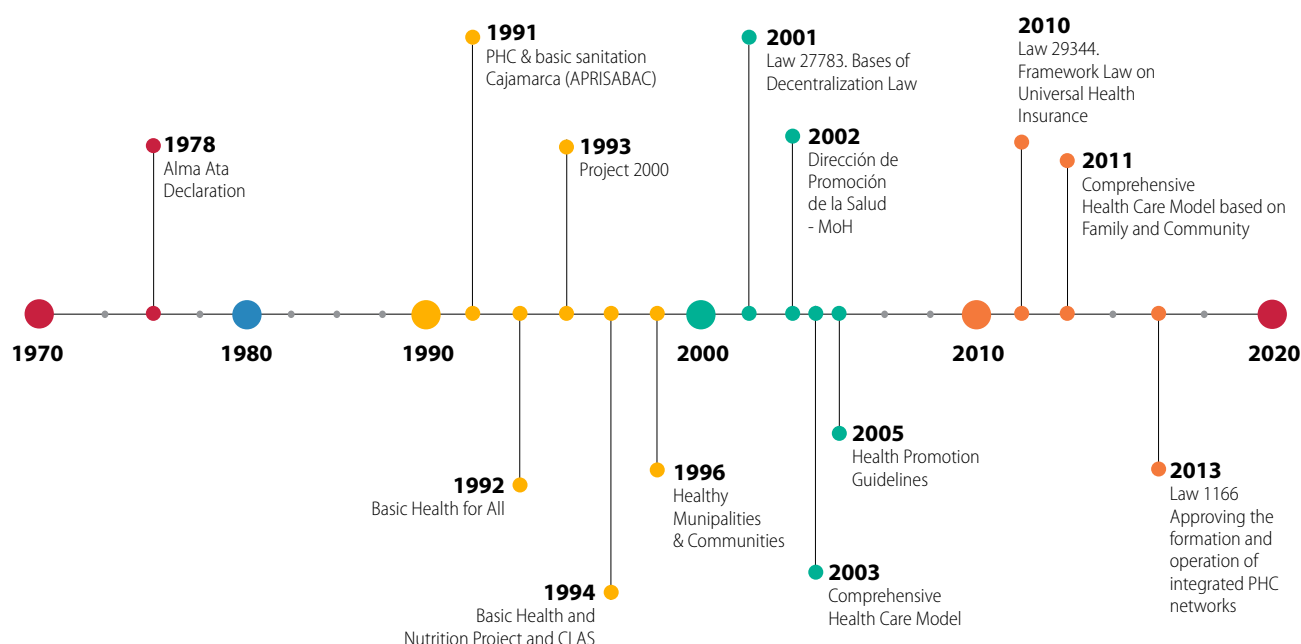


Table 13. Characteristics of projects and interventions in primary health care

Success or failures	Barriers	Enablers	Remarks
All implemented programmes show positive products and results of their implementation, immediately after they conclude. However, there is no adequate evaluation of their impact using robust experimental or quasi-experimental evaluations.	State participation ²	State participation	Poor political culture in the country to implement State policies
	Focused interventions	Local authorities' participation	Lack of sustainability and continuity of interventions and identification of lessons learned
	Changes in political authorities	Participation of grass-roots social organizations	
	Lack of process standardization		
	Limited cultural appropriateness of interventions		

During the first decade of MAIS, implementation was limited compared to the conceptual proposal, with health sector actions predominantly centred on personal health and fragmented by life stages, rather than adopting an inclusive approach embracing the family, community and environment. The Ministry of Health did not progress in an orderly and systematic manner in the operationalization and articulation of the first, second and third levels

of care, compromising the development of an Integrated Health Services Network. Efforts by the Pan American Health Organization and Medicus Mundi to generate tentative operational guidelines for MAIS did not achieve their goals at the Ministry of Health. A common problem in many of the guidelines is the fragmentation by area (guidelines for working with community agents, guidelines for working with traditional therapists, guidelines

² The participation of the State in the implementation of PHC interventions has the theoretical advantage that it can facilitate sustainability in the long term; however, it also has the great disadvantage of being affected by political upheavals, especially changes of government.

for the work of health care professionals in each national health care strategy), whereby cross-cutting components such as integrated care get lost in the details of each component. According to some interviewees, there is a need to adapt the model to regional and subregional cultural nuances, aiding local implementation.

From 2011 onward, the family, community, and environment components were given fresh consideration and integrated as the axes of the new Comprehensive Health Care Model based on the Family and Community (MAIS-BFC), representing the beginning of the adjustments characterizing the third period of PHC development in Peru (14). The adjustments under MAIS-BFC can be grouped into two fundamental components: (a) the reform of the health care model, evolving from a family medicine approach towards a more comprehensive family health approach, based on the family and the community; and (b) the inclusion of diverse programmes to strengthen the first level of care in areas related to equipment, pharmaceutical drugs, training, work incentives, and development of integrated networks of health care services.

Medicus Mundi evaluated the 2010–2013 period of MAIS implementation, with a follow-up evaluation scheduled for the 2010–2016 period. Unfortunately, the National Strategy for Family Health, responsible for implementation of MAIS, was discontinued in December 2015, as observed in the most recent Regulations of Organization and Functions of the Ministry of Health.

Parallel to the development of PHC, other strategies were introduced that led to significant changes in government and health care organization and functioning, including health care decentralization, the implementation of results-based budgeting, and universal health insurance. A progressive improvement in health indicators with emphasis on the reduction of maternal and child mortality has been reported as a joint achievement of these strategies.

Another two elements are relevant to the development of PHC in the country. The first is related to the integration of PHC within public health functions, reflected in a common chain of command, coordinated flows of funding, and linked development of infrastructure. According to the majority of interviewees, a common chain of command is still lacking. The fragmented and segmented nature of the health system limits the ability to articulate health care actions for the population, both with regard to other health subsectors (for example, inter-institutional provision and interchange of services) and other sectors of the economy (for example, in relation to the Ministries of Education, Housing, Labour, Development and Social Inclusion). This lack of integration makes it difficult to address the social determinants of health.

A small group of interviewees recommended “programmatic horizontalization”, by which there is health service interchange at the first level of care around three axes (individual, family and community health), with fully integrated strategies and a life cycle approach as expressed in the financial, programmatic and logistical components, as well as in the infrastructure and equipment. It involves turning vertical programmes at the local level so that they work across the three axes of individual, family and community health. Such an initiative should allow the integration of PHC with other public health functions. Unfortunately, this transversalization has only been executed in specific initiatives where tools were developed for these axes, or where work has been done to integrate intramural and extramural activities in an aim to transversalize care.

Moreover, budget allocations in public subsystems show an inverted pyramid, whereby the first level of care comprises the highest percentage of the beneficiary population, with the greatest numbers of health care facilities, but receive lower budget allocations and fewer human resources, as presented in Figure 3 for EsSalud. The same inverted pyramid is observed in the case of the Ministry of Health. One of the most supported proposals by technical professionals is to convert a set of health care facilities,

network headquarters, and category I-4 health facilities into strategic facilities, that is, health facilities with the appropriate capacity for case resolution. This implies the allocation of adequate infrastructure, equipment, medical supplies, and qualified human resources. In addition to the four general specialties, qualified human resources would include secondary specialists in ophthalmology, cardiology, rehabilitation, and mental health, matched to the epidemiological profile of the assigned population. It also implies having the appropriate funding and organizational capacity to provide 24-hour emergency care, receive referrals from different specialties, and strengthen the competencies of human resources working in health care facilities that comprise the health care network. The lack of adequate primary health care networks encourages the population to seek care in hospitals or specialized institutions. At Cayetano Heredia National Hospital, 70% of outpatient visits are low-complexity cases, and at the National Institute of Ophthalmology, 30% of the demand is due to visual acuity problems.

The second element relevant to the development of PHC in the country is related to the use of mobile devices and rapid diagnostic technologies to support

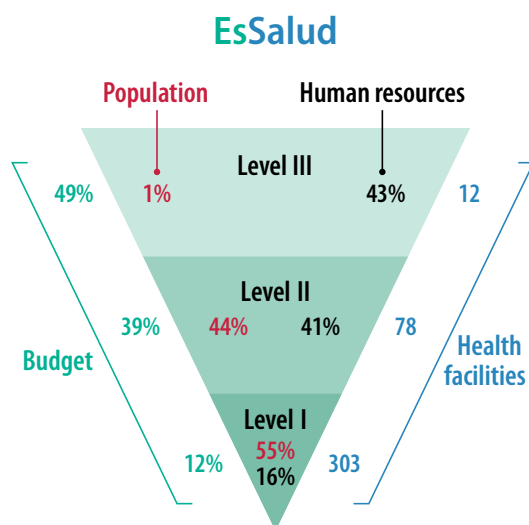
decision-making, treatment, counselling and advice. Various interviewees pointed out that mobile devices are very useful for patient referral, supporting the referral and counter-referral system within the health care network and within each health care subsystem. Communication can be improved through use of cell phones, while acknowledging the inconsistencies of quality in the Internet broadband network, especially in rural areas. Efficient referral of patients depends on the existence of adequate communication channels and means of transportation, which can be difficult in the case of category II-1 and II-2 health care facilities that lie outside the health care network, as it is almost impossible to refer patients from one subsystem to another.

On the other hand, the use of rapid diagnostic tests in first-level health care facilities, which lack capacity in terms of a properly equipped laboratory with qualified human resources, has been very useful in the treatment of diverse illnesses, most of them related to specific budgetary programmes. Examples include HIV/AIDS, drug-resistant tuberculosis (TB), malaria, anaemia, and urinary tract infections in pregnant women.

Nonetheless, the use of health technologies is in a nascent phase. The only initiatives that currently exist are academic interventions and research, supported by national or international cooperation funds (for example the WawaRed in Callao and cysticercosis elimination programme in Tumbes), with few spaces for institutionalization. However, there are plans to increase integration of health technologies in public policies. A review of various national experiences (15) concludes that there is a need for collaborative work, institutional efforts and funding to shift from innovative interventions at the local level to interventions at the national level, with a systemic approach that boosts what has already been developed and promotes new uses of telehealth in order to provide health policies and strategies of greater impact.

For one interviewee, “it will make sense to have communication, population transport mechanisms,

Figure 3. Budget, population, human resources and health facilities by level of health care



Source: Health Provision Central Management, 2012.

and the use of technology in e-health. It will make sense to have a doctor capable of communicating electronically with the entire health care system. Populism is an enemy of citizens' development; assistentialism does not allow the creation of public

awareness." For another interviewee, "[telehealth initiatives] do not cover the needs of I-1 facilities, which usually do not have a competent professional. They should receive a teleconsultation from a doctor at an I-1 facility one hour a day."

5. Governance: equity, civil rights and universal coverage

The analysis of governance starts with consideration of the legislation on health care rights, health equity, and universal coverage. First, health is recognized as a right in the Peruvian Constitution, as confirmed in the 2002–2012 sectoral guidelines (which should have been renewed in 2012). The principle of health equity has been declared by agreements of the political parties, within the framework of the National Agreement. It is defined in Policy 13 of the National Agreement and its matrices (16), as well as in the objectives of the health sector reform agreement (17). In all cases, health is developed as a right and defined in terms of coverage, access, and equity. Furthermore, there is general mention of public health principles (universality, equity, quality, solidarity, effectiveness and efficiency).

The framework and regulations of the Law on Universal Coverage include topics such as health equity, universal health coverage, and human rights to health. The description of the National Superintendence of Health (SUSALUD), states that “its purpose is to safeguard and guarantee the right of all persons to full and progressive access to health insurance under the principles of universality, solidarity, unity, integrality, equity, irreversibility, and participation” (18). The criteria on health equity have extended the insurance system to the whole population, implemented jointly with the national decentralization process. This should be complemented with other policies and strategies to ensure the feasibility of health insurance (through articulation of supply that incorporates health promotion along with preventive content and delivery of care). Notably, there is a set of health care rights that do not have to be financed by any type of insurance as they are considered to convey fundamental benefits, for example provision of vaccines and medications for TB and HIV. However, implementation is limited or marginal, and prioritizing coverage over quality has hurt the reform process.

Health was established as a fundamental right in the 1979 Constitution. Though the Constitution of 1993 does not explicitly mention it, the Constitutional Court ruled, in their interpretation of the Constitution, that health should be understood as a fundamental right. Under the 1979 Constitution, there was no explicit guarantee that health care should be considered a right for users, which allowed ministers such as Abel Salinas and Carlos Vidal to charge for health care, significantly limiting access to health care services for 50% of the population. Even so, the population is protected from health care charges through legislation such as the Insurance Law that provides the regulatory framework for the first set of public insurance provisions: free school insurance, mother and child insurance, and SIS. Despite these improvements, an Essential Health Insurance Plan, such as those in Chile and Colombia, where explicit guarantees are protected by law, has not been achieved. These guarantees allow prosecution in the case of rights violations. In contrast, the Essential Health Insurance Plan in Peru is a technical instrument and cannot be judicially enforced.

Under the Bicentennial Plan and the last Reform Plan of the Ministry of Health, equity is one of the objectives to be reached through universal health care coverage, as endorsed by the Peruvian Government. To support policies, the Ministry of Health has specific programmes in place that seek to reduce inequality gaps and provide the most vulnerable populations with increased access to health care services, for example the Articulated Nutrition Programme and SIS. Universal access and health care insurance coverage are two sides of a coin; a person can have nominal insurance but limited access. Relevant factors include capacity, competence, and the overall effectiveness and modernity of the approach. Health care facilities may have skilled personnel and adequate installed capacity, while still failing to meet the demographic and epidemiological needs of the ascribed population. As one interviewee pointed

out, “in today’s Peru, health facilities are built for yesterday’s Peru. When it has the inputs, it does not have the competencies to meet the population’s needs ... the professionals refer everything.”

The need to reform the health system emerged in the late 1960s, through officials and academicians organized in the Peruvian Public Health Society, as reported in the annals of the first, second and third National Congress of Public Health. In 1974, a commission was formed to draft the General Health Law, presenting an opportunity to design a reform proposal. However, consensus was not possible given the strong conceptual and ideological differences of its members. In 1975, the Coordinated and Decentralized National Health System was created, though the proposal to create the national participatory health service was rejected, given the merger of the two major health organizations in the public subsector (19). In 1985 there was a new attempt to integrate the public subsector, led by the then Minister of Health, Dr David Tejada, a world-renowned sanitarian committed to the development of PHC. The proposal sought to implement PHC as the central axis of the health care system, but it did not gain the support of the social health actors; in addition, constitutional and legal difficulties made it unfeasible. In 1997, with the Social Security Modernization Law, the Peruvian Institute of Social Security was reformed and the Social Security of Peru was created (20), which includes two modalities: the previously existing one, now called EsSalud, and a private one, through which health care service providers offered a low-complexity benefits plan through networks of private facilities. The Superintendence of Health Care Service Providers was created as a supervisory body for this modality of service provision.

Coupled to this context, the process of political decentralization, a long-standing aspiration of the population living in provinces and towns remote from the country’s capital, was seen as a prime opportunity to move towards harmonious and sustainable national development. In 2001, a set of laws promoted and regulated the decentralization

process, whereby the State retained its unitary nature and was organized into three government levels: national, regional and local.

The decentralization of health care services from the national to the subnational levels made varied progress due to the very different initial approximations pertaining to the democratization of decision-making and health development in decentralized areas (21–23). A number of regional governments, after a difficult learning period, have been responsibly embracing the health challenge in their areas and have achieved important health objectives. In contrast, other regional governments have not been able to achieve the necessary capacities or give priority to their health functions, especially regarding public health interventions, with a consequent risk of health emergencies.

The partial implementation of both processes – health system reform and decentralization – has in turn limited the potential for the development of an institutional instrument for awareness raising and citizens’ participation in health care.

The concept of health insurance was introduced during the 1990s. It recognized the need to differentiate the purchasing function from the service sales function in order to achieve greater efficiency. The concept of an “internal market”, as an efficient instrument for the production and distribution of health goods, underlay the predominantly financial health insurance approach, while neglecting the central mission of the health care system to deliver services.

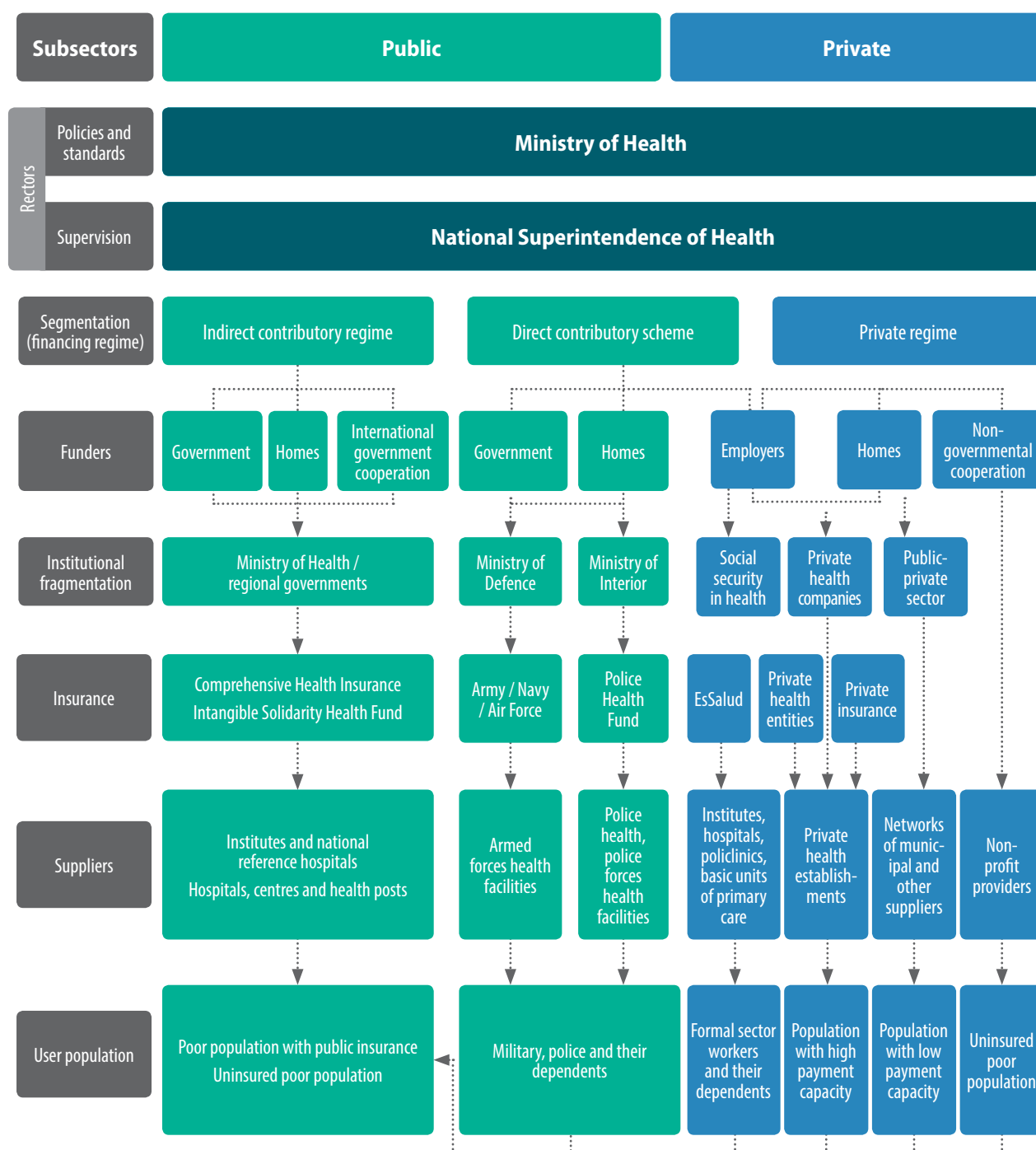
Peru began the implementation of universal health insurance in 2010, despite not having the agreement of some of the most important social health actors. Opposition from the main professional associations, civil society organizations and labour unions meant that the health authorities had minimum consensus at the National Agreement Forum on the matter of health insurance or on the 2015 health reform (17).

This was launched with the enactment of Framework Law No. 29344 and its regulation, Supreme Decree No. 008–2010-SA (24). This legislation created the

National Superintendence of Health Insurance (formerly called SUNASA, currently SUSALUD) as an entity to supervise the system's operation. Subsequently, through Legislative Decree No. 1158, SUSALUD saw its capabilities defined and strengthened. In summary, the regulation of the financial administration and the supervision of

the public and private provision systems, both first-order policy instruments, were transferred to SUSALUD. Unfortunately, in the latest dispositions of the current government, SUSALUD will no longer have sanctioning capacity, but will only give recommendations. Figure 4 shows the organizational structure of the National Health System of Peru.

Figure 4. Organizational structure of the Peruvian health system



6. Classification and decentralization of health care facilities

The Peruvian health system can be classified as a four-tier system,³ namely (a) public (Ministry of Health and district facilities, police and armed forces facilities); (b) the social insurance system (EsSalud); (c) private for-profit facilities; and (d) private not-for-profit (NGO and religious) facilities. Health facilities are categorized as primary facilities (from I-1 to I-4), secondary facilities (II-1 and II-2) and tertiary facilities (III-1, III-2 and III-E); however, all the facilities provide primary care. PHC is provided through a physician-supported infrastructure; only PHC facilities in category I-1 are supported by other health professionals (nurses, midwives or health technicians). However, EsSalud has created its own equivalent categorization scale by which health services are provided by physicians nationwide in all its primary-level facilities.

In Peru's decentralized political system, the national level sets overall policy and frameworks, and regional and local authorities are responsible for implementation. At the Ministry of Health level, the head of a regional health authority – the regional health directorate (DIRESA) or regional health management (GERESA) – is designated by the governor and has the main responsibility for service delivery, including PHC and environmental health services. Regional or equivalent health authorities of the police and armed forces and social insurance subsystem (EsSalud) are designated by the national level.

Frameworks for financial and performance accountability are provided nationally; these include systems for budgeting, planning, accounting and monitoring, based on a set of nationally reported core indicators. However, despite the initiative of budgeting for results implemented for the budget programmes in the public administration, which establishes a relationship between planning, budget,

accounting and monitoring, it is recognized that (a) not all the health interventions have budget programmes; (b) in reality, the annual planning budget is usually the same as for the previous year, plus 10%; (c) there is lack of capacity to properly monitor yearly implementation of the budget programmes; and (d) the other subsectors (police and armed forces and EsSalud) do not have budget programmes.

A PHC strategy is explicitly included in the social security subsystem of EsSalud, both within its strategic plans and in the description of its care model, defined in accordance with the message of the Alma-Ata Declaration:

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.

The portfolio of services delivered by the first level of care is based on MAIS, with a strong orientation towards health promotion and disease prevention at the individual, family, and community levels. To this end, three strategies are being developed: PHC networks (two initiatives implemented in Callao and Villa María del Triunfo); the Basic Unit of Primary Care (UBAP) programme;⁴ and a new health care delivery model, the Standardized and Progressive Health Care Model (25).

The Basic Unit of Primary Care (UBAP) is a management and organization model of the first level of care designed by EsSalud, where the implementation process involves the functioning

3 Some authors classify it as a two-tier system (public and private), and others as a three-tier system (public, private, mixed).

4 Information available at <http://www.essalud.gob.pe/servicios-primarios/>.

of a supply of outpatient, primary health care services that deliver opportune and accessible comprehensive care to an insured population residing in a defined geographical area. UBAP will develop health promotion, disease prevention, recovery and basic rehabilitation activities, corresponding to the first level of health care, according to the primary health care services portfolio of EsSalud (21).

The UBAP management model includes performance evaluation based on health outcomes and incorporates a system to allocate financial resources as well as a per capita payment mechanism. To this end, (a) it will provide comprehensive outpatient health care; (b) it will carry out health promotion and disease prevention activities through the essential health care packages and ambulatory, recuperative and rehabilitation care corresponding to the first level of health care; (c) UBAP's health facilities will be located in the health sector where the assigned insured population is located; (d) the performance evaluation will be based on the health results obtained by UBAP, the level of accessibility to health care services, health benefits coverage granted to the insured population, and the degree of user satisfaction; and (e) the payment system is per capita. The implementation of UBAP will be carried out through the following schemes: agreements with public entities (municipalities), contracts with private entities, and the creation of the fixed offering of health services of EsSalud (21).

The third strategy, the Standardized and Progressive Health Care Model (MOCEPS) is a governable, efficient, user-oriented, transparent, and articulated representation of the set of institutional resources EsSalud employs within its service system, structure and processes. Its purpose is to respond to the health needs of the insured, while being responsibly self-sustaining (22). This model seeks to establish guidelines for health care of increasing complexity for a primarily urban population that predominantly exists in EsSalud (Figure 5).

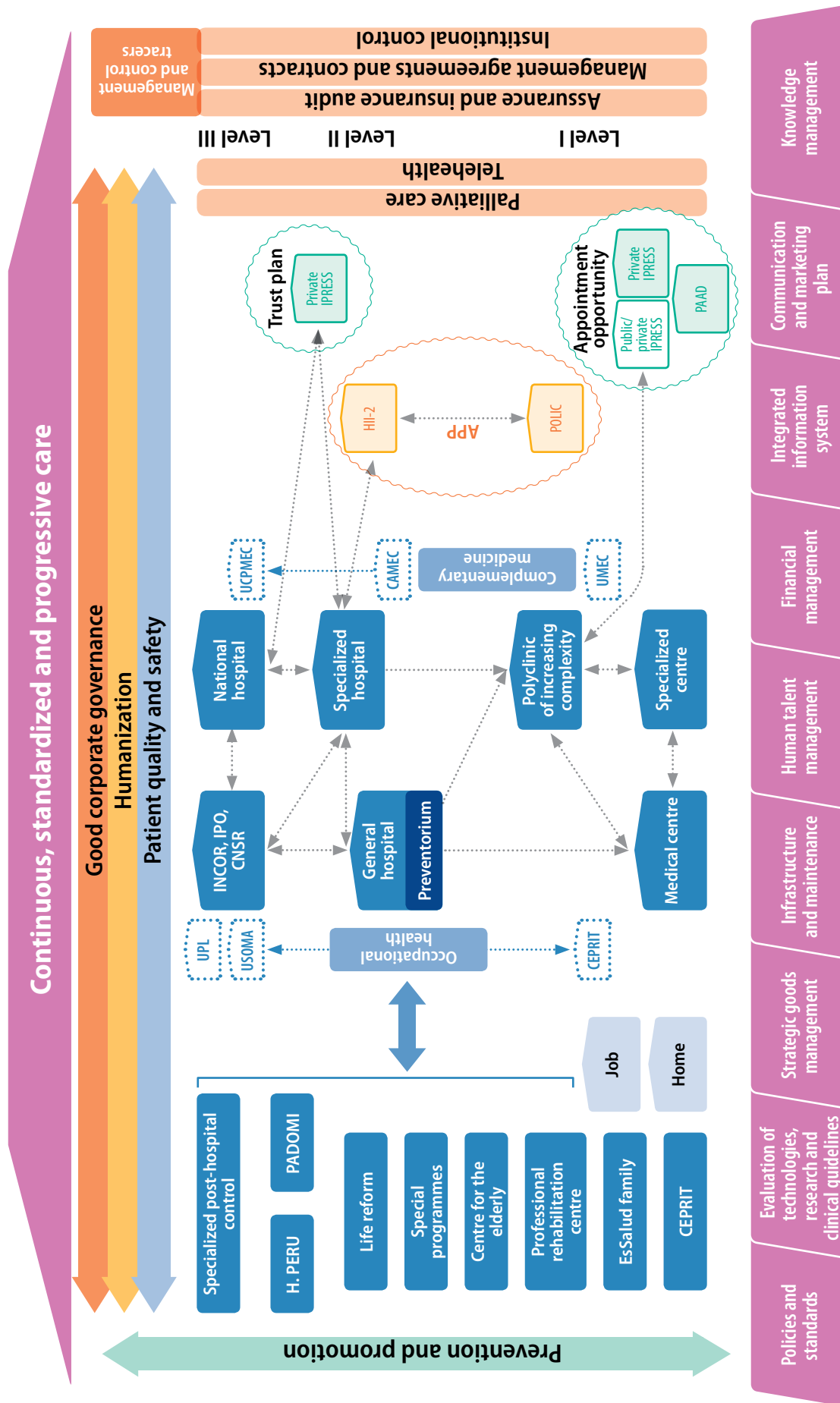
MAIS-BFC recognizes the Ministry of Health as the national health authority and the governing body in charge of the definition of technical standards, delegating to the General Directorate for the Health of the People, while the regional health directorates (decentralized entities attached to the Ministry of Health) are responsible for the application of the technical and normative strategy document and supervision of its implementation. Health-related institutions from both local governments and public, private and mixed health care facilities must apply MAIS-BFC throughout the national territory (20).

Two dimensions and four components are defined for the implementation of MAIS-BFC. The dimensions for action are policy and operational, while implementation components are management, organization of the service delivery, delivery of health care services and financing.

The policy dimension is responsible for formulating and implementing policies, programmes and plans for the adoption of MAIS-BFC, addressing the social determinants of health through intersectoral interventions, with a role for both national and subnational institutions. The operational dimension corresponds to the bodies that must apply and implement MAIS-BFC, mainly health care facilities and individuals through their social organizations (20).

The management component highlights the territorial approach to health care, which includes the provision of sufficient, competent and adequately distributed health care teams and the progressive development of a functional information system. It is estimated that based on the recognition of population needs, identified through a territorial approach, three types of interventions can be developed by the basic family and community health team: comprehensive care to the person, to the family, and to the community. The organizational component of service delivery is related to the formation of the Integrated Health Services Network, the registration and classification of health care facilities according to their level of complexity, and the mobile provision of health services.

Figure 5. Model of standardized and progressive health care



(H. Peru: National hospitals; PADOMI: Home Care Programme; UPL: Unit of Labour Pathology; USOMA: Occupational Health and Environment Unit; INCOR: National Heart Institute; IPO: Peruvian Institute of Ophthalmology; CNSR: National Centre for Renal Health; UCPMEC: Palliative Care Unit of Complementary Medicine; IPRESS: Health Service Provider Institutions; CAMEC: Complementary Medicine Care Centre; HII-2: Hospital II-2; CEPRIT: Centres for the Prevention of Occupational Risks; UMEC: Complementary Medicine Unit; APP: Public-Private Association; POLIC: Polyclinic; PAAD: Decentralized Ambulatory Care Programme)

The health service delivery component includes guidelines for the organization of basic teams, extramural and intramural health care packages, organization of the community surveillance system, and the development of local health care plans. The financing component emphasizes financing for health care facilities through a capitation scheme by allocating a predefined amount to groups of universal insurance beneficiaries through the institutions administering health insurance funds (IAFAS), which enrol users in the nearest health care facility in the territory.

In the context of caring for the population, health care networks and defined territories must be recognized, as well as the assignment of the population to the nearest health facility, adopting a pragmatic approach. The networks should include facilities ranging from the first-level health care facilities to the specialized institutes, where MAIS-BFC should be used. In that context, Legislative Decree No. 1166 of December 2013 approved the formation and operation of integrated primary health care networks (RIAPS), defined as the “set of public, private or mixed health services providing institutions, functionally articulated through agreements of an institutional or contractual nature to provide health promotion, prevention, recovery and rehabilitation services in a defined population located in a specific geographical area. In addition, it coordinates with different public and private entities that act within their geographical scope to address the determinants of health” (26).

Limitations to effective implementation of health care networks are associated with the lack of regulatory coordination between RIAPS and MAIS-BFC, but the most complex issues arise from the network organization (for example, per capita budget allocation). With RIAPS, there is a risk of privatization of the first level of care, as in the Guatemalan model, as well as the risk of corruption by NGOs and other institutions. It is recognized that existing health networks have not been implemented, such as the Integrated Health Services Network (27). A dialogue on the Integrated Health Services Network and RIAPS took place in October 2014, covering such

topics as management, financing and selection of the Integrated Health Services Network manager. According to one interviewee, “The RIAPS do not work. They must have radical decentralization.” The rationale of the network is clearly understood – users should be able to seek care at the lowest possible cost, and should be given adequate power and information. “The user chooses ... their credit card is their insurance; they must be empowered.” Those offering health services must be free of bureaucratic burden in order to operate effectively. Current policy and management do not solve the basic problem of allowing people to freely select their providers, in line with a patient-centred approach. Once the existing problems in the legislation are corrected, the Integrated Health Services Network should fundamentally drive the public sector under the Ministry of Health, and the pertinence of doing the same in EsSalud, the police and armed forces, and the private sector should be considered, encouraging the development of patient care networks.

One interviewee said: “EsSalud has the best network organization for service delivery at the primary level and referral for control at the secondary and tertiary levels in the country.” However, another suggested that “although EsSalud has been developing a network organization equivalent to the regional scale, its structure and financial distribution are more hospital oriented, concentrating 80% of the budget as well as human resources in level II and III hospitals”. There are examples of specialized personnel delivering care in the UBAP on certain days of the week, and theoretically the same should happen in urban health care facilities run by the Ministry of Health. Implementing mechanisms for rotation of specialists has not been possible in rural areas. One company has established a connection between a facility in the Ancash region and Huaraz Hospital and is currently connecting with the Hospital Nacional Cayetano Heredia. Another example of an EsSalud connection at internal level is provided by the Rebagliati south network for services in nephrology and urology, including haemodialysis by telemedicine. There are no further developments at the national level.

Boxes 1 and 2 present further information on MOCEPS and MAIS-BFC.

Box 1. MOCEPS and EsSalud

The Standardized and Progressive Health Care Model (MOCEPS) includes measurable criteria so that objectives can be evaluated, enabling internal and external comparison. This facilitates both horizontal and vertical control actions; allows standard-based management; increases accountability, efficiency, transparency and equity; and enables greater linkage between community and governance.

MOCEPS facilitates compliance of EsSalud with global and regional policy mandates, and supports efforts towards achieving universal health coverage. It is at the forefront of the State modernization process, including focusing actions on the citizen, improving conditions for financial sustainability, contributing to the development of human capital, responding to the legitimate demands of the insured, and ensuring provision of humane care.

Box 2. Implementation of extramural work under MAIS-BFC

Reinforcing extramural work is an important function MAIS-BFC. The community surveillance system is an instrument in the organization of extramural work. The implementation stages of the system are described below.

The first activity of the basic family and community health team, in close coordination with the community, will be a survey to identify social needs within the territory. As part of the work, a progressive census of families – termed a community census – within the geographical sector of the health care facility is carried out. The census results are used to systematize information on (a) most frequent problems at the individual level, according to life stages; (b) problems at the family level; and (c) problems at the community level. The results of the census diagnosis are presented to the community to jointly prioritize problems and to organize a response based on social and community needs, with the participation of the basic family and community health team.

A community plan is then elaborated, with the participation of community actors and the local government. The community plan will focus on two main intervention areas: (a) comprehensive care for individuals according to their life stages, and for the family as a unit within the family life cycle; and (b) addressing the social determinants of health at the family and community levels. The basic family and community health team will gradually develop family and community care plans, integrating the roles and responsibilities assigned.

For each locality, local authorities define intersectoral health management agendas that incorporate social participation and involve cooperation between the health service, other relevant sectors, and community networks. These agendas are oriented towards overcoming inequity. Actions then focus on defining targets related to social needs, engaging technical, scientific, economic, social and political actors to support the government health agenda. These planned actions constitute the health contribution to the social management of the territory – a key element for the operationalization of local development plans.

The local health plan will include health care activities and targets to be achieved by the basic family and community health team, through both its intramural and extramural activities (for example home visits and health campaigns). It will also include activities and targets for the promotion of healthy communities and institutional development (incorporating training, technical assistance, results-based management for improved quality, and implementation of MAIS-BFC components). Monitoring and evaluation of activities based on targets and results assist estimation and mobilization of the required resources.

Regarding decentralization of management decisions, one interviewee said that authorities and officials at the three government levels did not understand “the difference between a unitary and a federal country”. Indeed, the process of decentralization faced difficulties arising from the lack of clarity on, for example, the difference between deconcentration and decentralization of activities, or between autonomy and independence in matters of governance. In the words of one interviewee: “The regional governments understood decentralization and autonomy as if we were a federative country, and such autonomy as anarchy.”

For one interviewee, “we do not have a democratic governance model”. One attempt at democratic governance was the project to introduce local health administration committees (CLAS), though political and cultural factors led to their discontinuation, namely the lack of political impetus to implement State policies, or of a supportive culture that encourages continuity of interventions and the identification of lessons learned. The project proved to be ineffective in achieving a participatory relationship with the population and promoting greater awareness among citizens. As another interviewee remarked: “Social participation is a need that unfortunately does not occur.”

The State model for governance of first-level health care facilities and achievement of targets adopts a top-down approach. Such vertical decision-making can generate results that are measurable and evaluable, enabling informed, science-based decision-making and management in the health sector. On the other hand, it can lead to a failure to engage in public consultation, on the grounds that sufficient evidence to guide action already exists. One interviewee observed that the population “never believed [in the State] because it never had the opportunity; decisions were never consulted here – if they get consulted it even grabs their attention ... They ask themselves why do they waste their time consulting me. People are used to not participating.”

Moreover, the decision-making role and processes of the Department of Social Development are not

understood by the regional governments. According to legislation, its purpose is to translate the sectoral vision of the State into a territorial reality, while avoiding sectoral fragmentation at the territorial level. However, the lack of understanding of this role is often manifested in power games between the regional health directors (who are officials, not health authorities as such) and the Department of Social Development, preventing full implementation of the functions and competencies of the Department of Social Development. Another factor is the failure of the Department of Social Development to manage or articulate the budgets of the different social sectors. Some interviewees allude to the strained relationship between the Department of Social Development and the sectoral directorates under its command, characterized by an inability to interact with technical teams. To further compound the situation, some governors manage these sectoral directorates as personal fiefdoms. As one interviewee said, “in practice, centralism has been decentralized in the regions”.

In this deconcentrated context, mechanisms should be created for regional governments to implement action on health issues based on the priorities of the central authorities of the health care system. In addition, preventive and promotive activities should be given greater priority by ensuring that a larger proportion of the regional budget goes to PHC services.

As at August 2016 there were almost 20 000 health facilities registered at the national registry of health service provider institutions (IPRESS). Of those, 13 586 (68%) are primary-level facilities, while around 30% are yet to be categorized. Of the categorized primary-level facilities, 79% have the lowest categorization, while 50% are in category I-1 and 29% are in category I-2. Based on institutions, a total of 7442 (55%) of the primary health facilities belong to the regional governments, while 5256 (39%) are under the private sector. Of the 6828 primary health facilities categorized as I-1, 4317 (63%) belong to the regional governments and 2436 (36%) are in the private sector. Of the 3885 primary health facilities categorized as I-2, 1818 (47%) belong to the regional governments and 1676 (43%) are in the private sector (Tables 14 and 15).

Table 14. Categorization of health facilities, Peru, August 2016

Institution	Primary level	Secondary level	Tertiary level	Uncategorized	Total
EsSalud (social security)	220	58	11	97	386
Local municipalities	56	0	0	18	74
Provincial municipalities	3	0	0	5	8
Regional government	7 442	135	15	49	7 641
IGSS (metropolitan city)	357	5	19	2	383
National Penitentiary Institute	27	0	0	14	41
Ministry of Health	4	0	1	10	15
Mixed	8	1	0	3	12
Other	50	2	0	54	106
Private	5 256	254	5	5 503	11 018
Air Force	21	3	1	5	30
Peruvian National Police	68	2	1	40	111
Army	35	1	1	58	95
Navy	39	0	1	28	68
Total	13 586	461	55	5 886	19 988

Note: IGSS = Institute for Management of Health Services (Instituto de Gestión de Servicios de Salud).

Source: National IPRESS Register, August 2016.

Table 15. Categorization of primary-level health facilities, Peru, August 2016

Institution	Primary level				Total
	I-1	I-2	I-3	I-4	
EsSalud (social security)	4	110	94	12	220
Local municipalities	3	14	38	1	56
Provincial municipalities	–	–	3	–	3
Regional government	4 317	1 818	1 022	285	7 442
IGSS (metropolitan city)	3	157	165	32	357
National Penitentiary Institute	6	16	5	–	27
Ministry of Health	4	–	–	–	4
Mixed	3	1	3	1	8
Other	12	28	9	1	50
Private	2 436	1 676	1 064	80	5 256
Air Force	3	10	4	4	21
Peruvian National Police	11	27	22	8	68
Army	9	12	4	10	35
Navy	17	16	4	2	39
Total	6 828	3 885	2 437	436	13 586

Source: National IPRESS Register, August 2016.

7. Financing

Between 1995 and 2014 health expenditure increased from 4.46% to 5.47% of GDP. In real terms, this has involved an increase from US\$ 96.63 (around 328.54 Peruvian soles) per capita in 1995 to US\$ 358.58 (around 1219.17 Peruvian soles) per capita in 2014, which represents an increase of 271%. In Peru, health expenditures include public expenses from general taxes and private expenses, both insurance expenses and out-of-pocket expenses. This increase is related to the increase in the coverage of SIS, which involves contracting more human resources, the creation of strategic centres (first-level health care facilities), and the expansion of HAART and anti-TB therapy.

Public insurance in Peru was first introduced in the late 1990s with the development of two programmes aimed at overcoming the economic barriers to accessing health care services for lower-income populations. Both the free school insurance, targeting children aged 3 to 17 years, and the mother and child insurance, which provided coverage for pregnant mothers and children aged under 5 years, offered basic health care packages. In 2002, based on previous experiences, SIS was created as a programme to partially finance the demand for health care under the reimbursement scheme. Subsequent consolidation of public insurance has been aided by the managerial capacities of its leaders and adequate administrative autonomy. Beneficiaries, benefit plans, financing schemes and payment mechanisms to providers have been modified over time. However, a debate continues among State officials between those who perceive SIS as a step towards achieving universal health insurance and those who identify it as the insurance of the poor. In theory, every family can choose among the various public or private insurance agencies (SIS, EsSalud, SaludPol), though segmentation continues.

Public revenues are collected at the national level through general taxes and redistributed to regions based on population numbers, population dispersion

and accessibility of services. Within the health budget, some funds cannot be modified or redirected, such as funds for vaccines or for other treatment schemes. Process efficiency is being improved through implementing centralized procurement of strategic drugs and vaccines. However, this mechanism is still evolving and does not cover procurement of all drugs and medical supplies; nor is there a similar mechanism for purchasing medical equipment. Since 2012, SIS has made advance financial transfers to health facilities through its executing units, based on a per capita payment for each insured person, in order to ensure timely and quality care in health facilities for its affiliates. The principal payment is based on an annual SIS insured calculation for first-level care, including newborn and healthy child initiatives, nutrition counselling, childbirth, medical and dental consultations, early cancer detection, and diagnostic support.

There are several ways to affiliate to EsSalud: regular insurance, optional or independent insurance, agricultural insurance, supplementary risk insurance, and accident insurance.

- Regular insurance provides coverage for health promotion and illness prevention, health care and social welfare, and work and occupational diseases of the holder and their beneficiaries. Employers affiliate their workers in the system, fully assuming 9% payment for the regular insurance of all workers who are on the payroll and have opted for this service.
- Optional or independent insurance can be requested by a single person or their family (children aged up to 18 years and older children with physical disabilities). The costs vary according to the age of the holder and the number of beneficiaries who wish to affiliate.
- Agricultural insurance is a special social security scheme that provides health, economic and social benefits to dependent and independent

workers engaged in farming or breeding, poultry, and agro-industrial or aquaculture activities, with the exception of the forestry industry. For dependent agricultural workers, the contribution is borne by the employer and equals 4% of the monthly remuneration, which cannot be less than 994.80 Peruvian soles; while for independent workers, the contribution is borne by the workers themselves and is equivalent to 4% of the minimum vital remuneration in force.

- Supplementary risk insurance provides coverage for occupational accidents and illness to dependent or self-employed workers who carry out risky activities.
- Personal accident insurance grants compensation in case of death or total or partial permanent disability as a result of an accident. Its coverage is backed by a consortium of two private insurance companies – La Positiva Insurance and Mapfre Peru Vida Insurance Company.

Private sector financing flows through a fragmented system of 83 individual medical plans. In addition, there are institutions providing health services (IPRESS), previously called health care entities (*entidades prestadoras de salud*). IPRESS were created under Law 26790, which allows them to complement the health care services provided by EsSalud to the contributory regime. IPRESS are private companies that provide health care services, with their own infrastructure and third parties, subject to the regulation of SUSALUD. Companies by law provide 9% of the payroll to EsSalud so that their workers are covered in the event of any illness that they may present, without distinction, for all simple diagnoses (more frequent and less complicated care, mainly ambulatory, usually linked to first-level health care services) and those that are more complex (cases of greater severity). When choosing IAFAS, the 9% company contribution to EsSalud is divided into 2.25% for the chosen IAFAS and 6.75% retained by EsSalud.

In general, donor funds and international cooperation account for a small proportion of the total budget – less than 10% of total public health

sector expenditure. However, they have a significant presence in national health strategies (previously called vertical programmes), such as those for TB, HIV/AIDS and sexually transmitted infections, which represent one third of the expenditure. Public PHC services are free at the point of use for the SIS- and EsSalud-insured population; however, they are not always provided, for example when there is a lack of drug distribution. The percentage of family spending on health in relation to total expenditure increased on average from 5.0% in 2004 to 5.8% in 2012, in a context of economic growth. This percentage increased in all quintiles, though quintiles 1 and 2 showed the lowest increase in family spending, with 0.14 and 0.69 percentage points, respectively.

SIS coverage is estimated to include 39.0% of the population while EsSalud coverage is 24.6%, with only 5.4% of the population covered by other insurance. However, the financing rate for each subsystem is inversely proportional to the population coverage. Therefore, for some interviewees, private insurance has more financing and professional human resources in relation to its population coverage, while SIS has fewer financing and professional human resources proportional to its population coverage (almost 8 times greater than for private insurance).

Regarding the extent of financing health care services, the creation of SIS in 2002 was an element of the plan for progressive, economic growth that aimed in the long term to extend health coverage to the entire population, financed by taxation, despite SIS not being a strict insurance scheme. SIS grew incrementally until 2015 but experienced a downturn in 2015–2017, with a deficit of 350 million Peruvian soles. The 2016 Budget Law withdrew management of SIS from the Ministry of Health and transferred it, by Supreme Decree, to the National Directorate for Public Budget in the Ministry of Economy and Finance, in order to address limitations in the management of resources. The Ministry of Economy and Finance has funds available to manage investments in the framework of strategic health care facilities, though the latest Supreme Decree allows

the Ministry of Health to reorder its budget, with implications for investment in strategic facilities.

As part of the decentralization process, competencies are first decentralized, followed by funding linked to those competencies. Problems are faced in ensuring that the funds are used for the intended purposes, including possible redirection of funds to other priorities, and corruption challenges at subnational government level. Formally a deconcentration of health care services – though it is termed decentralization by many – the process is one of vertical allocation of funding by programme, with its efficiency compromised by poor management and budgeting based on historical data and not in response to real needs. Moreover, funding allocation using INEI data has many limitations, as they are derived from a limited sample and are thus an approximation of the real situation. Even though budgets are earmarked to health facilities, several officials of the Ministry of Economy and Finance pointed out that they can still be aligned with the health care needs of the population.

There is mistrust among different government levels of the control executed by the Ministry of Economy and Finance, limiting the capacity of lower-level government officials to undertake the tasks that have been delegated to them. Subnational governments expend much time and effort in negotiation processes with the Ministry of Economy and Finance, including on how the technical teams carry out their designated activities. Some interviewees suggested that the former and current administrations do not evidence good negotiation capacity. The reduction in existing control tools, coupled with the low pay of public officials, has generated a governance crisis and led to a disconnect in management activities. For example, there has been no dialogue with control bodies to indicate the path to be followed, despite the existence of an Institutional Strategic Plan and Annual Operating Plan. At the same time, mechanisms are yet to be put in place to guarantee that financial coverage reaches the points of service. It is recognized that of the total transfers allocated to the regions, a smaller percentage is actually

transferred to regional directorates, while the same occurs for transfers from the regional directorate to the networks and micro-networks, and from the executing units to the care units. Despite the increased resource transfers to the regions, the national government lacks control mechanisms to monitor the targets of the regional government. In contrast, the financial procedures for EsSalud are still centralized.

Beyond what is stated in the legislation and national normative framework, there is no true fiscal decentralization in the country's public service; all proposals in that direction are subdued by the overall spirit of centralization. Based on the opinion of diverse interviewees, fiscal deconcentration is implemented through executing units, which form the axes of financial deconcentration through the creation of decentralized spaces, with strong opposition from the Ministry of Economy and Finance. Even though there is a level of decentralization in the framework of the Decentralization Law, this has no financial correlate, and its implementation is consequently limited. As one interviewee remarked: "You can decide because you have the capacity, but you do not have the resources to do it." Several interviewees recognized the need for a more radical system, whereby actual, authentic financial decentralization could promote an increased capacity for autonomous resource management. An example is the case of Bolivia, where the resources collected at the national level are territorially assigned to subnational units, which then implement actions within a framework of adequately approved plans and budgets.

Various interviewees commented on the inability to exercise control in Peru:

One thing is to control and the other to decentralize.

On one side was the Decentralization Law and its aspirations, and on the other side the economy.

There is a complete gap between decentralization and the centralized economy.

The only way for the centralized role to prevail is through sectoralization, because it expresses the form in which the national government understands and manages the country.

Despite these constraints, the development of a concerted investment plan among different government levels (national, regional, and local) indicates that some progress is being made, albeit slowly.

Increasing coverage, mainly through SIS implementation, is recognized as a country achievement. Nonetheless, an integrated health care system is still lacking due to a range of factors, including poor and unequal distribution of funds, inadequate health care facilities and human resources, and lack of drugs and other supplies in first-level health facilities. Insurance coverage is available under EsSalud (27% of the population), but the population finds it difficult to enter the system due to the number of access barriers. For certain services the pharmacy is regarded as the entry gate, due to the inaccessibility and perceived lack of quality of care in the public services.

While SIS has achieved some success, financial intermediation has generated inefficiency and promoted a pervasive culture of corruption, leading to gaps in institutional continuity and accentuation of market imperfections for both buyers and vendors. In the case of the Ministry of Health, there is little evidence that results-based budgeting is functioning as it should. On the issue of coverage, two factions have emerged: a health-oriented faction, which conceives SIS as a step forward in the process that gradually leads towards real universal health coverage, serving as the articulating axis that absorbs other insurance models; and another faction, including public officials from the Ministry of Economy and Finance, which conceives SIS as insurance for the poor.

High levels of corruption have been identified in the health sector worldwide, including in Latin America (28). Corruption within EsSalud is greater than in SIS,

including in the area of first-level health care services, while corruption in SIS is greater in such areas as surgeries and recovery. This translates into increased out-of-pocket expenditure for the population. SIS allocates funding to hospitals and executing units. This funding is audited and regulated, though there is no mechanism in the health sector to oversee the proper and efficient use of resources. Such oversight should be the responsibility of SUSALUD. As a consequence, allocation of funds is flawed with regard to hospitals in the capital Lima, and even more so in regional hospitals.

Centralized, corporate purchasing is an established mechanism by which countries can reduce micro-corruption. It gives increased negotiating capacity based on the transaction volume, and enables realization of economies of scale. All public health sector actors participate in these purchases, including the Ministry of Health through the purchase of strategic drugs and a varying percentage of other drugs. EsSalud participates in corporate purchases for approximately 85% of its drugs, while 15% are free, as they are not in the National List of Essential Medicines. Also involved in corporate purchasing are the health institutions of the police and armed forces, including the National Penitentiary Institute. Municipality-regulated "solidarity hospitals" are no longer involved in these corporate purchases. As with all procurement systems, drawbacks exist: for example, the bidding system states that the winning bid in the current year is the bidding starting point for the following year, without adjusting for inflation or other conditions. Some companies agree to not bid in order to promote direct purchasing. The percentage that is acquired through direct purchases is unknown. In the case of EsSalud, purchasing is centralized but supply is outsourced. There is a system at the central level for regulating drug supply and addressing shortages by transferring available drugs between health facilities. Health care facilities receive a petty cash fund for small, direct purchases. There is inadequate oversight of equipment procurement and the use of funds in interventions, where lack of

evidence-based effectiveness evaluation again gives rise to a risk of corrupt practices.

With regard to purchasing agreements related to hiring, franchising and performance pay, at the subsector level of the Ministry of Health bonuses for primary care have been introduced to serve as incentives to reduce staff turnover at first-level health care facilities, though there is a potential for perverse incentives and inequity. For example, bonuses targeting health care providers for activities delivered within the first level of care ended up being used as a stimulus for undertaking virtual training. Other performance-related payments are linked to the central level (Ministry of Health) to encourage regional commitments, while other established mechanisms include the Stimulus Fund for Performance and Achievement of Social Results, promoted by the Ministry of Development and Social Inclusion for fulfilment of health, education, water, and sewage targets within corresponding regional sectors for the poorest quintiles.⁵

In EsSalud, the UBAP model bases payments on capitation and achievement of targets. Of the total amount contracted for outsourced services, 80% is paid in advance for the adequate functioning of the system and the remaining 20% is paid quarterly in accordance with achievement of the targets that were agreed upon at the beginning of the fiscal period. This method is applied in urban areas to enable first-level health care facilities to deliver care in an effective manner by using qualified human resources based on the epidemiological profile of the population; by employing adequate technology to improve resolving capacity; and by implementing cost-effective strategies.

According to the last INEI reports, out-of-pocket expenditure in the health sector remained relatively constant until 2011, since when it has increased. It has been suggested that the increase in out-of-pocket expenditure is related to increasing costs in the private sector. Generally, cost increases within the health care sector are a consequence of increased payments to human resources, medical supplies and pharmaceutical drugs. Certain considerations apply for both public providers and the private sector, such as the desire for improved earnings. Other plausible explanations for the higher out-of-pocket expenditures among quintiles of greater poverty include accessibility problems, perceived low quality of service, and lack of awareness of the right to be insured with SIS. Studies have shown that once individuals overcome their accessibility challenges and enter the system, they are grateful for the benefits received.

A study published in 2012, using 2006–2009 data, showed that those who access health care primarily finance their expenditure through direct (generally unplanned) disbursements. Public donations and government social programmes (especially SIS) are the second most important source of financing of health expenditure, especially for households in the poorer quintiles and in rural areas. Although the population affiliated with some form of health insurance (other than SIS) has increased, this has had little impact on out-of-pocket expenditure, though there is a lack of research on the matter (29). Vulnerability to impoverishment through out-of-pocket expenditure has not diminished, with the percentage of households impoverished by out-of-pocket remaining close to 1%.

⁵ Information can be reviewed at the digital repository REDinforma, through the Ministry of Development and Social Inclusion: <http://sdv.midis.gob.pe/redinforma/view/inicio.aspx>.

8. Human resources

According to the Directorate-General for Human Resources Development Management of the Ministry of Health, there are in Peru 38 065 physicians (general practitioners and specialists), 39 979 nurses, 14 445 obstetricians and 5754 odontologists. In addition there are smaller numbers of other professionals, including pharmacists, psychologists, medical technologists, and biologists. The availability of health professionals by population (number of personnel in a given year per 10 000 inhabitants) shows 12.2 physicians and 12.8 nurses per 10 000 inhabitants at the national level, with large disparities at the regional and subregional levels. Thus, in 2015 some regions had double the national average while others reported less than half the national average. Within the regions, capital cities reported greater availability of human resources. In addition, medical professionals were concentrated in first- and third-level facilities, with 40.5% and 35.2% respectively.

There has been a gradual increase in the proportion of first-level health care facilities that have physicians, odontologists, obstetricians and nurses. In 2013, there were 11.9 physicians, 12.7 nurses and 1.9 odontologists per 10 000 population, compared to 10 physicians, 10.9 nurses and 1.3 odontologists per 10 000 population in 2011. Despite this increase, the density of health care professionals in Peru continues to be lower than the average for Latin America (17.6 doctors, 13.8 nurses and 4.3 odontologists per 10 000 population). A greater increase in the density of health care professionals (physicians, nurses, obstetricians) was evidenced, from 26.1 per 10 000 population in 2012 to 29.9 per 10 000 population in 2015, greater than the standard required by countries in the region of 25 per 10 000 population (11).

There has been sustained growth in human resources in recent years, though differences persist in the distribution of resources between richer and

poorer regions, between the regional capitals and their surroundings, and between urban and rural settings. According to some interviewees, gaps have increased despite growth.

Demarcation issues can exacerbate distributional inequalities in staffing, particularly in urban settings (for example, whether physicians or obstetricians are responsible for delivery care), while there is acknowledgement that the discussion should be centred in the well-being of and quality of care delivered to the patient, rather than in the monopoly of a certain group of professionals for a particular task. Provider substitution must be a structural element of health care, especially in subnational settings, where it is impossible to have specific professional resources for each health care scenario. This must be continuously aligned to the development level, technological capacities, personnel distribution, and capacity to adequately adapt to the social and cultural realities of the population.

Despite the increase in the numbers of professionals, several interviewees drew attention to the limited technical competency of recently graduated health professionals, possibly linked to the quality of undergraduate studies.⁶ Recent graduates are “unable to relate to others in the workplace, have limited capacity to work in teams, have poor clinical diagnostic capacity, and are incapable of empathizing with the patient to gather information on their health condition. There is also a lack of care in the physical exam, and limited knowledge of therapeutic interactions (all increasing the risk of diagnostic errors and malpractice).” Diagnostic errors and malpractice are underreported, particularly among the poorest communities, given their limited schooling and citizenship conscience, which is expressed through an unwillingness to present complaints.

⁶ The rapid increase of medical and other health professional schools is not assuring the skills acquired and the quality of professionals trained. There is also a lack of supervision capacity at the National Superintendence of University Higher Education.

The specialty of family medicine requires special mention. Introduced in four universities in 1989, it has had successes and setbacks, including a change in names (integral general medicine, integral medicine and management, and standardized from 2001 as family medicine). Between 2003 and 2006 the specialty almost disappeared, but from 2007 there has been renewed emphasis on family medicine (representing 12% of residency slots at one point, with a current standing at 5%). At the present time, there are 21 regions that offer the specialty. However, quality analysis of training suggests that the minimum competencies that professionals should achieve are not being guaranteed. This shortcoming requires attention during teaching and training. However, there is no effective system to evaluate the competencies of these specialists or the efficacy of their school or non-school education.

Family medicine specialists should be inserted in first-level health care facilities, ideally in network headquarters or strategic health facilities. There is a critical mass of family medicine specialists that could professionalize and improve the quality of care in those facilities, though there are limited efforts to take advantage of this resource. According to inforRHUS data, there are only 12 family medicine specialists in Lima's health system, a very small number compared to the total of family medicine specialists trained (close to 600). Approximately 60 family medicine specialists have been absorbed by new public-private partnerships, mainly in the last two years. However, an interviewee stated that despite the recognition given to the utility and benefit of the family medicine specialty in the PHC framework, "this is still a subsystemic response to a systemic problem".

With regard to the professionalization of primary health care, the training of human resources must be focused on the national reality by producing physicians that respond to the country's needs. At

many health care facilities there is a shortage of health care professionals (nurses, midwives, odontologists, and medical technicians) compared to the required numbers. The same shortfall faces many health care facilities at levels I-2, I-3 and I-4, where the majority of staff are non-CAS personnel.⁷ There is no planned growth of human resources at the first level of care. Moreover, while there has been an increase in the quantity of family medicine specialists across the sector, greater emphasis has been placed on Ministry of Health first-level care facilities, with the largest percentage in I-1 and I-2 facilities. However, these are only open for six hours a day.

Most health training institutions have limited knowledge of the National Training Programme in Family and Community Health (Programa Nacional de Formación en Salud Familiar y Comunitaria, PROFAM) or MAIS-BFC, except the few institutions that have modified their curricula to provide a more directed approach towards primary health care.

Medical schools have proliferated, but many have a utilitarian approach, and lack the resources or the teachers to properly deliver technical competencies, with possible ethical and moral consequences. There have been calls for accreditation of those schools and the closure of clinical fields at unaccredited universities. A technical evaluation of all health care staff in the sector should be conducted.

Regarding community health workers (CHWs) or health promoters, a series of steps have been established to enable their participation, with the corresponding support of community authorities. The first step is for the community itself to select the CHW. Second, the CHW is trained through a qualification and certification process. Work in health promotion and illness prevention must be undertaken. All capacity-building activities should be recorded in the Health Information System. Most progress has been achieved in maternal and

⁷ Administrative contracts for services (*contratos administrativos por servicios*, CAS) are special labour contracts that apply only in the public sector. Such a contract is signed between a person and the State. It is not covered by the regulations that apply to public employment (Legislative Decree No. 276) or private employment (Law No. 728), but is governed specifically by Legislative Decree No. 1057 and Law No. 29849. This type of contract entered into force on 29 June 2008. Non-CAS personnel are persons with service contracts that do not stipulate any obligations concerning time and workplace.

child care. The third stage is the follow-up and monitoring of the trained CHW, though the focus is on demonstrating the elements of the training rather than measurement of the results achieved. Fourth, the CHW is recognized in the system and is allocated non-monetary incentives, based on the municipal incentive plans introduced by the Ministry of Health in 2012, since when municipalities have been responsible for providing non-monetary incentives to CHWs (for example, monthly food baskets and clothing). The incentives are stipulated, but are not always provided in reality.

The number of community-elected CHWs has increased to around 25 000. As elected representatives, the CHWs fulfil responsibilities to the community. However, their role is increasingly being sidelined as a consequence of new population dynamics, especially in urban and suburban areas. In the present economic and social climate, it is more difficult to apply a sustainable system based on voluntary work. Previously, activities were always executed with the participation of the CHW; now, the role of the CHW has weakened substantially in qualitative terms, as social policies no longer include the CHW role in their discourse. Moreover, there are perverse economic stimuli that do not incentivize CHW involvement, for example bonuses for community work that do not stipulate the inclusion of CHWs in the activities. The reduction of the role of CHWs and their linkages with the community may have negative consequences for work with specific vulnerable populations, such as women, youths and old people.

There is still a considerable presence of CHWs as the first link in the health care delivery chain in the Andes and Amazonas regions, especially in rural areas. However, there is no standard system for training health promoters in the country. Training and participation are very heterogeneous and are often based on the previous experience of training providers. In donor-supported PHC projects, the type of training is often specified by the donor partner. An area where CHWs display considerable added value is communicating with communities in their own language, and benefits derive from their familiarity with the behaviour and culture of the local population. There is a risk of health care staff using CHWs to perform their duties; in response, health promoter associations have been put in place to provide CHWs with negotiating power.

Local health care personnel are responsible for planning and for monitoring and evaluation functions through the application of instruments or guides provided by the Ministry of Health, EsSalud or an NGO. However, their use is limited, and health care personnel often lack the training to work with CHWs and traditional therapists.

Regarding oversight of CHWs, Ministry of Health authorities state that several mechanisms and norms are in place, under the Health Promotion Directorate, to assess their activities, competencies and turnover, but such assessment is not standardized and is poorly implemented in the country. Few interviewees displayed knowledge of the procedures, except those directly involved in CHW interventions.

9. Process elements

9.1 Planning and implementation

Within the insurance and universal coverage framework, the need for all actors to participate in an articulated fashion is recognized. The National Coordination Council was established to ensure such coordination. Its decisions are binding.⁸

While inter-institutional cooperation would be beneficial to the health institutions of the police and armed forces, given their relatively small scale, conflicts of interest and inequities stand in the way of such cooperation. Many members of the police and armed forces find it difficult to access delivery services and have to pay for medical care. SIS often fails to adequately reimburse church-based health facilities, as exemplified by the Diospi Suyana Hospital, Curahuasi, Apurímac;⁹ the Chacas Hospital in Callejón de Conchucos;¹⁰ and the Santa Teresa Clinic in Abancay.¹¹ The network of evangelical groups reaches 10–12% of the population.

In general, inter-institutional provision and interchange of services is minimal, despite diverse initiatives since the 1980s. There is a need for a financial and accounting structure that enables such interchange, with the population as the beneficiary.

Regarding the institutional mechanisms for complaints and claims, there are three main groups of

users with different characteristics: the Ministry of Health and religious institutions, social security and municipalities, and the private sector. Each has its own level of awareness of civil rights and payment entitlements. In the case of health provision by the Ministry of Health, there is no strongly developed culture of citizens exercising their right to complain about poor service provision. Health has historically been regarded as a philanthropic action of charity or religious institutions, and users typically view their care as a charitable favour, and give thanks accordingly. As one interviewee observed: “People consider that they have to be grateful, that they have no right to claim anything. ... This culture of caring as a charity and not as a right permeates the behaviour of the population, especially the most vulnerable.” The culture needs to be changed to one that “recognizes health as a right and not as a gift, because if State services were of more relevance and quality and people began to use them, and they felt satisfied, they would value them more, and if the services started to disappear or a disruption occurred, people would express their discontent”. Under current legislation, complaints can be submitted by telephone or through complaint mailboxes in health care facilities. While follow-up of complaints or abuses is limited, there are processes by which user satisfaction can be measured. However, these interventions are not properly articulated or systematic, rendering them

8 The National Coordination Council is the consulting body of the Ministry of Health and has the mandate to implement the Coordinated and Decentralized National Health System (Sistema Nacional Coordinado y Descentralizado de Salud, SNCDS). The functions of the National Coordination Council are (a) to promote the National Health Policy and the National Health Plan as part of the National Development Policy; (b) to support intrasectoral and intersectoral coordination within the health sector; (c) to ensure fulfilment of the purpose and functions of the SNCDS; (d) to propose national health priorities based on analysis of the current health situation and life conditions of the population; (e) to propose an equitable and rational distribution of resources in the health care sector, in alignment with national priorities; (f) to propose the levels of health care delivery and complexity of the services of the SNCDS; and (g) to approve the annual memorandum that will be presented by the Council's President.

9 Apurímac mountains. It aims to deliver good-quality medical treatment at a reasonable price. The institution is equipped with 60 beds, four operating rooms, intensive care units, a laboratory and an X-ray facility. Around 110 Peruvians work at the hospital, supported by 40 foreigners working as volunteers, financed by support groups from their countries of origin. It has the following specialties: internal medicine, paediatrics, gynaecology, family medicine, obstetrics, urology, general surgery, odontology, physiotherapy, X-ray services, and ophthalmology.

10 The Chacas Hospital is an initiative of the Italian priest Ugo de Censi in Chacas, Asunción province, in the state of Ancash. A mixture of Peruvian and Italian workers supports joint work between Don Bosco and the rural population of the area.

11 The Santa Teresa Clinic in Abancay began its work in 2012, leaning towards professional and autonomous work. It offers health care services within general medicine, obstetrics, odontology, psychology, physical therapy and rehabilitation. It has a surgical centre, a clinical laboratory and image diagnosis facilities. Specialist areas include general surgery, gynaecology, paediatrics, traumatology, dermatology, cardiology, urology, endocrinology, gastroenterology, and otorhinolaryngology.

ineffective. Similar considerations apply to EsSalud, though the level of complaints is higher. Finally, in the case of the private sector, claims can be submitted directly to any health care provider, which will then have 30 days to respond. When the complaint becomes a claim, it is raised and investigated by SUSALUD. According to a recent change in the legislation, claims can be submitted directly to SUSALUD.

There are no institutional mechanisms for formal negotiation to engage other sectors, although some initiatives have been developed, primarily with the education sector, such as the school health plan or modifications to the school curriculum. However, specific mechanisms are rare and therefore cannot be properly evaluated. Issues regarding the social determinants of health are not dealt with by the health sector in an intersectoral manner, despite the importance attached to the matter within the government structure. For example, there has been little involvement of the health sector in the issue of ensuring acceptable water quality throughout the country, a policy priority of the current government.

9.2 Regulatory processes

The government has full capacity to regulate conflicts of interest, apply antitrust laws, and rectify unfair competition in health care. However, in the first case, there is no mechanism by which to express potential conflicts of interest. With regard to antitrust legislation, law proposal No. 353/2016 was presented in October 2016 for control of business mergers or acquisitions in order to protect free competition. The proposed legislation is similar to that enacted in Organisation for Economic Co-operation and Development countries. The Antitrust and Anti-oligopoly Law No. 26876, and Supreme Decree No. 087–2002-EF, have set precedents regarding merger processes in the electricity sector.

Law No. 1044 on Repression of Unfair Competition was approved on 26 June 2008 with the purpose of repressing all acts of unfair competition that affect or impede the adequate functioning of the competition process. The Unfair Competition Audit Commission

from the National Institute for the Defence of Competition and Protection of Intellectual Property is responsible for enforcing this legislative decree.

According to some interviewees, in the matter of purchasing and financing pharmaceutical drugs, equipment, and infrastructure, there is conflict among businesspersons, their allies, and the political authorities (in regional and national government); politics is very much mixed with economics. Antitrust laws have been recently discussed as a result of the latest price agreement among pharmacy chains, some of which have merged or belong to a holding. In general, the State is very weak in its fight against monopolies and price agreements.

A related issue is the capacity of insurance companies to purchase clinics, laboratory and pharmacy chains. Such actions are often linked to political interests, and restrict professional practice. Formerly, provisions existed whereby insurance companies were not allowed to have their own clinics, but this restriction was later modified.

According to interviewees, there is a clear conflict of interest when ex-officials from health insurance companies serve in SUSALUD or EsSalud; the conflict must at least be declared. The same occurs in the oversight of research, which involves the participation of ministers and chiefs of the National Health Institute in regulation of the country's research programme. There is a need for the involvement of expert professionals in the field of ethics, given the small margins that apply in making judgements on certain research issues.

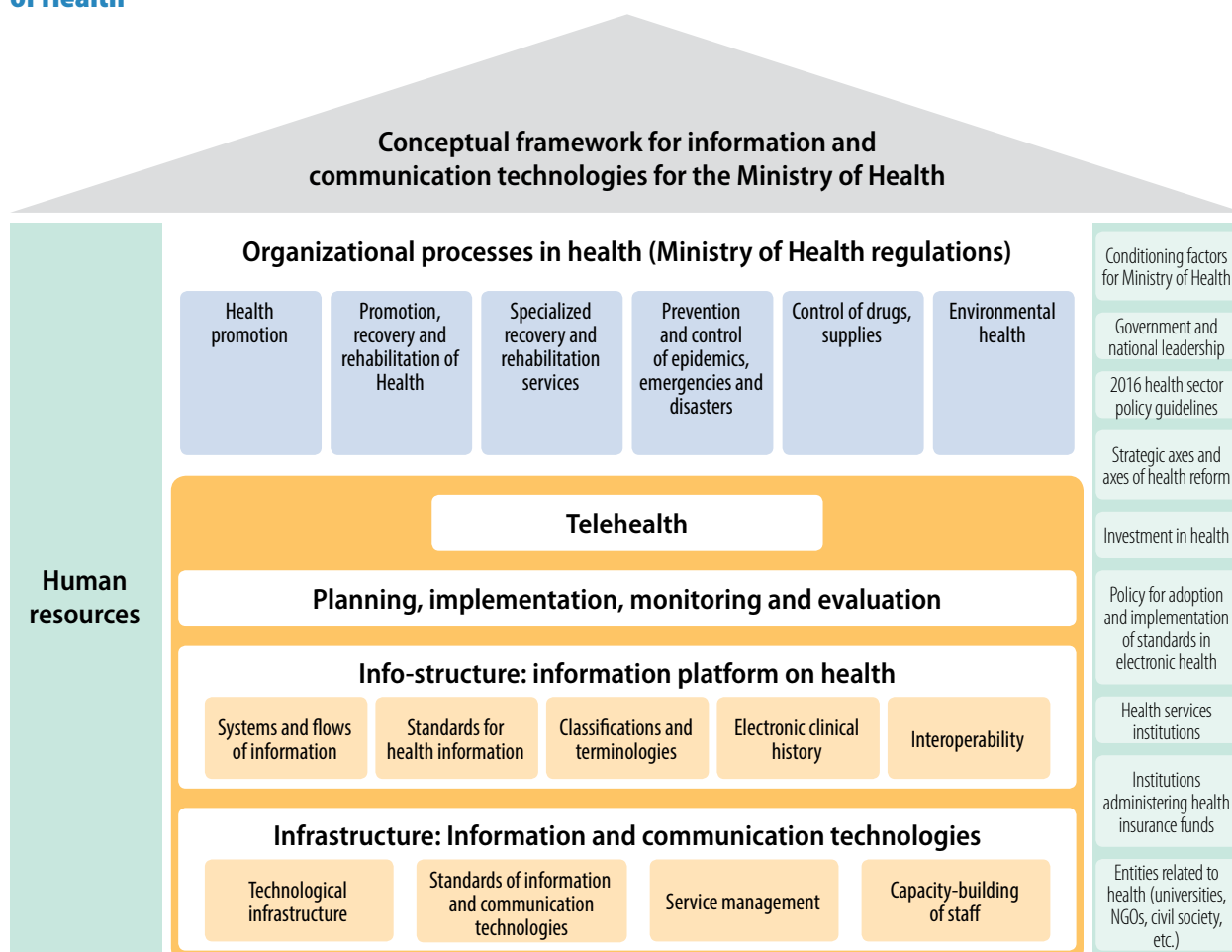
The accountability of community health care workers is also very limited. To ensure accountability, authentic participation of society in health administration is necessary. There is little citizens' participation in the activities of the subregional health authorities or the Ministry of Health, though there is involvement in the election of civil society representatives to the National Health Council. Citizens' participation and accountability to the community are central to the implementation of truly representative

primary health care. The local health administration committees (CLAS) were an attempt at community participation, while recognizing that in practice there have been diverse types of CLAS, ranging from those rendering accounts to small physician clinics. There has also been considerable disparity in the training of those involved in CLAS, despite the regulations on the matter. No supervisory mechanisms were put in place on the functioning of CLAS and the fulfilment of the constitutional regulations. There are scant experiences from other initiatives undertaken by NGOs. On the other hand, the Articulated Nutrition Programme has a social participation component and an accounts rendition component. It can be inferred that within the framework of the Sustainable Development Goals, community and district assemblies and their activities should be promoted.

9.3 Monitoring and health information systems

Monitoring and health information systems are essential as a framework for data gathering and analysis, as an aid for timely decision-making. The conceptual framework developed by Curioso and Espinoza-Portilla (Figure 6) provides a useful structure for guiding application of information and communication technology (30). For data collection, each health care subsystem has its own database, though unfortunately the different databases are not comparable. Existing problems in the databases of each subsystem are replicated when they are integrated with other subsectors in an attempt to promote a more territorial or sectoral analysis. It is not a problem solely of the structure of the databases but also of the definition of variables and corresponding

Figure 6. Conceptual framework for information and communication technologies for the Ministry of Health



coding. Interviewees observed that the quality of the data is poor, that templates are not properly completed, and that much information is entered manually or in Excel files. These shortcomings are aggravated by poor infrastructure and varied quality of information systems at all levels and in all subsectors, in addition to limited bandwidth for information transmission, which is more problematic in some regions of the country and in rural settings.

Interviewees stated that of the total information in the SIS Health Information System (approximately 6500 entries), 25% redundancy was found; this information is not used in decision-making.

The current Health Information System in Peru uses an already expired application that has not been updated for various reasons. Programmes in use include SIS-GalenPlus, the TB application, and others that require patent fees or cannot be linked to free databases. Databases only register health information at the individual and administrative institutional levels, and do not include family or community health or promotion activities. In the case of PHC, MAIS outlines three components for this model: individual, family, and community. It accommodates the Integrated Health Services Network developed by WHO.

The Individual, Family, and Community Health Information System (Sistema de Información para la Salud Individual, Familiar y Comunitaria, SISFAC), currently in version 4.7, was developed for MAIS-BFC by Medicus Mundi Navarra, Health Without Borders Peru, Soluciones Prácticas, the Churcampá Health Network, and the Regional Health Directorate of Huancavelica. This initiative has received support from the Grand Challenge de Canadá and has won

diverse prizes, including the Conectarse para Crecer prize (Telefónica), though this initiative has not been scaled up.

The quality of health care data has improved significantly, and data are frequently used to generate specific work. According to key informants, the use and analysis of Ministry of Health data is around 30%, for EsSalud it is in the range 25–30%, while in the for-profit private sector it is around 60–70%, especially in IAFAS. Data monitoring is sometimes carried out in such areas as supplies and budget execution, though it is not systematic, and the levels of data utilization remain inadequate.

A single information system requires coordination of many individual records for a wide range of variables, including family records, drugs and medical supplies (stock, logistics, and acquisitions), planning, human resources (training and rotation), and referrals and counter-referrals. The eventual aim is to have electronic, standardized clinical records among all subsectors, where the health record moves with the patient.

Evidence-based decision-making depends on defining responsibility and developing competencies for decision-making. It also requires the timely use of national and international evidence. For example, evidence supporting a prescribed drug may exist, but the decision of a subsector to buy a drug or not is related to a number of local factors, including the epidemiological profile of the population. Unfortunately, decision-making is frequently not informed by up-to-date evidence but is based on historical values, calculations, and previous budgets, with a percentage adjustment for inflation and an increase in activities.

10. Elements of results

10.1 Equitable access

The last census of health facilities reported 10 860 health facilities, of which 71.1% were health posts, 23.2% were health centres, and the remainder were hospitals or specialized institutes.

The analysis of administrative databases shows that 53.1% of health facilities have at least 85% of adequate equipment for treatment of pregnant women and children aged under 5 years. Likewise, the analysis shows variability between regions, with Ancash, Madre de Dios and Ucayali regions reporting the lowest percentage of health facilities with adequate equipment and professionals. Within each region, health facilities located in the poorer districts (quintiles 1 and 2) reported – before the implementation of the Performance Stimulus Fund (a payment-for-performance mechanism) – the lowest percentage of health facilities with adequate equipment.

Only 13% of pregnant women at Ministry of Health facilities receive an integrated care package for pregnant women (prenatal care, iron and folic acid supplementation, and tests for urinary tract infection and HIV), and only 13% of children aged under 1 year receive their integrated package (micronutrient supplementation according to age, growth and development, and vaccination against pneumococcus and rotavirus). As expected, the analysis shows variability in provision of the integrated package across regions: in 2015, Lima, Piura, Ica, La Libertad and Tumbes reported lower coverage of children aged under 1 year, and Lima, Cusco, Junín, Madre de Dios and Pasco reported lower coverage of pregnant women. In addition, regional analyses showed that health facilities located in the poorer districts reported, before the implementation of the Performance Stimulus Fund, lower coverage of pregnant women and children aged under 1 year receiving the integrated package, at 7% and 1% respectively.

Another problem identified in interviews with staff at the central and regional levels is the quality of certification of health facilities with regard to resolving capacity, especially those in the public sector. This limitation creates difficulties for referrals, counter-referrals, and inter-institutional interchanges between IPRESS of the same IAFAS and between IPRESS of different IAFAS.

Regarding the acceptance and equitable use of available PHC services (proportion of essential services used), evidence suggests that access to health care services has increased for people at all socioeconomic levels, but the fast rate of urbanization has actually led to an increase in the access gap. However, the response capacity has not increased.

The rate of institutional deliveries has increased from approximately 50% to 91% (31). Prenatal care is almost universal. Institutional delivery care implies provision of culturally relevant services throughout pregnancy, delivery and puerperium, during which care is extended to the newborn. Maternal mortality in Cajamarca and Amazonas is higher than for Tacna. Immunization coverage has diminished, especially in poor, urban areas.

Historically, Peru has developed a hospital-related and medicalized health care system, which has created an image across the population that it is better to be treated in a hospital setting, the more complex, the better. Consequently, there has been some resistance to health promotion and illness prevention at community level, except when positive change is perceived. In a community care model in Huancavelica, the president of the community stated that health had improved because now “not many people go to the health care facility to seek care ... now they visit us, we help them avoid illness and they no longer have the need to go the health care facility.” Certain groups are more willing to accommodate change towards a focus on promotion and prevention,

including women, teachers, some authorities and social communicators. Many individuals in urban settings continue to seek first-level care in hospitals rather than in dedicated facilities, though this is changing with the development of strategic centres that are adequately equipped, staffed with qualified human resources, and have the capacity to resolve the majority of health problems. Change, however, is slow, as one interviewee observed: “Everything depends on investment, but of the 767 strategic centres planned, only 5–10% have been established.”

With regard to social and economic barriers, there is awareness that people need to trust that PHC services can resolve health problems in a timely fashion through good-quality care, or are able to quickly refer patients to the next level of care. Incipient efforts to deliver culturally pertinent services have proved successful. Accessibility barriers arise from the short opening hours of first-level health care facilities (mostly 6 hours). As one interviewee observed: “Shortage of first-level care in urban areas exists in almost all regions across the country.” It has been proposed that first-level health care facilities should operate for 12 hours per day, including Saturdays and Sundays.

Lack of first-level health care facilities affects affiliates of EsSalud and the police and armed forces nationwide, as they resort to alternatives and incur out-of-pocket expenditures. Only in a few cases is care delivered through an inter-institutional interchange of provision.

An evaluation of the National Solidarity Assistance Programme–Pension 65¹² found that while beneficiaries did use health care services, close to 60% incurred out-of-pocket expenditures. A possible explanation is the frequent lack of availability of drugs in first-level care facilities to treat chronic noncommunicable diseases. As one interviewee said: “Usually there is greater access to drugs for mother and child health and for infectious diseases.”

Communication is a significant barrier in all areas of the country that have populations that only speak their native language. As a result, work is typically done with health care professionals that speak their language or through local translators that facilitate communication between provider and user.

10.2 Appropriate service provision through involvement of users

With regard to participation of users in decisions related to their health care, and ensuring that their views are respected, it has proved difficult to engage users in the diagnostic and therapeutic processes of their care. Several interviewees attested to the unwillingness of patients to discuss their cases and follow advice, though more interaction was evident in the private sector. The only systemic exception noted was user participation in decision-making on the different types of delivery care received at Ministry of Health facilities.

There is little relational continuity between user and provider in any of the subsectors. Existing continuity depends on the commitment of the user regarding care of the illness and on the quality of communication between provider and user at the point of service, contingent on the professional and human qualities of the provider.

With regard to the systematic collection of medical information on the user, available to the PHC team (information continuity), the current fragmented and segmented system means that it is not possible to have a single patient record that can be used in referrals and counter-referrals and that registers delivery of care throughout a person’s life cycle, unless all of that person’s care is delivered in only one health care facility. In addition, there is often poor archiving of patients’ records, with a consequent loss of information. The most complete records generally relate to care during particular periods of life, as in the case of health services for pregnant women and children aged under 5 years.

12 The National Solidarity Assistance Programme–Pension 65 is a response of the State to the need to provide protection to a particularly vulnerable sector of the population – the extremely poor elderly – through provision of a bimonthly monetary subsidy of 250 Peruvian soles per person. This benefit helps to assure them that their basic needs will be met, and also contributes to stimulating small markets and local fairs.

10.3 Quality and safety of care

Regarding productive efficiency, cost–benefit studies of first-level health care facilities have shown that considerable inefficiency arises from the fragmentation of the system. This inefficiency is coupled with the commercialization of health provision and the consequent loss of a comprehensive overview of the patient and their needs. However, all interviewees agreed on the value of the following measures:

- implement interventions to improve the health condition of populations with access difficulties, for example by adopting specific health care strategies for at-risk populations or those requiring an intercultural approach, complemented by public services delivered through comprehensive health care teams for excluded and dispersed populations (formerly called travelling local teams for extramural health work);
- deliver services at zero cost to the user, as is currently the case for immunization of children and treatment of certain illnesses with high external-ity, such as HIV and TB.

These initiatives seek to minimize expenses and opportunity costs for users. Studies would be carried out to assess if the strategy implemented was the best option, and what opportunities existed for quality improvement.

On the efficiency of workers, there are no measurements by which to evaluate the workload and ensure the rationalization of the PHC workforce, or measure efficiency in such areas as the duration of medical appointments and prescription practices. Unions often resist such evaluation, due to the belief that it will result in demerits, sanctions, and staff lay-offs. Some progress was made by explaining to unions that the purpose of evaluation was not to lay off staff but to examine staff capacity, training, and relocation needs. However, this initiative was cancelled for political reasons following a change in government.

Existing regulation states that periodic evaluations of human resources should take place at least every five years, but this has not occurred in practice. At the same time, a meritocratic public career based on periodic evaluations has previously been promoted; a temporary solution for personnel to maintain their remuneration was to transfer them to other dependencies. This stopped during the 2004 administration. In the case of EsSalud, the issue is more complex, as it implies negotiation and agreement with 38 unions.

With regard to technical efficiency – the measures adopted to simplify and reduce the use of resources and service delivery costs without compromising results – PHC interventions have frequently undergone non-experimental evaluations of results financed by international cooperation. In the case of research, most has been financed by the pharmaceutical industry and has focused on the hospital setting. In face of this reality, it is easy to understand that the health care sector has resisted viewing efficiency as an issue of costs and benefits and of interventions in the various subsectors, which implies recognition also of the institutional and personal culture. For example, travelling health care teams have been implemented to care for dispersed populations, but there are no studies to evaluate their efficiency.

In the case of EsSalud, only recently has the Institute for Evaluation of Health and Research Technologies been created, with the mission of generating scientific, economic, and social evidence to assess the efficacy of interventions or treatments based on the benefits delivered to the people. As interviewees observed, it is used to validate the use of health technology, such as the cost of hepatitis C treatment, but has not yet been used to assess the impact of UBAPs.

Regulations and protocols exist for the safety of patients and health care workers in Ministry of Health PHC centres, such as the disposal of hospital waste, the use of individual protection, fall prevention protocols, and adverse event documentation. The regulations stipulate annual evaluation of the health condition of health care workers.

11. Paths and policy considerations to strengthen PHC system

In recent years, there has been a progressive reduction in poverty and a significant improvement in population health, especially related to mother and child care. However, the demographic and epidemiological profile of the population is changing, especially in urban areas, requiring greater focus on noncommunicable diseases. To sustain improvement in health indicators, the Peruvian health system must maintain efforts towards universal access, insurance and health coverage. As such, it is necessary to identify the means by which to overcome challenges in a sustainable way, independent of the current administration. The following recommendations were drawn from a comprehensive analysis of the Peruvian health care system.

- *Define and develop a health system that overcomes the existing fragmentation and segmentation, prioritizing PHC.* Supportive strategies include the integration of financing from different public sources and coordinated, efficient and transparent administration. This implies the purchase and sale of services using inter-institutional interchange of provision between IAFAS, through the providers related to them. This should be accompanied by the implementation of the Integrated Health Services Network as a mechanism for coordinating the provision of services, thus guaranteeing health care for the population, service adaptation based on the population demographic and epidemiological profiles, and equal opportunities for access to effective, free, quality and culturally appropriate health care. Defining the type of health care system needed is still a work in progress, including the definition of health services that are more relevant for different populations.
- *Continue with the national decentralization policy by promoting real fiscal decentralization with greater participation of regional governments in the formulation of the National Health Policy and its implementation mechanisms.* Simultaneously, it is necessary to strengthen the democratization

mechanisms in the management of regional governments and corresponding health subsidiaries, in order to prevent centralism from reaching the capitals of regional governments. Resource increases should be oriented primarily towards strengthening comprehensive interventions in collective health in line with health priorities, and restructuring and strengthening the first level of care to improve its resolving capacity and the quality of care, within an intercultural approach.

- *Consolidate the process undertaken by the State to attain universal health care coverage through a territorial approach that allows articulated work among the various components of the health sector.* Such an approach would be patient centred, guaranteeing continuity of treatment. To this end, SIS must be strengthened as an insurer of the public subsector so that it becomes the development axis of insurance policy, with a focus on the public good. This must be accompanied by an adequate information system that allows monitoring and evaluation, timely decision-making, and modernized and optimized payment mechanisms, thus guaranteeing a sustainable and growing financing base that at least approximates to the Latin American average.
- *Improve the governing capacities of the Ministry of Health as the driver of national health development and the director of the health system.* To that end a system of real democratic governance should be put in place, while strengthening the technological capacities of Ministry of Health officials for the proper performance of government functions. In the same way, it is necessary to adopt a territorial governance framework that involves the redesign of intersectoral, sectoral-social, and inter-governmental aspects of governance (supported, respectively, by the Intergovernmental Commission for Social Action, health councils, and the Intergovernmental Commission on Health). The relationship among the health sector, academia,

and civil society should be strengthened to take advantage of progress made within information technology, including electronic medical records, reminder systems for appointments, and adequate referral and counter-referral systems.

- *Implement a human resources policy that considers training and development as support elements of a strategy centred on PHC with a differentiated approach for urban and rural areas and between regions.* Supportive elements of the strategy will include ensuring that training curricula for professionals and technicians are oriented towards revaluing PHC; developing the managerial and leadership capacity of managers within the first level of care; reactivating work with community health agents; and analysing the various formalization mechanisms that can improve community work. It is necessary to bear in mind that the production of health services is human resource intensive by nature. Therefore, various types of incentives are needed that improve working conditions and have a positive impact on the well-being and dignity of staff, and do not just focus on salary increments.
- *Prioritize PHC interventions to improve the health condition of populations, without neglecting disease prevention, in both urban and rural areas.* Interventions would be based on current models of comprehensive health care for the family and community, such as MAIS-BFC and MOCEPS, or any other new PHC development that the country wishes to implement. It is necessary to train

professionals in the management of intersectoral initiatives, with the capacity to influence different government levels and sectors regarding the determinants of health, while placing families and communities at the centre of action.

- *Build the capacity of communities to engage meaningfully with the health sector through formal and informal mechanisms for citizens' participation.* This improved model of community services should be accompanied by transparency mechanisms at national and local levels. Increased community capacity directly relates to the aforementioned Comprehensive Health Care Model (MAIS) focused on the family and community.
- *Promote the development of a unique health information system.* The system would aim to reduce by 20% the time lost looking for administrative data, including through the installation of situational rooms that are located both within health care facilities and in municipal offices. In addition, innovative strategies, such as information and communication technologies, should be incorporated for the systematic management of shared information through an agile communication process, to provide timely responses to the issues identified by various social and organizational actors in a consensual way, with the ultimate aim of revitalizing organizational and social management.

Table 16 presents priorities for strengthening the primary care system, as identified by respondents.

Table 16. Priorities to strengthen primary care and redefine the health system

Priorities	Health system level
Define and develop a health system that overcomes the existing fragmentation and segmentation, prioritizing PHC. Supportive strategies include the integration of financing from different public sources and coordinated, efficient and transparent administration.	National
Define the type of health care system needed, including identification of the health services that are relevant to specific populations.	National
Develop mechanisms for the purchase and sale of health services between IAFAS through providers.	National
Implement the Integrated Health Services Network as a mechanism for integrating the provision of services, thus guaranteeing health care for the population, services adapted to population demographic and epidemiological profiles, and equal opportunities for access to effective, free, quality and culturally appropriate health care.	National

Continues...

Continued...

Priorities	Health system level
Promote real fiscal decentralization with greater participation of regional governments in the formulation of the National Health Policy and its implementation mechanisms.	National
Strengthen the democratization mechanisms in management of regional governments and corresponding health subsidiaries, in order to prevent centralism from reaching the capitals of regional governments.	Regional
Increase resources to strengthen comprehensive interventions in collective health, and restructure and strengthen the first level of care to improve its resolving capacity and the quality of care within an intercultural approach.	National Regional
Consolidate the universal health care coverage process through a territorial approach, facilitating articulated work among the various components of the health sector within a patient-centred framework.	National Regional
Strengthen SIS as an insurer of the public subsector so that it becomes the development axis of insurance policy, with a focus on the public good. This must be accompanied by development of an adequate information system.	National Regional
Improve the governing capacity of the Ministry of Health as the driver of national health development and the director of the health system, thus establishing real democratic governance and gaining social legitimacy, resulting in a greater capacity for distributive negotiation.	National Regional
Strengthen the techno-political capacities of Ministry of Health officials for the proper performance of government functions. This can be supported by adoption of a territorial governance framework that involves the redesign of intersectoral, sectoral-social, and intergovernmental aspects of governance.	National Regional Local
Strengthen the relationship among the health sector, academia, and civil society to take advantage of progress made within information technology, including electronic medical records, reminder systems for appointments, and adequate referral and counter-referral systems.	National Regional Local
Implement a human resources policy that considers training and development as support elements of a strategy centred on PHC, with a differentiated approach for urban and rural areas.	National Regional Local
Combine various types of human resource incentives to improve working conditions and positively impact the well-being and dignity of staff.	National Regional Local
Train professionals in the management of intersectoral initiatives, developing their capacity to influence different government levels and sectors regarding determinants of health, and to place families and communities at the centre of action.	National Regional Local
Prioritize PHC interventions to improve the health condition of populations, without neglecting disease prevention, based on models of comprehensive health care for family and community in both rural and urban areas.	National Regional Local
Build the capacity of communities to engage meaningfully with the health sector through formal and informal mechanisms for citizens' participation and improved community services.	National Regional Local
Increase community capacity related to MAIS focused on family and community, together with transparency and accountability mechanisms at national and local levels.	National Regional Local
Promote the development of a unique health information system.	National Regional Local
Promote local initiatives to achieve health goals nationwide and tailor health policies to local needs	Regional Local
Establish situational rooms, located both within health care facilities and in municipal offices.	National Regional Local
Incorporate innovative strategies, such as information and communication technologies, for the systematic management of shared information through an agile communication process, to provide timely responses to the issues identified by various social and organizational actors.	National Regional Local

Annex 1. Key informants interviewed

Key informant	Main areas of expertise	Main constituency represented	Level of health system at which active	Remarks
David Tejada de Rivero	Public policies, primary health care, governance	International expert	Retired	Former Deputy Director-General of WHO Former Minister of Health of Peru twice between 1985 and 1989
Fernando Carbone Campoverde	Public policies, primary health care, governance, human resources, regulatory processes, planning and implementation	Civil society, Director of Medicus Mundi Navarra	International cooperation and supervision at local level	Former Minister of Health of Peru, 2002–2003 Former Director of International Cooperation Directorate
Oscar Ugarte Ubilluz	Public policies, primary health care, governance, regulatory processes, planning and implementation	Health service authorities	National-level consultant	Former Peruvian Health Minister between 2008 and 2011 Former Director of International Cooperation Directorate Former Director of IGSS
Víctor Zamora Mesía	Public policies, primary health care, governance, regulatory processes, planning and implementation	International cooperation, civil society, Ministry of Health (subnational level)	National-level consultant	Former Regional Director of Health Directorate in San Martín Former Health Services Officer at PAHO
Luis Miguel León García	Public policies, primary health care, governance, human resources, regulatory processes, planning and implementation	Public official	Official at Ministry of Health (central level)	Experience at local, regional and national levels
Ilich Ascarza López	Public policies, financing, planning and implementation	Public official at Ministry of Health	CEPLAN official	Former Director-General of Planning and Budget
Augusto Portocarrero Grados	Public policies, financing, planning and implementation	Ministry of Health, public official	National-level consultant	Former Director-General of Planning and Budget
Sofía Cuba Fuentes	Primary health care, human resources	Academia, public official	Ministry of Health central-level official	Director-General of Health Promotion
César Amaro Suárez	Public policies, planning and implementation	Public official at Ministry of Health and police health care	National-level consultant	Former Director of DIGEMID, Ministry of Health Former official at SaludPol
Patricia Polo Ubillús	Human resources, planning and implementation	Academia, Ministry of Health public official	Physician at national hospital in Lima	Former National Coordinator of National Strategy for Family Health
Víctor Dongo Zegarra	Public policies, primary health care, governance, regulatory processes, planning and implementation, monitoring and information systems	Ministry of Health and EsSalud public official	Official at national level in EsSalud	Former Director of DIGEMID (Ministry of Health), Director of Health Evaluation and Technology Institute, EsSalud
Oswaldo Lazo Gonzales	Public policies, primary health care, governance, quality, regulatory processes, planning and implementation	Academia, civil society	Academia, national-level official	Former adviser to Vice-Ministerial Office

Continues...

Continued...

Key informant	Main areas of expertise	Main constituency represented	Level of health system at which active	Remarks
Odeli Mendoza Olivera	Public policies, primary health care, quality, regulatory processes, planning and implementation	Academia, private subsector, EsSalud	Private clinic professional	Former official at EsSalud
Graciela Meza Sánchez	Public policies, primary health care, quality, regulatory processes, planning and implementation	Academia, Ministry of Health (subnational level)	Physician in first-level health care facilities	Former official in Loreto region
Martín Tantaleán Del Aguila	Primary health care, quality, public health, regulatory processes, planning and implementation	Academia, SUSALUD, EsSalud	Authority at EsSalud central level	Former authority at SUSALUD
Walter Curioso Vilchez	Quality, regulatory processes, information systems, monitoring and evaluation	Academia, Ministry of Health, SUSALUD	Superintendent of Regulation and Inspection at SUSALUD	Ministry of Health, former Director-General of Statistics and Information Technology

Annex 2. Databases used for quantitative information

Indicators	Databases	Institution
Total population of country	Population projections	INEI
Sex ratio: male/female	Population projections	INEI
Population growth rate (% annual)	Population projections	INEI
Population density (people/sq km)	Population projections	INEI
Distribution of population (rural/urban)	Population projections	INEI
GDP per capita	National accounts – INEI	INEI
Income or wealth inequality (Gini coefficient)	National accounts – INEI	INEI
Life expectancy at birth	Vital statistics – INEI	INEI
Top 5 main causes of death (ICD-10 classification)	Deaths – Ministry of Health	Ministry of Health
Infant mortality rate	ENDES – INEI	INEI
Under-5 mortality rate	ENDES – INEI	INEI
Maternal mortality rate	ENDES – INEI	INEI
Immunization coverage under 1 year (including pneumococcal and rotavirus)	ENDES – INEI	INEI
Total health expenditure as proportion of GDP	Database, World Bank	World Bank
Public expenditure on health as proportion of total expenditure on health	Database, World Bank	World Bank
Out-of-pocket payments as proportion of total expenditure on health	Database, World Bank	World Bank
Number of physicians per 1000 population	Peruvian Medical Association	INEI
Number of nurses per 1000 population	Peruvian Nursing Association	INEI
Population access to first-level primary health care facilities within 1 hour	Geographical accessibility	INEI
Human resources within Ministry of Health and regional governments by geographical area	Observatory on Human Resources for Health	Ministry of Health
Poverty incidence, Peru, 2010–2015	ENAHO – INEI	INEI
Population in extreme poverty, Peru, 2010–2015	ENAHO – INEI	INEI
Population with chronic health problem, Peru, 2010–2015	ENAHO – INEI	INEI
Population with non-chronic health problem	ENAHO – INEI	INEI
Population with chronic health problem that sought health care	ENAHO – INEI	INEI
Population with some non-chronic health problem that sought health care	ENAHO – INEI	INEI
Population affiliated by type of insurance	ENAHO – INEI	INEI
Facility where patient sought health care	ENAHO – INEI	INEI
Reasons for not seeking care at health facility	ENAHO – INEI	INEI

References

1. World Health Organization and United Nations Children's Fund. Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978. Geneva: World Health Organization; 1978 (https://www.unicef.org/about/history/files/Alma_Atta_conference_1978_report.pdf, accessed 14 May 2018).
2. Renewing primary health care in the Americas (series). No. 1: Primary health care-based health systems: strategies for the development of primary health care teams. Pan American Health Organization; 2009 (<http://www1.paho.org/hq/dmdocuments/2010/PHC-Strategies-Development-PHC-Teams.pdf>, accessed 14 May 2018).
3. Renewing primary health care in the Americas: a position paper of the Pan American Health Organization/World Health Organization (PAHO/WHO). Pan American Health Organization; 2007 (<http://apps.who.int/medicinedocs/documents/s19055en/s19055en.pdf>, accessed 14 May 2018).
4. Lazo-Gonzales O, Alcalde-Rabanal J, Espinosa-Henao O. El sistema de salud en Perú: situación y desafíos [The health system in Peru: situation and challenges]. Lima: Colegio Médico del Perú, REP; 2016 (in Spanish).
5. Lazo O. Reforma sanitaria en el Perú: evolución y situación actual [Health reform in Peru: evolution and current situation]. In: Quico V, editor. Políticas y planeamiento estratégico [Policies and strategic planning]. Santa María Catholic University of Arequipa, Postgraduate School; 2008:70–86.
6. Statistical compendium of human resources in Peru 2013–2015. Government of Peru, Ministry of Health; 2015.
7. Frisancho Pineda D. Manuel Núñez Butrón y el “rijcharismo” [Manuel Núñez Butrón and “rijcharismo”]. Acta Médica Peruana. 2001;XVIII(2) (http://sisbib.unmsm.edu.pe/BVRevistas/acta_medica/2001_n2/manu_nu%F1ez.htm, accessed 23 May 2018) (in Spanish).
8. Neyra J. Manuel Núñez Butrón (1900–1952). Revista Peruana de Medicina Experimental y Salud Pública. 2005;22(2):148–9 (<http://www.scielo.org.pe/pdf/rins/v22n2/a11v22n2.pdf>, accessed 23 May 2018) (in Spanish).
9. Altobelli L, Castillo O, Medina J. Final external evaluation mission, APRISABAC: Atención Primaria y Saneamiento Básico de Cajamarca [Primary Health Care and Basic Sanitation Project of Cajamarca] 1993–2000 (<http://www.minsa.gob.pe/publicaciones/index2.htm>, accessed 23 May 2018) (in Spanish).
10. Seclen-Palacín JA, Jacoby E, Benavides B, Novara J, Velásquez A, Watanabe E et al. Efectos de un programa de mejoramiento de la calidad de los servicios maternoperinatales en el Perú: la experiencia del Proyecto 2000 [Effects of a programme to improve the quality of maternal and perinatal services in Peru: the experience of Project 2000]. Revista Brasileira de Saúde Materno Infantil. 2003;3(4):421–38 (<http://www.worldcat.org/identities/nc-peru%20ministerio%20de%20salud%20unidad%20especial%20proyecto%202000/>, accessed 23 May 2018) (in Spanish).
11. World Bank. Informe de evaluación de proyectos Perú: Proyecto de Salud y Nutrición Básica (Préstamo 3701); Programa de Apoyo a la Reforma el Sector Salud (PARSalud) (Préstamo 4527) [Project evaluation report, Peru: Basic Health and Nutrition Project (Loan 3701); Programme to Support the Health Sector Reform (PARSalud) (Loan 4527)]. Washington (DC): World Bank; 2009 (http://siteresources.worldbank.org/EXTWBASSHEANUTPOP/Resources/Peru_ppar_esp.pdf, accessed 23 May 2018) (in Spanish).
12. Situación actual del modelo de cogestión de servicios de salud del primer nivel: comunidades locales de administración de salud (CLAS) [Current status of the first level health services co-management model: local health management communities (CLAS)]. Ministry of Health, Directorate for Monitoring, Follow-up, and Evaluation of Public Health Policies; 2015 (in Spanish).
13. Aportes para la operativización del modelo de atención integral de salud basado en familia y comunidad en el primer nivel: Proyecto Multipaís Bolivia, Guatemala y Perú. DCI-NSA 240–166 [Contributions for the operationalization of the model of comprehensive health care based on family and community at the first level: Multipais Project, Bolivia, Guatemala and Peru. DCI-NSA 240–166]. Lima: Medicus Mundi Navarra, Health without Limits Peru; 2012 (in Spanish).
14. Comprehensive Health Care Model based on the Family and Community. Lima: Ministry of Health, General Directorate of Peoples Health, Technical Secretary of MAIS-BFC Renewal Commission; 2011.
15. Gozzer Infante E. Una visión panorámica de las experiencias de telesalud en Perú [A panoramic view of telehealth experiences in Peru]. Revista Peruana de Medicina Experimental y Salud Pública. 2015;32(2):385–90 (in Spanish).
16. Acuerdo Nacional: Política 13 [National Agreement: Policy 13]. Ministry of Health; 2006 (<http://acuerdonacional.pe/2006/01/ministerio-de-salud-politica-13/>, accessed 23 May 2018) (in Spanish).
17. Acuerdo Nacional: los objetivos de la reforma en salud [National Agreement: objectives of the health reform]. Ministry of Health; 2015 (<http://acuerdonacional.pe/2015/10/los-objetivos-de-la-reforma-de-salud/>, accessed 23 May 2018) (in Spanish).

18. Ley Marco de Aseguramiento Universal en Salud y su Reglamento [Framework Law on Universal Health Insurance and Its Regulations]. Law No. 29344 and DS No. 008–2010-SA. Ministry of Health (<http://www.minsa.gob.pe/dgsp/archivo/LeyMarco.pdf>, accessed 23 May 2018) (in Spanish).
19. Bustíos C. Perú: La salud pública durante la República Demoliberal [Peru: public health during the Demoliberal Republic]. Part two, 1968–1985. Lima: 1999 (in Spanish).
20. Law 26790: Ley de Modernización de la Seguridad Social en Salud [Law on the Modernization of Social Security in Health]. Lima: 1997 (in Spanish).
21. Cosavalente O. Sistematización del proceso de implementación del monitoreo y la evaluación de la descentralización en salud a nivel regional orientado a mejorar el desempeño de la función salud [Systematization of the process of implementation of monitoring and evaluation of decentralization in health at a regional level aimed at improving the performance of the health function]. Lima: Ministry of Health; 2010 (in Spanish).
22. Lazo O. Descentralización en salud: situación y perspectivas [Decentralization of Health: situation and perspectives]. In: Descentralización en salud: cuadernos de debate en salud [Health decentralization: notebook of debates on health]. Lima: Peruvian National Board of Physicians and Surgeons; 2012 (in Spanish).
23. Marchena P. Descentralización del estado o descentralización del desarrollo [Decentralization of the state or decentralization of development]. In: Descentralización en salud: cuadernos de debate en salud [Health decentralization: notebook of debates on health]. Lima: Peruvian National Board of Physicians and Surgeons; 2012 (in Spanish).
24. Ley Marco de Aseguramiento Universal en Salud y su Reglamento: Documento Técnico [Framework Law on Universal Health Insurance and Its Regulations: Technical Document] (Law No. 29344: DS No. 008–2010-SA). Lima: Ministry of Health, Directorate General of People's Health, Directorate of Sanitary Management; 2010 (<http://www.minsa.gob.pe/dgsp/archivo/LeyMarco.pdf>, accessed 23 May 2018) (in Spanish).
25. Nuevo Modelo de Prestación de Salud. Modelo de Cuidado Estandarizado y Progresivo de la Salud [New Model of Health Benefit. Model of Standardized and Progressive Health Care]. Lima: EsSalud; 2016 (http://www.essalud.gob.pe/downloads/nuevo_modelo_de_prestacion_de_salud.pdf, accessed 4 June 2018) (in Spanish).
26. Legislative Decree No. 1166, December 2013. In: Normas Legales, Diario Oficial el Peruano (<ftp://ftp2.minsa.gob.pe/descargas/Especiales/2013/reforma/DL1166.pdf>, accessed 4 June 2018).
27. Redes integradas de servicios de salud: conceptos, opciones de política y hoja de ruta para su implementación en las Américas [Health services integrated networks: concepts, policy options and road map for implementation in the Americas]. Pan American Health Organization; 2010 (https://www.paho.org/uru/index.php?option=com_docman&view=download&category_slug=publicaciones-sistemas-y-servicios-de-salud&alias=145-redes-integradas-de-servicios-de-salud-aps-n4&Itemid=307, accessed 4 June 2018) (in Spanish).
28. La lucha contra la corrupción en el sector de la salud: métodos, herramientas y buenas prácticas [The fight against corruption in the health sector: methods, tools and good practices]. New York: United Nations Development Programme; 2011 (http://www.undp.org/content/dam/undp/library/Democratic%20Governance/Anti-corruption/Corruption_health_spanish.pdf, accessed 23 June 2018) (in Spanish).
29. Lavilla Ruiz H. Empobrecimiento por gasto de bolsillo en salud: incidencia del gasto de bolsillo en salud en el Perú, 2006–2009 [Impoverishment due to out-of-pocket spending on health: incidence of out-of-pocket spending on health in Peru, 2006–2009]. 2012 (http://cies.org.pe/sites/default/files/investigaciones/empobrecimiento_por_gasto_de_bolsillo_en_salud_0.pdf, accessed 24 June 2018).
30. Curioso WH, Espinoza-Portilla E. Marco conceptual para el fortalecimiento de los sistemas de información en salud en el Perú [Conceptual framework for the strengthening of health information systems in Peru]. Revista Peruana de Medicina Experimental y Salud Pública. 2015;32(2):335–42 (in Spanish).
31. Encuesta Demográfica y de Salud Familiar [Demographic and Family Health Survey]. Lima, Peru: National Institute of Statistics and Informatics; 2015 (in Spanish).

This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization, as part of the Primary Health Care Systems (PRIMASYS) initiative. PRIMASYS is funded by the Bill & Melinda Gates Foundation, and aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance. The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries.



World Health Organization

Avenue Appia 20
CH-1211 Genève 27
Switzerland
alliancehpsr@who.int
<http://www.who.int/alliance-hpsr>