Setbacks in the quest for universal health coverage in Mexico: polarised politics, policy upheaval, and pandemic disruption

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2023 marks the 20-year anniversary of the creation of Mexico's System of Social Protection for Health and the Seguro Popular, a model for the global quest to achieve universal health coverage through health system reform. We analyse the success and challenges after 2012, the consequences of reform ageing, and the unique coincidence of systemic reorganisation during the COVID-19 pandemic to identify strategies for health system disaster preparedness. We document that population health and financial protection improved as the Seguro Popular aged, despite erosion of the budget and absent needed reforms. The Seguro Popular closed in January, 2020, and Mexico embarked on a complex, extensive health system reorganisation. We posit that dismantling the Seguro Popular while trying to establish a new programme in 2020–21 made the Mexican health system more vulnerable in the worst pandemic period and shows the precariousness of evidence-based policy making to political polarisation and populism. Reforms should be designed to be flexible yet insulated from political volatility and constructed and managed to be structurally permeable and adaptable to new evidence to face changing health needs. Simultaneously, health systems should be grounded to withstand systemic shocks of politics and natural disasters.

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Introduction

2023 marks the 20-year anniversary of the Mexican law creating the System of Social Protection for Health (Sistema de Protección Social en Salud) and the Seguro Popular, a reference point for the global quest to achieve universal health coverage through progressive, evidence-based reform.[1–7] In January, 2020, 2 months before the onset of the COVID-19 pandemic in Mexico, the Mexican Government dismissed the Seguro Popular and began extensive institutional reorganisation.

We argue that the Seguro Popular needed intensive, ongoing reform as it aged and that many of the gains from the 2003–12 period were not sustained up to 2018 (panel 1). We also posit that dismantling the Seguro Popular and establishing a new programme in 2020–21 placed the Mexican health system in a precarious position entering and during the worst pandemic period.

The Mexican health reform of 2003 is well documented, including in *The Lancet* in 2003, 2006, and 2012 (appendix p 2).[6] We focus on 2012 and onward and show that health and health care plateaued and declined as Seguro Popular's challenges mounted and necessary reforms did not materialise between 2012 and 2018. We then discuss systemic policy reversals in 2019–20 and the dismantling of the Seguro Popular. Our analysis of reform ageing and systemic upheaval coinciding with a health crisis and polarised politics allows us to identify strategies to mitigate and manage risk through disaster preparedness. We share short-term and long-term recommendations for Mexico and derive global lessons from its reform experience, including generalisable findings on how to manage systemic renewal while protecting health systems from volatility. Our findings are applicable to health systems in countries at all income levels and are particularly relevant for Latin America, where political polarisation challenges systems already struggling to meet increasing health needs in the wake of the COVID-19 pandemic.[8,9]

Health and health system outcomes

Universal health coverage is a three-stage quest, from universal enrolment to universal coverage, to universal effective coverage; universal enrolment refers to registering 100% of the population in a health system, universal coverage extends needed care to this population, and universal effective coverage ensures optimal health gains from health coverage for the population.[6,10,11] We analyse the degree to which the Mexican health system has moved through the first two stages to the third (appendix p 3). We consider both instrumental health system results (eg, the availability, distribution, and allocation of financial resources, including total health spending and population and service coverage), intrinsic health outcomes (eg, financial protection, responsiveness, and population health), and equity (ie, closing gaps between the population with and without social security; appendix p 3).[10,12] We compare 2012–18 to the initial reform period and analyse available evidence for 2019–21. Our analysis is based on published research and policy documents and descriptive analysis of surveys and administrative data (appendix p 4).

Instrumental outcomes: health care and the health system

Enrolment in health insurance with the Seguro Popular increased steadily and peaked in 2016 with close to 56 million people, equivalent to 43·5% of the population

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See Online for appendix

Panel 1: **Key messages for health reform based on the Mexican experience since 2012**

Sustaining a major health reform is challenging and requires continued waves of evidence-based assessment, incremental reforms, and reassessment grounded in monitoring and evaluation; eliminating one system before designing its replacement is risky.

Upheavals in governance that cross political lines incentivise the creation of new systems—for better or for worse—as reforms are more easily deconstructed than constructed or evolved.

Health system reforms are precarious during political transitions, especially in polarised and populist environments; at the same time, major political, environmental, or health disruptions create space to confront systemic inertia; these simultaneous challenges mean that leaders can and should act in times of crisis to advance reforms as systemic deficiencies become apparent and policy windows open for change.

Health systems need to be constructed and managed in ways that are structurally permeable, flexible, and adaptable to incorporate the innovation needed to meet emerging health needs as well as equity concerns guided by new evidence and advancing technologies; at the same time, they should be anchored in foundations designed to withstand systemic shocks.

Resilient health system reform requires: embedding disaster preparedness for pandemics, political transitions, natural disasters, and financial crises; continual, evidence-based re-shaping that takes advantage of opportunities and corrects for weaknesses by monitoring, updating, and developing new policies to ensure sustained progress across generations; and, recognition that large, complex systems need not be transformed all at once enabling planning for gradual institutional transition to minimise and mitigate risk.

Key design elements of solid health system reforms that facilitate continuity across administrations include: anchoring the reform in the constitution through amendment; communication strategies to cultivate broad ownership across stakeholder groups; portability of benefits across public and private providers; decreasing fragmentation and incentivising broad-based investment; embedding incentives to promote permeable policy persistence that encourages evidence-based adaptation and rejuvenation; and harnessing decentralised innovation, translating successful subnational programmes to the national level.

figure 1; appendix p 2).[13] Coverage subsequently declined from 2016 to 2020. Together the Seguro Popular and social security—public health insurance—reached 110·9 million people in 2016, leaving less than 10% uninsured. With the substitution of the Seguro Popular by the Instituto de Salud para el Bienestar (INSABI), enrolment declined by 16·8% from 87·2% in 2018, equivalent to 109·7 million people, to 72·9% in 2020, equivalent to 92·4 million, that is 8·8% per year (figure 1).[14] According to the Mexican National Health and Nutrition Survey (ENSANUT) 2018–19 data, 37% of respondents had the Seguro Popular, and 18% had no coverage.[15] Following the elimination of the Seguro Popular, 54% reported limited or no health coverage in the 2021 ENSANUT; although all are eligible for INSABI, the survey lists INSABI eligibility alone as a form of having no insurance.[16]

Increases in the Seguro Popular-covered health services and benefits narrowed gaps between those with and without social security. The Universal Catalogue of Health Services (also known as CAUSES), the core Seguro Popular package, increased from 91 covered interventions in 2004 to 255 in 2007, and 294 by 2018. In addition, the Fund for Protection Against Catastrophic Expenditures began, in 2004, with eight health conditions and gradually increased to include 66 by 2018. Finally, the fund dedicated to cover neonates and young children (21st Century Medical Insurance) was created and paired with the Seguro Popular in 2007. This fund covered between 108 and 110 health interventions in its first 2 years, which increased to 151 in 2018 (appendix p 13).[17]

Availability and distribution of financial resources

Health investment in Mexico was 4·5% of gross domestic product in 2000 and peaked at 6·1% in 2009, declining steadily thereafter and reaching a low of 5·5% in 2019 (appendix p 14). In per capita terms (purchasing power parity 2020), investment increased from INT$657 in 2000 to $993 in 2016, and then plateaued. Mexico continues to trail most Latin American countries with similar rates of economic development. In 2019, health spending was 10·0% of the gross domestic product in Argentina, 9·6% in Brazil, 9·3% in Chile, 7·7% in Colombia, 7·3% in Costa Rica, and 9·0% in Uruguay.[18]

Up to 2013, public spending on health had increased, primarily from the mandated expansion of the Seguro Popular and the Fondo para una Nueva Generación for children. Then it fluctuated until a COVID-19-driven increase in 2020.[19] Following the 2003 reform, financial imbalances between the population covered by social security and those without narrowed. Yet in 2016, there were still marked gaps, with the Mexican Social Security Institute (IMSS) investing $627 per capita for 2020 compared with the Seguro Popular at $390 and IMSS-Oportunidades at $113.[20]

The Ministry of Health budget, devoted to the population lacking social security, declined between 2016 and 2020, by 6% in real terms, going from $437 to $411, when it increased due to COVID-19. Out-of-pocket spending reached its lowest rate in 2013 and has been increasing since. Private health spending reached a record low of 45·4% of total health expenditure

in 2013, then increased to almost 50·0% in 2019, one of the highest rates in Latin America and more than Argentina, Chile, Colombia, Costa Rica, and Uruguay at that time.[21] Mexico's experience with childhood cancers shows recent trends within the Mexican health system, including the instrumental outcomes discussed in panel 2.

Intrinsic outcomes

Financial protection: catastrophic and impoverishing health expenditure

According to the National Income and Expenditure Surveys taken every 2 years from 1998 to 2020, financial protection improved with the Seguro Popular as excessive (ie, catastrophic and impoverishing) health expenditures declined. Catastrophic health expenditure refers to the burden of health-care expenditures on individuals' or households' available resources; this burden becomes catastrophic when it is greater than 40% of the capacity to pay. Impoverishing health expenditure refers to health-care expenditure that leads to individuals or households falling below the poverty line or deepening existing poverty.[46] The initial downward trend in financial protection levelled off after 2010, but catastrophic expenditure remained below 3·0% until 2018 (figure 2; appendix pp 7, 15).[6,46–48]

Between 2012 and 2018, excessive health spending, which refers to either catastrophic or impoverishing spending, increased from 1·0% to 1·6% for households covered by social security and from 2·6% to 3·2% among households with the Seguro Popular. By contrast, it declined from 3·0% to 1·9% among the uninsured. Most gains were in catastrophic spending as the gap in impoverishing expenditures widened, associated with a persistent lack of financial protection for rural households.[49,50] In 2018, excessive health spending reached 4·8% for rural households, compared with 1·7% in urban areas, with a particularly large difference in impoverishing spending. Overall, gains in financial protection were greatest for families without social security (and the gap in excessive health expenditure closed).

Impoverishing and catastrophic health expenditures began rising in 2014, and financial protection deteriorated from 2018 to 2020 (figure 2; the methodology for calculating financial protection is available in the appendix pp 7, 8, with quantitative data sources listed from the literature review). The proportion of people facing excessive health spending nearly doubled between 2018 and 2020, from 2·4% to 4·4%—a proportion not seen since 2004, when the Seguro Popular began. Excessive spending more than doubled for the uninsured compared with those with social security (figure 2; appendix p 16). This deterioration in financial protection potentially stems from several factors: the termination of the Seguro Popular, which, according to the National Council for the Evaluation of Social Policies,

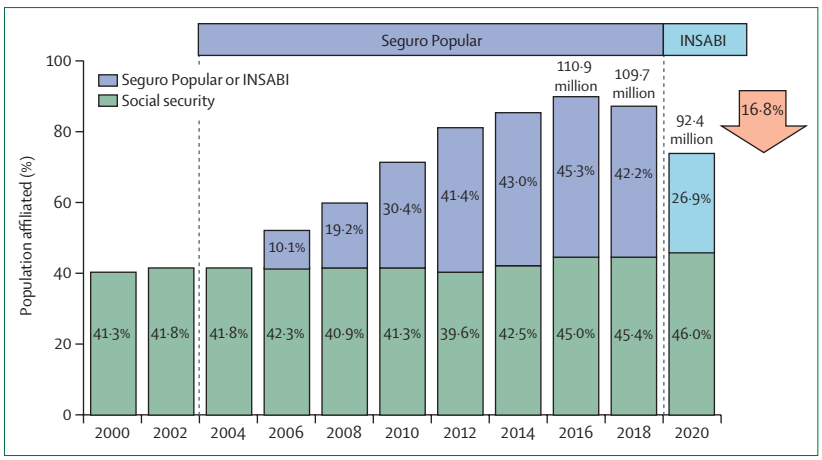

Figure 1: **Public health insurance coverage (% of total population), Mexico 2000–20**
The evolution of enrolment in Mexico from 2000 to 2020, with three distinct levels is shown: the pre-Seguro Popular level (2000–02), the Seguro Popular level (2004–18), and the post-Seguro Popular or entry level of INSABI (2020). Notably, there was a 16·8% drop in enrolment during the transition from Seguro Popular to INSABI, which occurred between 2018 and 2020. Source: authors' estimates based on data from the Instituto Nacional de Estadística y Geografía Encuesta Nacional de Ingresos y Gastos de los Hogares, 2020 and National Institute of Statistics and Geography, Aguscalientes México (appendix p 2). INSABI=Instituto de Salud para el Bienestar.

reduced access to health-care services, including the acute shortage of medicines in public institutions; the closures of facilities during lockdowns; and, after 2020, the conversion of hospitals to accommodate patients with COVID-19.[36,51–53]

The 2018 and 2021 ENSANUT measures of health spending show that average out-of-pocket spending increased overall by 75% among users of health services.[16,52] It increased by 60% for outpatient visits, 49% for medicines, and 96% for medical testing. Other medical expenses, including hospitalisations, increased by almost 120%. The overall increase was more than 90% for those with social security, compared with almost 60% for those with the Seguro Popular or INSABI. This increase reflects the effect of COVID-19 and the postponement of treatment during the pandemic.

Responsiveness

Health-care responsiveness has deteriorated, particularly in outpatient services, because of insufficient and inefficient health expenditure since 2015, and pandemic pressure.[51,52] For the Seguro Popular, national waiting times for outpatient services fell between 2012 and 2018 from 91 to 70 min, but increased to a national average of 84 min in 2021. By contrast, wait times for outpatient health services at the IMSS and the Institute for Social Security and Services for State Workers remained constant between 2012 and 2018, and increased in 2021. Users of outpatient private services waited 25 min on average between 2012 and 2018 but 47 min in 2021.[15,16,54]

Mexicans with public health-care coverage increasingly use private facilities and pay out of pocket, regardless of the public health-care programme they are enrolled in,

Panel 2: Meeting the challenge of paediatric cancer

Childhood cancer is emblematic of the financing and delivery challenges faced by lower-income and middle-income countries undergoing epidemiological transition. As with most non-communicable diseases, improving childhood cancer survival requires a strategy across the care continuum using a diagonal health systems approach.[22,23]

Beginning in 2004, Mexico pioneered financing innovations to respond to the increasing burden of childhood cancers among low-income families through the Fund for Protection Against Catastrophic Expenditures of the Seguro Popular.[6,17,24] Large-scale funding expanded childhood cancer services to families without social security; coverage began in 2005 for acute lymphoblastic leukaemia and was extended to all cancers for patients younger than 19 years by 2007.[24–26] The number of children with access to care doubled, more than 50 medical facilities were accredited for the delivery of childhood cancer care throughout most of the country, and universal access to medicines reduced the risk of abandoning treatment and of catastrophic and impoverishing spending. Choosing to cover childhood cancer early on also provided buy-in and understanding of the reform process among civil society patient groups, the public, and legislators.[24,26,27]

Over time, new challenges emerged associated with the complexities of increasing human resources, infrastructure, and equipment. These challenges resulted in bottlenecks, inequities, and variations in quality across paediatric cancer centres in the availability of medical and surgical subspecialists, radiation services, and palliative care.[28,29] For acute lymphoblastic leukaemia, diagnostic studies were lacking for up to a third of patients contributing to higher risk-group assignment and treatment intensity and a 5-fold greater frequency of deaths from toxicity.[29,30] Further, rigidities in payment systems and treatment guidelines delayed the adoption of innovations and hindered patient-centred, multi-site collaboration. These challenges in downstream implementation detracted from the potential of Seguro Popular to improve childhood cancer survival.[26,31–33]

Rather than re-doubling efforts and correcting inefficiencies, in 2019 and 2020, the system for medicine procurement and financing was eliminated along with Seguro Popular.[34,35] Support for low-income families with a childhood cancer diagnosis disappeared without a replacement; families and civil society have publicly protested the lack of support.[36,37]

International collaboration through Mexico in Alliance with St Jude might have mitigated the effects of eliminating public financing.[38,39] Formalised in 2017, the Alliance now engages almost 80 partners in quality improvement activities and 25 in modernisation and evidence-building activities.[30,40] The programme expanded results-oriented activities—for example, operationalising a model for improving access to specialised diagnostic testing, early detection of inpatient clinical deterioration, and time to antibiotic administration. The Alliance helped sustain treatment continuity during the pandemic, build human resource capacity, and nurture inter-institutional collaboration inclusive of government agencies, professional organisations, and foundations.[41] However, international donors cannot replace publicly financed government services and should serve only as a complement to buoy the public sector.

As of 2022, there are signs of improvement through the Centre for Prevention and Non-Communicable Diseases and the Mexican Social Security Institute, yet uncertainty around financial protection for children with cancer persists.[37,42–44] For many families, these uncertainties surrounding financial protection are cumulative, as treatment for childhood cancer is a multi-year process. The effect of 3 years without stable financing on both survival and financial protection must be evaluated as data become available.

Much can be learned from Mexico's experience integrating childhood cancer into a comprehensive universal health coverage reform strategy. The medium-term policy outcomes highlight the importance and complexities of coupling universal health coverage financing strategies for catastrophic illness with comprehensive downstream delivery and human resource strategies that require both a long horizon and the inclusion of subnational actors to guarantee equitable, high-quality access. Going forward, re-instating public funding for treatment with financial protection for families with children with cancer should be coupled with public policies to facilitate and incentivise opportunities to engage with international actors post-COVID-19 and take advantage of advances in communication technology. Additionally, the experience with paediatric cancer shows the need for deep engagement of patients and civil society in all reform processes as part of achieving patient-centred health systems and sustainable, agile reforms over time.[45] Mexico's treatment of paediatric and other cancers under Seguro Popular were leaders in this effort.

due partly to stock-outs of medicines.[52] The Seguro Popular users had the most notable change in seeking care: regular ambulatory health care in private clinics rather than in state health services increased from 31% in 2012 to 43% in 2018.[15,54] During the pandemic, the population without social security relied heavily on private providers for care: 69% in 2020 and 66% in 2021.[55,56] For those with the IMSS, the percentages of people reliant on private providers were 31% in 2012, 34% in 2018, 45% in 2020, and 39% in 2021, while 58% enrolled in the Institute for Social Security and Services for State Workers sought private care in 2020, compared with 37% in 2018 and 28% in 2012. Reliance on largely unregulated, pharmacy-affiliated physicians reached 25% in 2021, among Mexicans without social security, compared with 10% for those with the IMSS or Institute for Social Security and Services for State Workers.

Population health

The Seguro Popular has been associated with improvements in several population health outcomes since 2000. Infant mortality fell by half, from 22·2 deaths per 1000 livebirths in 2000 to 11·0 deaths per 1000 livebirths in 2018.[57] The Seguro Popular potentially contributed to this reduction as minimum quality care standards for paediatric tertiary care were associated with lower neonatal and infant mortality rates.[58]

Similarly, maternal mortality decreased from 75·4 deaths per 100 000 livebirths in 2000 to 34·2 per 100 000 livebirths in 2019.[57] The Seguro Popular made potential contributions to reducing infant and maternal mortality through programmes that reduced ethnic disparities in maternal care and improved access and quality for low-income beneficiaries.[59,60] However, these improvements were insufficient to reach the UN's Millennium Development Goal of 22 maternal deaths per 100 000 livebirths in 2015, and disparities persist, with deaths concentrated among the most vulnerable populations.[57,58] Between 2019 and 2020, there was an increase in maternal mortality of more than 55%,[61] from 34·2 in 2019, to 53·2 maternal deaths per 100 000 livebirths in 2020. The increase in maternal mortality continued into 2021 and is largely concentrated in marginalised communities, for whom health disparities were exacerbated by COVID-19.[62,63]

Data on health-care coverage from comparable ENSANUT surveys for 2006, 2012, 2018, and 2021 show either little progress or setbacks between 2012 and 2018 for all indicators other than breast cancer screening (appendix p 17) compared with the previous 6 years.[16] The composite indicator increased from 2006 to 2012, then decreased from 2018 to 2021, to a proportion less than that of 2006.

Coverage for acute respiratory infections and diarrhoea in children increased from 58·1% and 66·3% respectively in 2006 to 77·4% and 90·2% in 2012 and then fell. The rate of cervical cancer screening rose from 41·2% in 2006 to 52·3% in 2018. Skilled birth attendance dropped slightly from 93·3% in 2006 to 90·2% in 2012, then rose slightly to 91·1% in 2018. Breast cancer screening coverage dropped slightly from 21·6% in 2006 to 19·9% in 2012, and rose by about a third to 27·5% in 2018.

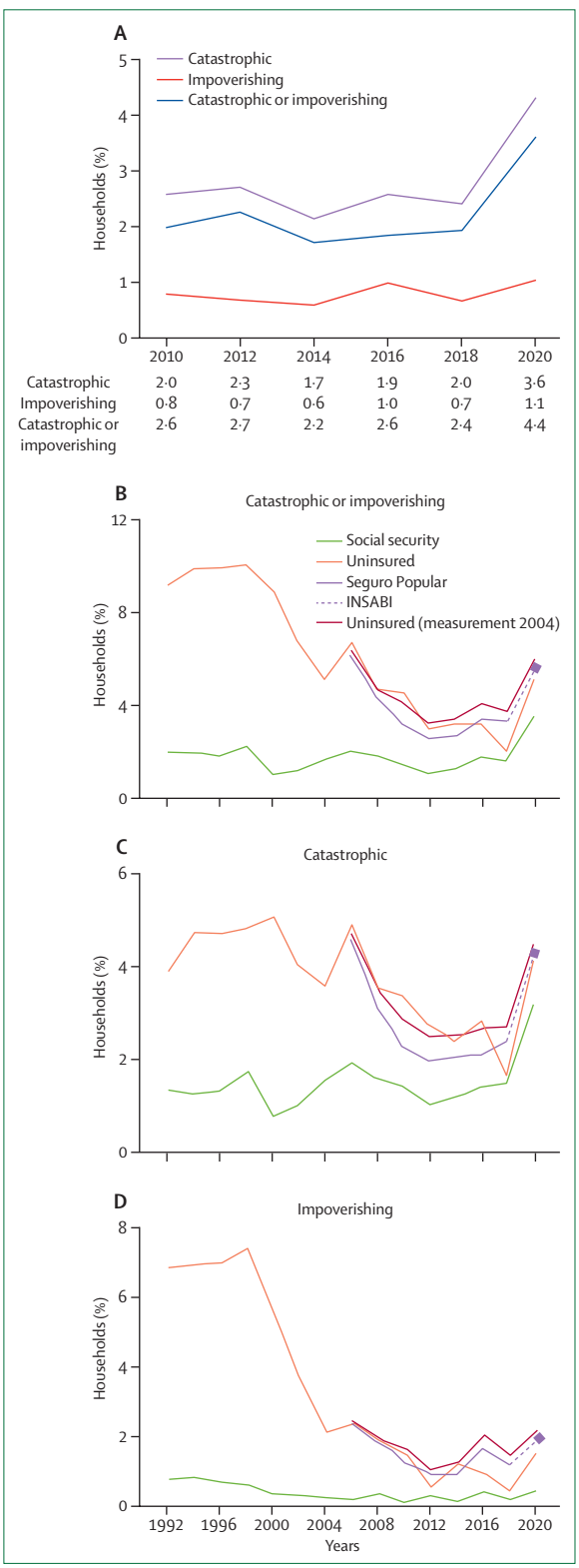

***Figure 2*: Financial protection: catastrophic and impoverishing health expenditure, by social security, Seguro Popular or INSABI, or uninsured, Mexico 1992–20**

The evolution of financial protection in health in Mexico from 1992 to 2020, through three different indicators is shown: (1) the percentage of catastrophic spending in health; (2) the percentage of impoverishing spending on health; and (3) the percentage of households with excessive spending on health, that is, those that experienced catastrophic and impoverished spending on health. Additionally, excessive spending is broken down by type of health enrolment: social security; uninsured; Seguro Popular; INSABI; and uninsured (measurement 2004). Source: authors estimates based on data from Instituto Nacional de Estadística y Geografía. Encuesta Nacional de Ingresos y Gastos de los Hogares, 2020–22 and National Institute of Statistics and Geography, Aguscalientes México (appendix p 7 for methodology). INSABI=Instituto de Salud para el Bienestar.

Access to breast cancer treatment increased after the introduction of the Fund for Protection Against Catastrophic Expenditures as of 2007, and the treatment gap (ie, the number of patients who received treatment via the fund compared with the expected number of breast cancer cases among women not covered by social security) fell by about two-thirds from 0·71% to 0·15% by 2016.[64] Coverage for all immunisations besides influenza decreased from 92·6% in 2012 to 86·8% in 2018, with incomplete vaccination more common among the uninsured.[65]

Screening and treatment for all indications except acute respiratory infections in children declined further between 2018 and 2021, reflecting the challenges of COVID-19 as well as the lack of planning to continue screenings and treatment within the Ministry of Health (appendix p 17). There were notable declines in breast and cervical cancer screening, skilled birth attendance, and treatment of diarrhoea. In addition to the reductions in measles, diphtheria, tetanus toxoid, and pertussis, BCG, and influenza, the human papillomavirus vaccine—introduced in 2011 for those aged 10 and 11 years—covered more than 90% of the target population up to 2018, yet was not purchased or administered in 2020 or 2021.[66,67] Vaccine coverage showed other declines, especially compared with Latin American averages.[68]

Composite data on effective coverage includes 22 conditions and shows continued improvement from 1990 through to 2019, but at a declining rate from 2006 to 2018 (appendix p 19).[69] Early gains in effective coverage were concentrated in the poorest states and the lowest income deciles, especially in tuberculosis and antiretroviral therapy (ART).[69,70] Between 2004 and 2017, more than half of new HIV infections were prevented due to access to ART. Between 2008 and 2015, HIV mortality decreased by 20% from 4·5 to 3·6, after a decade of increasing ART coverage and financing from the Seguro Popular through its Fund Against Catastrophic Expenses.[71,72]

The COVID-19 pandemic added to the challenges facing the Mexican health system.[73,74] Mexico accounts for roughly 20% of Latin America's population, yet total deaths due to COVID-19 comprised roughly 30% of the regional total.[75] Mexico had almost 800 000 excess deaths through 2020 and 2021 and is among the seven countries that account for more than half of the world's excess deaths, with a rate of 325 per 100 000, much more than Brazil at 187[76] (panel 3).

The pandemic created a syndemic by layering onto the burgeoning burden of injuries, chronic and non-communicable diseases, and major health risks, including obesity.[88] Although most excess deaths can be attributed to COVID-19, many stem from delays in diagnosing and treating other conditions.[76] Indirect reductions in life expectancy continue to mount.[89–91] Diagnosed cases of breast cancer, arterial hypertension, type two diabetes, and cerebrovascular diseases fell by 20–30%; depression, cervical cancer, and urinary tract infections fell by about 33%; prostate cancer and ischaemic heart disease cases fell by almost 50% (figure 3; appendix p 9).

Developments in the Mexican health system: 2012–22

The last stage of the system for social protection in health: 2012–18

Despite initial progress, the Mexican health system was increasingly strained as the supply of services deteriorated in the face of increasing demand for health care fuelled by shifts in population health needs, such as treatment of chronic condiitions. The Government enacted reforms in 2014 to bring transparency and accountability to the system, monitor states' activities, expand coverage of specific high-cost health interventions, and increase coordination across providers to address concerns about access and the financial burden of treatment.[92] For example, as of 2015, in response to declining vaccine coverage and problems with state-managed purchasing, the Government empowered the undersecretary for health promotion to purchase vaccines and other key public health supplies and deliver these directly to the states.[70] The period from 2015 to 2018 is characterised by reduced investment in health, resulting in the erosion of previous health coverage gains and reductions in efficacy.

Instead of improvement through reforms, the complex relationship between the Seguro Popular and subnational entities remained unresolved.[93] The mechanisms for resource allocations to the states and the lack of clear rules for local use and distribution created space for misuse of these resources. Delays in transferring funds at multiple points, failure to comply with state spending requirements, fraud, and lack of authorisation to use funds were all identified.[66,94–97]

By 2018, the health system—suffering from fragmentation, misuse of resources at the state level, and budget cuts—required evidence-based reform that did not occur, leaving cracks in Mexico's health system. Core health system areas were neglected, including disaster preparedness and epidemiological surveillance.[94,95]

In addition, health-care coverage for migrants living in Mexico and for Mexicans living elsewhere is an ongoing human rights crisis and financial challenge for families and for the health system.

The Seguro Popular expanded financial protection to Mexicans regardless of place of residence and to residents of Mexico regardless of nationality. As of 2014, all migrants were offered 90 days of full Seguro Popular coverage once in Mexico. However, the Ministry of Health and state health authorities did not increase access to information on health care or reduce barriers to enrolment.[98,99] Mexicans who migrate for work also face major economic impediments to access health care. Bi-national agreements

Panel 3: The COVID-19 pandemic and health outcomes

Despite information on the global spread of COVID-19 and WHO warnings, the Mexican Government implemented a late, mild, and uncoordinated set of non-pharmaceutical interventions in response to the pandemic.[77–80] Reversing Seguro Popular was not the only factor that placed the Mexican health system in a precarious situation immediately before the pandemic. In addition to the lack of non-pharmaceutical interventions, testing, mask use, and coordination across states, key entities, including the Sub-Ministry of Integration and Development and the Commission for the Purchase of Medicines in the Public Sector, were dismantled.[79,80] Further, early on in 2020, the federal government shifted responsibility to the states, resulting in a patchwork of policies because the type, rigour, and pace of non-pharmaceutical intervention implementation varied considerably between states.[80,81]

Mexico had one of the lowest testing rates in the world (94·3 per 1000 people), which largely explains the country's high positivity rates (55%), much higher than the 5% WHO recommendation.[74,75,82] Furthermore, according to the 2021 Mexican National Health and Nutrition Survey, of the 15% of Mexicans tested for COVID-19, 58% did so through the private sector, and more than 70% of patients with COVID-19 used private services.[16]

Vaccine purchasing and roll-out were better managed than non-pharmaceutical interventions and testing, especially after 2020. Yet, as of June 24, 2022, only 61% of the population had had two vaccine doses, with no official data on boosters.[74] Vaccine roll-out potentially lagged due to a scarcity of federal collaboration with state and local governments and community health organisations, and the dismissal of Mexico's existing public health vaccine campaign infrastructure. Instead, the national government turned to the Secretaría de Bienestar, which delayed vaccinating children and initiated the vaccination campaign in rural areas for which the risk of transmission was lower. The National Council of Vaccination was almost absent in COVID-19 policy making. By early April, 2022, at least half of the health-care workers in the private sector remained unvaccinated, prompting the Mexican Supreme Court to require their vaccination.[83] Furthermore, less focus on older people meant that 14% of people older than 60 years were still not fully vaccinated as of July 11, 2022.[84]

We cannot know precisely how the COVID-19 pandemic would have affected Mexico if Seguro Popular had remained in force. However, the Mexican Government's response with the Seguro Popular to H1N1 in 2009 provides an illustrative contrast. It followed a well established preparedness plan based on scientific evidence and included immediate notification to WHO, early and vigorous containment measures, and effective communication with the public. It also drew on a special fund (Fondo de Previsión Presupuestal), which reserved 3% of the Seguro Popular budget to manage shocks generating unanticipated, systemic needs. This response was found to reduce the global impact of the H1N1 pandemic.[66,85,86] An additional advantage for combating pandemics that Seguro Popular might have offered Mexico was its clear rules for the distribution of financial resources among states. In contrast, Instituto de Salud para el Bienestar (INSABI) was established and implemented without similar operational rules. There was considerable uncertainty among the 32 states' Ministries of Health regarding INSABI from its first month of operation, in January, 2020, to its dissolution in mid-2022.

In 2021 and 2022, there were important institutional efforts to recover from the pandemic. For example, the Mexican Social Security Institute issued the National Strategy for Health Services Recovery to ensure the resumption of essential health services. The National Vaccination Program fell behind target rates due to the disruption of the early pandemic in 2020 and early 2021, but then improved later in 2021 and 2022.[87]

Mexico must build back stronger to meet the mounting challenges of chronic and non-communicable diseases by applying evidence on syndemics.[88] Building back stronger will require identifying a stable source of public financing to replace what was previously funded through Seguro Popular's catastrophic expenditures fund and to make up for several years of accumulated financial hardship. The focus should be on supporting families without access to social security and at risk of impoverishment from catastrophic spending or abandoning treatment due to lack of funds. Recent experience with paediatric cancer provides some lessons on pathways forward.

facilitated access for Mexicans in the USA; the Seguro Popular covered catastrophic illnesses upon their return to Mexico or their inability to work.[100] Access to Seguro Popular coverage ended when it was dismissed in 2019. INSABI, as of Jan 1, 2020, legally provides full coverage to everyone, including migrants passing through Mexico,[101] but the lack of explicit entitlements, which should be considered in the Comprehensive Care Plan for the Health of the Migrant Population,[102] makes determining whether migrants can access services in practice unclear.

December, 2018 onwards

President Andrés Manuel López Obrador campaigned for office declaring the Seguro Popular to be neoliberal privatisation and neither secure nor popular, building on allegations of financial mismanagement.[92,96] Campaign speeches called for a new, free, universal health system to reduce fragmentation, improve services, and expand access for all Mexicans.[34,103] Soon after taking office in December, 2018, the Obrador administration began dismantling and reorienting the Mexican health system.

The health sector was not unique in facing large-scale

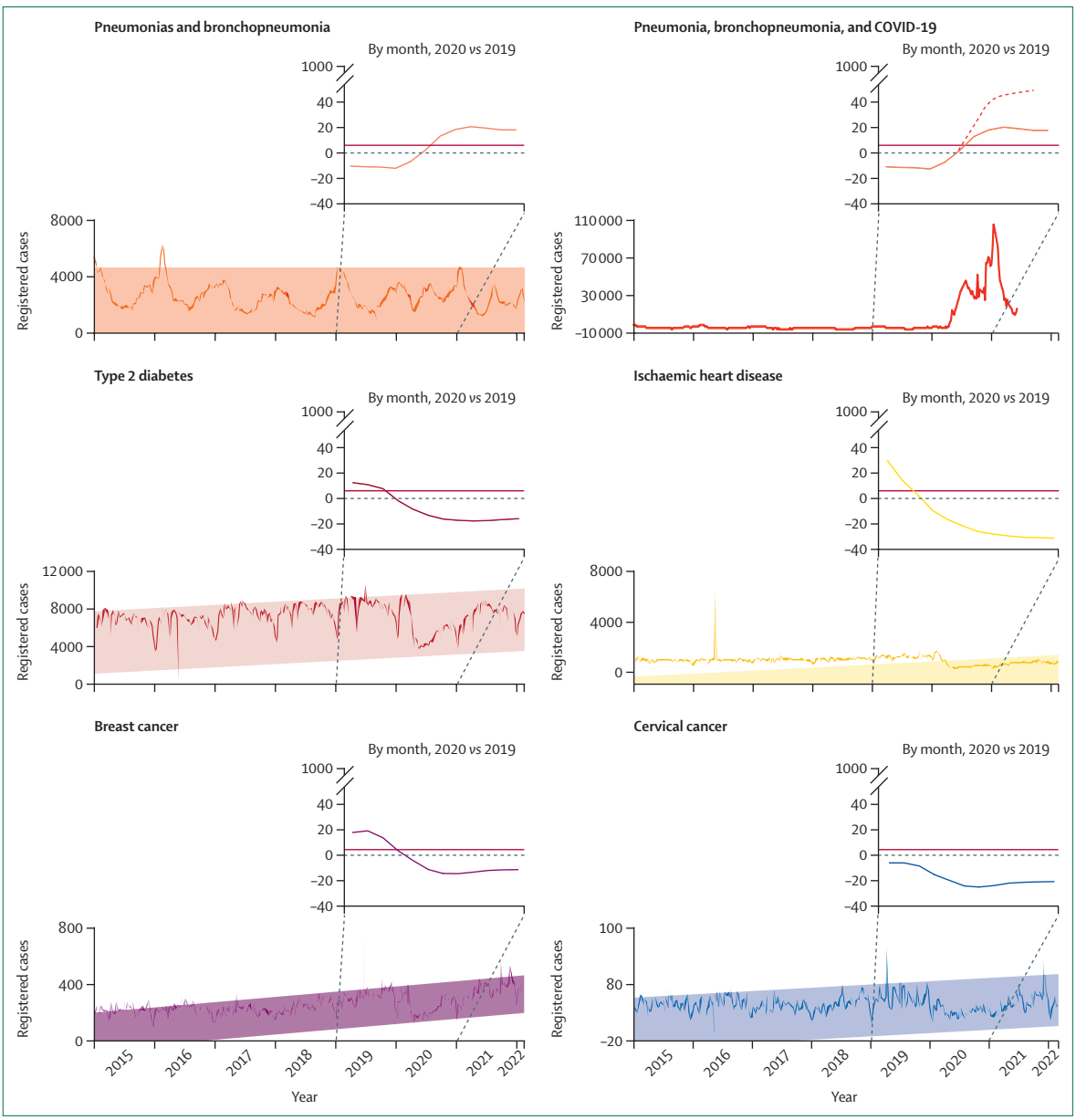

Figure 3: **Endemic channel (cases diagnosed and registered), Mexico 2015–22 (until epidemiological week number 6 of 2022), and comparing 2020 to 2019 by month**

Figure 3 displays the endemic channel by epidemiological week in Mexico between 2015 and the 6th week of 2022 for six health conditions: pneumonias and bronchopneumonia; pneumonia, bronchopneumonia, and COVID-19; type 2 diabetes; ischaemic heart disease; breast cancer; and cervical cancer. Additionally, it presents the cumulative change in the number of cases diagnosed week by week in 2020 versus the same week in 2019. Source: authors' own estimates based on data from the Epidemiological Bulletin, General Directorate of Epidemiology, and the Mexican Ministry of Health (appendix p 9 for methodology)

dismantling. For example, the long-standing anti-poverty conditional cash transfer programme Prospera was eliminated in 2019 (panel 4). Mexico's anti-poverty initiatives had gone from being a pioneer in 2000 to ranking poorly in breadth and adequacy of cash transfers compared with ten other Latin American countries.[111]

The Government rejected reforming the Seguro Popular on ideological grounds. On Nov 14, 2019, the Mexican Congress—for which the President's coalition had a super-majority—approved reforms that eliminated the Seguro Popular and created the Health Institute for Welfare (or INSABI), with a promise of free and unlimited health care for all citizens lacking social security. INSABI officially began operating in January, 2020.[96,112,113]

However, INSABI was created without operational rules, a management plan, a package of interventions, or sufficient funds to expand and solidify the existing health institutions for the uninsured. The reform did not specify

Panel 4: The effect of eliminating the Prospera anti-poverty programme

Mexico's nationwide anti-poverty programme, Prospera, in which much of the primary health care for those on low-incomes was imbedded, was terminated by President Andrés Manuel López Obrador's administration. Launched in the late 1990s, the conditional cash transfer programme (previously called Progresa and then Oportunidades from 2001 to 2014), channelled resources to the most marginalised families and communities by targeting mothers. It received global recognition and was adapted and adopted in countries worldwide.[5,104] The programme raised income levels for families on low-incomes and increased school attendance and the use of health services.

Connections between Seguro Popular and Oportunidades (originally called Progresa) were established alongside the 2003 reform and expanded with Prospera across several presidential administrations. This strategy took advantage of the interconnectedness of social and financial conditions for health and of reduced transaction costs for reaching those on low icomes as part of a networked, sustainable health system.

Furthermore, the programme was an example of evidence-based, data-driven adaptation to changing population needs. Initially called Progresa, the programme was renamed Oportunidades and then Prospera as new administrations sought branding opportunities; the programme matured through four administrations and two changes of political party. Yet, it did not survive the Obrador administration, leaving the country devoid of a key platform that could have provided essential transfers and services during the COVID-19 pandemic.[105]

President Obrador eliminated Prospera upon taking office in December, 2018, and replaced it with Becas para el Bienestar Benito Juarez, with one programme targeting households with children in preschool (children aged 0 to 15 years) up to secondary education and another targeting youth (15 years and older) in higher secondary education. The first allowed for only one transfer per household. Given this, for households with more than one child (the majority among those on low incomes), the value has been lower than what recipient households received under Prospera. Also, children younger than 3 years—arguably the most critical age for child development—are not eligible for the transfer. The National Council for the Evaluation of Social Policies (CONEVAL), an oversight agency, reported that between 2018 and 2020, the real value of government transfers dropped by 23·8% within the lowest income decile.

When the COVID-19 pandemic hit in March, 2020, most Latin American governments moved rapidly to bolster social protections for vulnerable households to help them manage containment and the socioeconomic fallout from COVID-19. A ten-country study of cash transfer responses found that nine countries, including Brazil, Argentina, Colombia, and Chile, created new emergency cash transfer programmes for informal workers and their households, and seven increased the adequacy of existing conditional cash transfers targeted at children. The Mexican Government did neither; the Becas transfer values remained the same, and no new national cash transfer programmes were created to reach informal workers and their children.[106] A UNICEF-sponsored survey in August, 2020, found that 79% of households with children were not covering the nutritional needs of the family as a whole.[107] A four-country simulation shows how Mexico's lack of a strong cash transfer response probably increased poverty and inequality during 2020.[108]

Eliminating both Prospera and Seguro Popular immediately before the pandemic limited the Government's capacity to reach those in poverty. Breaking with the tradition of rigorous evaluation and monitoring that characterised Prospera and Seguro Popular, Becas' administration has lacked transparency, and official press releases report varying coverage.

An evaluation of the program by CONEVAL found that as of late 2022, no operational framework had been put into place, eligibility criteria were not clearly specified, and the programme had no concrete linkages to education or health services.[109]

Eliminating Prospera—a progressive programme with high coverage among families on extremely low-incomes and a channel through which to provide primary health care, especially to women and children—left the country bereft of a platform that could arguably have played a key role in mitigating both poverty (extreme poverty went from affecting 8·7 million people in 2018 to 10·8 million in 2020) and excess mortality during the pandemic.[110]

the criteria to define the population's health needs and hence the health conditions and interventions that INSABI would cover.[6,114–116] INSABI reverted to rationing schemes instead of the Seguro Popular's prioritisation processes. This shift increased waiting times for services, created shortages of medicines, and decreased responsiveness to patient needs.[51,52,116]

The new law also left INSABI's legal responsibility for covering tertiary, specialised care unclear.[112,115] The Fund for Protection Against Catastrophic Expenditures, which had covered multiple health conditions under the Seguro Popular, was replaced by the Fondo de Salud para el Bienestar. But the Obrador administration used its financial reserves for other purposes, including drug purchasing. Patients lost their entitlements, and health-care institutions lost funding to cover tertiary services, including for childhood cancers and medicines.[36,117]

Spending to close effective coverage gaps fell short of INSABI's promised packages. The Ministry of Health's budget declined despite a public commitment to a 1% gross domestic product increase.[96] This decline meant not matching the IMSS package for Mexicans lacking

social security, which would have cost more than four times the 2019 Seguro Popular budget.[118] The rest of the health system, dominated by social security institutions, was left budgetarily and administratively intact despite ongoing issues with financial viability and quality of care.

The Obrador administration also began recentralising the delivery of personal health services through INSABI.[119] The risks of recentralisation included reduced efficacy, operational and logistical difficulties, and misalignment with state processes. Some states were divided along partisan lines and refused to sign on and hence did not receive resources from INSABI.[120]

The first phase of INSABI's implementation was tumultuous; although it began operations on Jan 1, 2020, it lacked formal operational rules until October, 2020.[121] Access to health services through INSABI reached only 28% of the population in 2020, compared with 43% through the Seguro Popular in 2018.[53] Pre-pandemic health system austerity measures decreased capacity and limited the purchasing of medicines and medical supplies.[122] The Government spearheaded a new medicine purchasing strategy through the Office for Project Services of the United Nations with a distribution strategy that lacked capacity, infrastructure, and experience, resulting in severe shortages and stock-outs.[36]

As part of the administration's austerity measures, the under-secretariat of the Ministry of Health in charge of strategic planning, quality of care, and evaluation was eliminated, and the health regulatory agency (the Federal Commission for the Protection against Sanitary Risks or COFEPRIS) was merged into the Ministry of Health, weakening health sector stewardship, control of sanitary risks, and access to health inputs. These measures moved the new system further away from the elements of the Scandinavian, UK, and Canadian health systems from which the Obrador administration had claimed inspiration.[118]

These institutional changes were set in motion immediately before the onset of the COVID-19 pandemic. The country entered the pandemic with a backlog of health demands, a depleted capacity to deliver health services, and an underfunded health system. When the pandemic hit in March, 2020, the Government did not halt or pause the closure of the Seguro Popular in the face of demand for and disruption of services. Had the pandemic hit 6 months earlier, major structural reform could not have been initiated, regardless of its merits.

Only 2 years later, in early 2022, the Obrador administration announced a transition to IMSS–Bienestar (enacted in August), tacitly acknowledging INSABI's failure.[123] INSABI's main responsibility—to provide free and universal coverage for the population not affiliated with social security—was transferred to an expanded IMSS–Bienestar, a limited vehicle for providing national health care.[124]

For nearly 40 years, the IMSS–Bienestar programme provided limited primary care services to a restricted population of about 12 million in rural and low-income urban areas.[20,125] Epitomising the medical apartheid model, the programme is managed by IMSS, yet its non-salaried, low-income beneficiaries are denied access to the infrastructure and services available to salaried workers.[126] The programme lacks the capacity to deliver health care to everyone not affiliated with social security. Indeed, IMSS–Bienestar failed to reach its previous target population, as coverage fell from 83% in 2015 to 67% in 2020.[127] Although its budget almost doubled from Mex$13·6 billion pesos in 2021 to nearly Mex$24 billion pesos in 2022, it is far smaller than what the Seguro Popular was allocated.[128–131] The programme operates in 19 of 32 states and lacks the capacity to absorb the human and material resources from the 24 states in Mexico where INSABI operated.[84]

As of August, 2022, only three states (Nayarit, Colima, and Tlaxcala) have implemented the expanded IMSS–Bienestar programme, with 12 more expected to join.[130,131] The programme's slow expansion leaves about one in four Mexicans lacking any access to social protection in health at the time of writing.[96] There is a need for a new generation of structural reforms that will take time to be developed and implemented. In the meantime, there are important and feasible programatic changes that can improve health and health system performance.

Lessons from the Mexican experience for sustained system reform

The 2003 health reform exemplified evidence-driven policy design. Yet, the reform process stalled because policy updates essential to maintaining the Seguro Popular's early gains never materialised; rather than reforming the existing system, politics drove dismantling without a solid replacement

The Seguro Popular was grounded in executive-branch policy and cemented in a 2003 law widely supported in Congress and adopted by all states,[1,132] drawing from research on previous reforms and analysis of health needs and gaps in services.[133] An all-of-society approach engaged actors from state Governments, health providers, the private sector, patient groups, and civil society organisations. Finally, the package of high-cost interventions was anchored in the expansion of the Fund for Protection against Catastrophic Expenditures that began with children's cancer and HIV and subsequently formed the core of a progressive universalist model of health coverage. Yet even so, the programme faced a political reversal.

Decentralisation was an opportunity and a challenge for institutionalising health system reform (panel 5). Some states forged ahead early and drew in others who were more reticent. Yet, over time, the diversion of health resources by some state leaders weakened the Seguro Popular, despite federal Government efforts to correct legislation and strengthen it.[66,94,95,97] Difficulties among the states required stronger incentive structures;

the long-term decline in the federal health budget made aligning states' incentives difficult.

The Seguro Popular was designed as a partial step towards defragmenting the health system. It expanded access and established explicit entitlements for those without social insurance to equalise the right to health care in what was meant to be a multi-stage reform process to correct medical apartheid.[126] Although a unified health system had formed part of the vision of Government reformers, strong political and union opposition from interest groups at IMSS in 2003 had precluded this vision, and the reform was moderated by what was politically feasible.[3,139–141] With the 2003 reform, while rights and entitlements were progressively equalised across the uninsured non-salaried and the insured salaried workforce, the system remained segmented according to place of work. The Seguro Popular's architects envisioned it not as a one-shot deal but rather as an adaptive process of implementation and incremental reforms in pursuit of universal, effective health coverage.

A key next step in the Seguro Popular reform process would have been to re-organise the health system horizontally by function rather than vertically, linking health-care access to employment status.[126,142] Yet, re-organising the health system horizontally by function would have required fundamental change because Article 4 of the Mexican Constitution recognises the right to health for all, yet access to social security, including health care, is legislated in Article 123 as a right specific to salaried workers with a registered employer.[126,143]

These next major and politically complex reform steps required a super-majority Government, which the Obrador administration had between December, 2018, and June, 2021. However, the President was intent on differentiating his policies from those of older regimes and dismantled the previous system.[96]

Strengthening Mexico's health system requires a renewed focus on building new aspects of the system and fortifying existing systems. In the next section we specify a set of five recommendations to achieve these goals.

Policy recommendations for Mexico

The combined crisis of complex health needs exacerbated by the pandemic, the Seguro Popular's closure, and the transition from INSABI to IMSS–Bienestar could create an opportunity for deeper reforms that neither re-establish the Seguro Popular, nor accept the centralised INSABI nor the new IMSS–Bienestar.[20,144] Although this opportunity to trigger reform might emerge from chaos, without decisive political action to guarantee equal access to the same services with financial protection for all beneficiaries—salaried or non-salaried—the shift to IMSS–Bienestar can only entrench inequity.

For Mexico, there are five key vectors in a path of deep reform.[144] First, a legal reform to eliminate the contradiction between Articles 4 and 123 of the Mexican constitution, to make health care a social as opposed to an employment-based right—a challenge made more crucial by the selection of IMSS–Bienestar as a centralised provider. Second, financial reform requires funding increases; the Latin American average of 7% of gross domestic product could be an initial target. Following funding increases, a legislated, progressive, and universal social contribution should be implemented to finance a single national insurance fund that covers a common set of benefits to which all have the right, regardless of

Panel 5: **Near-term programmatic recommendations to strengthen the Mexican health system**

The following programmatic changes could improve access to health care and be rapidly enacted to strengthen the health system:

1. Improve access to medicines focusing on vulnerable groups, including people living with cancer or diabetes, through a better purchasing and procurement system.[134] President Andrés Manuel López Obrador's administration tried shifting purchasing responsibility initially to the Ministry of Finance, then to the UN Office for Project Services with a resulting shortage of medicines and medical devices. In 2022, Instituto de Salud para el Bienestar (INSABI) was tasked with purchasing medicine; however, as of July, 2022, less than 40% of medicines procured had been delivered to the states. As of December, 2022, purchasing had yet to be completed for 2023 or 2024.[135] Going forward, the Ministry of Health should consider expanded participation in regional and global purchasing platforms such as the Pan American Health Organization Strategic Fund to improve access to medicines.[136]
2. Given the increased burden of chronic and non-communicable diseases post-COVID-19, and the deterioration resulting from budget cuts, the government should expand the space for both the public and private sectors to deliver health-care services, including telemedicine. With the potential to expand access, telemedicine will require catalysing investment, certification, and regulatory measures. Expanding telemedicine services should be spearheaded by a strengthened Centro Nacional de Excelencia Tecnológica en Salud, an existing body of the ministry of health.[137]
3. Increase the portability of services across public sector entities and sub-contracting by the public sector from private sector entities, especially civil society organisations. Increasing the portability of services will require coordinated action from all public health service providers, coupled with accreditation and certification of private entities.
4. Private pharmacies linked to health clinics, individual physicians, or private providers have incentives to over-prescribe and urgently require Ministry of Health regulation, certification, and stewardship. These pharmacies have emerged as major purveyors of health services after the pandemic, especially to lower-income, urban households.[55] Private sector agglomerations and associations, including Cámara Nacional de la Industria Farmaceútica and Confederación Patronal de la República Mexicana, could be key ministry of health partners.
5. State-level, public health insurance initiatives constitute spaces in which pilots for deeper reform might be possible and should be accompanied by rigorous evaluation to inform future national and subnational reform efforts. Several state governments—Jalisco, Nuevo Leon, Guanajuato, Tamaulipas, and Aguascalientes, all led by opposition parties—refused to sign onto INSABI and experiment with a combination of state and fixed federal funding. Nuevo Leon announced, coincidently with INSABI's transition to the Mexican Social Security Institute–Bienestar, a Seguro Popular for children's and breast cancers.[138]

provider. Third, operational reform would consolidate the separation of financing and delivery through instruments that promote portability, such as universal health care and basic treatment fees paid to all providers. Fourth, operational reform must be accompanied by efforts, including purchasing mechanisms, to improve quality and efficiency in service provision. Fifth, reforms should ensure that the system is patient-focused, person-driven, and participatory through evidence-building and decision making that includes civil society.

Conclusion

The Seguro Popular placed the Mexican health system on a positive trajectory for population health and financial protection, despite underfunding and cracks in the system that required adjustment and further reform. The 4-fold increase in the Ministry of Health's budget between 2000 and 2015 translated into large-scale investment in infrastructure and expansion of a package of guaranteed services that closed gaps between the populations with and without social security, reduced catastrophic out-of-pocket health expenditures, especially for lower-income households, and increased access to treatment for chronic illnesses.

The lessons learned from the past 2 decades of the Mexican 2003 reform, including around its demise, are relevant, especially for countries with segmented systems and public, private, and social insurance financing.[141] Indeed, several countries drew on the Seguro Popular to design and reform their own health systems, including India, China, and Türkiye, which used the Mexican reform model as a reference point for designing its Health Transformation Program.[145–147]

The elimination of the Seguro Popular also offers lessons for health reform, as coupling reform reversal with a pandemic is a unique global health experience. The Mexican experience illustrates the risk of leadership willing to eliminate one system before designing its replacement. It also shows the precariousness of evidence-based policy making in the face of political polarisation and populism.[148] The challenges of populist leadership and eliminating one system before designing its replacement also make our analysis of the Seguro Popular particularly relevant globally as politics are increasingly polarised. Political polarisation puts health system reforms at risk, creating incentives to repeal and replace previous administrations' policies following a political transition—even when evidence supports their use.[80] Insulating reforms from political pressures while simultaneously seeking regular innovation and renovation is important for future comparative research on health reforms.

Reforms should be designed to be flexible yet guarded against political volatility. Health systems need to be constructed and managed in ways that are structurally permeable, flexible, and adaptable to incorporate the innovation that is required to adapt to changing health needs guided by new evidence. Simultaneously, they should be anchored in foundations designed to withstand the heavy winds of change—be they caused directly by human beings or through damage to the natural environment in which we live. Yet, from systemic shocks, a space to rebuild could emerge that would not otherwise have existed.

Contributors

FMK, HA-O, MT, TM, and JF conceptualised and designed the paper. FMK wrote the first draft with substantive inputs to the text from all co-authors. HA-O led the data collection, analysis, and write-up with inputs from LAB, OG-D, PK, AM-V, OM-C, TP, ES-M, SGS-R, and VVE. MT led the policy analysis with inputs from HA-O, TM, MB, OG-D, PK, AM-V, TP, and JF. TM led the policy design work with FMK, MT, and JF. RSN, MS, and VVE collected, compiled, and synthesised the bibliographic data under the leadership of MT and TM. MT and FMK drafted the reviewer responses and revised the manuscript in collaboration with JF, MB, HA-O, AM-V, TM, and OG-D. MT, FMK, VVE, and HA-O managed the editing and reviewing process for the final submission. All authors reviewed the final draft of the initial submission, the responses to reviewer comments, and the revised manuscript.

Declaration of interests

FMK is President and Founder of Tómatelo a Pecho. FMK participated in the design, financial calculations, and implementation of the Seguro Popular, collaborating with Mexico's Ministry of Health. She is married to JF who was Minister of Health of Mexico from 2000 to 2006. FMK was employed by the Ministry of Education and the Ministry of Social Development of Mexico during the administration of President Vicente Fox. FMK received research grants from Merck and EMD Serono to the University of Miami outside the scope of the submitted work and from Merck Sharp & Dohme, Avon Cosmetics, and S de R L de C V to Tómatelo a Pecho, all outside the scope of the submitted work. FMK received research grants from the US Cancer Pain Relief Committee to the University of Miami and the Medical Research Council to the University of Miami and Funsalud (Mexican Health Foundation) for work related to palliative care. FMK has also received consulting fees from Merck and EMD Serono and Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico outside the scope of the submitted work. FMK is a member of the Board of Directors of the International Association for Hospice and Palliative Care. FMK collaborates as a Sistema Nacional de Investigadores researcher at the Mexican Health Foundation, where she has been affiliated since 2000. HA-O is a Research Professor of the Institute for Obesity Research of Tecnológico de Monterrey, is Executive Director of Tómatelo a Pecho, and participates as an Associate Researcher at Funsalud (Mexican Health Foundation). HA-O received consultancy fees from Merck through the University of Miami outside the scope of the submitted work and from Merck Sharp & Dohme, Avon Cosmetics, and S de R L de C V to Tómatelo a Pecho, AC outside the scope of the submitted work. HA-O received consultancy fees from the US Cancer Pain Relief Committee to the University of Miami and the Medical Research Council to the University of Miami and Funsalud (Mexican Health Foundation) for work related to palliative care. HA-O collaborates as a Sistema Nacional de Investigadores researcher at the Mexican Health Foundation, where he has been affiliated since 2003. TM receives consulting fees for research and writing from the University of Miami Institute for Advanced Studies of the Americas. OG-D and ES-M were partly funded by the National Institute for Health and Care Research (NIHR) Global Health Policy and Systems Research researcher-led grant (NIHR150067) using UK aid from the UK Government to support global health research. The views expressed in this publication are those of the authors and not necessarily those of the NIHR or the UK Government. OG-D was Director General for Performance Evaluation at the Ministry of Health of Mexico during 2000–06, which was the initial period of implementation of the Seguro Popular. PK was Vice Minister of Health of Mexico from December, 2011, to December, 2018, under the administration of Enrique Peña Nieto. AM-V participated in the design and implementation of the Seguro Popular between 2001 and 2007.

AM-V was also Director General of Planning and Evaluation at the National Coordination of the Oportunidades Program between 2009 and 2011. He also served as the Deputy Director General of the Economic Analysis Unit between 2013 and 2016, and Director General of Evaluation between 2013 and 2019, both at the Ministry of Health. JF was responsible for the design and implementation of the Seguro Popular. All other authors declare no competing interests.

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