IARC Impact in practice series
The Switzerland experience

> ***"The most significant impact of IARC's activities for Switzerland has been through the provision of global public goods such as the synthesis of evidence relating to causes of cancer."***
> **Dr Ben Spycher, University of Bern**

Since becoming an IARC Participating State in 1990, Switzerland has used IARC to connect its scientific and institutional strengths to the global evidence and standards that shape cancer prevention and control. Membership gives Switzerland both influence and practical value: influence through its role in IARC governance and standard-setting, and practical value through access to coordinated international research platforms, independent risk evaluations, and harmonised tools that strengthen national surveillance and prevention policy. It is a two-way partnership in which Switzerland both benefits from and helps shape the global public goods on which effective cancer control depends.

Why IARC membership made the difference for Switzerland:

- **Scientific leadership at scale:** Swiss institutions produced around 260 IARC co-authored publications in the past decade, embedding Switzerland in large multicountry consortia and high-impact prevention research rather than isolated bilateral projects.
- **Evidence government can use:** IARC research is routinely cited in Swiss federal and institutional documents, supporting practical guidance on diet, environmental and radiation exposures, and prevention strategies, and providing an independent reference point for risk assessment and public health planning.
- **Surveillance tools with lasting value:** Collaboration on GloboDiet supported Switzerland's National Nutrition Survey (menuCH), strengthening national dietary and risk-factor monitoring and ensuring comparability with other countries.
- **Swiss expertise shaping global standards:** Swiss experts contribute to IARC's normative programmes, including the *IARC Monographs, IARC Handbooks,* and WHO tumour classifications, helping define standards that are used internationally and applied in Swiss practice.
- **Innovation and international reach:** Collaboration with Swiss scientific infrastructure, including CERN and Geneva-based global health actors, links Swiss expertise in diagnostics, computation, and policy dialogue to IARC's global cancer control mission.

Part I. Scientific leadership through international collaboration

Exceptional intensity and depth of collaboration

Switzerland maintains a consistently high level of scientific integration with IARC-led research networks. Over the past decade, Swiss institutions produced **260 publications co-authored with IARC**[1], alongside 9,649 national oncology papers without IARC. These IARC-linked studies are markedly more international in scope: they involve collaborators from **177 countries**, a median of **15 institutions per paper** (compared with 6 without IARC), and **2,160 unique institutions overall**, placing Swiss researchers at the centre of large, coordinated multicountry consortia rather than stand-alone bilateral projects.

The thematic profile aligns closely with IARC's strengths in population-based epidemiology, prevention, and implementation science. Swiss–IARC outputs are

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

Based on recent GLOBOCAN estimates, cancer remains a major public health challenge in Switzerland, with an estimated **58,330 new cases annually** and one of the highest age-standardised incidence rates in Europe. This high incidence reflects both the country's ageing population and continued exposure to modifiable risk factors, including tobacco use, diet, and overweight/obesity. Although overall mortality rates are comparatively low relative to many other high-income countries, cancer is still a leading cause of death, accounting for approximately **18,000 deaths annually** and a significant burden of premature mortality. These patterns highlight substantial opportunities for prevention, particularly through reducing exposure to modifiable risk factors and strengthening early detection strategies.

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

Box #2: Quantifying the global burden of hepatitis-related liver cancer through multinational collaboration

Liver cancer prevention depends on understanding one of its major upstream drivers: chronic infection with hepatitis B virus (HBV) and hepatitis C virus (HCV), which account for a large share of cirrhosis and subsequent liver cancer worldwide. Yet until recently, the global distribution of these infections among patients with cirrhosis had not been measured in a standardised way across countries.

To address this gap, IARC coordinated a large international study assessing the worldwide prevalence of HBV and HCV among patients with cirrhosis, pooling clinical and epidemiological data across multiple countries. Swiss researchers contributed to this effort as part of a broader multicountry collaboration, helping generate harmonised evidence at a scale no single country could produce alone.

The study provided robust global and regional estimates of the proportion of severe liver disease attributable to viral hepatitis, strengthening the evidence base for liver cancer prevention. By clarifying where the burden is greatest and which infections drive it, the findings help inform vaccination, testing, and early detection strategies worldwide.

concentrated in **HPV and cervical cancer, screening disparities and early detection, genome-wide association studies, nutrition and obesity, and metabolomics**, with additional contributions in **environmental exposures such as air pollution and other risk-factor research**. The collaboration centres on **large cohorts, harmonised surveillance systems, and shared analytical platforms**, where multinational coordination and pooled data are essential to generate robust, policy-relevant evidence.

➔ **Integration into European and global research infrastructures**

Through IARC, Swiss institutions are embedded in international research infrastructures that generate evidence at population scale and directly inform prevention policy and methodological standards. Examples from the past decade (2016-2026) include:

- **Nutrition and risk-factor surveillance:** IARC supported the **Swiss National Nutrition Survey** through adaptation and maintenance of the **GloboDiet** (see Box #3).
- **Artificial intelligence and diagnostics:** collaboration with the **European Organization for Nuclear Research (CERN)** and IARC through multinational initiatives, such as developing and testing AI-driven diagnostic algorithms that integrate imaging, pathology, and genomic data to improve cancer detection and reduce misdiagnosis. These tools are designed for implementation across diverse health systems, including middle-income settings, translating Swiss computational and engineering expertise into scalable global cancer control solutions.
- **Screen and treat innovation:** participation in multicountry implementation research to evaluate low-cost technologies and approaches that improve early detection and reduce diagnostic uncertainty in diverse health-system settings.
- **Molecular and precision oncology research:** Swiss teams contribute computational genomics and cancer biology expertise within international networks on lung adenocarcinoma and other poor-prognosis cancers, supporting large-scale molecular profiling, biomarker discovery, and data integration efforts that inform targeted therapies and early detection strategies across Europe.

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

Swiss 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), Switzerland 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, Switzerland 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.

Switzerland's engagement with IARC extends to **active leadership in international standard-setting**. During the 2020-2025 cycle, 10 Swiss experts have contributed to IARC's flagship normative programmes, including:

- **IARC Monographs Volume 127:** *Some aromatic amines and related compounds*
- **IARC Monographs Volume 138:** *Automotive gasoline and some oxygenated gasoline additives*

> ***"The insights gained into the activities of Swiss delegates to the Scientific Council broaden their horizon and directly inspire their research activities at home."***
>
> **Dr Ben Spycher**
> **University of Bern**

- **IARC Handbooks of Cancer Prevention Volume 20A:** *Reduction or cessation of alcoholic beverage consumption and cancer risk*
- **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 and expert contributions supporting tumour classification standards, diagnostic criteria, and international reporting systems across multiple organ sites**.**

Through these roles, Swiss scientists help define the scientific criteria and evidence frameworks used worldwide to evaluate carcinogenic hazards, screening strategies, and cancer control policies. The practical value of these normative outputs is also visible nationally: the **WHO Classification of Tumours on Pediatric Tumours** is used by coders in the **Swiss Childhood Cancer Registry** as a reference for tumour classification, showing how IARC-linked standards support consistent and internationally aligned cancer data systems in Switzerland.

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

➔ Evidence that informs national regulation and prevention policy

In Switzerland, IARC assessments function as **operational inputs for technical guidance and prevention policy**, supporting federal risk assessment, surveillance, and health strategy documents. An Overton analysis of Swiss public-sector documents (2005-2026) shows **systematic citation of IARC research in governmental and institutional publications**. Citations originate predominantly from the **Federal Office of Public Health (FOPH/OFSP/BAG)**, the **Federal Food Safety and Veterinary Office (FSVO/BLV/OSAV)**, and **Federal Council/Federal Assembly** documents, indicating that IARC evidence is integrated into day-to-day risk assessment and health system planning.

Topics most frequently linked to IARC evidence include **diet and obesity**, **food additives/emulsifiers**, **environmental and occupational exposures**, and **cancer burden estimates**. Examples include:

- **Nutrition policy and dietary guidance** issued by Swiss federal food-safety and public-health authorities, where IARC epidemiological evidence on obesity, alcohol and other diet-related cancer risks is used to inform scientific background reports, dietary recommendations, and broader prevention strategies;
- **Technical publications from the food and nutrition administration**, including work on *denrées alimentaires et nutrition*, which draw on IARC studies to support methodological standards, risk assessment approaches, and policy discussions on food additives, emulsifiers, and diet-related chronic disease prevention;
- **Public health and vaccination guidance**, where IARC evidence on HPV, infection-related cancers, and cancer prevention contributes to prevention messaging and programme-related documents;
- **Federal reports and parliamentary documents on radiation and environmental exposures**, which cite major international cancer risk assessments coordinated or synthesised by IARC to inform precautionary approaches to low-dose ionising radiation and other carcinogenic hazards;
- **Cancer surveillance and burden-of-disease documents**, where IARC estimates and classifications are used as reference points for understanding national priorities, benchmarking risks, and framing prevention policy.

Box #3: Building national dietary surveillance through GloboDiet

Effective cancer prevention depends on knowing **what populations actually eat**, yet for many years, countries lacked harmonised tools to measure diet in a way that was both nationally useful and internationally comparable. To help close this gap, IARC developed **GloboDiet**, a standardised methodology for collecting high-quality dietary intake data across countries.

Switzerland played a dual role in this effort, as both **supporter and user**. The **Office fédéral de la santé publique** provided financial support to IARC for the development and implementation of the GloboDiet project, while Switzerland adopted the methodology for its National Nutrition Survey (*menuCH*). Using GloboDiet's standardised 24-hour dietary recall tools, customised databases, and shared protocols, Swiss authorities were able to generate nationally representative dietary data fully comparable with those from other countries in the **GloboDiet-Europe consortium**.

This collaboration did more than improve data collection. It gave Switzerland a stronger evidence base to understand food consumption, nutrient intake, and diet-related risk factors across the population, and to translate that knowledge into **nutrition guidelines, obesity prevention, chronic disease strategies, and cancer prevention policy**.

Beyond the Overton analysis, questionnaire responses also point to concrete ways in which IARC evidence has shaped prevention messaging in Switzerland. One example is IARC's 2015 classification of **processed meat as carcinogenic to humans (Group 1)** and **red meat as probably carcinogenic to humans (Group 2A)**. According to the Swiss questionnaire response, these evaluations received strong media attention in Switzerland and likely influenced national recommendations on meat consumption, including those of the **Swiss Cancer League**, by reinforcing the scientific basis for risk communication and dietary prevention advice.

> *"These evaluations and resulting classifications of investigated agents are greatly appreciated by the scientific community and impact society at large by providing a solid evidence base for cancer prevention, in Switzerland and around the world."*
>
> **Dr Ben Spycher**
> **University of Bern**

➔ Geneva as a convening hub for global cancer control

Switzerland's public health impact through IARC extends beyond individual projects to the country's unique role as a global health convening centre. As host to the headquarters of the **World Health Organization (WHO)** and numerous international health and research organisations, including the **Union for International Cancer Control (UICC)**, Switzerland provides an environment where scientific evidence, policy dialogue, and implementation actors interact on a daily basis.

This proximity strengthens the translation of IARC evidence into practice. IARC findings and evaluations regularly inform discussions and resolutions at global policy venues such as the **World Health Assembly**, while technical exchange and joint initiatives are facilitated through partnerships and events hosted in Geneva, including the **World Cancer Congress**.

By situating national experts, international agencies, and research institutions within the same ecosystem, Switzerland benefits from rapid knowledge exchange and early access to emerging standards, while simultaneously contributing expertise to global cancer prevention efforts. This continuous interaction reinforces Switzerland's ability to align national strategies with international best practice and amplifies the practical impact of IARC's evidence on both national and global cancer control.

Part III. Building capacity for lasting impact

➔ Capacity building and skills transfer through training and partnerships

> *"IARC provides a gateway to a global network of researchers in the field of cancer."*
>
> **Dr Ben Spycher**
> **University of Bern**

Training and knowledge exchange are an important component of the Switzerland–IARC partnership. Since the creation of the IARC Fellowship programme, **4 researchers from Switzerland** have completed competitive IARC fellowships, strengthening links between national institutions and IARC's international research environment.

This engagement is part of IARC's wider capacity-building ecosystem, which includes the IARC Research Training and Fellowship Programme, the IARC Learning Programme (including the Summer School), 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.

> *"IARC offers unique opportunities for scientists to prepare a high-level career and become future leaders in cancer prevention research"*
>
> **Mrs Anouk Berger**
> **IARC Liaison Officer**
> **For Switzerland**

Institutional collaboration has also deepened through formal agreements with Geneva-based partners such as the **UICC**, supporting joint education and training activities, and through research cooperation with **CERN**, further embedding Swiss institutions within IARC's global scientific and innovation networks.