## Lessons from CONCORD and VENUSCANCER: closing global gaps in cancer care for women



International outcomes in breast, cervical, and ovarian cancers highlight opportunities to improve health-care delivery for women at all economic levels. In high-income countries (HICs), early detection programmes, timely diagnosis, and access to cancer treatment to completion have led to considerable improvements in cancer survival. These successes, however, are yet to be realised in most low-income and middle-income countries (LMICs).

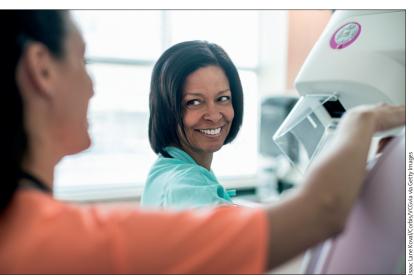
The internationally respected CONCORD programme established a global surveillance network to monitor national trends in cancer survival.1 Claudia Allemani and colleagues<sup>2</sup> now extend this work to expand our understanding of cancer care delivery for women worldwide. In The Lancet, the VENUSCANCER project provides an in-depth analysis2 of the diagnosis and management of the three most common malignancies that primarily or exclusively affect women: breast, cervix, and ovary. Drawing on data from more than 250000 women diagnosed between 2015 and 2018 across 103 population-based cancer registries from 39 countries, including 15 from LMICs,<sup>2</sup> the study reports on newly collated high-resolution data on cancer stage, tumour biomarker expression, and multimodal cancer treatment. The findings show significant international variation in both the management and provision of treatment that adheres to international clinical quidelines across distinct geographical regions and levels of health-system development. These variations predictably influence the effectiveness of cancer care and, ultimately, outcomes in women with breast, cervical, and ovarian cancer. The comparisons are valuable and informative, offering crucial insights into opportunities for implementing contextspecific cancer diagnosis and management strategies required to improve cancer outcomes among women in these highly varied health-care settings.

The investigators characterise cancer stage at diagnosis for breast, cervical, and ovarian cancer in 23 HICs and 15 LMICs. Stage distribution trends suggest the relative success of programmes aimed at detecting early-stage cancer in context-specific settings. Strategies for prevention, early detection, diagnosis, and treatment differ among the three biologically distinct

malignancies.<sup>3</sup> For all three types of cancer, the observed stage distribution provides key insights for determining where gaps in the health system exist, which can differ both by type of cancer and local context. For example, the shift towards an increased incidence of early-stage breast cancer through screening and early diagnosis programmes is associated with improved survival in countries where at least 60% of invasive breast cancers are diagnosed at stage I or II.4 By contrast, most cases of ovarian cancer (approximately 80%) continue to present at late stages in countries across all economic levels and, to date, early detection strategies are not optimum.5 Cervical cancer differs from both breast and ovarian cancer in that its progression from human papillomavirus (HPV) infection to malignancy can either be prevented through HPV vaccination or halted through the surgical management of premalignant lesions associated with HPV.6

The time from a patient's initial presentation to definitive diagnosis, as well as the time from diagnosis to initiation of cancer treatment, are each disease-specific process indicators reflecting the overall integrity and responsiveness of a health system. A cancer diagnosis requires coordinated access to clinical evaluation, imaging, tissue sampling, and pathology interpretation ie, resources that are essential for the management of other cancers and non-communicable diseases.

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WHO's Global Breast Cancer Initiative Implementation Framework, published in 2023, recommends that, to minimise clinically significant disease progression among patients with the most biologically aggressive tumours, breast cancers should be diagnosed within 60 days so that treatment can be initiated within 90 days of the patient's first contact with the health-care system.<sup>7</sup> The VENUSCANCER study reports that, despite how management of early-stage cancers in many HICs meets these benchmarks (median <1 month), delays in LMICs remain substantial: up to 4 months for cervical and ovarian cancers, and up to 1 year for breast cancer. Monitoring time between diagnosis and treatment initiation for women with breast cancer offers countries a practical, disease-specific metric that also serves as a surrogate measure of the overall performance of cancer diagnostic services.

VENUSCANCER dataset provides crucial information about the use of treatment modalitiesincluding surgery, radiotherapy, and systemic therapy—at the health-system level. Although practical limitations largely prevent a comprehensive population-level analysis of treatment completion, the VENUSCANCER study offers some information regarding the concordance of cancer management with international clinical guidelines. There was substantial variability in such concordance, notably for: surgery and radiotherapy in early-stage breast cancer, which ranged from 13% in Georgia to 82% in France; chemotherapy in advanced cervical cancer, which ranged from 18% in Mongolia to 90% in Canada; and surgery plus chemotherapy in metastatic ovarian cancer, which ranged from 9% in Cuba to 53% in the USA. Additionally, the study identifies settings where locoregional treatment was incomplete due to a scarcity of radiotherapy services.

Although the authors could identify patients who did not receive care compliant with international guidelines, the data cannot identify which patients succeeded in completing therapy without treatment abandonment. Knowing that a patient started chemotherapy (first dose) is important, but taken alone is inadequate to predict treatment efficacy as measured by improved rates of cancer recurrence and survival. Treatment-associated improvements in survival require not only the initiation of treatment but also the completion of multimodal protocols, including endocrine treatment, cytotoxic chemotherapy, and targeted immunotherapy. Treatment abandonment—whereby patients begin but

do not complete planned therapy—is common in LMICs, particularly in sub-Saharan Africa where up to 50% of patients begin treatment within 3 months of diagnosis but discontinue treatment before all drug cycles are administered.<sup>8</sup>

WHO's Global Breast Cancer Initiative<sup>7</sup> and Cervical Cancer Elimination Initiative. The Lancet Breast Cancer Commission,<sup>9</sup> and The Lancet's Commission on women, power, and cancer<sup>10</sup> are all informed by the results from the VENUSCANCER project, which provides the most comprehensive population-based assessment to date of how cancers of the breast, cervix, and ovary are diagnosed and treated worldwide. Beyond serving as a benchmark, the VENUSCANCER study highlights where important gaps remain, whether in early diagnosis, treatment access, or continuity of care, allowing policy makers to prioritise interventions that have the greatest impact on survival. Although current data cannot fully capture cancer treatment to completion at the population level, VENUSCANCER data provide important insights into the consistency of cancer management and alignment with international clinical guidelines. Linking the findings of the VENUSCANCER study to national strategies for cancer control could accelerate the adoption of evidence-based practices, guide resource allocation, and support context-specific innovations in the delivery of cancer care. Ongoing monitoring through the VENUSCANCER project promises to be an invaluable tool as countries systematically improve the delivery of cancer care for women.

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