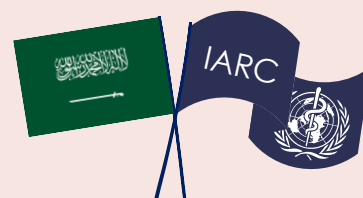


# IARC Impact in practice series

## The Saudi Arabia experience



*“They have their priorities, we have ours, and the collaboration works where those priorities overlap. We start with projects that are practical and achievable, and that is how trust is built: as proof that the partnership can deliver.”* Dr Zisis Kozlakidis, IARC Liaison Officer for Saudi Arabia

Since becoming an IARC Participating State in 2024, Saudi Arabia has moved rapidly from ad hoc collaboration to co-creation with IARC, combining strong scientific capacity with ambitious health-system reform. Membership has strengthened the Kingdom's role in global cancer governance, with representation on the IARC Governing Council and Saudi experts contributing to the Scientific Council, giving the country a direct voice in shaping international research priorities and standards. It is a genuine two-way partnership in which Saudi Arabia both benefits from and actively contributes to global cancer control.

### Why IARC membership made the difference for Saudi Arabia:

- ➔ **Scientific leadership and deeper integration in global research:** Saudi Arabia is more deeply embedded in global cancer consortia, with collaboration intensity far higher in IARC-co-authored papers (median 75.5 institutions per paper vs 3 for other Saudi cancer publications) and Saudi experts co-leading Gulf Cooperation Council (GCC) cancer-burden and cancer-control studies.
- ➔ **Evidence that improves care and policy:** Joint IARC–Saudi analyses on the current and future cancer burden in the GCC, and on cancer-control gaps, provide core evidence for planning and are cited in national discussions on health systems and healthy lifespan, supporting more targeted prevention and early detection.
- ➔ **Strengthened research infrastructure:** IARC guidance, standards, and training support the **Saudi National Biobank**, the planned **population-based biobank**, and the development of stronger cancer registries and screening data through the Gulf Center for Disease Prevention and Control, boosting Saudi capacity for high-quality research.
- ➔ **Durable national capacity:** Training linked to the emerging **CanScreen5 hub in Riyadh**, together with participation in IARC learning programmes, is strengthening skills in screening, epidemiology, and surveillance among Saudi and Gulf professionals, creating a multiplier effect.
- ➔ **Regional leadership in the Gulf and beyond:** Through the Gulf CDC CanScreen5 hub, GCC cancer-burden and control initiatives, and Saudi-backed projects financed by the Islamic Development Bank, Saudi Arabia is becoming a regional hub for cancer surveillance and screening expertise, extending impact to neighbouring countries and selected partners beyond the GCC.

### Part I. Scientific leadership through international collaboration

#### ➔ Exceptional intensity and depth of collaboration

Although Saudi Arabia only became an IARC Participating State in 2024, collaboration between Saudi institutions and IARC **has already reached a high level of integration**. Years of joint work on Gulf-wide cancer burden, cancer-control reviews and methodological projects meant that formal membership built on an existing, trusted partnership with leading Saudi institutions such as **King Faisal Specialist Hospital and Research Center** and **King Abdullah University of Science and Technology**.

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

#### Box #1: Cancer in Saudi Arabia: unmet needs in research and evidence

Based on [GLOBOCAN 2022 estimates](#), cancer represents a major and growing public health challenge in Saudi Arabia, with about **28 000 new cases** and **13 000 cancer deaths** each year, and nearly **95 000 people** living with cancer within five years of diagnosis. Population growth, ageing, and high levels of metabolic and lifestyle risk factors mean this burden will continue to rise, underscoring the need to embed **stronger research, surveillance, and evaluation** at the heart of national cancer-control efforts.

## Box #2: Building a national biobank and data backbone for cancer research

Saudi Arabia's collaboration with IARC is helping to build the foundations of a modern national research infrastructure for cancer and other noncommunicable diseases. What began as technical support to strengthen fragmented sample collections is evolving into a broader effort to connect biospecimens, data systems, and research capacity into a coherent national platform.

A first milestone has been the development of the **Saudi National Biobank**, hosted at the research centre of **King Saud bin Abdulaziz University for Health Sciences**. IARC has supported this effort by providing operating standards, protocols, and staff training. As **Dr Zisis Kozlakidis, IARC Liaison Officer for Saudi Arabia**, explains, this is what helps turn "a collection of samples into a real research infrastructure." More than a technical upgrade, it gives Saudi institutions the quality framework needed [to participate credibly in large-scale international research](#).

The partnership is now beginning to shape the wider national system. Building on the National Biobank, the **Ministry of Health** is moving towards a **population-based biobank**, rather than relying only on disease-specific or institution-based collections. In Dr Kozlakidis's words, this is "a direct benefit" of the collaboration: a shift from fragmented collections towards a national platform for research. In practice, IARC has helped provide the blueprint for integrating biospecimens, data systems, and research infrastructure into a stronger foundation for epidemiological, genomic, and prevention research at scale.

- **Saudi Arabia has co-authored 54 oncology publications with IARC** during the last decade (2016-2026), a number that is expected to rise as new joint projects mature<sup>1</sup>.
- **Collaborations span 166 countries and 1745 institutions**, connecting Saudi researchers to a genuinely global network that would be difficult to assemble through domestic mechanisms alone.
- When IARC is a co-author, the **median number of institutions per paper jumps from 3 to 75.5**, showing how IARC plugs Saudi teams into very large, multi-country infrastructures instead of stand-alone national studies.

A Web of Science micro-topic analysis of these co-authored publications shows a portfolio concentrated in **genome-wide association studies, nutrition and obesity, screening disparities, HPV and cervical cancer, hypertension management, maternal health equity, metabolic syndrome, COVID-19, and colorectal cancer endoscopy and molecular markers**. This thematic profile mirrors Saudi Arabia's own priorities on metabolic risk, women's health, and earlier detection of common cancers.

### ➔ Access to large-scale research infrastructures

Through **IARC membership**, Saudi Arabia gains structured access to **international research infrastructures**, harmonised datasets, and methodological support that amplify national investments in **biobanking, registries, and clinical services**. The biobanking and data backbone developed jointly with IARC, including the **Saudi National Biobank** and the planned **population-based biobank** (see box #2) ensures that

biospecimens and clinical data can feed into large multicountry platforms.

**Saudi experts and institutions** are also key partners in **Gulf Cooperation Council (GCC)-wide cancer-burden and cancer-control studies** based on **GLOBOCAN** and other IARC platforms, providing **country-specific projections** and evidence on **prevention and early-detection gaps** across the Gulf (see box #3).

In addition, collaborations with **King Abdullah University of Science and Technology (KAUST)** on **sensitivity diagnostics for Bayesian hierarchical models** place Saudi statisticians at the forefront of methods used to analyse complex cancer data and support **policy modelling** worldwide.

These infrastructures already power a new generation of **aetiology and risk-factor studies**, including:

- **Waterpipe tobacco (shisha) study**, where IARC-standardised protocols are implemented in Saudi Arabia alongside Lebanon to compare patterns and health effects across Middle Eastern settings;
- **A multi-country childhood leukaemia and nutrition study**, in which teams from **King Saud bin Abdulaziz University for Health Sciences** use an **Arabic-translated IARC food-frequency questionnaire**, contributing Saudi data to a pooled dataset across **eight countries**.
- **An early-onset colorectal cancer** study under advanced discussion with **King Faisal Specialist Hospital**, designed to investigate rapidly rising incidence in the Kingdom's young population, including the role of lifestyle and dietary change.

<sup>1</sup> Data derived from Web of Science records of IARC–Saudi Arabia co-authored papers published between January 2016 and January 2026.

## → Shaping the global cancer research agenda and standards

[Saudi Arabia experts and diplomats help steer IARC's direction](#). Through seats on the **Scientific Council and Governing Council**, and active involvement in developing the [Medium-Term Strategy \(MTS\)](#), Saudi Arabia contributes directly to setting IARC's research and capacity-building priorities. This high-level engagement is a form of **soft power**. By shaping IARC's work programme, Saudi Arabia 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.

Saudi Arabia experts also actively contribute to IARC's flagship evaluations, helping shape international standards in cancer prevention and control rather than merely adopting them. Notably, Saudi specialists have contributed to **IARC Monographs Volume 138: Automotive gasoline and some oxygenated gasoline additives** and to the **IARC Handbooks of Cancer Prevention Volume 21: Lung cancer screening and early detection approaches**, ensuring that perspectives and experience from a rapidly developing, high-income Gulf country are reflected in global guidance used by ministries of health, regulators, researchers, and screening programmes worldwide.

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

### → Evidence informing national policy and intersectoral action

Beyond cancer services, IARC-linked evidence is already being used in Saudi Arabia to inform broader debates on health systems, longevity, and noncommunicable disease control. For example, a government publication, the **Saudi Journal of Health Systems Research** (2024), draws on **GLOBOCAN 2020 global cancer statistics** to frame the magnitude and profile of the cancer burden. By using these IARC-based estimates as a reference point, the journal anchors discussions on service planning, resource allocation, and research priorities in robust, internationally comparable data.

Similarly, the **Hevolution Foundation** report "**Enabling a healthy lifespan for Saudi Arabia**" (2023) cites [a landmark Lancet Global Health analysis on the effect of achieving the SDG target of a one-third reduction in premature mortality from noncommunicable diseases by 2030](#). Co-authored by IARC experts, this study quantifies the gains in life expectancy that could be achieved through stronger NCD prevention and control. By using this modelling in a national longevity and healthy-ageing strategy, Saudi decision-makers are linking cancer and NCD control to wider economic and social objectives, illustrating how IARC evidence underpins **intersectoral action** well beyond oncology alone.

## Part III. Building capacity for lasting impact

### → From stronger data to regional leadership

IARC leads the [Global Initiative for Cancer Registry Development \(GICR\)](#), a coordinated effort with international partners to help countries establish and strengthen population-based

#### Box #3: Saudi Arabia leads the evidence base on cancer in the Gulf

Saudi Arabia has emerged as a central partner in building the evidence base that now underpins cancer control planning across the GCC. Working with IARC, Saudi institutions have helped move the region beyond fragmented national datasets towards a shared, forward-looking understanding of where the cancer burden is heading and [what health systems will need to do in response](#).

A major milestone has been the collaboration between **King Faisal Specialist Hospital and Research Center** and IARC to produce [the first comprehensive estimates of the current and future cancer burden in GCC countries, with projections to 2040](#). By quantifying the expected rise in cancer incidence and mortality - particularly for cancers such as **breast, colorectal and thyroid cancer** - this work gives ministries of health and regional bodies a much stronger basis for planning services, investing in prevention, and anticipating future workforce and infrastructure needs.

Saudi experts have also played a leading role in translating evidence into action. In partnership with IARC, they led [a landmark review of progress and remaining challenges for cancer control in the GCC](#), bringing together evidence on prevention, early detection, treatment, and system performance and turning it into a practical roadmap for policy-makers across the region.

Together, these studies have positioned Saudi Arabia not only as a user of international evidence, but as one of the key countries helping to generate the knowledge that now guides cancer policy across the Gulf.

cancer registries. Saudi Arabia is served through the [IARC GICR Regional Hub for Northern Africa, Central and Western Asia](#), which works with **WHO EMRO** and Gulf partners.

Within this framework, the **Gulf Center for Disease Prevention and Control (Gulf CDC) in Riyadh** is becoming a regional platform for stronger cancer surveillance and screening quality. Although all GCC countries already have population-based cancer registries, important gains can still be made in data quality, comparability, visibility, and use for policy. The joint **IARC–Gulf CDC Action Plan** therefore focuses on strengthening institutional capacity at Gulf CDC, supporting a network of registries across GCC countries, training professionals in core registry methods, and developing collaborative research based on harmonised data.

This work is strengthening Saudi Arabia's own cancer-control planning while also extending its influence across the Gulf. By improving the completeness and comparability of registry and screening data, the partnership gives Saudi Arabia and its neighbours a stronger evidence base for prevention, early detection, and service planning. It also helps position the Kingdom as a regional centre for technical exchange, training, and implementation support, notably through the **CanScreen5 Train-the-Trainers programme hosted in Riyadh in 2024**.

Saudi-based financing is also extending IARC's impact beyond the Gulf. The **Islamic Development Bank (IsDB)**, headquartered in Saudi Arabia, funds the **“Support to Development of Oncology Services Project in the Republic of Uzbekistan, Phase II”**, which includes a major IARC-led component to strengthen population-based cancer registries, upgrade IT architecture, train registry teams, and establish monitoring and evaluation systems. This shows that Saudi Arabia's partnership with IARC is generating benefits not only nationally and regionally, but also for other countries seeking to build stronger cancer-control systems.