

IARC Impact in practice series

The Morocco experience



“Le partenariat avec le CIRC a eu un impact très positif, aussi bien avant qu’après 2015, en renforçant à la fois la recherche et l’action sanitaire sur le terrain.”
Dr Youssef Chami, Lalla Salma Foundation

Since becoming an [IARC Participating State in 2015](#), Morocco has moved from collaboration to **co-creation** with IARC, combining stronger scientific leadership with tangible public health impact. Membership has strengthened Morocco's role in global cancer governance, with seats on both the Governing Council and the Scientific Council and a direct voice in shaping international research priorities. It is a genuine two-way partnership in which Morocco both benefits from and actively contributes to global cancer control.

Why IARC membership made the difference for Morocco:

- ➔ **Scientific leadership and deeper integration in global research:** Morocco is now more deeply integrated into global cancer research, with collaboration intensity four times higher in IARC-co-authored publications (median 14 institutions per paper) compared with non-IARC Moroccan cancer publications (median 3) and Moroccan experts contributing to international standards.
- ➔ **Evidence that improves care:** IARC research on breast, cervical, and colorectal cancer in Morocco has informed better clinical pathways, evidence-based cancer control planning, and supported alignment with WHO's cervical cancer elimination and breast cancer initiatives.
- ➔ **Strengthened research infrastructure:** IARC has provided strategic guidance, standards, and training to support the Ministry of Health in building a skilled workforce for early detection services and advancing the development of a national cancer biobank, thereby strengthening Morocco's capacity for high-quality research and international collaboration.
- ➔ **Durable national capacity:** Targeted training in Morocco have strengthened skills in screening, epidemiology, and surveillance, creating a lasting multiplier effect.
- ➔ **Regional leadership in francophone Africa:** Through IARC collaborative initiatives such as CanScreen5 and Care4Afrique, Morocco has become a hub for cancer screening expertise, sharing knowledge with neighbouring countries.

Part I. Scientific leadership through international collaboration

➔ Exceptional intensity and depth of collaboration

Since 2015, scientific collaboration between Moroccan institutions and IARC has expanded significantly in both scale and scope. This deepened engagement built on an already close partnership formalised through a **Memorandum of Understanding (2014–2017) with the Lalla Salma Foundation**, making Morocco's accession to IARC in 2015 a natural and logical next step.

The scale and intensity of this collaboration are reflected in the publication record¹:

- Morocco has co-authored approximately **68 scientific publications with IARC**, averaging **7 joint papers per year**. In most of these publications Moroccan experts are the **lead authors**.

Cancer in Morocco: unmet needs in research and evidence

Based on recent [Globocan estimates for Morocco](#), cancer represents a major and growing public health challenge, with an estimated **~64 000 new cancer cases and ~37 000 cancer-related deaths each year**. In response, the [Plan National de Prévention et de Contrôle du Cancer 2020–2029](#) sets out a decade-long roadmap to reduce the burden of cancer through **prevention, quality care, improved screening for breast and cervical cancers, stronger data and surveillance systems, and expanded human capacity**. The Plan reaffirms the need to consolidate past gains, address persistent gaps in governance and quality of care, and integrate evidence-based strategies across the care continuum.

¹ Data derived from Web of Science records of IARC–Morocco co-authored papers published between January 2016 and January 2026.

- Papers produced in collaboration with IARC represent **around 14% of all Morocco's cancer research output**, highlighting the central role of this partnership in Morocco's scientific contribution to global oncology.
- These publications involve collaborators from **179 countries and 1,637 institutions**.
- **When IARC is a co-author, the median number of institutions per paper rises to 14, compared with 3 without IARC**, demonstrating a **fourfold increase** in collaborative intensity.

“Depuis que le Maroc est État participant du CIRC, les collaborations se sont intensifiées, notamment autour de grands projets ayant un impact réel sur les politiques et la prise en charge du cancer.”

Lobna Boulegroun,
IARC Liaison Officer
for Morocco

The research portfolio spans prevention, early detection, cancer surveillance, environmental exposures, implementation research, and health equity, with strong clusters in **HPV and cervical cancer, breast cancer, screening implementation, and patterns-of-care studies**, aligned with both IARC priorities and Morocco's National Cancer Plan 2020-2029.

A joint effort to develop Morocco's National Cancer Biobank

“Le CIRC est perçu comme une référence: les recommandations faites pour structurer la biobanque et former les équipes ont été bien accueillies et intégrées”

Dr Stéphanie Villar, IARC Biobank Specialist

Through its global biobanking expertise and its Biobank and Cohort Building Network (BCNet), IARC has played a **catalytic and advocacy role** in advancing plans for a national cancer biobank in Morocco. Building on international best practice, IARC has helped articulate **why “now is the right time”** for Morocco to invest in a national biobank, emphasizing networking, standardisation, and sustainability rather than fragmented, isolated sample collections.

At the request of Moroccan partners, IARC has provided **strategic guidance and technical mentoring** on governance, sample life cycle management, biosafety, and phased implementation. This has helped align emerging plans with international standards while remaining adapted to the Moroccan context.

→ **Access to large-scale research infrastructures**

Approximately **40% of IARC–Morocco co-authored papers are IARC-led**, reflecting IARC's role in coordinating large, multicountry studies. Through its participation in IARC, Morocco has gained access to major international research platforms, datasets, and networks that would have been difficult to lead or coordinate independently. Moroccan experts and institutions have contributed to **IARC's major cancer surveillance outputs**, including **SURVCAN 3**, strengthening national capacity in cancer data production and interpretation while contributing to global burden estimates. Morocco is also part of the **NCD Risk Factor Collaboration (NCD-RisC)**, a worldwide network of health scientists generating comparable risk-factor data for 200 countries and territories, positioning Morocco within one of the most influential global epidemiological consortia for non-communicable diseases.

→ **Shaping the global cancer research agenda and standards**

Moroccan experts and diplomats help steer IARC's direction. Through seats on the **Scientific Council and**

“Le CIRC a un rôle très important à jouer grâce à sa notoriété scientifique et à sa crédibilité internationale. Il faut non seulement maintenir ce rôle, mais le renforcer”

Prof Mohammed Berraho
Morocco National Cancer
Institute

Governing Council, and active involvement in developing the [Medium-Term Strategy \(MTS\)](#), Morocco contributes directly to setting IARC's research and capacity-building priorities. This ensures that concerns central to middle-income are built into the global agenda. This high-level engagement is a form of **soft power**. By shaping IARC's work programme, Morocco brings national and regional realities into global decision-making while gaining early insight into emerging priorities, methods, and partnership opportunities, aligning its own cancer plans and investments with cutting-edge international evidence.

Moroccan experts also actively contribute to IARC's flagship evaluations, helping shape international standards in cancer prevention and control rather than merely adopting them. Notably, Moroccan specialists have contributed to **IARC Monographs Volume 138: Automotive gasoline and some oxygenated gasoline additives**; **IARC Monographs Volume 139: Hepatitis D Virus, Human Cytomegalovirus, and Merkel Cell Polyomavirus**; **IARC Handbooks of Cancer Prevention Volume 18: Cervical cancer screening and implementation strategies** and the [Cancer Screening in Five Continents \(CanScreen5\) project](#), ensuring that perspectives and experiences from a middle-income, high-burden country are reflected in global guidance used by ministries of health, researchers, and screening programmes worldwide.

Part II. From evidence to action: IARC's impact on national Public Health



“Le défi aujourd’hui n’est pas d’écrire des plans cancer, mais de les mettre en oeuvre: c’est là que la recherche d’implémentation est essentielle.”

Dr Rachid Bekkali
Lalla Salma Foundation

→ Improving clinical pathways and quality of care

A central dimension of IARC's public health impact in Morocco has been the translation of research evidence into improvements in clinical pathways, service organisation, and quality of care, particularly for breast and cervical cancers.

[IARC-supported research has also highlighted persistent system bottlenecks in patient pathways](#), showing that the average time from symptom recognition to diagnosis in Morocco was nearly twice the timeframe recommended by international standards, underscoring the need for earlier detection, faster referral, and better coordination of care.

In cervical cancer, IARC has collaborated with Morocco through implementation research and technical collaboration linked to the [Care4Afrique initiative](#) which provided a practical model for integrating cervical cancer screening and treatment into routine primary health care in four Sub-Saharan African countries ([see video](#)). The pilot project demonstrated that a **screen-and-treat approach using visual inspection with acetic acid (VIA) and thermal ablation is feasible, safe, and highly acceptable for women in resource-constrained settings**, with the majority of eligible VIA-positive women treated on the same day as screening.

These findings directly support Morocco's approach to cervical cancer prevention and contribute to evidence informing **national strategies aligned with the WHO's 90–70–90 elimination targets**. IARC's role has extended beyond technical advice to include co-creation with Moroccan partners and regional stakeholders, ensuring that interventions are adapted to existing service capacity, referral pathways, and health system constraints, and are positioned for scale-up within national programmes.

→ Evidence informing national policy and intersectoral action

Beyond cancer services, IARC-linked evidence has also been used in Moroccan public policy documents to inform broader debates on health, environment, and development. A notable example is the government report **“Le Coût de la Dégradation de l’Environnement au Maroc” (2017)**, produced by the Ministry of the Environment. The report draws on the **Global Burden of Disease Study 2010**, which incorporated IARC evidence in its comparative risk assessment of 67 risk factors across 21 regions. Using this evidence base, the report estimated the social, economic, and environmental costs of environmental degradation in Morocco, including morbidity and mortality related to air pollution and inadequate water, sanitation, and hygiene.

Similarly, collaborative research demonstrating the ground-level challenges in implementing colorectal cancer screening in Morocco

How evidence improved breast cancer care in Morocco

[IARC conducted a landmark patterns-of-care study on breast cancer in Morocco](#), analysing data from more than **2,000 women** treated over a **10-year period (2008–2017)** in the two main public oncology centres in **Rabat and Casablanca**.

The study documented **gradual improvements in access to diagnosis and treatment**, while also revealing important variations in medical practices, timeliness of care, and survival outcomes across centres and patient groups ([watch the video explaining the study](#) by Dr Partha Basu, Head of the Early Detection, Prevention, and Infections Branch at IARC).

Building on this evidence, IARC has **more recently extended the research to quality of life (QoL)** among Moroccan breast cancer survivors. [A prospective study identified three distinct QoL trajectories one year after treatment](#) and showed that care delivered in comprehensive cancer centres and aligned with international guidelines was associated with better outcomes, while also highlighting persistent financial hardship despite health insurance coverage.

By generating **robust, policy-relevant evidence** from these studies, IARC strengthened the capacity of Moroccan authorities and clinicians to:

- improve clinical pathways along the continuum of care,
- address inequities in access, outcomes, and survivorship experiences,
- better inform national planning and resource allocation for breast cancer services,
- demonstrate that coordinated, guideline-based breast cancer management is associated with better survival and quality-of-life outcomes, reinforcing the case for more organised and standardised care.

informed Ministry decision-making, leading to the decision not to include colorectal cancer screening in the national cancer control plan.

→ Strengthening national capacity for screening and early detection

Building sustainable national capacity has been a cornerstone of the IARC–Morocco partnership, particularly in screening and early detection. IARC's support has combined clinical skills development, public health training, and programme leadership, creating a coherent capacity-building ecosystem.

Key contributions include:

- **Advanced colposcopy and precancer management training**, organized by IARC, in collaboration with the Lalla Salma Foundation, which has strengthened frontline clinical competencies and improved the quality of care along the screening-to-treatment pathway, while supporting the scale-up of colposcopy and treatment services in Morocco.
- The **International Course on Cancer Epidemiology in Fes**, co-organised with IARC and financed by the Foundation, which has become a recognised regional reference for francophone Africa and helped build a critical mass of epidemiological and public health expertise in Morocco.
- **Leadership and implementation-focused training in cancer screening and early detection**, notably through **Morocco's hosting of the CanScreen5 Train-the-Trainers programme in Rabat**, which convened screening managers from 17 francophone African countries and reinforced Morocco's role as both a beneficiary of and a regional hub within IARC's global networks.



Part III. Building capacity for lasting impact

→ Stronger data for better decisions

IARC leads the **Global Initiative for Cancer Registry Development (GICR)**, a coordinated effort with international partners to help countries establish and strengthen population-based cancer registries. Morocco is part of the **IARC GICR Regional Hub for Northern Africa, Central and Western Asia**, which supports registries across 29 countries through tailored technical assistance, in-country missions, regional training and the GICRNet e-learning platform.

Through GICR support, Morocco has consolidated and expanded its population-based cancer registration, building on the Greater Casablanca and Rabat registries that provide the core incidence data used in international estimates and national cancer planning. Support from the GICR Hub focuses on registry organisation and governance, case ascertainment, coding and staging, data quality assessment, and the adoption of international tools for software and data management. By improving the completeness, quality and comparability of cancer incidence data, this collaboration strengthens the evidence base for Morocco's national cancer control plans and enables more precise monitoring of inequalities and progress over time.

→ Training as multiplier of capacity

The IARC–Morocco partnership has also created opportunities for **direct training of Moroccan researchers at IARC**, reinforcing the transfer of advanced methodological skills and international networks back to national institutions. During the IARC Medium-Term Strategy (MTS) 2021–2025 cycle, **six Moroccan trainees**, ranging from Bachelor-level students to PhD candidates, postdoctoral fellows, and visiting scientists, have undertaken training at IARC. During their placements, they gained exposure to state-of-the-art research methods in cancer epidemiology, surveillance, and prevention, as well as access to IARC's global scientific networks and datasets. Moroccan experts have also **participated as trainers** in IARC learning programmes.

This engagement is part of IARC's wider capacity-building ecosystem, which includes the Postdoctoral Fellowship Programme, the IARC Summer School, the IARC Learning Platform, and global networks for cancer registries, screening, and biobanking. Together, these initiatives train thousands of professionals worldwide and generate durable benefits: in a 2024 outcome survey,



98% of postdoctoral respondents reported transferable skills, 72% maintained research ties with IARC after training, and over half progressed to leadership roles (53%) or managed independent research funding (52%). This creates a **two-way multiplier effect**: expertise gained at IARC is reinvested in national institutions, while the priorities, data, and methodological strengths of participating countries feed back into IARC's networks, helping shape future research, standards, and capacity-building efforts.

➔ **Extending impact beyond borders: regional leadership in francophone Africa**

Through its collaboration with IARC and the multiplier effect of the IARC-supported programmes, Morocco has increasingly assumed a leadership role in cancer control across francophone Africa.

For example, Morocco's hosting of the **CanScreen5 Train-the-Trainers programme in Rabat** positioned the country as a regional centre for screening expertise and peer learning. Moroccan professionals trained through IARC-supported programmes now actively contribute to capacity-building efforts in neighbouring countries through technical exchanges and knowledge sharing.

In addition, **implementation research supported by IARC**, particularly on cervical cancer screen-and-treat approaches, has benefited not only Morocco but also **Benin, Côte d'Ivoire, Cameroon, and Senegal**. This demonstrates how Morocco's engagement with IARC has generated positive spillovers beyond its borders, reinforcing a two-way model in which Morocco both benefits from and contributes to regional and global cancer control