ECONOMIST IMPACT

Bridging the Equity Gap

Women's Cancer Care in Mexico

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Contents

About this report

"Bridging the Equity Gap: Women's Cancer Care in Mexico" is a research briefing by Economist Impact that examines the landscape of cervical and breast cancer care in Mexico, and focuses on identifying disparities and opportunities for delivering equitable outcomes for women.

The report explores how socioeconomic, cultural, and health system factors contribute to inequities in cancer prevention, diagnosis, treatment, and after-care for women in Mexico. Based on this information, actionable insights have been developed for stakeholders, including policymakers, non-governmental organizations (NGOs), healthcare professionals, and advocacy groups, to promote equitable cancer care.

Economist Impact performed an initial evidence review, co-facilitated a workshop with various key stakeholders to understand national-level challenges, and conducted expert interviews to bring a unique perspective to this country briefing. We thank the Mexican stakeholders who attended the local country workshop and those who participated in expert interviews and shared their insights and experiences (in alphabetical order):

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This research was led by Alcir Santos Neto and Debora Ramires Pelisson, and conducted by Maria Clara Silva. The article was authored by Dr Radha Raghupathy, edited by Alcir Santos Neto, and copyedited by Maria Ronald. Latifat Okara and Kati Chilikova supervised and directed the research program.

Introduction

Breast cancer and cervical cancer are not only the two most common, but also the deadliest cancers affecting women in Mexico.[1] Despite the advances in screening and treatment, breast cancer mortality in Mexico has been rising over the past two decades and is projected to increase even further.[2,3] The picture is slightly more reassuring with cervical cancer, where the age-standardized mortality rate has been decreasing.[4] Yet, Mexico is still far from the World Health Organization's (WHO) target for cervical cancer elimination by 2030.[5]

Figure 1: Breast Cancer Prevalence in Mexico, 2024-2030[6]

Rate per 100,000 people

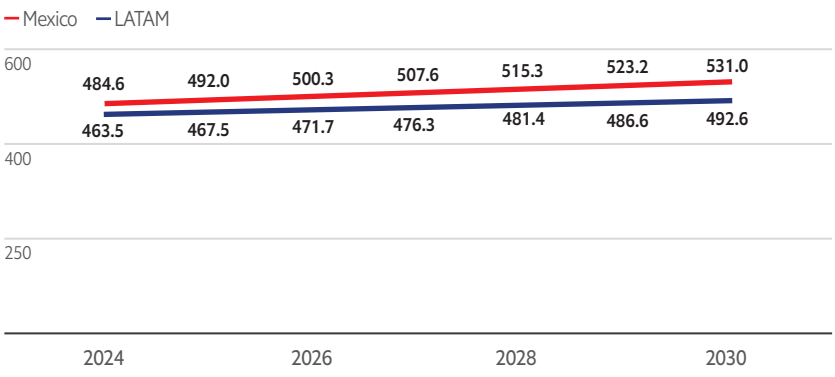
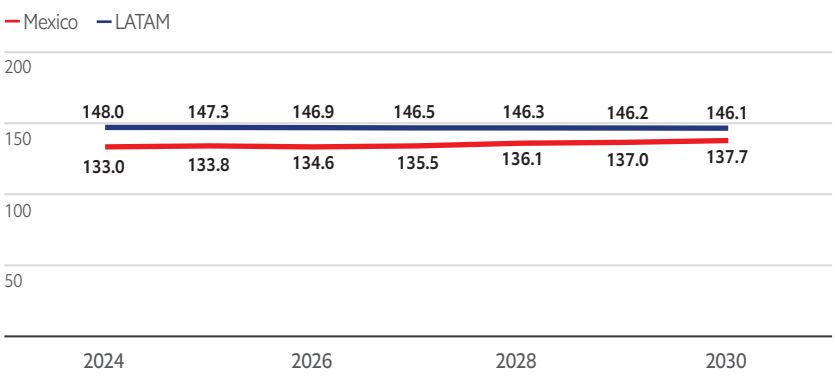


Figure 2: Cervical Cancer Prevalence in Mexico, 2024-2030 [6]

Rate per 100,000 people



Various barriers have deterred progress in the prevention, diagnosis, and treatment of women's cancers in Mexico. The COVID-19 pandemic, for instance, significantly disrupted a previously effective Human Papillomavirus (HPV) vaccination program in Mexico. The country first launched its HPV vaccination program for girls in 2008, successfully achieving the WHO's target of over 90% coverage among the target population before the pandemic. However, in the period after, coverage has declined significantly to 62% for both first and final doses.[7,8]

Cervical and breast cancer screening in Mexico is similarly suboptimal and was also affected by the pandemic.[9] Factors such as low education, lack of awareness, poor access, rural residence, low socioeconomic status (SES), ethnicity, and stigma impact the uptake of screening.[10] The country has offered opportunistic cervical cancer screening through annual Pap smear tests for women aged 25-69 years since 1974, with high-risk HPV testing available to those aged over 35 years since 2008. However, coverage remains low. In 2018-2019, only about 25.7% of women aged 20-39 years and 38.6% of those aged 40-59 years reported having a Pap smear within the past year.[10] In addition, there are concerns that the effectiveness of cervical cancer screening is compromised by inconsistencies in the interpretation of cytology and delays in diagnostic evaluation and treatment.[11] Regarding breast cancer, biennial mammography is provided at age 40 for women with high risk and between 50-74 years of age with average risk.[12,13] While the two-year prevalence of mammographic screening increased from 20.2% in 2002 to 62% by 2015, it has plateaued since, remaining at 59.4% in 2018.[10]

Delayed diagnosis of breast and cervical cancer is prevalent in Mexico due to both patient-related factors—such as low awareness and stigma—and healthcare system factors such as lack of suspicion of cancer, poor access to health services, long wait times, and diagnostic errors. A cross-sectional study of 592 women receiving breast cancer treatment in two public hospitals in Mexico City estimated that the time between first presentation to a doctor and diagnosis is 103 days for women younger than 40 years of age and 57 days for those aged over 40 years. Younger women had a longer diagnostic interval, which was correlated with a lack of suspicion of cancer in the first consultation with the doctor and consulting a generalist versus a specialist. [14] In another study, including 427 women who had received a cervical cancer diagnosis, the median diagnostic interval was 99 days, and the median treatment interval was 57 days. The main reasons cited for diagnostic delays were lack of information on available health services, long wait times between appointments, and diagnostic errors. [15]

Access to care for women's cancers in Mexico also varies significantly based on sociodemographic characteristics such as ethnicity, state of residence, urban or rural residence, and the type of health insurance. In this brief, we explore the root causes of disparities in women's cancer care and outcomes in Mexico, the opportunities for bridging these disparities, and provide specific calls to action for stakeholders.

"Even after diagnosis, patients often wait a long time for treatment. The standard treatment for locally advanced cervical cancer is chemotherapy with radiotherapy, but access to radiotherapy is severely limited. At my hospital, there is a waiting list of 400 patients for radiation therapy. This situation is not unique. With limited access to radiotherapy, we try to manage patients with chemotherapy while they wait, but the results are poor."

Dr Patricia Cortés Esteban, Medical Oncologist, Centro Médico Nacional 20 de Noviembre

Figure 3: Pap Smear Coverage (2023)[9]

2020 (Pandemic Impact)	**140,178** pap smears (44.1% decrease from the expected 250,772)
2021 (Recovery Phase)	**275,182** pap smears (exceeding projections by 12.6%)
Pandemic Results	**16.1%** decrease compared to the expected 495,073

Unraveling the challenges in women's cancer care in Mexico

Sociodemographic factors

Geography, ethnicity, and SES significantly impact access to, and uptake of, screening in Mexico. Indigenous minority status in Mexico compounds several vulnerabilities, including lower SES and less access to education. Over half of Indigenous people live in small rural communities that lack access to many services, including healthcare. Furthermore, 15.5% of rural Indigenous women are monolingual and only speak their native language, affecting their ability to access healthcare that is predominantly provided in Spanish.[16] Experts note that even the use of translators can sometimes pose problems because of the poor understanding of medical terminology among translators. Besides language barriers, healthcare providers have inadequate training in understanding the cultural preferences of Indigenous communities, which further impacts efforts to engage with these women.[17]

Municipalities with over 40% Indigenous population have a significantly lower mammogram and Pap smear uptake as compared to those with less than 40% Indigenous population. Indigenous women themselves are also less likely to receive a mammogram as compared to non-indigenous women.[18] Indigenous women report that cancer beliefs, stigma, cultural norms, access barriers, and mistreatment by healthcare professionals are key barriers to accessing screening.[19]

"Language is definitely a barrier to access. I don't speak Chol or Tzeltal, which are the local languages. Our team sought help from local young women who attended school and spoke both Spanish and their Indigenous language. When we arrived in their community, they acted as interpreters."

Rosa María Chávez Gómez, President, Grupo Mujeres Libres de Palenque

Cervical cancer in Mexico disproportionately affects women from marginalized communities with low income, low education levels, rural residence, and Indigenous background.[20] Having a low SES and rural residence are also associated with worse survival

"*Machismo* among Indigenous communities impacts women's access to screening…even if we convince the women to have screening, they still have to ask for their husband's permission. Even if the husbands agree, there is still the economic issue… many women don't have enough money for transportation to obtain the test."

Rosa María Chávez Gómez, President, Grupo Mujeres Libres de Palenque

"Campaigns are conducted in October, Breast Cancer Awareness Month, where mammography machines are set up in public spaces like parks and the Zócalo. However, the problem persists—most patients do not have social security, meaning they cannot afford a mammogram. And even if they are diagnosed, they lack resources for treatment. Socioeconomic and cultural factors heavily influence this reality in Mexico."

Dr Patricia Cortés Esteban, Medical Oncologist, Centro Médico Nacional 20 de Noviembre

rates for women with cervical cancer, highlighting the systemic barriers they face to access therapy.[21]

SES plays a critical role in access to breast cancer care, with women from higher income and education levels, particularly in urban areas, having better access to timely diagnosis and advanced treatments. For instance, women with high SES treated for breast cancer in a public hospital in Mexico were 4.8 times less likely to die or 4.8 times more likely to survive as compared to women with low SES, even though both groups of women had completed the recommended treatment.[22] While the reasons for this disparity were not specifically analyzed in this study, it is likely that women with higher SES had better access to nutrition and social support, sought quicker attention for treatment complications, and also accessed private facilities for ad hoc problems that surfaced. Women with breast cancer living in urban areas also have better overall health and quality of life as compared to those living in rural areas.[23]

Age is another factor impacting breast cancer outcomes in Mexico. Women under 40 face significant delays in breast cancer diagnosis and experience poorer outcomes. This is mainly due to a lack of awareness among young women, lack of suspicion among physicians resulting in late diagnoses, and the prevalence of more aggressive forms of the disease such as triple-negative breast cancer (TNBC).[24, 25] Women over 75 also have poorer outcomes, likely due to lack of screening, delayed diagnosis, multiple comorbidities, and under-treatment.[24]

Health insurance coverage

Healthcare in Mexico is provided through different sub-systems, but policy upheaval and pandemic disruption have impacted healthcare coverage in the country. The government-subsidized system, *Seguro Popular*, that provided healthcare for the vulnerable and poor was dismantled in 2020 and replaced by the Institute of Health for Well-being (INSABI). The transition period has been marked by an increase in the number of uninsured people, greater wait times in healthcare facilities, and a shortage of medicines.[26, 27, 28] The fall in insurance coverage has primarily affected households with Indigenous people, female heads, lower education, lower SES, and lower participation in the workforce.[29, 26] More robust insurance options cover the formal workforce. The Mexican Institute of Social Security (IMSS) provides healthcare to approximately 36.4% of the population working in private companies. Other state-owned healthcare providers, such as the Institute of Social Security and Services for State Workers (ISSSTE), provide care to nearly 5.5% of the population working as government officials. About 10% of the population has private health insurance.[27]

Breast and cervical cancer outcomes vary based on the type of insurance coverage. More affluent

"Healthcare funding is approximately half—or even less—of the regional target. Services receiving the least resources are those that serve the most vulnerable populations."

Dr. Juan Pablo Gutiérrez, Professor, Center for Research in Policies, Population, and Health, National Autonomous University of Mexico (UNAM)

individuals with social security or private health insurance are diagnosed earlier and have better outcomes. Diagnosis by screening is more common in the private system as compared to the public system.[30] Furthermore, women with insurance are more likely to be diagnosed with early-stage disease and have better outcomes as compared to the uninsured. In a retrospective study of 5,264 breast cancer patients treated between 2012 and 2020 within the IMSS public health system, 37.5% were diagnosed at an advanced stage. Despite this, the five-year overall survival rate for this cohort was relatively high at 90.4%. These results suggest that patients treated within the IMSS public healthcare system achieved favorable survival outcomes, highlighting that quality care within public facilities can provide protective effects despite advanced disease at diagnosis.[31]

Figure 4: Mammogram Coverage (2021)[32]

Total 768

↑ The top 3 states in Mexico (total number performed, % of total)

	Total number of mammograms performed	% of total mammograms conducted in Mexico
Mexico City	106	13.8%
State of Mexico	51	6.6%
Jalisco	48	6.3%

↓ The bottom 3 states in Mexico (total number performed, % of total)

	Total number of mammograms performed	% of total mammograms conducted in Mexico
Morelos	6	0.7%
Nayarit	6	0.7%
Colima	5	0.7%

In contrast, a retrospective study of 56,847 women with breast cancer, who did not have health insurance and who were treated in the public sector between 2007 and 2016, showed that 64.6% had advanced-stage disease at diagnosis, and the five-year overall survival of the cohort was only 72.2%.[24] Similarly, women with social security-based insurance have better cervical cancer outcomes as compared to those without insurance. Uninsured women wait longer for treatment initiation and are 1.5 times less likely to complete treatment for cervical cancer as compared to their counterparts with state-sponsored insurance.[33] Insurance-related disparities have a disproportionately high impact on Indigenous women who are more likely to seek government-subsidized healthcare.[34]

Differential access to infrastructure and treatment leads to disparities in outcomes. With regard to mammography units, in 2021, 1,281 mammography devices were registered in Mexico, of which 41.1% were in IMSS institutions, 36.1% in private establishments, and only 22.8% in institutions providing care to those without insurance.[35] The public system offers a safety net for treatment but provides only limited coverage.[26] According to the 2023 Patients W.A.I.T (Waiting to Access Innovative Therapies) Indicator survey, among the accessible, innovative therapies for cancer, 42% had full availability in the public sector, and 13% had limited availability; 31% were only available in the private sector, thus demonstrating a public-private divide in access to treatment.[36]

Since government-funded health insurance schemes cover only a limited set of cancers and interventions, women face high out-of-pocket

"For example, Tapachula is about an 18-hour journey from here [Palenque]. If a woman has to stay for treatment, she needs a hotel and accommodations. She can't travel alone, so she must bring someone with her. The costs pile up, and many families can't afford it. Imagine already having cancer and then adding long hours of travel, economic stress, and uncertainty."

Rosa María Chávez Gómez, President, Grupo Mujeres Libres de Palenque

costs and financial distress when seeking care for cancer. In a study of 96 patients aged over 65 years with the ten most common cancers (12% had breast cancer and 4% had cervical cancer), 90% reported some form of financial toxicity, with 39% reporting moderate financial toxicity. About 70% of patients covered by the public system opted for private care to avoid delays. The leading causes of economic hardship were multiple consultations, diagnostic tests, delayed diagnosis, transportation costs, and high costs of medications. The most significant expenses were associated with purchasing medicines, including chemotherapy. Since most cancer centers are in Mexico City, some patients had to travel up to [290 kilometers] 180 miles to receive cancer care. Many patients and families incurred debt to finance their cancer care.[37] These data show the significant direct and indirect costs to patients with cancer treated in the public system. Indigenous women who are more likely to live in rural areas experience even greater impacts.

"Without financing, any effort becomes futile. Budget programming is indispensable. Unfortunately, we know that oncology treatment costs are very high and increasingly expensive due to numerous new medicines and innovative molecules, which, given their prices, are inaccessible to the vast majority of the population."

Dr Alejandro Mohar, MD, PhD, Senior Researcher, Biomedical Cancer Research Unit, Institute of Biomedical Research (Instituto de Investigaciones Biomédicas) of the National Autonomous University of Mexico (UNAM), Former Director General of the National Cancer Institute

Regional disparities

There are notable inequities in outcomes of women's cancers between the different states of Mexico. For instance, in a large retrospective study including women without health insurance between 2007 and 2016, 69.3% of women were diagnosed with locally advanced breast cancer in Chiapas, 66.7% in Queretaro, 65.7% in Tabasco, and 63.4% in Guerrero as compared to 45.3% in Baja California Sur, 45.9% in Coahuila, 51.7% in Mexico City, and 58.4% in Nuevo León. The crude five-year survival rate was lowest in Chiapas at 55.9% and highest in Colima at 77.2%.[24] Chiapas also has the highest cervical cancer mortality among the states of Mexico.[38]

Disparities in women's cancer outcomes between states correlate with the state's deprivation status and access to healthcare. States like Chiapas and Guerrero score consistently low on the Health Access Quality Index.[39] These states are also home to large Indigenous populations, resulting in systemic disadvantages to these communities. Chiapas is one of the most deprived states in Mexico, with the multidimensional poverty rate

"Mexico has several realities. There is a significant difference between the care for women's cancers available to someone with health insurance who lives in a city and someone who lives in the foothills of the Guanajuato mountains."

Alejandra de Cima, Founder and President, Fundación CIMA

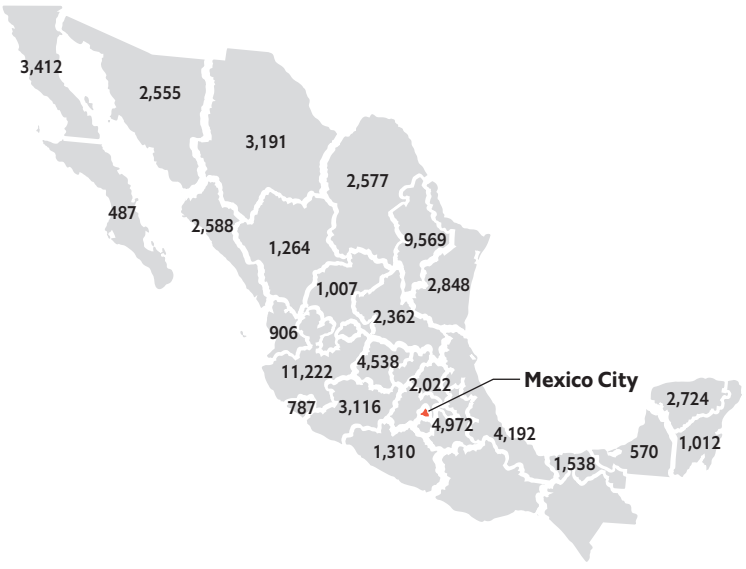
reaching 75.5%. In 2020, nearly 35.3% of the state's population had no access to health insurance and were covered by services provided directly by the Ministry of Health. Over half of the population resides in rural areas, which are healthcare deserts—many of the rural clinics are abandoned without healthcare staff.[40] Around 36% of the population of Chiapas are Indigenous peoples and 29% do not speak Spanish, creating a barrier to access the healthcare system.[41] In Guerrero, 66.4% of the population lives in moderate or severe poverty.[42] A large proportion of the population is Indigenous (33.9%), and 23.24% do not speak Spanish.[43] Guerrero also has constant threats from armed conflict and the drug trade, which further impact healthcare provision.[44]

Physicians are heavily concentrated in urban areas like Mexico City.[46] Of the 1,043 oncologists registered in the public health sector in 2021, 31% were located in Mexico City, while only 0.5% were located in Quintana Roo.[35] Rural areas are understaffed even in states like Nuevo León, which have better healthcare access. Nearly 30% of rural health centers in Nuevo León are staffed by interns who lack sufficient knowledge and experience to function without appropriate supervision and mentorship.[47] Differences are also notable in the access to equipment for cancer care. For example, access to radiotherapy units has significant variability between states, ranging from 0 per 1m inhabitants in Tlaxcala to 5.16 in Mexico City. Similarly, brachytherapy units per 1m inhabitants vary from a low of 0 in five states of the country to a high of 1.5-1.99 in Mexico City.[48]

Figure 5: Certified Medical Specialists in Mexico (2022)[45]

	Mexico	World
Certified Medical Specialists Per 100,000 People	107.2	230
Deficit Total:	154,786	
General Practitioners Per 100,000 people	203.2	230
Deficit Total:	33,832	

State	# of specialists
Mexico Citv	35,474
State of Mexico	19,053
Querétaro	2,279
Morelos	1,467
Tlaxcala	663



Bridging the equity gap

Improve policy-level responses to bridge inequities

In Mexico, the *Programa de Prevención y Control del Cáncer* [Cancer Prevention and Control Program] (2021-2024) strategically integrates cancer control within the broader healthcare system, prioritizing early detection and equitable access to care. Central to the program are robust public health campaigns aimed at mitigating risk factors such as tobacco use, obesity, and other lifestyle-related contributors to cancer. Preventive strategies like HPV vaccination and screenings, and ensuring timely diagnosis and treatment are prioritized. To achieve these goals, strengthening the healthcare workforce and infrastructure is also included as a strategic aim of the plan. There is also a clear monitoring and evaluation framework that accompanies the plan.[49]

The federal government is also taking policy-level actions to improve access to screening and cutting-edge treatments for women's cancers in the public system. In October 2024, the government introduced a landmark initiative that added various provisions to the general health law to expand free breast cancer screening services in rural and marginalized communities. Additionally, this initiative aims to ensure universal access to innovative breast cancer medications across all hospitals within the Sistema Nacional de Salud (SNS) [National Health System].[50] To achieve greater success in reducing inequities with such initiatives, it is crucial to outline actions and interventions to specifically address disparities in care focused on rural and Indigenous women. State-level policies should also be aligned with national policies to ensure a cohesive approach.

Despite the existence of many government initiatives, the scarcity of data on disparities in women's cancer management in Mexico hinders effective action. A robust, unified cancer registry

"Policies exist on paper, but they are rarely implemented effectively. Every time a new government takes office, previous policies are discarded, and new ones are created, leading to a lack of continuity."

Dr Patricia Cortés Esteban, Medical Oncologist, Centro Médico Nacional 20 de Noviembre

"Policy focus should be on reducing inequities, rather than just improving the indicators per se. That's what has been missing—emphasis on how policies should work to explicitly close gaps, rather than assuming that general improvements will automatically reduce disparities. For that, indicators for progress in equity that are linked to resources are required."

Dr Juan Pablo Gutiérrez, Professor, Center for Research in Policies, Population, and Health, National Autonomous University of Mexico (UNAM)

"Cancer registries serve as fundamental tools for cancer control and constitute an essential part of any National Cancer Plan (NCP). Mexico is actively working on developing this plan. Accurate information provided by the National Cancer Registry is the cornerstone for creating an effective NCP, allowing the evaluation of primary, secondary, and tertiary prevention interventions. This information gives the government critical evidence to allocate adequate resources comprehensively across oncology centers—including staff, equipment, human resources, and research funding."

Dr Alejandro Mohar, MD, PhD, Senior Researcher, Biomedical Cancer Research Unit, Institute of Biomedical Research (Instituto de Investigaciones Biomédicas) of the National Autonomous University of Mexico (UNAM), Former Director General of the National Cancer Institute

is necessary to quantify inequities in care and outcomes to improve responses and resource allocation. Currently, the Merida registry covers approximately one million people and is the only functional registry in the country. Between 2017 and 2020, the National Cancer Institute developed a population-based cancer registry, with nine registries representing 11.3% of the population. However, the network was suspended in 2020 due to a lack of sustained funding and fragmented data collection, and it remains unclear whether it will be reinstated.[51, 52, 53] Experts highlight that the absence of a universal identifier for individuals in the country is a key barrier to the aggregation of health data from diverse sources, which needs to be urgently addressed. Investments in a robust national registry will go a long way in enabling equitable cancer care.

Promote efficient government investments

Health expenditure in Mexico is comparatively low, falling well under the Organisation for Economic Co-operation and Development (OECD) average and other Latin American (LATAM) countries with similar levels of economic development, while also showing a declining trend between 2020 and 2021.[54, 55] Spending on women's cancers has also fallen.

IMSS spending on breast cancer dropped by **33%** and spending on cervical cancer by **62.5%**

"The core difficulty in developing a national registry is the inability to link data from different sources and institutions due to the lack of a functional universal identifier for the country. This is also tied to data-sharing issues between institutions because of how the healthcare system is structured."

Dr Juan Pablo Gutiérrez, Professor, Center for Research in Policies, Population, and Health, National Autonomous University of Mexico (UNAM)

Between 2022 and 2023, IMSS spending on breast cancer dropped by 33% and spending on cervical cancer by 62.5%. Government expenditure on women's cancers for the uninsured fell by 52.7% between 2017 and 2023, with the most significant cuts seen in breast and cervical cancer at 75.4% and 71.7%, respectively.[56]

More significant government investment in women's cancer care is necessary. Furthermore, there should be a focus on efficient investment in prevention and early detection to cost-effectively curb the growing burden of these diseases. Population-level interventions such as raising awareness of the impact of smoking and alcohol on the risk of women's cancers will be beneficial. HPV vaccination should be prioritized. The Mexican government is committed to the cause of vaccination and has recently included boys in the universal vaccination program with the nonavalent HPV vaccine.[57] In 2024, Mexico also launched the National HPV Vaccination Campaign , aiming to administer 1.13m doses by December to achieve 95% coverage among the target population.[58] The results of this campaign are forthcoming. Greater efforts to expand screening coverage for cervical and breast cancer are also necessary.

Ongoing studies are assessing the feasibility, efficacy, and cost-effectiveness of implementing high-risk HPV testing as opposed to Pap smear testing for population-based cervical cancer screening in Mexico.[59] Transitioning to HPV self-testing with strong logistical support for subsequent triage, diagnosis, and treatment could help improve screening uptake.[60] For breast cancer, Mexico has gradually moved from an opportunistic to a population-based screening program.[61] The impacts of this change on screening uptake remain to be assessed. Encouraging regular self-examinations for breast cancer alongside clinical breast exams remains essential. More significant and sustainable investments in modern equipment and infrastructure for cancer treatment in public hospitals are crucial. Concurrently, it is necessary to ensure the availability of a sufficient number of well-trained healthcare professionals to deliver high-quality care and maximize the impact of these investments in infrastructure.

"Education is critical—for both patients and primary care physicians. Many doctors, including general practitioners and gynecologists, lack proper training in cancer detection. Often, they dismiss breast lumps or fail to recommend mammograms, leading to delayed diagnoses."

Dr Patricia Cortés Esteban, Medical Oncologist, Centro Médico Nacional 20 de Noviembre

"In Campeche, radiotherapy equipment is frequently out of order. Patients must then be referred to Mexico City, requiring them to travel halfway across the country for treatment. Even when new radiotherapy machines are installed in decentralized areas, they often break down due to poor maintenance, rendering them useless."

Dr Patricia Cortés Esteban, Medical Oncologist, Centro Médico Nacional 20 de Noviembre

Improve partnerships with NGOs to deliver care to the last mile

Expanding government partnerships with NGOs to improve care delivery is critical for reducing inequities. For instance, Fundación CIMA is a patient organization working to improve patient awareness and access to breast cancer care, facilitating early diagnosis and improved outcomes, especially among vulnerable women. They have collaborated with the local government in the state of Hidalgo, which does not have an oncology care center, to enable the strategic transfer of patients to secondary and tertiary centers in the City of Pachuca or Mexico City.[62] This organization was instrumental in creating a coalition of 18 NGOs called COMESAMA [Mexican Coalition for Breast Health]. They lobbied to maintain the starting age of breast cancer screening as 40 years and against the proposed increase to 50 years. The foundation has also created a citizen observatory to conduct regular surveys among women with breast cancer and medical personnel to identify gaps in treatment and make policy recommendations.[63]

Studies have shown the benefit of 'patient navigation programs' in improving cancer care in Mexico. *Alerta Rosa* [Red Alert] is a patient navigation program developed by the NGO *Médicos*

e Investigadores en la Lucha contra el Cáncer de Mama [Doctors and Researchers in the Fight Against Breast Cancer] (MILC) in Nuevo León, a state with a high breast cancer mortality surpassing the national average.[64] As part of this program, several media campaigns are used to reach out to women who have breast cancer symptoms or abnormal imaging studies. Women contact the call center through a Facebook page to access a patient navigator who schedules a medical consultation. A review of the program in 2017 showed that 656 women had contacted the service, 446 consultations were scheduled, and 309 women attended their appointments. Biopsies were done for 39 women, and 22 were diagnosed with breast cancer. Treatment commenced rapidly for those diagnosed with breast cancer. The median time from alert activation to treatment initiation was 33 days, and the time from the first medical evaluation to treatment was 28 days. Among the women who reached out to the service, 108 women had already been evaluated in other centers without a diagnosis; six of them were diagnosed with breast cancer through this service. These data imply a significant improvement in treatment access and efficiency by incorporating a patient navigation program with the support of an NGO.[65]

Workshop Insights

Currently, stakeholders are not coordinated to promote organized actions. Each stakeholder has their own projects and strategies. Better coordination is needed to reach out to politicians and suggest/advocate for changes.

"Fundación CIMA has worked hand in hand with the Mexican government in several occasions during the years. This partnership has ensured a mutual commitment and the effective implementation of various Programs that benefit women living with breast cancer"

Alejandra de Cima, Founder and President, Fundación CIMA

Looking forward

Mexico faces a pivotal moment in reducing inequities in women's cancer care, where socioeconomic, geographic, and systemic challenges continue to create barriers to prevention, screening, timely diagnosis, and treatment. While there have been policy advancements and initiatives to expand screening programs and access to care, significant gaps remain. To achieve meaningful change, stakeholders should consider targeted investments, policy alignment, and innovative solutions that ensure equitable healthcare access for all women, regardless of income, location, or insurance status. As we progress, it is important to address the key factors contributing to these disparities and seize opportunities for impactful reforms.

Raise awareness of women's cancers among both sexes, especially among rural and Indigenous people

Cultural factors and *machismo* are significant barriers impacting the uptake of vaccination and screening for women's cancers. Therefore, health education efforts on women's cancers should target both men and women. NGOs and civil society organizations can play an important role in promoting education across both sexes. For instance, experts note that the Fundación CIMA and COMESAMA are working on educating men and encouraging male members of the family to allow women to receive vaccines and get screened. Early interventions, such as raising awareness and educating high school students of both sexes, can be effective in realizing long-term benefits.[66] Midwives and community health workers are important resources that can be tapped to improve education and awareness in the community, especially among Indigenous and rural people. The Constitutional Reform Initiative on the Rights of Indigenous and Afro-Mexican Peoples that recognizes traditional medicine and

Improving Healthcare Access for Women in Rural and Indigenous Communities:

1. Strengthen primary healthcare through continuous training for all personnel, including physicians, nurses, social workers, and administrative staff.
2. Implement a high-quality patient navigation program to quickly refer patients to oncology centers as needed, along with thorough follow-up of patient progress.
3. Establish, at least for cancer patients, a unified and universal oncology care network that integrates both public and private healthcare systems, complemented by a nationwide electronic oncology health record.

Dr Alejandro Mohar, MD, PhD, Senior Researcher, Biomedical Cancer Research Unit, Institute of Biomedical Research (Instituto de Investigaciones Biomédicas) of the National Autonomous University of Mexico (UNAM), Former Director General of the National Cancer Institute

"One of Fundación CIMA's plans is to work with the Ministry of Education to integrate breast and cervical cancer education into public school curricula, starting from adolescence. If we introduce these concepts at an early age, we can foster a culture of prevention and awareness."

Alejandra de Cima, Founder and President, Fundación CIMA

midwifery is an important government effort in this direction.[67] Experts note other efforts taken by the government to enhance awareness among Indigenous people that can be further expanded. For instance, the Secretariat for Rural Development and Equity for Communities (SEDEREC) and the Institute of the Women of Mexico City (Inmujeres) have jointly developed audiovisual material and an audio spot translated into the Indigenous languages of Nahuatl, Triqui, Tzeltal, Mazatec and Mixtec.[68] In the states of Chiapas and Guerrero, infographics on women's cancers are made available in Indigenous languages and community radios are used for educational campaigns. In Yucatán and Querátero, the government designates one day of the year for women to do preventive exams.

Focus on investments and programs for bridging gaps in prevention, early diagnosis, and treatment

The effective implementation of recent policies aimed at improving women's access to cancer care will need targeted investments in strengthening the health workforce, infrastructure, and treatment accessibility within the public system, especially in rural and remote areas.[50] Greater investments in prevention and screening efforts can reduce the burden of women's cancers in the long term. Prioritizing catch-up HPV vaccination and screening strategies specifically targeted at rural and Indigenous women will greatly reduce inequities in cancer care and outcomes. For example, the government of the municipality of Nuevo Laredo has launched a free HPV vaccination campaign for children in the border area through a partnership with private organizations and civil society, which will significantly improve access for vulnerable populations.[69]

The government is also investing in the *Caravanas del Bienestar* [Wellness Caravans] program to bring healthcare and social support to the doorsteps of vulnerable people. The program employs health caravans to travel to 11 municipalities to provide free preventive services and specialty medical consultations.[70] These programs can be co-opted to provide education, prevention, and screening for women's cancers.

Broader investments in improving the social determinants of health through initiatives like the *Programa de salud comunitario* [Community health program] can greatly improve the overall health and well-being of the women. For example, the state of Quintana Roo has established a program in 11 municipalities to serve localities that are socially disadvantaged, providing not only healthcare but also social and economic support.[71] Strengthening

"Investing in prevention and education is not an expense—it is a long-term cost-saving measure."

Alejandra de Cima, Founder and President, Fundación CIMA

primary care is essential for improving preventive and screening efforts in rural and remote areas. Healthcare professionals should be trained to express greater cultural sensitivity when treating Indigenous and Afro-Mexican women. Experts note that working with Indigenous leaders, translators, and midwives can help build greater trust among Indigenous women.

Workshop Insights

It is important to train healthcare professionals at the primary level in the screening and diagnosis of women's cancers as they are often the first point-of-contact for women.

Despite these efforts to bring preventive care and screening for women's cancers closer to home, travel to tertiary centers will still be necessary for more complex oncology treatments. Supporting rural and Indigenous women through better transportation, conditional cash transfers, and enhanced social structures could significantly lower geographical barriers to care.

Invest in the development of a national cancer registry

A multisectoral initiative is necessary for the successful development of a national cancer registry. The country has proposed establishing a unique identity number, but this has been met with concerns regarding infringement on privacy and human rights. Currently, Mexico has the Unique Population Registry Code (CURP) but it comes with limitations such as manual enrollment and the risk of duplication.[72] The development and use of a unique identity number that covers the entire population will help collate data sources across different health systems and centers to create a comprehensive cancer database. Examples can be taken from Hong Kong where the identity card

"There have been efforts to establish a national cancer registry, and we are hopeful that these efforts will be resumed. Knowing which states have the highest incidence and mortality rates due to women's cancers, the stages of the diagnosis as well the demographic data of patients and survivorship are all essential elements to an effective national strategy to fight cancer."

Alejandra de Cima, Founder and President, Fundación CIMA

number links health information across public and private settings.[73] Similarly, the Ayushman Bharat Digital Health Mission initiative in India looks to leverage the *Aaadhar* card number as a universal identifier to link various health databases.[74]

Technological investments are necessary to develop data portals to manage information. Data collected should span the entire continuum of the disease pathway including prevention, screening, diagnosis, treatment, relapse, and survivorship. Furthermore, key data points regarding sociodemographic data, including location of residence, location of cancer care, SES, ethnicity, and health insurance status, should be included to understand disparities. Concurrently, the creation of online portals to monitor access to critical oncology equipment, along with their usage and maintenance status, will facilitate timely interventions to rectify infrastructure and workforce gaps.

"The main challenge in operating these registries according to international standards is the profound fragmentation of the Mexican health system, composed of eight distinct, independent institutions, which significantly complicates information sharing due to their organizational structure. However, recently, Dr Oscar Arrieta, Director of the National Cancer Institute (Instituto Nacional de Cancerología — INCan), successfully established a cross-institutional agreement among these institutions to ensure comprehensive coverage, thereby strengthening efforts toward the full development of the National Cancer Registry in Mexico."

Dr Alejandro Mohar, MD, PhD, Senior Researcher, Biomedical Cancer Research Unit, Institute of Biomedical Research (Instituto de Investigaciones Biomédicas) of the National Autonomous University of Mexico (UNAM), Former Director General of the National Cancer Institute

Priority solutions to bridge the cancer care gap for women in Mexico

"...the problem is complex and multifactorial. Solutions must be multifunctional, focusing heavily on primary and secondary prevention strategies. This involves controlling risk factors, providing health education, and ensuring access to early cancer detection programs, already fully established and validated in developed countries."

Dr Alejandro Mohar, MD, PhD, Senior Researcher, Biomedical Cancer Research Unit, Institute of Biomedical Research (Instituto de Investigaciones Biomédicas) of the National Autonomous University of Mexico (UNAM), Former Director General of the National Cancer Institute

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