

Main challenges to cancer care in Latin America: an analysis through breast cancer lenses

Gonzalo Gomez-Abuin,^{a,*} Pablo Mandó,^b Guiseppe Curigliano,^{c,e} and Carlos H. Barrios^d

^aBreast and Gynecological Medical Oncology Unit & Research Department Head Hospital Aleman, Ciudad Autónoma de Buenos Aires, Argentina

^bBreast and Gynecological Medical Oncology Unit, Centro de Educación Médica e Investigaciones Clínicas (CEMIC), Ciudad Autónoma de Buenos Aires, Argentina

^cEuropean Institute of Oncology IRCCS, Milan, Italy

^dOncology Research Center, Grupo Oncoclínicas, Porto Alegre, Brazil

^eUniversity of Milano, Milan, Italy



Summary

The manuscript underscores the intricate challenges in breast cancer (BC) care across Latin America, characterized by economic, social, and healthcare system disparities. Limited high-quality cancer registries hinder research and policy development, exacerbating uneven access to medical care and BC mortality disparities. The healthcare systems' fragmentation results in delays in critical interventions, affecting a significant proportion of young women diagnosed at advanced stages. The scarcity of comprehensive healthcare data and the absence of coordinated efforts intensify these challenges. The manuscript advocates for collaborative initiatives, supporting local research groups and fostering communication among countries to address BC care disparities. It emphasizes the vital role of national care plans and universal healthcare systems, aligning with global objectives to reduce BC mortality and enhance healthcare access for all women in Latin America, irrespective of socioeconomic status.

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Introduction

Latin America, including South America, Central America and the Caribbean, is a region characterised by significant heterogeneity, where diverse realities coexist, often within the same country or city.¹ This diversity can be observed in the economic status both between and within countries, as well as in social and cultural beliefs. Furthermore, health care systems in Latin American countries are complex and fragmented, encompassing both private and public sectors, and suffer from poor organisation, which is further exacerbated by limited financial resources. This ultimately results in uneven access to medical care and significant healthcare disparities among patients with cancer.^{2,3}

One of the many challenges in Latin America is the scarcity of high-quality cancer registries, which limits the amount of data for research and development of public health policies. Currently, only Costa Rica and Uruguay have comprehensive national registries, while data from other countries is often estimated based on regional registries covering small geographic areas. These estimates are frequently pooled and

extrapolated, attempting to approximate national figures. However, the generalisability of such records is inappropriate and fails to recognise significant disparities within countries.

Breast cancer scenario in Latin America

In 2020, BC was one of the leading causes of female cancer deaths worldwide, with more than 2 million new cases and more than 600,000 deaths.⁴ In Latin America, it is the most frequent neoplasm among women and has shown an increase in both incidence and mortality rates.⁴ Geographically, there is a clustering of incidence and mortality rates in the region. Many Latin American countries exhibit lower but increasing BC incidence compared to high-income countries, while simultaneously facing high mortality rates. This alarming incidence-to-mortality ratio reflects, for the most part, challenges in regional care health systems promoting early detection, diagnosis, and treatment for BC.⁴

In comparison to Europe, North America, and Asia, the burden of BC in Latin America is expected to increase more significantly. According to the International Agency for Research on Cancer (IARC), we should expect an estimated increase of 49.6% in new BC cases and 63.1% in BC deaths in the region between

*Corresponding author. Hospital Aleman of Buenos Aires, Av Pueyrredon 1640 (1118), Buenos Aires, Argentina.

E-mail address: ggomezabuin@hospitalaleman.com (G. Gomez-Abuin).

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2020 and 2040.⁵ The World Health Organization (WHO) further predicts that by 2030, BC will account for approximately 73,542 deaths in the region, twice the number recorded in 2008.⁶ The upward trend in BC mortality in many countries can be attributed to a combination of rising incidence and late diagnoses with a high proportion of advanced-stage cancers, particularly among women with lower education levels, as well as barriers to accessing timely and effective treatment.⁷

In light of this problem, we identified seven major challenges and specific implications for the region concerning BC care (Table 1 and Fig. 1).

Challenge 1: high proportion of premenopausal BC

Proportionally, developing countries face a greater burden of premenopausal BC for both incidence and

mortality, as compared to high-income countries.⁸ According to a study using data from Globocan 2008 and the International Agency for Research on Cancer's Cancer Incidence in Five Continents series, the proportion of incident BC cases and mortality among Latin American women aged 0–44 years was significantly higher than in North America (20% vs. 12% and 14% vs. 7%, respectively). Furthermore, the proportion of BC cases and deaths was greater among young women for all Latin American countries, including Central America, compared with high-income regions such as the European Union.⁹ (Fig. 2) For instance, a database published from Argentina showed that 10.4% of the 7105 patients were ≤40 years of age.⁶ This proportion is indeed higher compared with US databases and akin to Asian registries.¹⁰

It has been recognised that young women diagnosed with BC have reduced chances of positive outcomes. Negative outcomes might be attributable to an over-representation of adverse pathologic features or to the fact that young age might also be an independent risk factor.¹¹ The reason for this earlier presentation of BC cases is largely unknown, and it cannot be completely attributed to a younger age distribution among the region's female population.¹²

BC in this age group (0–44 years) has very important and particular implications such as pregnancy concerns, fertility preservation, genetic counselling, family planning, and career disruption, all of which demand a strong, qualified and well-organised health care system. Furthermore, these patients are vulnerable to long-term side effects of treatment, financial harm and chronic social stigmatisation, requiring long-term follow-up for optimal management.

Challenge 2: high proportion of women diagnosed at advanced stages

Latin America shows an alarming proportion of BC diagnoses in advanced stages. For instance, a previous meta-analysis comprising 221,255 women with BC from 22 countries in Latin America and the Caribbean showed that nearly 41% of patients were diagnosed in stages III–IV.⁹ A post hoc analysis including 15,070 women from nine countries from the same region revealed that 64% were diagnosed at stages IIB–IV.⁹ This high percentage of advanced stages contrasts sharply with the proportions of 8.3%–23.5% of advanced stage (III–IV) diagnoses among women from Western European countries.¹³ As the stage at diagnosis is the most important prognostic factor in BC, this is of crucial importance and a major challenge in the approach to the disease.¹⁴

Early detection is essential to reduce BC mortality. No country has achieved mortality reduction with an early diagnosis rate of less than 60%.¹⁵ Mammographic screening is considered the gold standard for early detection of BC in well-resourced settings. Randomised

Challenge	Specific implications
High proportion of premenopausal breast cancer	Maternity plans, family life and career disruption Concerns about fertility preservation Low rates of genetic testing and counselling Long-term side effects of treatment Financial harm Chronic social disruption
High proportion of women diagnosed at advanced stages	Worse outcomes and increased mortality Increased complexity of multimodal therapy Major impact in QoL Higher medical costs
Significant delays in diagnosis and treatment initiation	Lack of prevention strategies More advanced stages Worse outcomes and increased mortality Anxiety, psychological distress Increased complexity of multimodal therapy Negative impact in QoL and higher medical costs
Lack of provision of optimal multimodality management with essential curative interventions	Suboptimal care Higher rate of abandonment Potential negative impact in QoL Increased morbidity/mortality
Limited access to innovation	Suboptimal care Worsened health outcomes Frustration and dissatisfaction of patients and their relatives Economic consequences (out-of-pocket payments) Increased administrative workload for physicians and patients Worsening health disparities Ethical dilemma regarding resource allocation
Lack of context-dependent resource-stratified evidence-based guidelines	Missed opportunities for prevention leading to increased burden of disease and healthcare costs Suboptimal treatment decisions Heterogeneity in care practices Poor allocation of resources Lack of accountability
Limited clinical research	Large and diverse population Qualified health-care professionals Lack of access to innovative and high-cost cancer therapies Cost-effective care Suboptimal regulatory timelines National/Regional BC cooperative research groups

Table 1: Specific implications for each identified challenge.

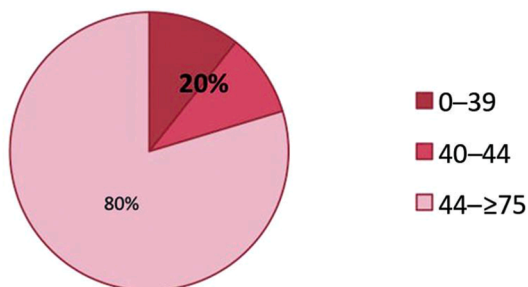


Fig. 1: Main challenges for Latin American countries in relation to BC.

trials have shown that mammographic screening in women aged 50–69 years can reduce BC mortality by 23%.¹⁶ Unfortunately, these results have fostered the common misconception that the only way to achieve diagnosis at an earlier stage or reduce BC mortality is through mammographic screening programs. Nevertheless, multiple studies have shown that programs based on clinical breast examination, which are cost-

effective and highly feasible in all resource settings, can obtain similar outcomes.^{14,15} In addition, in many countries of the region, early detection efforts based on mammographic screening programs have been established with limited success and suboptimal screening uptake.¹⁶ Therefore, it is critical to recognise that BC detection programs should develop using incremental stages, first implementing detection of early

A Latin America - Incidence



B North America - Incidence

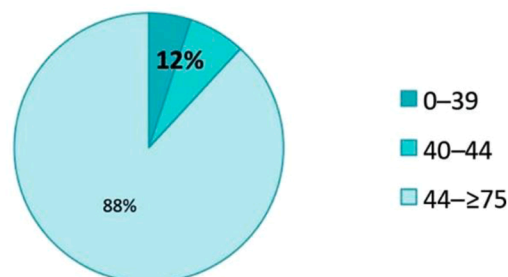


Fig. 2: Increased proportion of breast cancer cases in young women. Adapted from Villarreal-Garza, C et al. *Oncologist*. 2013 Dec; 18 (12): 1298–1306. A: Latin America; B: North America.

asymptomatic disease through clinical examination and, once the system can effectively manage the clinically detected tumours, mammographic screening programs can be introduced.

The Latin American population is genetically diverse, with a complex ancestry that includes Indigenous, European, African, and Asian roots. If this genetic diversity can affect breast cancer outcomes and/or stage at diagnosis remains unknown. Multinational studies with representative populations from LATAM with multiple ancestry backgrounds should be able to highlight differential risk factors, predispositions and genetic variabilities that need to be taken into consideration at a local level, and later implemented at screening programs.

Challenge 3: significant delays in diagnosis and treatment initiation

The time intervals to diagnosis and initiation of BC treatment are critical for optimal outcomes and have several components. First, the time between detection of the breast abnormality and the first visit to the health care system (patient interval). Second, the time from the first presentation to the health care system to the diagnosis of BC (diagnostic interval). And third, the time elapsed between diagnosis and initiation of treatment (treatment interval) (Fig. 3).

Prolongation of these intervals is, unfortunately, common in many LATAM settings. Late diagnosis of BC in LATAM is associated with individual factors as well as with characteristics of the social context in which women are inserted.¹⁷ Social vulnerability conditions, such as low income, poor education level, lack of health insurance, along with inequalities in access to health care, impact directly in time to diagnosis.^{18,19}

The patient interval may be impacted by several factors such as community awareness of BC, trust in medicine, and access to the health system, among others. Unfortunately, this is hard to measure as it depends on patient reporting bias; and there is no reliable data estimating the magnitude of the problem.

The diagnostic interval requires adequate patient pathways and recognition by the health care staff of the importance of timely diagnosis, and it has been identified by the WHO as a key quality parameter of the health care system. Ideally, it should be less than 60 days. Unger-Saldaña and colleagues performed a cross-sectional study of 866 patients referred for BC evaluation at 4 large public cancer hospitals in Mexico and found that the median time between diagnosis and beginning of treatment was 7 months. The interval with the largest delay was between the first consultation and diagnosis (median of 4 months).²⁰ In this particular region, specific interventions such as “Alerta Rosa” were able to significantly reduce such health system intervals.²¹

Treatment intervals are defined by the system organisation and drug availability. Previous research has shown that treatment should be initiated within 12 weeks of diagnosis, as a delay beyond this time was associated with lower breast cancer survival rates.²² Unfortunately, a recent analysis from the Molecular Profiling of Breast Cancer Study enrolling 1449 patients from Argentina, Brazil, Chile, Mexico, and Uruguay showed low adherence to treatment administration standards.²³

Challenge 4: lack of optimal multimodality management with essential curative interventions

The availability of essential therapies, including surgery, radiation therapy, and systemic treatments is critical. As stated above, access to standard care procedures remains challenging in many LATAM settings.²³ Essential care encompasses the fundamental components of curative regimens or drugs that have strong evidence demonstrating significant improvements in survival rates. For instance, the KEYNOTE 522 trial showed a 76.8% distant recurrence-free survival rate at 60 months for patients undergoing “standard” management involving chemotherapy, surgery, and radiotherapy, as compared to 84.4% for those receiving also adjuvant pembrolizumab.²⁴ (Fig. 4). These results highlight that a multimodal approach

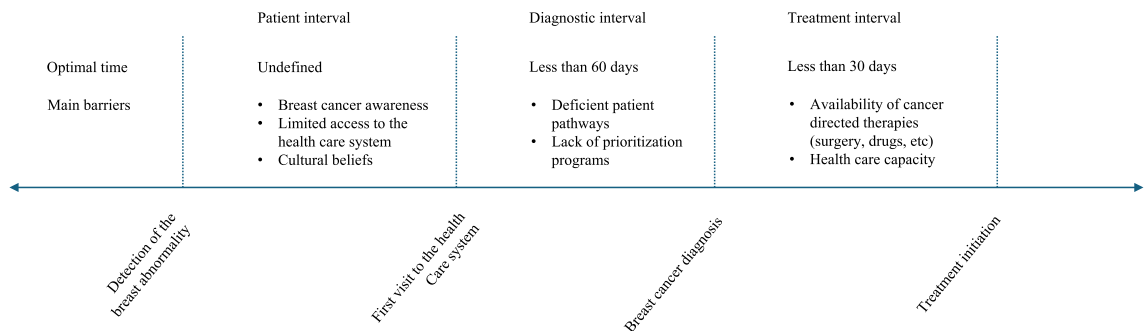


Fig. 3: Optimal timing and main barriers to avoid delays in diagnosis and treatment initiation.

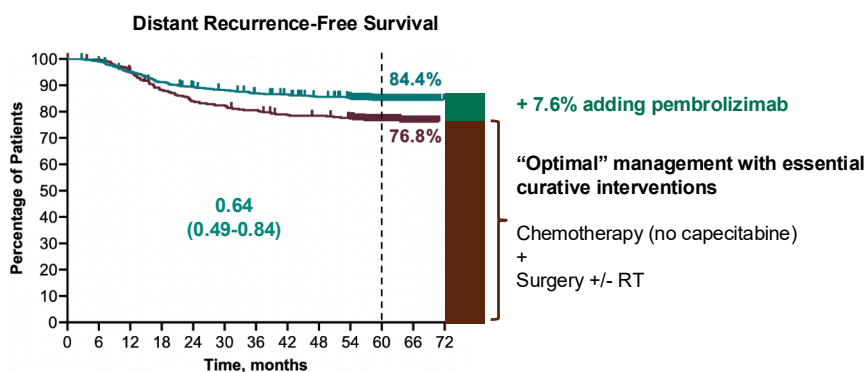


Fig. 4: Essential curative intervention results in triple negative breast cancer for patients in KEYNOTE 522 trial.

with standard treatment provides long-term successful outcomes to the vast majority of patients, and careful patient selection remains critical for the adoption of newer therapies.

Health care systems in Latin America are often characterised by fragmentation and lack of coordination, particularly in the context of cancer treatment. This fragmentation results in disparities in access to care, inconsistent treatment standards, and uneven distribution of resources. Many countries in the region have a mix of public and private healthcare providers, leading to duplication of services and gaps in coverage. Furthermore, access to multidisciplinary care in LATAM is heterogeneous and has substantial differences between private and public health institutions.²⁵

The current landscape of rapid innovation in cancer treatment, coupled with the high costs of targeted therapies and modest increments in efficacy, raises important questions regarding which cancer medicines should be made accessible and which should be considered truly essential. Lack of consistency in prioritising medicines within the oncology community poses significant risks to the sustainability of healthcare systems. The WHO's essential medicine list carries important implications for cancer drug policies and universal health coverage. Medicines deemed essential by the WHO should be included in national formularies, particularly in low- and middle-income settings. Radiotherapy resources are also limited in Latin America and further investments are urgently needed to fight against rural-urban disparities in access to this life-saving therapy.^{26,27}

Challenge 5: limited access to innovation

A recent survey analysed the accessibility of cancer medicines considered essential by oncologists worldwide. The findings revealed that 70% of the top 20 essential medicines are older cytotoxic or hormonal agents, rather than modern targeted agents or immunotherapy. Furthermore, 65% of these medicines had

received FDA regulatory approval prior to 2000.²⁸ Unfortunately, low-middle-income countries (LMIC) face significant financial barriers to accessing medicines, even for those that are older, generic, and presumably more affordable cytotoxic agents.

It is crucial to acknowledge that while prices and costs remain major obstacles, these issues must be contextualised within a broader framework. Fragmented markets, unsuccessful contract award processes, inconsistent volumes, unreliable manufacturers (particularly for generic cancer medicines), vulnerable supply chains, economic rent-seeking, mark-ups, and intermediaries extracting profit without adding value contribute to the extensive challenges associated with accessing quality-assured cancer health products.

Access to medicines and new technologies constitutes a fundamental component of any healthcare system and stands as one of the primary objectives of public health policies. Numerous challenges arise in ensuring access to innovative medical advancements, including artificially low targets for coverage, financially strained healthcare systems, and limitations in medicine supply networks, among others. The situation is further exacerbated in the case of high-cost oncologic medications, given the additional complexities associated with products enjoying market exclusivity granted under the patent system. Astonishingly, a mere 9.4% of sales for newly launched medicines between 2018 and 2023 occurred outside the realms of the United States, Europe, and Japan.²⁹

The lack of access to innovative medical solutions has far-reaching implications, potentially resulting in suboptimal care and exacerbated health outcomes. Moreover, it has significant economic consequences, increasing out-of-pocket payments, the risk of financial hardship and the administrative burden on healthcare professionals and patients.

Latin American countries should strive to implement strategies aimed at rectifying this situation, beginning with the development of integrated policies

that promote both access and innovation. Governments ought to work towards managing intellectual property rights to foster innovation while simultaneously safeguarding public health. However, this does not imply a blanket integration of all forms of innovation; instead, a very conscious and careful approach should be adopted to maximise the benefits. This can be achieved through comprehensive evaluations of innovative solutions and the incorporation of qualified health technology assessment processes, the selective financing of medicines, negotiations and regulations on pricing, the management of public sector procurement, and the implementation of rational medicine utilisation practices.

Challenge 6: lack of resource-stratified evidence-based guidelines

The most widely recognised international treatment guidelines primarily target high-income countries.³⁰ In 2002, the WHO introduced the concept of tailoring cancer treatments based on the resources available in each country, as outlined in its executive summary of the National Cancer Control Programs Policies and Managerial Guidelines.³¹

The Breast Health Global Initiative (BHGI) has pioneered a resource-stratified approach, developing guidelines for the early detection, diagnosis, and treatment of BC in LMICs. The initiative focused on creating evidence-based, economically feasible, and culturally appropriate guidelines to enhance breast health outcomes across a range of resource settings.^{32,33} BHGI's recommendations are built upon a four-tiered, resource-stratified system that enables the prioritisation of cancer management strategies according to available healthcare resources: basic, core, enhanced, and maximal levels. For this purpose, the BHGI 2018 global summit stated that effective communication with ministries of health and finance was critical to demonstrate needs, outcomes, and cost benefits of each country.³⁴

Resource-stratified guidelines should not be mistaken for a certification of sub-standard care. Instead, it means promoting an evidence-based framework for monitoring and evaluating healthcare services, facilitating stepwise improvements.³⁵ ASCO has recently published a guideline for the treatment of metastatic BC targeted for clinicians, patients and policymakers in resource-constrained settings.³⁶ However, no guidelines exist yet for the management of non-metastatic BC in regions with limited healthcare resources. The absence of such recommendations has significant implications that must be addressed, including missed opportunities for prevention resulting in an increased disease burden and healthcare costs, inadequate treatment decisions, variations in care, poor resource allocation, and lack of accountability.

The scarcity of evidence from the settings where the guidelines are meant to be applied presents a significant challenge to the successful implementation of resource-stratified guidelines. Unfortunately, the same limited resources that necessitate the use of such guidelines also contribute to insufficient funding for research, perpetuating the lack of data surrounding guideline-driven efforts in LMICs. Moreover, implementing these guidelines poses challenges as they are often referenced in global health literature, primarily to support statements related to disease management, but their specific implementation in comprehensive cancer control plans is lacking.³⁷

An example of this approach in Latin America is the Community-Based Program for Breast Health in Peru. It is a collaborative effort involving the Peruvian Ministry of Health, the National Cancer Institute in Lima, and the Regional Cancer Institute in Trujillo. The program utilises a four-step, resource-stratified phased implementation model developed by Breast Cancer Initiative 2.5, an analytics and advocacy group based at the Fred Hutchinson Cancer Research Center/University of Washington.³⁸ Through this stepwise approach, policymakers in this country aim to enhance breast health care capacity and delivery by improving capacity for early diagnosis and creating stronger connections between the primary (local or community) and higher (regional or national) levels.³⁸

Challenge 7: limited clinical research

Participation in clinical trials has several benefits for the health care system and patients. It may also represent a partial solution to the lack of access to high-cost drugs in the region. Latin America remains a highly attractive region for research. LATAM boasts unique cancer epidemiology, a dense population, significant genetic diversity, relatively lower costs for most procedures, and a high potential for patient recruitment.³⁹ Furthermore, the increasing participation in pharma-sponsored multicentric studies demonstrates the feasibility of efficient logistics and rapid, high-volume recruitment. However, as of 2024, only 3.2% of oncology clinical trials were conducted in LATAM.⁴⁰

Several factors contribute to the challenges faced by Latin America in participating in clinical trials exploring cancer therapies, including insufficient public and private investment, limited local funding, and delays in research regulatory processes. Importantly, while recognising the significant role that industry-sponsored cancer clinical trials have had in the development of infrastructures and human resources in LMIC scenarios, academic and investigator-led clinical research remains an enormous challenge and a worldwide unmet need.

A significant obstacle to local initiatives investigating tailored strategies in Latin American countries is the low level of investment in cancer research. In 2021,

Search strategy and selection criteria.

A literature review of articles on BC in Latin America was performed in the Medline database using the PubMed search engine and the Cochrane Central Register of Controlled Trials. Relevant studies were identified using the following medical subject headings: “breast cancer,” “Latin America,” and “breast cancer disparities.” Keywords were employed in all possible combinations to maximize the number of articles retrieved. Additionally, references cited in the selected articles were screened manually. Articles were included for analysis based on the methodological quality and relevant data obtained from Latin American countries.

Latin American and Caribbean countries allocated a mere 0.55% of their gross domestic product (GDP) to research and development. This is 5.3 times less than the investment observed in North America and Western European countries.⁴¹

Academic cancer research groups play a vital role in training healthcare professionals and proposing investigator-initiated studies that evaluate topics of epidemiological importance specific to the region. However, funding from government agencies or private foundations is required to support these efforts. Strengthening research capacity at the individual, organisational, network, and policy levels is essential for achieving long-term benefits and sustainability.

Randomised clinical trials remain a powerful tool for driving changes in clinical practice and improving outcomes. However, such studies are not always feasible or ethical for all research questions. Observational studies, which analyse data collected from routine clinical practice, can provide invaluable insights into the real-world effectiveness of treatments and the impact of healthcare disparities. Furthermore, observational research can effectively pinpoint deficiencies in standard care by analysing treatment patterns, evaluating healthcare delivery, and incorporating implementation science.

To overcome the scarcity of observational studies and improve the quality of BC research in Latin America, three key components must be addressed. First, protected time for physicians is crucial for dedicated research time. Physicians need protected time away from clinical duties to engage in research activities. Without this, the demands of patient care often overshadow research efforts. Second, institutional support is the mainstay for longstanding success. Hospitals and healthcare institutions should support their medical staff by providing dedicated research time and resources. Third, clinical research education should be improved by curriculum integration and ongoing training. A thorough clinical research education curriculum should be integrated into medical training

programs. This will ensure that new physicians are well-equipped with the skills necessary for conducting high-quality research. Continuous professional development opportunities in clinical research methodologies and implementation science should be available to practising physicians.

Conclusions

The health care systems across Latin America exhibit a substantial degree of fragmentation, leading to a myriad of challenges that cause substantial cancer care disparities in the region. BC is remarkable example of this problematic as it represents a growing burden in Latin America with notably high mortality rates. Concerted efforts involving multiple stakeholders and the collection of comprehensive and reliable data on BC health quality indicators are urgently needed to address this issue.

Contributors

GGA: conceived the study, collected data for analysis, wrote draft, and revised the final version.

PM: conceived the study, collected data for analysis, wrote draft, and revised the final version.

GC: conceived the study, collected data for analysis, wrote draft, and revised the final version.

CHB: conceived the study, collected data for analysis, wrote draft, and revised the final version.

Declaration of interests

GGA: declares consulting fees from Novartis, AstraZeneca, Roche, Pfizer, Lilly, and MSD; honoraria from Novartis, AstraZeneca, Lilly, MSD, and GlaxoSmithKline; support for attending meetings and/or travel from AstraZeneca, Novartis, Gador, Raffo, and GlaxoSmithKline; and participation on data safety monitoring or advisory boards for Novartis, AstraZeneca, Roche, Pfizer, Lilly, and MSD.

PM: declares consulting fees from Novartis, AstraZeneca, Roche and MSD; honoraria from Novartis, AstraZeneca, Roche, Pfizer and MSD; support for attending meetings and/or travel from Novartis, AstraZeneca and Roche.

GC: declares participation at Advisory Boards for Roche, Novartis, Lilly, Pfizer, Astra Zeneca, Daichii Sankyo, Ellipsis, Veracyte, Exact Science, Celcuity, Merck, BMS, Gilead, Sanofi, and Menarini.

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References

- 1 Piñeros M, Laversanne M, Barrios E, et al. An updated profile of the cancer burden, patterns and trends in Latin America and the Caribbean. *Lancet Reg Health Am.* 2022;13:100294.

- 2 Buteau AC, Castelo-Loureiro A, Barragan-Carrillo R, et al. Disparities in cancer control in Central America and the Caribbean. *Hematol Oncol Clin North Am.* 2024;38(1):35–53.
- 3 Riano I, Velazquez AI, Viola L, et al. State of cancer control in South America: challenges and advancement strategies. *Hematol Oncol Clin North Am.* 2024;38(1):55–76.
- 4 Torres-Román JS, Ybaseta-Medina J, Loli-Guevara S, et al. Disparities in breast cancer mortality among Latin American women: trends and predictions for 2030. *BMC Public Health.* 2023;23(1):1449.
- 5 Barrios CH, Werutsky G, Mohar A, et al. Cancer control in Latin America and the Caribbean: recent advances and opportunities to move forward. *Lancet Oncol.* 2021;22(11):e474–e487.
- 6 Fabiano V, Mandó P, Rizzo M, et al. Breast cancer in young women presents with more aggressive pathologic characteristics: retrospective Analysis from an Argentine National Database. *JCO Glob Oncol.* 2020;6:639–646.
- 7 Franco-Marina F, López-Carrillo L, Keating NL, Arreola-Ornelas H, Knaul FM. Breast cancer age at diagnosis patterns in four Latin American Populations: a comparison with North American countries. *Cancer Epidemiol.* 2015;39(6):831–837.
- 8 Heer E, Harper A, Escandor N, et al. Global burden and trends in premenopausal and postmenopausal breast cancer: a population-based study. *Lancet Glob Health.* 2020;8(8):e1027–e1037.
- 9 De Lemos LLP, Carvalho de Souza M, Pena Moreira D, et al. Stage at diagnosis and stage-specific survival of breast cancer in Latin America and the Caribbean: a systematic review and meta-analysis. *PLoS One.* 2019;14(10):e0224012.
- 10 Walters S, Maringe C, Butler J, et al. Breast cancer survival and stage at diagnosis in Australia, Canada, Denmark, Norway, Sweden and the UK, 2000–2007: a population-based study. *Br J Cancer.* 2013;108(5):1195–1208.
- 11 Kataoka A, Iwamoto T, Tokunaga E, et al. Young adult breast cancer patients have a poor prognosis independent of prognostic clinicopathological factors: a study from the Japanese Breast Cancer Registry. *Breast Cancer Res Treat.* 2016;160(1):163–172.
- 12 Bauer KR, Brown M, Cress RD, Parise CA, Caggiano V. Descriptive analysis of estrogen receptor (ER)-negative, progesterone receptor (PR)-negative, and HER2-negative invasive breast cancer, the so-called triple-negative phenotype: a population-based study from the California Cancer Registry. *Cancer.* 2007;109(9):1721–1728.
- 13 Independent UK Panel on Breast Cancer Screening. The benefits and harms of breast cancer screening: an independent review. *Lancet.* 2012;380(9855):1778–1786.
- 14 World Health Organization. *WHO position paper on mammography screening.* Geneva: World Health Organization; 2014:2014.
- 15 Ngan TT, Nguyen NT, Van Minh H, Donnelly M, O'Neill C. Effectiveness of clinical breast examination as a 'stand-alone' screening modality: an overview of systematic reviews. *BMC Cancer.* 2020;20(1):1–10.
- 16 Pinto JA, Pinillos L, Villarreal-Garza C, et al. Barriers in Latin America for the management of locally advanced breast cancer. *Ecancermedicalscience.* 2019;13.
- 17 de Oliveira NPD, de Camargo Cancela M, Martins LFL, de Souza DLB. A multilevel assessment of the social determinants associated with the late stage diagnosis of breast cancer. *Sci Rep.* 2021;11(1):2712.
- 18 Ayala N, Barchuk S, Inurrigarro G, et al. Status of breast cancer in Latin American: results of the breast cancer revealed initiative. *Crit Rev Oncol Hematol.* 2023;181:103890.
- 19 Werutsky G, Gössling G, Pellegrini RA, et al. Socioeconomic impact of cancer in Latin America and the Caribbean. *Arch Med Res.* 2022;53(8):818–825.
- 20 Unger-Saldaña K, Miranda A, Zarco-Espinosa G, Mainero-Ratchelous F, Bargalló-Rocha E, Miguel Lázaro-León J. Health system delay and its effect on clinical stage of breast cancer: multicenter study. *Cancer.* 2015;121(13):2198–2206.
- 21 Mireles-Aguilar T, Tamez-Salazar J, Muñoz-Lozano JF, et al. Alerta Rosa: novel alert and navigation breast cancer program in nuevo leon, Mexico, for reducing health system interval delays. *Oncologist.* 2018;23(12):1461–1466.
- 22 Richards MA, Smith P, Ramirez AJ, Fentiman IS, Rubens RD. The influence on survival of delay in the presentation and treatment of symptomatic breast cancer. *Br J Cancer.* 1999;79(5–6):858–864.
- 23 Retamales J, Daneri-Navarro A, Artagaveytia N, et al. Implementing standard diagnosis and treatment for locally advanced breast cancer through global research in Latin America: results from a multicountry pragmatic trial. *JCO Glob Oncol.* 2024;10:e2300216.
- 24 Schmid P, Cortes J, Dent R, et al. Overall survival with pembrolizumab in early-stage triple-negative breast cancer. *N Engl J Med.* 2024 [Ahead of print]. <https://doi.org/10.1056/NEJMoa2409932>
- 25 Barrios C, Sánchez-Vanegas G, Villarreal-Garza C, et al. Barriers and facilitators to provide multidisciplinary care for breast cancer patients in five Latin American countries: a descriptive-interpretative qualitative study. *Lancet Reg Health Am.* 2022;11:100254.
- 26 Elbanna M, Pynda Y, Kalinchuk O, et al. Radiotherapy resources in Latin America and the Caribbean: a review of current and projected needs based on International Atomic Energy Agency data. *Lancet Oncol.* 2023;24(9):e376–e384.
- 27 Sarria GR, Martinez DA, Li B, et al. Leveling up the access to radiation therapy in Latin America: economic analysis of investment, equity, and inclusion opportunities up to 2030. *Int J Radiat Oncol Biol Phys.* 2023;116(2):448–458.
- 28 Fundytus A, Sengar M, Lombe D, et al. Access to cancer medicines deemed essential by oncologists in 82 countries: an international, cross-sectional survey. *Lancet Oncol.* 2021;22(10):1367–1377.
- 29 European federation of pharmaceutical industries and Associations (EFPIA). At: <https://www.efpia.eu/publications/data-center/the-pharma-industry-in-figures-economy/geographical-breakdown-of-sales-of-new-medicines>. Accessed July 11, 2024.
- 30 Gradishar WJ, Moran MS, Abraham J, et al. Breast cancer, version 3.2024, NCCN clinical practice guidelines in oncology. *J Natl Compr Canc Netw.* 2024;22(5):331–357.
- 31 World Health Organization. *National cancer control programmes: policies and managerial guidelines.* World Health Organization; 2002.
- 32 Anderson BO, Carlson RW. Guidelines for improving breast health care in limited resource countries: the Breast Health Global Initiative. *J Natl Compr Canc Netw.* 2007;5(3):348–355.
- 33 Anderson BO, Yip CH, Smith RA, et al. Guideline implementation for breast healthcare in low-income and middle-income countries: overview of the Breast Health Global Initiative Global Summit 2007. *Cancer.* 2008;113(S8):2221–2243.
- 34 Duggan C, Dvaladze A, Rositch AF, et al. The breast health global initiative 2018 global summit on improving breast healthcare through resource-stratified phased implementation: methods and overview. *Cancer.* 2020;126 Suppl 10(Suppl 10):2339–2352.
- 35 Hunter N, Dempsey N, Tbaishat F, Jahanzeb M, Al-Sukhun S, Gralow JR. Resource-stratified guideline-based cancer care should be a priority: historical context and examples of success. *Am Soc Clin Oncol Educ Book.* 2020;40:217–226.
- 36 Al Sukhun S, Temin S, Barrios CH, et al. Systemic treatment of patients with metastatic breast cancer: ASCO resource-stratified guideline. *JCO Glob Oncol.* 2024;10:e2300285.
- 37 Echavarría MI, Anderson BO, Duggan C, Thompson B. Global uptake of BHGI guidelines for breast cancer. *Lancet Oncol.* 2014;15(13):1421–1423.
- 38 Duggan C, Dvaladze AL, Tsu V, et al. Resource-stratified implementation of a community-based breast cancer management programme in Peru. *Lancet Oncol.* 2017;18(10):e607–e617.
- 39 Gössling G, Rebelatto TF, Villarreal-Garza C, et al. Current scenario of clinical cancer research in Latin America and the Caribbean. *Curr Oncol.* 2023;30(1):653–662.
- 40 2024 ASCO Annual Meeting. Latin America and cancer clinical trials: underrepresented region with significant growth potential. At: https://ascopubs.org/doi/10.1200/JCO.2024.42.16_suppl.e23038. Accessed August 11, 2024.
- 41 UNESCO institute for statistics. Research and development expenditure as a proportion of GDP. At: <https://data.uis.unesco.org/index.aspx?queryid=3684>. Accessed July 11, 2024.