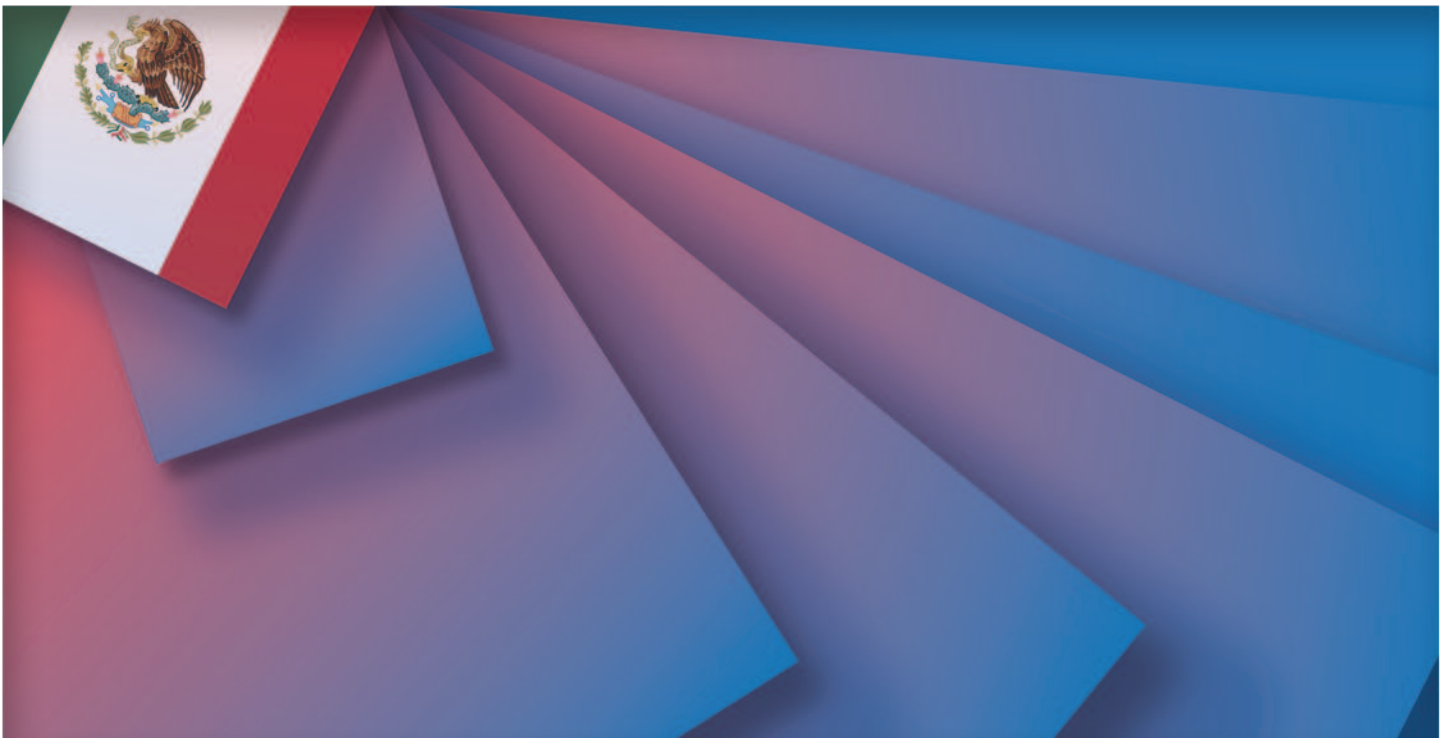




Mexico: a primary health care case study in the context of the COVID-19 pandemic

Jaqueline Elizabeth Alcalde Rabanal
Victor Becerril Montekio
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**World Health
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Alliance
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Executive summary

This case study examines primary health care (PHC) in Mexico in the context of the COVID-19 pandemic between March 2020 and August 2021. The case study draws from the Astana PHC framework (1), which includes integrated primary care and essential public health functions, community engagement and multisectoral collaboration as key components.

The Mexican Constitution sets out the basis for access to health care services and the right to social protection in health for all citizens. The General Health Law establishes that the Ministry of Health (MoH) and the country's state governments are responsible for the control and eradication of transmissible diseases. An important reform to the health system has been the establishment of the National Institute of Health for Wellbeing in 2020, which provides health care to people who have no health insurance. One of the main characteristics of this reform is the emphasis on the strengthening of PHC, with a focus on efficient care for those suffering from chronic noncommunicable diseases (NCDs).

In the face of the national and international spread of COVID-19, a health emergency was declared in Mexico on 30 March 2020, with the MoH established as the leader of the national response (2). The main response strategies were the country's Hospital Reconversion and its National Healthy Distance Strategy. In addition, the government signed an agreement with the private sector to offer COVID-19 and non-COVID-19 care for people who had no social security (3).

The response strategies were implemented in coordination with the subnational levels. These levels organized committees for the overall management of COVID-19 that included public and private institutions as participants and that developed general plans.

The movement restrictions that were introduced as part of the pandemic response may have exacerbated Mexico's existing shortages of health personnel, contributing to a reduction in the number of health workers. As a result, hospitals reduced care for health problems not caused by COVID-19 and some primary health facilities (PHFs) were closed.

Health teams in some states were integrated to provide care in the health facilities of the municipal capitals and in the hospitals facing the largest demand, and some personnel from mobile units were shifted to provide triage in COVID-19 hospitals. In general, the coverage of overall care and of health programmes was reduced.

Training of health personnel on COVID-19 protocols through virtual media was implemented to reduce infection risks inside the health units. However, at the beginning of the pandemic, health personnel faced a lack of personal protective equipment (PPE) and limited supplies and equipment for the care of COVID-19 patients. In addition, coordination of referrals between hospitals and the PHF became more challenging as the pandemic progressed.

At the state level, the authorities launched collaborative action to control the pandemic and the PHF developed different strategies to promote the National Healthy Distance Strategy and case surveillance actions. Case study findings highlight the need to invest in technology to connect across a network, including high-speed internet availability, computers and other connectivity equipment. In addition, multisectoral action to address Mexico's health priorities could be reinforced by frequent coordination and proactive communication across sectors (health, education, economy, culture and public security).

Introduction and national context

The framework and structures for health care

The Mexican Constitution sets out the basis for access to health care services and the right to social protection in health for all citizens. The General Health Law establishes that the MoH, together with state governments, is responsible for the control and eradication of transmissible diseases and must establish the necessary measures to prevent and combat all threats to health (4).

Consequently, the National Health Plan 2019–2024 proposes universal, effective and free access to health care services, including health and epidemiological surveillance for emergencies, for all Mexicans (5).

The Mexican health system includes both a public and a private sector under the stewardship of the MoH (6). In 2020, 51% of the population was registered with the *Instituto Mexicano de Seguridad Social (IMSS)*, which covers the health insurance of workers employed by the private sector. The *Instituto de Seguridad Social en Salud de Trabajadores del Estado (ISSSTE)* covered 8.8% of the population, while another 1.3% of the population was covered by *Petróleos Mexicanos (PEMEX)* or by the defense and marine ministries. At the same time, 35.5% of those with no health insurance were covered by the National Institute of Health for Wellbeing (INSABI) (7) or by IMSS-Bienestar (1.0%); while only 2.8% were covered by private institutions (8). Each institution offers health care to its members through its own health units. People without social security receive health care in the MoH's units or have to pay for it in the private sector; which offers health care and insurance plans for people willing and able to pay for them (9, 10).

One important reform has been the creation of INSABI (11). INSABI, which has since been disestablished and its public health functions taken on by the IMSS-Bienestar program, was based on the principles of PHC as a way to address the chronic NCDs (heart diseases, cancer and diabetes mellitus) that are the main causes of death in Mexico.

There were 893 854 health workers in Mexico in 2017, of whom 24% were administrative staff; 21.2% were medical doctors; 38% were nurses; 4.7% were other medical staff; and 36.1% were technical personnel (12). In terms of the institutions for which they were working, 46.2% worked for the MoH; 38.4% for IMSS; 8.6% for ISSSTE; 3.3% for PEMEX or the defense and marine ministries; and the other 2.8% worked for the private sector. In 2017, 41 156 health units were reported, of which 91.3% were providing health services. Of these, 87.4% were primary health units, 12% were general hospitals and 0.6% were specialized hospitals and institutes (12). Primary health facilities mainly offer ambulatory care and should include a physician and nurses. General hospitals offer basic specialities (general medicine, pediatrics, surgery and gynaecology with hospitalization). Specialized hospitals and National Institutes of Health, mainly located in Mexico City, as well as the Regional High Specialty Hospitals, are located in large cities and in state capitals.

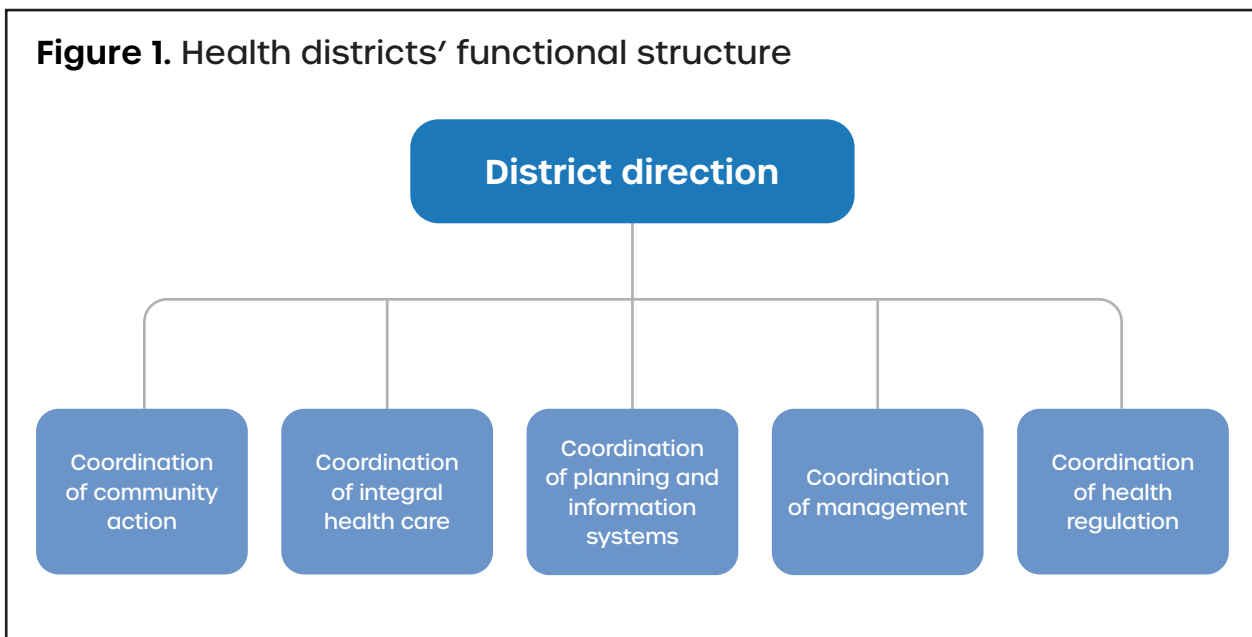
The 2020 total expenditure of the Mexican health system represented 5.7% of the country's gross national product (GNP). Public expenditures accounted for 51% of this expenditure (13). Mexico's total public health spending in 2019 accounted for 2.8% of gross domestic product (GDP), the lowest rate among member states of the Organisation for Economic Co-operation and Development (OECD). Between 2020 and 2021, total public spending increased slightly, from 50% to 51.1%, with 58% of this public spending allocated to those with social security and 42% for those without it. In all, 82% of public spending is dedicated to curative actions, and 4.1% to preventive care (14), with relevant variations across the country's different states.

In terms of private spending, out-of-pocket spending accounted for 84% of private spending on health in 2019. According to the OECD, 5.5% of Mexican families have incurred catastrophic levels of health spending (15).

The Mexican health system faces challenges concerning the need to provide health care with equity, efficiency and high quality in a sustainable manner for all citizens. The strengthening of preventive and primary care is seen as one of the main strategies to achieve this goal (16). Considering the challenges, the 2019–2024 administration proposed that the public sector should implement the Model for Integrated and Comprehensive Primary Health Care (*Modelo de Atención Primaria a la Salud Integrada e Integral*) (17), which emphasizes health prevention, health promotion, essential ambulatory care, and community participation and organization as essential elements.

This model is based on health districts (HDs), which could replace the country's former health jurisdictions. The HDs offer health programmes, promote community participation and collaborate with other sectors on all health risks. The implementation of the HD strategy is the responsibility of each state's PHC network, with guidelines and monitoring provided at the federal level. The strategy includes the participation of a health team comprised of general, family or community physicians, nursing and health promotion personnel and community representatives (18). Figure 1 presents the principal PHC functions of HDs.

Figure 1. Health districts' functional structure



Source: MoH (2019: 63) (17)

COVID-19

The first case of COVID-19 was confirmed in Mexico on 23 February 2020 and there were more than 1000 cases recorded in March of that year. On 30 March, the National Health Council declared a health emergency establishing the MoH as leader of the national response (2, 19). The MoH proceeded to present a daily report on the evolution of the pandemic to provide technical guidance for all health institutions (20).

As of 9 August 2021, a total of 972 817 confirmed cases of COVID-19 were reported with different levels of risk across states. At that time, the average recovery rate was 90.54%, with 18.88% of cases needing hospitalization (21).

A total of 244 552 deaths had been reported in Mexico by 18 July 2021, with a death rate of 8.2% (compared to a global rate of 2.1% and a rate for the Americas of 2.6%) (22). In all, 37.7% of those who had died were women; 91.7% had been hospitalized; 44.5% had hypertension; 36.8% had diabetes; 21.7% had obesity; and 7.5% were regular tobacco smokers (23).

Methodology

This case study examines PHC in Mexico in the context of the COVID-19 pandemic between March 2020 and August 2021. It draws on a review of published and unpublished literature as well as stakeholder consultations with 22 experts in primary care provision and administration at the federal level and in three states (one in the north, the south and the centre of the country). Professional

roles held by these stakeholders include Director of Epidemiology, Primary Care Director, Quality of Health Director, Health Promotion Director and a District Chief, mostly from the MoH (two professionals were from ISSSTE and one from IMSS). Consultations explored primary care and essential public health functions, multisectoral policy and action, and community actions to respond to COVID-19. Analysis and reporting of the findings utilized the Astana PHC framework, which includes integrated primary care and essential public health functions, community engagement and multisectoral collaboration as key components (1).

How primary care and essential public health functions are responding to COVID-19

Scaling up and managing critical emergency services

The availability of hospital beds and intensive care units (ICUs) was prioritized in Mexico in response to COVID-19, as well as efforts around social distancing. The availability of beds became the main indicator of Mexico's control of the pandemic and its risk definition (24). In contrast, the proactive identification of cases as a way to interrupt the transmission chain was feeble and sampling to identify people who had contracted COVID-19 was fairly limited. The government implemented sentinel surveillance based on sampling to monitor the evolution of the pandemic (25), with the participation of 475 primary health services, clinics and hospitals.

In relation to the strengthening of public sector governance to support responsive, integrated public health planning, emergency preparedness and response, key stakeholders considered some states to place only a limited emphasis every year on planning to address common public health issues. In response to COVID-19, however, some states organized committees for the overall management of the pandemic that included the participation of public and private institutions and that developed general plans long before the federal government.

The establishment and work of these committees was facilitated by the country's normative framework, which defines the autonomy of the states in relation to health issues, the availability of trained public health personnel in high-level posts, and the availability of international information about the trend of the pandemic and the role of the hospitals (26).

At the national level, federal guidelines were developed to address the pandemic in hospitals (for ambulatory cases and those requiring critical care) (27) and for follow-up and prevention actions in primary health facilities that facilitated planning. However, there was little flexibility from the national level in relation to local strategies to control the pandemic. This is why experts interviewed for this case study insisted on the need to ensure better support for the autonomy of the states' decisions regarding the response to emergencies.

Knowledge dissemination on COVID-19 prevention, diagnosis and treatment during the pandemic was challenging because around 23% of Mexico's health workers contracted the virus (28). Health personnel were trained using virtual media (29) emphasizing prevention, diagnosis, and treatment mechanisms and strategies at the hospital level, as well as at the primary health facilities.

To strengthen its information systems to monitor the development and impact of the pandemic, Mexico used two previously developed systems: the National Epidemiological Surveillance System (SINAVE), which is used to notify and monitor diseases requiring notification, and SISVEFLU, which was designed to detect and prevent a surge in respiratory diseases (30). Time lags were reported at the start of the pandemic, but information became more timely as the pandemic progressed. Reports included information on the number of cases, sampling results, number of deaths, and the number of available and occupied hospital beds across the country and within each state. This information was used by hospitals to monitor the availability of beds and by the PHF to intensify social distancing measures.

High speed internet availability, as well as computers and other connectivity equipment, are key enablers of emergency responses. A single, consolidated platform for pandemic or emergency management with free access for all health institutions, public or private, would enable users to identify populations according to risk, equipment availability, infrastructure, human resources and other indicators to assure the use of information to support local interventions. Technologies such as mobile devices and applications could also support real-time geographic coverage for information capture.

Another key challenge was that the movement restrictions may have exacerbated the existing health personnel deficit in Mexico, causing a reduction in the number of health workers available. PHF were closed, supplies were reduced and health personnel did not receive the training needed to maintain regular programmes. Quality monitoring in these units was suspended.

Multisectoral action could help to improve the response of health units to emergencies in the future. A comprehensive emergency management plan that estimates expected demand, including demand for human resources, materials and supplies, and that is accessible for all health institutions, is critical for addressing future health emergencies. This plan would need to be available for all health institutions.

Continuing essential services

Public hospitals were categorized as non-COVID-19, hybrid and only COVID-19. In order to guarantee care for patients affected by other pathologies, 146 private hospitals signed an agreement with the government to receive social security beneficiaries with non-COVID-19 pathologies at reduced rates (3). Nonetheless, people had difficulties in finding a hospital bed.

How primary care and essential public health functions are responding to COVID-19

Most states installed modules for rapid COVID-19 tests, with an emphasis on preventive measures for those whose test results were negative. Patients whose results were positive for COVID-19 were referred to the nearest hospital or health centre (31). At the same time, an epidemiological study was conducted, as well as notification to the State Epidemiological Surveillance System for follow-up and the identification of contacts (32).

There were significant reductions across a range of health consultations, including a 53% reduction in external consultations; a 39% reduction in antenatal consultations; a 33% reduction in consultations for family planning; and a 60% reduction in consultations on birth control (33). There was also an increase in the percentage of the population without access to health services, which rose from 16.2% in 2019 to 28.8% in 2020 (34).

The pandemic also affected the coverage of public and preventive health programmes in maternal and child health, chronic and vector-borne diseases. Primary health units reduced their capacity when the pandemic struck and many consultations were cancelled. According to the MoH, diagnostic tests for malnutrition, heart disease, cervical cancer, diabetes and breast cancer were reduced in December 2020 by 56%, 45%, 34%, 27% and 20%, respectively, compared to December 2019 (35).

Health teams were integrated during the emergency to provide care in the health units of the municipal capitals and in the hospitals that were facing the largest demand. Some personnel from mobile health units were reassigned to provide triage in COVID-19 hospitals. Once the most complex stage of the pandemic was over, these personnel were assigned to rural areas.

In terms of health policies to improve coverage, quality and responsiveness of public health and primary care services, Mexico's hospital infrastructure and human resources for health were insufficient before the pandemic. Mexico's 2.4 medical doctors, 2.9 nurses and 1 hospital bed for every 1000 inhabitants in 2017 contrasted with an average for OECD countries of 3.4 doctors and 8.7 nurses (36). In addition, health personnel faced a lack of equipment for their personal protection (37) and for the care of their COVID-19 patients in the pandemic context.

Gaps revealed during the pandemic indicate a need for continuous training of health personnel, based on innovative strategies that emphasize the use of health care protocols and patient security. In addition, continuity of care provided by health personnel in primary care units requires a guarantee that a complete basic nucleus (one medical doctor and two nurses) is in place. Improving the timeliness of health budgets would help with compliance with annual budgets, given that resources usually arrive in the middle of the year, making it difficult to obtain supplies and to hire and train personnel.

Successful response approaches included the promotion of concerted actions among health institutions at both the federal and state levels and the leadership of the MoH in coordinating the health system's response to COVID-19 (38). Nevertheless, response capacity varied across different states. This suggests a need for national and state governments to develop guidelines for the designation of health authorities in the state ministries of health, guided by a managerial profile that includes leadership and a broad knowledge of public health. There may also be a need to strengthen measures to reward those health workers who achieve the best performance in the implementation of processes and results at the PHF, and to reinforce multisectoral and multidisciplinary work.

Telephone services for general consultations, the appointments systems to avoid crowds and the emergency triage filters were important PHC strategies during the pandemic. In addition, the rotation of personnel who work in PHF assigned to hospitals facilitated their training and created successful reference networks among health workers.

Information linked to COVID-19 was prioritized with the use of the Internet and other digital equipment during the pandemic. Nevertheless, greater availability of computers and Internet for all PHF and training on their use would facilitate greater utilization of these services. Platforms such as *Cubos dinámicos* and *the Sistema Nacional de Información Básica en Materia de Salud - SINBA 2.0* could also have mobile device versions to support their real-time use.

Managing referral systems to ensure appropriate distribution of service load

Lack of infrastructure, human resources and financial resources to hire personnel and buy supplies were structural obstacles to a rapid response. The hiring of personnel to work in specific units, rather than for the health system overall, was also an obstacle to mobility. However, the creation of the Municipal Health Committees, as well as the willingness of some health workers to participate in teams and move to other units, were key enablers.

The local management processes made it possible to meet the federal guidelines for COVID-19 health care, given the high value placed by municipal and states' committees on the national guidelines; the existence of patient security committees; and the presence of regional subcommittees devoted to respond to the epidemiological particularities of each zone. HDs adjusted their processes in response to the reduction of health personnel in line with the Zero Rejection policy, which made it possible to offer medical care regardless of the registration of the patient in a specific social security scheme.

To ensure coordinated action across the public and private sectors to address COVID-19, the government signed collaboration agreements with the National Private Hospitals Association and the Mexican Hospital Consortium to increase

the availability of hospital beds for the care of both COVID-19 and non-COVID-19 patients. In all, 50 private medical units signed up to provide care for people with or without social security (39). In addition, the criteria for medical care were unified, and referral and counter-referral agreements were signed to exchange emergency care products and services.

The intersectoral work of committees was crucial in managing information for health stakeholders on the trends of the pandemic, as well as on the measures and strategies implemented. Before and during the pandemic, however, referral and counter-referral between PHF and hospitals have hindered the provision of an integrated, efficient and quality health care service (40). The essential conditions for the coordination of health units concerning referral require leadership at management level, as well as procedure manuals and the continuous updating and training of personnel. Another essential condition is a guarantee of respect for the proposals made by the country's different states to manage their health networks.

How multisectoral policy and action are supporting the COVID-19 response

Addressing broader health determinants and working multisectorally

Health priorities identified at state level are well aligned with the Sustainable Development Goals (SDGs) and are included in the states' development plans, as well as in the health sector plans and the National Development Plan 2019–2024 (41). Thus, multisectoral priorities are part of the policy agenda at both national and state levels.

Coordination among sectors such as health, education, and the economy is enabled by multisectoral committees incorporating civil society engagement at the municipality, state and national level. Local Health Committees and Municipality Councils enable efforts to promote multisectoral action at the subnational level.

During the COVID-19 pandemic, efforts were focused on the Healthy Distance Strategy (*Jornada Nacional de Sana Distancia*) and Hospital Reconversion. The National Healthy Distance Strategy included several actions: basic prevention measures in the face of COVID-19; the temporary suspension of nonessential activities; the reprogramming of large events; and measures to protect and care for older citizens (42). Community and health promotion personnel were supported with medical-epidemiological brigades to provide home follow-up for chronic patients, pregnant women and patients in priority programmes.

In addition to the health committees at state and municipal level, the states' priority programmes committees established Peace Tables (*Mesas por la Paz*) (43)

with the participation of staff from primary care units and local leaders from different institutions and sectors. The aim of the Peace Tables was to coordinate the implementation of federal guidelines at the state level, such as the closure of certain establishments under the epidemiological traffic light system that established three levels for containment measures, from red (stay-at-home orders and movement restrictions) to green (normalcy).

These actions included strategies to open new health care provision schedules, modalities for appointment demands and vaccination campaign locations. Several other strategies included in Mexico's New Normalcy approach were measures related to economic reactivation, the need for a 1.5-metre distance between individuals, the use of face masks, the reduction of capacity and the use of emergency triage filters - in line with the traffic light system (44).

One intersectoral strategy focused on health education. This included the use of indigenous languages and sign language translators to provide information on the pandemic and health care for the population. Collaborative work among different stakeholders helped to reduce the population's resistance to COVID-19 response measures such as the reduction of alcohol consumption and limits on crowds. The COVID-19 Observatory, a platform for the monitoring of public policies (45), was installed to monitor compliance with preventive measures and was made available to all health authorities at the state level.

The COVID-19 pandemic led to new collaborations. The participation of actors that had never worked in health promotion before, such as the involvement of the International Ports Association in epidemiological surveillance or private business in the dissemination of prevention campaigns, highlighted that health is a common task. While there was also recognition that the use of virtual spaces facilitated communication, shared financing of projects is needed to support multi-sectoral collaboration centred on the social determinants of health. Key COVID-19 responses - preventive measures and vaccination - were bolstered by multisectoral action.

Overall, the pandemic highlighted Mexico's progress and regression in its pursuit of the SDGs. The main progress has been to place health on the public agenda as the most important priority for governments and for the population. However, the greatest regression can be seen in the reduction of priority programme interventions related to the SDGs. For example, the National Healthy Distance Strategy and movement restrictions increased unemployment, reduced family incomes (46), and increased poverty (47), food insecurity and violence (48).

There is no federal or state budget dedicated to the financing of multisectoral health actions, with funds for these activities being provided by each participating institution. Thus, there is an opportunity to create a multisectoral financing scheme for resource allocation that is shaped by the health risks in each district to act on the social determinants of health and reach a common objective. A catastrophic expenses fund could help to combine and manage the appropriate disbursement of contributions.

How communities are responding to COVID-19

Engaging and communicating with communities effectively and leveraging community resources

Communication strategies used to inform the public about the progress and control of the pandemic were implemented on a daily basis by the national government (49). However, the language used was not easily accessible for the community and was mainly for health personnel and academics. Some states made efforts to improve this communication using simpler language and stressing the need for community participation.

Participation of communities at the different levels of the health system was enabled at the local level through several initiatives. For example, the Healthy Municipalities and Communities programme (50) depends on the commitment of communities for the execution of its projects. In addition, health committees prioritized and executed projects in localities with high social vulnerability. Developing the capacity of community organizations to identify and prioritize their problems and to negotiate their preferred solutions with local stakeholders encourages strong community participation. Strengthening community networks such as the Municipalities for Health fosters interaction among actors and their participation in health.

Innovations and changes to strengthen the participation of communities are likely to require the development of conceptual and operational definitions of community participation in health as a basis for its implementation and evaluation. Furthermore, the participation of the community could be better promoted at all health system levels; particularly in PHF.

The early stages of the pandemic saw changes in the schedules of health care services, as well as the establishment of appointment schemes and consultations via virtual platforms. The main change was the prioritization of care for COVID-19 patients by health care services and the use of virtual platforms for other patients. The fear of COVID-19 infection meant that people only sought health care if there was a real emergency. At the same time, many health units lacked supplies and personnel, including those designated for the care of non-COVID-19 patients. The lack of information on hospital reconversion generated confusion among the population. By the end of 2020, face-to-face medical care was resumed with spaced-out appointments, something well accepted by the population in the context of the New Normalcy approach.

One of the main strategies to assure that PHC responded to the health needs and priorities of the community during the pandemic was the change in the functions of health staff, with teams created to provide integral care. Specific days were also designated to offer health care to different age groups. This proved successful in speeding up the registration and care of users: there was

a day for pregnant women, another for vaccination and several days for chronic diseases. This strategy helped to improve access and patient control, making it easier to comply with social distance measures.

Concerning the availability of information and communication technologies, 87.5% of the population in Mexico use mobile phones, 52.1% have access to the internet, 43.3% have TV subscriptions and 37.6% have a computer and telephone landlines (51). Technologies were used to strengthen and upgrade the participation of and communication with communities during the pandemic, urging the population to seek health care (52). Radio messages, social networks (Facebook, Instagram, WhatsApp) were used to communicate the days for appointments, vaccination sites and prevention measures. Virtual platforms, such as Zoom and Google-Meet, were used to offer care for emergencies in cases such as high-risk pregnancies and complicated COVID-19 cases.

Conclusions and lessons learned

At the beginning of the COVID-19 pandemic in March 2020, the MoH declared a national emergency and oversaw the implementation of targeted response measures including guidelines for COVID-19 care and agreements with private hospitals to provide COVID-19 and non-COVID-19 care. State governments also developed plans to respond to the pandemic that aimed to guarantee access to hospital care for patients with moderate and critical complications related to COVID-19, as well as information campaigns on transmission prevention methods. Hospital reconversion for COVID-19 care was a successful strategy; however, the experience revealed a need for stronger efforts to ensure continuity of access to PHFs providing non-COVID-19 health care.

As a result of the introduction of movement restrictions, the country's human resources in the health sector were reduced and personnel from PHFs were moved to hospitals. Therefore, some primary facilities were closed. There was also a lack of supplies and equipment for health personnel protection. This situation meant that care for regular programmes in primary health units and care for other diseases in hospitals were reduced or postponed. Training for COVID-19 management was offered mainly via virtual media, with a focus on the personnel working in hospitals.

Prioritization by the government of reducing health impacts from the pandemic helped to foster coordination and communication among the health, education, economy, culture and public security sectors. However, multisectoral coordination and follow-up actions to achieve the health-related SDGs were postponed because of the emergency. Nonetheless, positioning of health on the public agenda and the strengthening of collaboration approaches before the pandemic facilitated multisectoral action when the COVID-19 virus arrived in the country.

The prioritization of COVID-19 response measures also helped to bring together public and private actors from different sectors, including through health committees, Peace Tables, the Healthy Municipalities Network, states' security committees and reactivation committees for pandemic control. However, organized civil society participation in these committees was limited. Community participation strategies, implemented from the beginning of the pandemic, may have helped with disease prevention.

The Healthy Communities approach, with its emphasis on the social determinants of health and community-led problem identification, is a key enabler of social participation in the health system. The COVID-19 pandemic experience has highlighted an opportunity to improve the implementation of the approach to better enable community participation in response measures. The pandemic has also highlighted an opportunity for health programmes to better address the needs, problems and demands of communities. Community participation could be incentivised within the states' ministries of health through including health promotion and preventive indicators in evaluation.

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This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization. In 2015, the Alliance commissioned the Primary Health Care Systems (PRIMASYS) case studies in twenty low- and middle-income countries (LMICs) across WHO regions. This case study builds on and expands these previous studies in the context of the COVID-19 pandemic, applying the Astana PHC framework considering integrated health services, multisectoral policy and action and people and communities. This case study aims to advance the science and lay a groundwork for improved policy efforts to advance primary health care in LMICs.

