

IARC Impact in practice series

The Australia experience



“The value of IARC membership is strategic and two-way. Australia contributes to global priority-setting and governance, while gaining influence, insight and institutional credibility that support national cancer research and cancer control decision-making.” - Australian Government

Since becoming an **IARC Participating State in 1965**, Australia has used IARC as a strategic interface to connect its world-class cancer registries, cohorts, and clinical datasets with international evidence and standards. This has strengthened prevention, screening, survivorship, and risk assessment at home, while giving Australia a formal role in shaping how cancer burden, risks, and control priorities are defined globally.

Why IARC membership made the difference for Australia:

- **Scale with purpose:** Over the past decade, Australian researchers produced 548 IARC co-authored publications, with IARC-linked papers involving a median of 31 institutions per study, compared with 5 for Australian oncology papers without IARC. This places Australian teams at the centre of large, policy-relevant international consortia rather than stand-alone national or bilateral projects.
- **Evidence used across government:** Analysis of Australian public-sector and cancer-control documents shows systematic citation of IARC research and evaluations by federal and state agencies, cancer institutes, and advisory bodies, covering cancer surveillance, screening organisation, vaccination and infection-related cancer prevention, UV and occupational risks, and alcohol and nutrition policy.
- **Benchmarking and planning from registry data:** Australia's population-based registries feed into IARC-coordinated platforms such as the International Cancer Benchmarking Partnership (ICBP) and SURVMARK, enabling comparable survival indicators for major cancers, post-COVID resilience analyses, and dedicated studies on childhood cancer survivorship that directly inform screening policy, diagnostic pathways, and long-term follow-up planning.
- **Capability, standards, and influence that stay in Australia:** Through sustained participation in IARC fellowships, training initiatives, IARC Monographs, IARC Handbooks, and WHO tumour classifications, Australia maintains a strong pipeline of researchers trained in international methods and a prominent voice in global norm-setting. Membership also gives Australia a formal role in IARC governance, helping ensure that Australian experience informs global guidance while international best practice is embedded in national institutions.

Part I. Scientific leadership through international collaboration

→ Exceptional collaboration intensity and depth

Australia's partnership with IARC is long-standing and deeply embedded, reflecting more than six decades of engagement that have evolved into a highly networked and globally connected research collaboration. Australian institutions are consistently positioned at the core of large, multi-country cancer epidemiology initiatives coordinated by IARC. Over the past decade, Australian researchers co-authored **548** publications with IARC, an average of around **55 joint papers per year**¹. This level of sustained output places Australia among the most scientifically engaged Participating States in absolute terms. The collaboration is defined not only by volume but also by depth and international coordination. IARC-linked publications from Australia involve a **median of 31 institutions per paper**, compared with **5 institutions** for Australian oncology publications without IARC participation. Overall, these collaborations span **2,413 institutions in 180 countries**, placing Australian scientists at the centre of truly global research networks.



“Australia's leadership in cancer prevention, spanning both cutting-edge research and effective implementation, creates a naturally strong and highly synergistic relationship with IARC.”

James McKay
IARC Liaison Officer
For Australia

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

Micro-topic analysis shows that Australia-IARC outputs are concentrated in high-impact, data-intensive areas, including:

- **Coordinating international pooling projects, like , such as genome-wide association studies (GWAS) across multiple cancer sites**
- **Screening disparities, access, and quality of care**
- **HPV and cervical cancer prevention and elimination**
- **Colonoscopy, colorectal cancer, and early detection**
- **Melanoma, sun exposure, and skin cancer epidemiology**
- **Asbestos-related mesothelioma and other occupational/environmental hazards**
- **Genetic testing, molecular markers, and epigenetic regulation**

This pattern points to a partnership built around large cohorts, biobanks, and pooled international datasets, where multinational coordination is essential to achieve sufficient statistical power and robust, policy-relevant evidence. Australia's strengths in population-based cancer registries, long-term follow-up, and high-quality biospecimen and data infrastructures make it a natural and highly valued contributor to these platforms.

➔ Leadership in global research infrastructure

Through IARC, Australian institutions participate in and help shape major global and regional research infrastructures that generate evidence directly informing prevention, screening, survivorship, and risk-assessment policies. Examples from the past decade include:

- **International Cancer Benchmarking Partnership (ICBP) and SURVMARK-2/3**, where Australian registry data are harmonised with those from other high-income countries to compare stage-specific survival for [colorectal](#), [lung](#), and [other cancers](#), identify system-level drivers of differences, and monitor post-COVID recovery of cancer outcomes. The resulting indicators and analyses underpin concrete planning and survivorship initiatives (see Part II).
- **Large pooled cohort consortia**, such as the glioma aetiology pooled cohort (supported by Cancer Council Victoria) and NCI Cohort Consortium analyses of bladder cancer (funded by Cancer Council Australia), in which Australian cohorts contribute detailed exposure information and long-term follow-up to clarify risk factors for relatively rare but serious tumours.
- **The Opioid Cohort Consortium (OPICO)**, linking prospective cohorts from Australia, Europe, and North America to quantify the long-term cancer risks associated with different patterns of opioid use, addressing a major public-health and clinical concern.
- **Global COVID-19 (IARC-C19) and the IARC Initiative for Resilience in Cancer Control (IRCC)**, which assemble comparative data on policy responses and disruptions to cancer care, supporting evidence-based planning for resilient cancer services in Australia and other countries, with Australia contributing both scientific input and financial support (see Part II).
- **Screening and elimination infrastructures**, including CanScreen5 and cervical cancer elimination planning tools, where Australian experts contribute to the development and testing of methods to optimise and monitor screening performance across diverse health systems.

➔ Shaping the global cancer research agenda and standards

Australian 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 \(MTS\)](#), Australia contributes directly to setting IARC's research and capacity-building priorities. Australia has maintained active participation on the Governing Council since joining IARC and has recently served in leadership roles

Cancer in Australia: a high-income burden with opportunities for prevention

Recent [GLOBOCAN estimates](#) show that cancer remains a major public health challenge in Australia, with around **212,000 new cases** and **52,000 deaths** each year. Incidence is among the highest in the world, driven by an ageing population, high levels of ultraviolet (UV) exposure and continued exposure to tobacco, alcohol, excess weight and physical inactivity. Breast, prostate, colorectal, lung cancers and melanoma together account for about half of all diagnoses, with lung cancer the leading cause of cancer death.

Despite strong health services and generally good survival, cancer is a leading cause of disease burden, and marked inequalities persist for Aboriginal and Torres Strait Islander peoples and for people in rural and disadvantaged communities, underscoring substantial opportunities for prevention, earlier diagnosis and more equitable outcomes.



"No single country can fix cancer alone. The drivers of rising cancer rates - climate change, possibly ultra-processed food, and even geopolitical instability - transcend borders. This makes IARC's role in global collaboration more vital than ever."

**Prof Dorothy Keefe
Cancer Australia**



“The most significant way IARC membership has benefited Australia is by enabling direct participation in the governance and strategic direction of international cancer research and cancer control.”

Australian Government

including **Vice Chair and Chair**, while Australian experts have served as elected members of the **Scientific Council since 2008**. This high-level engagement is an important form of **scientific and diplomatic influence**, allowing Australia to bring national and regional realities into global decision-making while gaining early insight into emerging priorities, methods, and partnership opportunities that can inform its own cancer plans and investments.

Australia also play a central role in developing widely respected **international evidence frameworks and classification standards** that shape global cancer science, prevention, and regulation. During the 2020-2025 cycle, 21 Australian experts have contributed to the IARC's flagship evaluations, including:

- **IARC Monographs Volume 126:** *Opium Consumption*
- **IARC Monographs Volume 127:** *Some aromatic amines and related compounds*
- **IARC Monographs Volume 132:** *Occupational Exposure as a Firefighter*
- **IARC Monographs Volume 134:** *Aspartame, methyleugenol, and isoeugenol*
- **IARC Monographs Volume 135:** *Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS)*
- **IARC Monographs Volume 139:** *Hepatitis D Virus, Human Cytomegalovirus, and Merkel Cell Polyomavirus*
- **IARC Handbooks of Cancer Prevention Volume 20A:** *Reduction or cessation of alcoholic beverage consumption and cancer risk*
- **IARC Handbooks of Cancer Prevention Volume 20B:** *Alcohol policies*
- **IARC Handbooks of Cancer Prevention Volume 21:** *Lung cancer screening and early detection approaches*
- **World Health Organization Classification of Tumours (Blue Books) 5th and 6th editions:** Editorial board, expert panel, and reporting-system contributions supporting international standards for tumour pathology classification and diagnostic practice across multiple organ systems

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

➔ Evidence that informs national regulation and prevention policy

In Australia, IARC assessments are treated as working tools for government and public agencies. They underpin the routine appraisal of cancer risks, guide screening and vaccination policies, and support technical standards in areas ranging from food safety to radiation protection. An [Overton](#) analysis of Australian public-sector documents identified more than **500 reports, guidelines, inquiries, parliamentary materials, and technical papers** since 2000 that explicitly cite IARC research or evaluations. Citations come predominantly from government and public-sector bodies, with particularly frequent use by the **Australian Institute of Health and Welfare (AIHW)**, the **Australian Government Department of Health**, the **Parliament of Australia**, and state governments including **Queensland, New South Wales, Western Australia, and South Australia**. They also appear in documents from specialist public-health and advisory organisations such as **NCIRS**, the **Kirby Institute**, the **Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)**, **Food Standards Australia New Zealand (FSANZ)**, the **Sax Institute**, and the **Cancer Institute NSW**.

Across these documents, IARC evidence is used to justify concrete regulatory and preventive actions, such as:

- **Surveillance and benchmarking:** adoption of IARC-aligned indicators and international comparative analyses to track cancer incidence, survival, and inequalities across states and territories;
- **Screening policy and optimisation:** reference to IARC evaluations and implementation studies when setting age ranges, risk groups, and performance targets for breast, cervical, bowel, and prospective lung cancer screening programmes;
- **Vaccination and infection control:** use of *IARC Monographs* and modelling work on HPV and hepatitis viruses to inform immunisation schedules, catch-up strategies, and elimination goals;
- **Risk-reduction and regulation:** incorporation of IARC carcinogen classifications and pooled evidence on tobacco, alcohol, occupational agents, and diet into standards, warning systems, and workplace or environmental regulations. [Recent IARC-coordinated pooled analyses linking alcohol consumption to increased pancreatic cancer risk](#) are, for example, cited in Australian cancer prevention and alcohol policy discussions, strengthening the case for population-wide measures to reduce harmful drinking.

A clear illustration is [Cancer Council Australia's position statement on the private ownership and use of solariums](#), which draws on IARC's designation of ultraviolet (UV) radiation and UV-emitting tanning devices as **Group 1 carcinogens**. This statement supports calls to maintain strict bans on commercial solariums,

Box #2: Cervical cancer elimination: from discovery to delivery

“This work matters because Australia has achieved the global 90:70:90 targets and is now on track to eliminate cervical cancer as a public health problem by 2035, including in priority populations.”

Australian Government

Cervical cancer is one of the clearest examples of how IARC membership translates into measurable public-health impact. Over several decades, IARC research established that **HPV is the necessary cause of cervical cancer**, identified the highest-risk types, and built the evidence base for **HPV vaccination and HPV-based screening**. That science did not remain in journals: together with Australian modelling and programme experience, it helped turn the idea of elimination into a credible policy goal and into an implementable global prevention framework.

Australia translated that evidence into policy at speed and scale. Scientists at the **University of Queensland** developed the VLP-based vaccine that became **Gardasil**, and Australia became the first country to introduce a publicly funded national HPV vaccination programme in **2007**, later extending it to boys and pairing it with **HPV-based cervical screening**. Joint work between Australian teams, IARC, and WHO helped shape the evidence synthesis, modelling, and comparative analysis behind the **WHO Global Strategy for Cervical Cancer Elimination** and its **90–70–90 targets**, and informed ongoing refinement of Australia’s own programme, including the transition to HPV-based screening, screening intervals, and the integration of vaccination and screening data. Australia has now **achieved the global 90–70–90 targets** and is on track to eliminate cervical cancer as a public health problem by **2035**, including in priority populations, with a strong focus on **Aboriginal and Torres Strait Islander women and other underserved groups**.

The policy relevance now extends well beyond Australia. The [Cervical Cancer Elimination Planning Tool \(EPT\)](#), co-developed by IARC and the [University of Sydney](#), allows countries to test vaccination and screening scenarios, estimate time to elimination, and cost realistic implementation pathways in their own health-system context. In parallel, a **NHMRC-funded** collaboration between IARC and Australian partners is testing a scalable, woman-centred HPV-based screening model for vulnerable women in India, while the **Elimination Partnership in the Indo-Pacific for Cervical Cancer (EPICC)** is helping countries across the region introduce and scale vaccination, screening, capability-building, and system strengthening. [Australian experts also play leading roles in CanScreen5 and regional Training-of-Trainers programmes](#), helping countries strengthen screening quality and equity. Cervical cancer is therefore a flagship example of how IARC and Australia move from **global evidence** → **national strategy** → **regional and global impact**.

discourages private ownership and use of tanning beds, and underpins broader UV-radiation policy work on skin cancer prevention. It demonstrates how IARC hazard evaluations are translated into concrete, Australian-specific policy advice that shapes regulations and public guidance on a major national cancer burden.

➔ **Using survival data to target earlier diagnosis, improve outcomes, and plan for survivorship**

Through IARC, Australia gains access to a powerful international benchmarking platform that turns cancer registry data into actionable intelligence for policy and service planning. The **International Cancer Benchmarking Partnership (ICBP)** and related **SURVMARK** studies make it possible to compare survival across high-income countries using harmonised definitions of stage at diagnosis, treatment period, and follow-up. This means that differences in outcomes can be interpreted as real differences in system performance, giving policy-makers a credible basis for identifying where earlier diagnosis, faster treatment, or more equitable access could save lives.

For **colorectal, lung, and oesophageal cancers**, IARC-coordinated analyses show that survival gaps between countries are driven largely by **late diagnosis** and **poorer outcomes among older patients**. For Australia, these findings point directly to policy priorities: maximising participation in the **National Bowel Cancer Screening Program**, reducing delays in investigating symptoms, and improving access to timely diagnosis and treatment, especially for people in **rural, remote, and disadvantaged communities**. In this way, international benchmarking does not simply describe performance; it helps target where improvement efforts will have the greatest impact.

This same platform is now being used to strengthen system resilience. **SURVMARK-3** and the **IARC Initiative for Resilience in Cancer Control (IRCC)** track how shocks such as **COVID-19** disrupt cancer diagnosis, treatment, and outcomes, and model the recovery strategies most likely to reduce avoidable harm. As one of the benchmark countries, Australia benefits from early access to shared indicators and recovery tools, while also helping shape approaches that support more resilient cancer systems internationally.

The same registry-based methods are also informing **survivorship planning**. [A joint IARC–Cancer Council Queensland study using the Australian Childhood Cancer Registry](#)

estimated that **17 468 Australians** diagnosed with cancer before age 15 were alive in 2018, around **1 in every 1000 Australians under 50**, with 5-year prevalence rising by about **80% since 1988**. For policy-makers, these are not just epidemiological figures: they show where demand for long-term follow-up, late-effects care, psychosocial support, and transition into adult services will grow. This allows Australia to plan ahead so that improvements in survival are matched by appropriate survivorship care across the life course.

Part III. Building capacity for lasting impact

→ Training as a gateway to international science

Training and knowledge exchange are central features of the Australia–IARC partnership, supporting two-way flows of expertise between Australian institutions and international research networks. Since 1968, **24 Australian scientists** have held highly competitive IARC fellowships. In addition, **seven Australian trainees** participated in IARC training activities and projects during the **2021–2025** cycle, including work on screening quality (**CanScreen5**), cervical cancer elimination modelling, and the design and analysis of cohort and registry-based studies. For Australian institutions, these opportunities give early-career researchers and technical experts hands-on experience in harmonising data, applying advanced analytical methods, and working within multidisciplinary, multinational teams, skills that are difficult to build in a purely national setting. They also strengthen Australia's links to a wider **Asia–Pacific network** of researchers and practitioners using shared methods and standards, extending the value of IARC training beyond individual fellowships.



“IARC has made a sustained contribution to strengthening national and regional cancer control capacity through training, workforce development and data infrastructure.”

Australian Government

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 Australia's influence: strengthening cancer registries through legal frameworks

IARC membership gives Australia a platform to apply its legal, technical, and clinical expertise well beyond its borders. Through the **McCabe Centre for Law and Cancer**, Australia co-developed IARC's **“Developing a Legal Framework for Population-Based Cancer Registries”** toolkit, which provides model legislation and practical guidance to help countries mandate timely, complete cancer reporting while protecting privacy. Ministries of health and justice in multiple low-and middle-income countries are now using this resource to secure the registry systems that underpin national cancer plans and global initiatives such as cervical cancer elimination, with Australia recognised as a key legal and policy partner.

Australia also supports regional capacity-building through IARC's **Global Initiative for Cancer Registry Development (GICR)**. With funding from the **Australian Department of Health**, IARC and Australian institutions, including the Cancer Institute NSW, Cancer Council Victoria, Cancer Council Queensland, and SAHMRI, are working to establish a **Pacific Islands GICR Hub**. Workshops with 21 countries and assessment visits to **Fiji** have laid the groundwork for a regional registry support centre, strengthening cancer surveillance in Pacific Island states and reinforcing Australia's role as a trusted neighbour and technical lead.