



THE HASHEMITE KINGDOM OF JORDAN

NATIONAL CANCER CONTROL STRATEGY 2026-2030

& ACTION PLAN 2026-2027



His Majesty King Abdullah II ibn Al Hussein



His Royal Highness the Crown Prince Al-Hussein bin Abdullah II

## Foreword

Cancer represents one of the most complex health challenges facing Jordan and the world, with profound effects not only on individuals but also on families, communities, and the nation's social and economic well-being. The National Cancer Control Strategy 2026–2030 provides a comprehensive and strategic framework to address this challenge, establishing a clear roadmap for prevention, early detection, treatment, and palliative care, with the ultimate goal of improving survival and quality of life for all patients.

This strategy marks a new phase in cancer management in Jordan. By strengthening the health system, emphasizing cross-sectoral collaborations, enhancing diagnostic and treatment services, expanding access to essential care, and promoting public awareness, this strategy seeks to reduce cancer-related mortality and mitigate its broader social and economic impact. The strategy is essential if Jordan is to successfully and equitably address the evolving landscape of its cancer burden.

The development of this strategy has been guided by rigorous analysis, extensive stakeholder engagement, and the principles of sustainability, equity, and accountability. It presents clear objectives, measurable indicators, and actionable interventions to ensure that progress can be monitored and continuously improved. Contributions from government agencies, healthcare providers, civil society, and international partners have been instrumental in shaping this plan, ensuring a coordinated and effective national response.

Successful implementation of this strategy requires shared responsibility. The government, healthcare providers, civil society, and international stakeholders must work together to establish a responsive, efficient, and compassionate system of care. By doing so, we can ensure that every patient in Jordan receives timely, high-quality care, and that cancer prevention remains a sustained national priority.

I extend my sincere appreciation to all experts, healthcare professionals, researchers, and partners who contributed their knowledge, insight, and dedication to this strategy. This plan represents not merely an official document, but a roadmap for a healthier future, offering a clear vision and practical framework to strengthen cancer prevention, treatment, and care in Jordan, while protecting the health of future generations.

Dr. Ibrahim Bdour



Minister of Health

## Acknowledgments

The Jordanian Ministry of Health (MOH) expresses its sincere gratitude to the World Health Organization (WHO) and all institutions and individuals who contributed to develop this strategy and action plan. Furthermore, the MOH extends its appreciation to the participants of all Stakeholders' Meetings, imPACT mission and to the members of the National Cancer Control Plan working groups. Their invaluable contributions were crucial in developing the basis for the national cancer control strategy. This essential and comprehensive work is expected to serve as a roadmap for cancer prevention and control at a national level.

The Ministry of Health looks forward to a fruitful and continued collaboration with all related stakeholders to successfully implement the planned interventions to achieve the intended objectives, hence optimize cancer prevention and control in Jordan.

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## Acronyms

EMPHNET	Eastern Mediterranean Public Health Network
EMR	East Mediterranean Region
DOS	Department of Statistics
GAM	Greater Amman Municipality
GDP	Gross Domestic Product
GPD	Government Procurement Department
HBV	Hepatitis B virus
HPV	Human papilloma virus
JBCP	Jordan Breast Cancer Program
JCDC	Jordan Center for Disease Control
JFDA	Jordan Food and Drug Administration
JSMO	Jordan Standards and Metrology Organization
JUH	Jordan University Hospital
KAUH	King Abdullah University Hospital
KHCC	King Hussein Cancer Center
KHCF	King Hussein Cancer Foundation
MOA	Ministry of Agriculture
MOE	Ministry of Education
MOEnv	Ministry of Environment
MOF	Ministry of Finance
MOHE	Ministry of Higher Education
MOH	Ministry of Health
MOP	Ministry of Planning
MOY	Ministry of Youth
NCCP	National Cancer Control Plan
NGO	Non-governmental Organization
PHA	Private Hospital Association
RHAS	Royal Health Awareness Society
PHC	Primary Health Care
RMS	Royal Medical Services
SSD	Social Security Department
WHO	World Health Organization

# Executive Summary

Cancer is the second leading cause of death in Jordan, accounting for 16.4% of total mortality, with over 10,700 new cases reported in 2022. Rising incidence across both Jordanians and non-Jordanians, coupled with the growing burden of childhood cancers, underscores the urgent need for a coordinated national response. The increasing prevalence of risk factors—tobacco use, obesity, physical inactivity, unhealthy diets, and environmental exposures—further amplifies the challenge.

To address this, the Ministry of Health (MOH), in collaboration with the World Health Organization (WHO), international partners, and national stakeholders, has developed the National Cancer Control Strategy (2026–2030) and its operational action plan. This strategy builds on earlier drafts, incorporates findings from situational analyses and international reviews, and aligns with Jordan Economic Modernization Vision and global frameworks including the WHO Eastern Mediterranean Regional Framework and the UN Sustainable Development Goals.

## Health System Context

Jordan’s health sector demonstrates strong access and outcomes compared to regional peers, but faces challenges in financing balance, workforce distribution, and integration of primary care. Cancer care costs exceed 140 million JD annually, financed through MOH budgets, civil insurance, RMS, and KHCF fundraising. A landmark 2025 agreement with KHCC established dedicated insurance coverage for vulnerable groups, reinforcing equity in cancer care.

## Vision and Goals

The vision is a future where every Jordanian is empowered to prevent cancer, detect it early, and access high-quality treatment and support, thereby reducing mortality and improving quality of life. The strategy sets four overarching goals:

1. Establish collaborative and accountable structures for cancer governance.
2. Ensure effective diagnosis and treatment to reduce illness and death.
3. Improve equitable access and quality of life through rehabilitation and palliative care.
4. Strengthen surveillance and research to inform evidence-based policy.

## Strategic Objectives

The strategy is structured around seven strategic objectives, each supported by detailed measures:

- **Governance:** Strengthen national oversight, coordination, sustainable financing, and equitable expansion of services.

- **Prevention:** Reduce exposure to risk factors through tobacco control, healthy lifestyle promotion, vaccination, and environmental regulation.
- **Early Detection:** Expand breast and colorectal screening, standardize referral pathways, and raise public awareness.
- **Management:** Develop unified national clinical guidelines, train oncology specialists, ensure drug availability, and strengthen referral systems.
- **Palliative Care:** Integrate services nationwide, improve opioid access, expand insurance coverage, and embed palliative care in medical education.
- **Surveillance:** Enhance cancer registry systems, transition to electronic reporting, improve pediatric data collection, and ensure data quality.
- **Research:** Establish national research priorities, expand surveys, build research capacity, and secure sustainable funding.

## Conclusion

The National Cancer Control Strategy (2026–2030) represents a pivotal step in Jordan’s health system modernization. By integrating prevention, early detection, treatment, palliative care, surveillance, and research into a unified framework, Jordan is positioned to reduce cancer incidence and mortality, improve patient outcomes, and ensure equitable access to care nationwide. This strategy reflects a national commitment to evidence-based action, multisectoral collaboration, and alignment with international best practices, setting the foundation for a healthier future.

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# Introduction

## Overview

Cancer is one of the major non-communicable diseases (NCDs), alongside cardiovascular diseases, diabetes, and chronic respiratory diseases, and NCDs remain the leading drivers of morbidity and premature mortality globally.<sup>1</sup> Cancer is a major contributor to global mortality, causing close to one in every six deaths worldwide, and its impact is felt across nearly all households and communities.<sup>2</sup>

In the Eastern Mediterranean Region (EMR), cancer represents a growing public health challenge. In 2022, the EMR was estimated to have 781,574 new cancer cases and 485,347 cancer deaths, and projections indicate a steep increase over the coming decades—driven primarily by population growth and ageing, alongside persistent exposure to preventable risk factors such as tobacco use, unhealthy diet, physical inactivity, overweight/obesity, and air pollution.<sup>2,3,4</sup>

In Jordan, NCDs account for 78% of total reported deaths. Cardiovascular diseases are the leading cause (38%), while malignant neoplasms (cancers) are the second leading cause of death (14.2%).<sup>5</sup>

Jordan's cancer registry reports a continued increase in cancer incidence. In 2022, 10,775 new cancer cases were registered—8,754 among Jordanians (81.2%) and 2,021 among non-Jordanians. Among Jordanians, the most common cancers were breast, colorectal, lung, lymphoma, and bladder. Pediatric cancers accounted for 3.6% of total cases, with leukemia, brain/CNS tumors, and lymphoma being the most prevalent.<sup>6</sup>

Evidence indicates that between 30% and 50% of cancers could be prevented through appropriate planning and implementation of evidence-based prevention strategies. Moreover, early detection and timely, quality-assured management can significantly reduce avoidable suffering and mortality.<sup>2</sup>

The most efficient and effective way to address cancer nationally is through a comprehensive and coordinated national cancer control program that spans the entire cancer control spectrum and is tailored to the country's specific context. The World Health Organization (WHO) defines a national cancer control program as “a public health program designed to reduce cancer incidence and mortality and improve the quality of life of people affected by cancer through the systematic and equitable implementation of evidence-based strategies for prevention, early detection, diagnosis, treatment, and palliation, making the best use of available resources”.<sup>7</sup>

## Why do we need a Cancer Control Strategy?

The WHO has long called for countries to develop and adopt national cancer control programs. In 2017, the World Health Assembly unanimously adopted Resolution WHA70.12, which provides guidance on health promotion and risk-factor reduction and emphasizes addressing inequities in access to early detection, diagnosis, treatment, and palliative care.<sup>8</sup>

Cancer control is also directly linked to the 2030 Sustainable Development Agenda, including SDG target 3.4, which calls for reducing premature mortality from NCDs through prevention and treatment.<sup>9</sup>

In Jordan, the case for a national cancer control strategy is reinforced by national priorities. The Economic Modernization Vision places strong emphasis on human capital, productivity, and quality of life, including improved access to high-quality cost-effective health services. Within this national direction, cancer prevention and control are integral to protecting labor-force participation, household welfare, and long-term health system sustainability.<sup>10</sup>

Jordan's Ministry of Health Strategic Plan 2023–2025 further underscores the importance of building an integrated health system that delivers preventive, diagnostic, treatment, rehabilitation, and palliative services equitably, safely, and efficiently. A national cancer control strategy provides the sector-wide framework needed to translate these directions into coordinated action across the cancer continuum.<sup>11,12</sup>

Historically, cancer care in Jordan has largely focused on treatment, with comparatively fewer systematic efforts directed toward prevention, early detection, survivorship, and palliative care at the national level. Previous planning efforts did not mature into an endorsed national strategy with an operational plan. In recent years, renewed momentum—including multi-stakeholder collaboration and global initiatives such as the WHO Global Initiative for Childhood Cancer—has highlighted both the feasibility and urgency of a coordinated national approach.<sup>13</sup>

A comprehensive cancer control strategy clarifies national priorities, roles and responsibilities, governance and accountability arrangements, and financing and implementation pathways. It also enables consistent progress monitoring and evaluation through agreed indicators, ensuring that resources are directed toward the highest-impact and most equitable interventions.

## Strategy Development Methodology

The Ministry of Health (MOH) has made several attempts to establish a National Cancer Control Program and Plan. In 2008, a National Cancer Control Committee was formed to develop a National Cancer Control Plan (NCCP), resulting in a first draft in 2010. However, the plan was not formally endorsed, and cancer control efforts continued without an approved national planning framework. In 2013, a multisectoral cancer committee was reconvened again to review and

update the 2010 draft and support its operationalization; however, these efforts were not sustained.

In 2021, the MOH, in collaboration with the WHO, reinitiated efforts to update the previously developed National Cancer Control Plan. Two national multisectoral expert committees were established for adult and pediatric cancer, representing key sectors providing cancer services in Jordan, including the MOH, Royal Medical Services, King Hussein Cancer Center, King Abdullah University Hospital, Jordan University Hospital, the private sector, national oncology societies for adult and pediatric oncology, and the WHO. In 2023, Jordan cancer program underwent a thorough revision by the impACT review led by the International Atomic Energy Agency (IAEA) in partnership with the WHO and the International Agency for Research on Cancer (IARC). The recommendations of this review were reflected in the situation analysis of the strategy.

These efforts culminated in a five-year National Cancer Control Strategy (2026–2030) and an accompanying operational action plan for the first two years (2026-2027). Together, these documents represent a renewed step towards formalizing a comprehensive cancer control program in Jordan.

## Key steps

**Step 1: Baseline review.** The previously developed NCCP draft developed between 2008–2010 was used as a baseline. The 2010 draft was developed based on extensive engagement with relevant national and international stakeholders through a focused workshop and technical subgroups tasked with reviewing each component and developing recommendations (see Annex). Although comprehensive, this draft required a thorough update to reflect the current country's context and needs.

**Step 2: Situational analysis.** A situational analysis was conducted between 2021 and 2022 to update the 2010 draft NCCP. It compiled data on cancer incidence and demographics, availability of services, human resources, and the status of cancer prevention, early detection, treatment, and palliative care. It also assessed newer components included in the strategy, such as governance, surveillance, and research. Data was collected through one-to-one interviews with key stakeholders and a desk review of available resources.

**Step 3: Technical draft alignment.** The two national committees for adult and pediatric cancer reviewed and updated the 2010 draft reflecting outcomes of the situational analysis (2021-2022). Interventions were prioritized using the 2019 WHO Eastern Mediterranean regional framework for action on cancer prevention and control, which covers six key areas: governance, prevention, early detection, treatment, palliative care, surveillance, and research, and provide indicators to monitor progress at country level. Previously drafted recommendations from earlier working

groups were revisited and updated to address the current needs and gaps. The draft strategy and action plan were further refined through revision by WHO.

**Step 4: National consultations and multi-stakeholder workshop.** Two consultative sessions were conducted in July 2022 to review the draft strategy and action plan and to verify the goals, objectives, interventions, responsibilities, and key indicators. The first session was internal, involving the two national committees for adult and pediatric cancer. A broader national multi-stakeholder workshop followed, bringing together national and international stakeholders, including NGOs, UN agencies, academia, and the private sector (for participants' list see the Annex). Participants worked in specialized technical working groups—organized in line with the strategy's strategic objectives—to finalize the strategy and action plan, and agree on the priorities, timelines, roles and responsibilities.

**Step 5: Integration of the imPACT review recommendations and strategic alignment.** The imPACT review was conducted from January to May 2023 led by the IAEA, WHO, and the IARC aimed to enhance national cancer control capacities. It focused on evaluating the existing frameworks in cancer planning, registration, prevention, early detection, diagnosis, treatment, and palliative care, as well as radiation safety and security in healthcare settings. The mission also identified opportunities for partnerships and resource mobilization to strengthen cancer control initiatives. The review comprised three phases: the preliminary analysis, the in-country validation, and the consolidated analysis leading to actionable recommendations. Later, a high-level session was organized by the MOH involving all cancer care institutions and decision makers to approve the strategized interventions and agree on the next steps. The agreed recommendations further informed the strategy and its action plan in alignment with EMRO's framework for cancer prevention and control, international best practices, and related goals of UHC and SDG 2030.<sup>14</sup>

**Step 6: Final revision by the NCCP committee.** Several meetings were convened in August and September 2024 to update and finalize the strategy and its action plan.

The diagram below shows the sequence of steps implemented to develop the National Cancer Control Strategy (2026–2030) and its action plan.

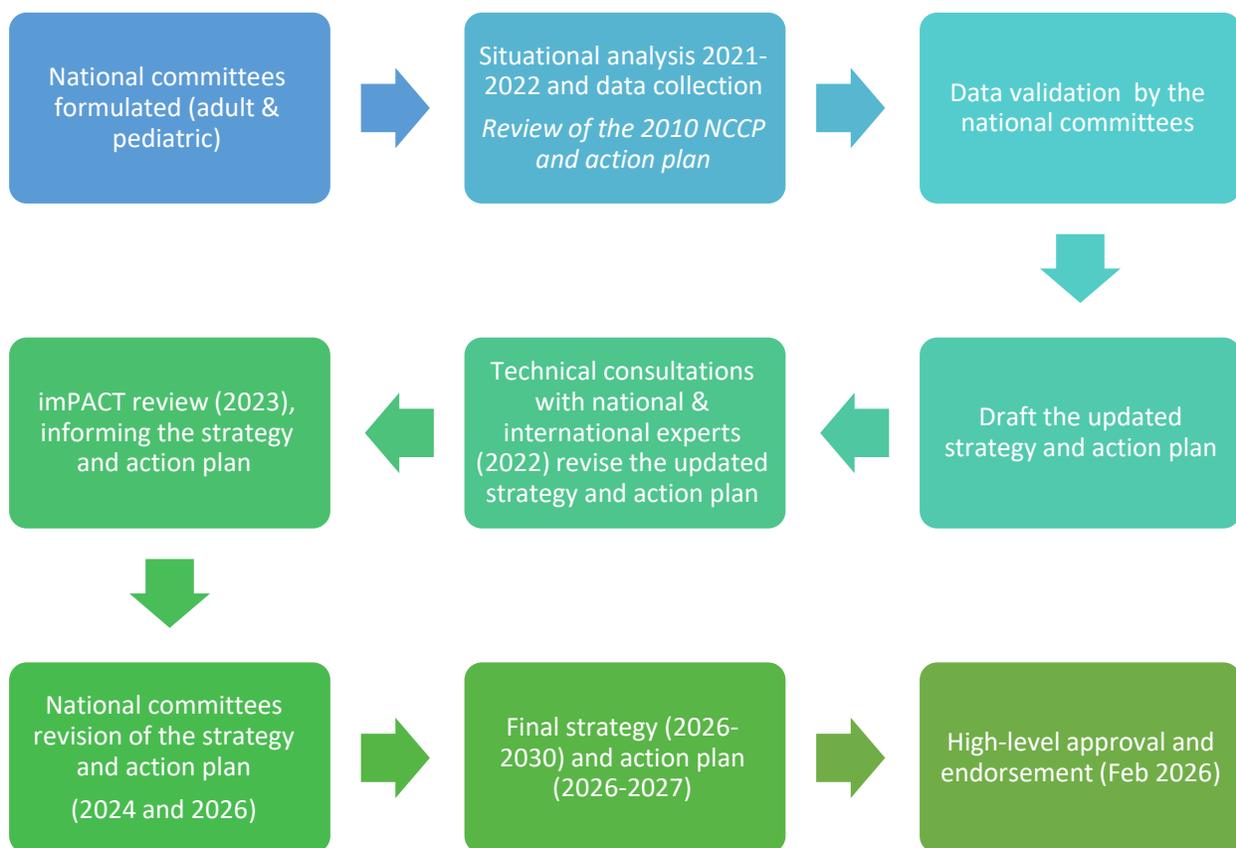


FIGURE 1: TIMELINE OF THE NATIONAL CANCER STRATEGY DEVELOPMENT PROCESS

## Health Context in Jordan

### Health-related strategies

His Majesty King Abdulla II launched Jordan’s Economic Modernization Vision in 2022. Building on this Vision, the MOH developed its Strategic Plan (2023–2025), which aims to improve citizens’ living conditions and quality of life through a systematic, evidence-informed approach.

In addition to these overarching frameworks, Jordan has adopted or developed several relevant health- strategies and plans, including:

- National Strategy to Combat Tobacco and Smoking (2024–2030).
- National Nutrition Strategy and its Implementation Framework (2023–2030).
- National Mental Health and Substance Use Action Plan (2022–2026).
- MOH Strategic Plan for Family Planning (2019–2023).
- Jordan National Strategy for Reproductive and Sexual Health (2020–2030).
- National Center for Epidemics and Communicable Diseases Control Strategy (2026–2030).

- School Health Strategy (2018–2022).
- Health Information System (HIS) Strategic Plan (2019–2023).

## Health system context

### Governance

Jordan's health sector includes a range of service providers across public, private, international, and charitable sectors, in addition to councils and institutions that support policy development and regulation.

Key public-sector providers include Ministry of Health (MOH), Royal Medical Services (RMS), University hospitals (University of Jordan Hospital and King Abdullah University Hospital), The National Centre for Diabetes, Endocrinology and Genetics, and National Center for Women's Health. Key private-sector providers include private hospitals, diagnostic and therapeutic centers and private clinics across the Kingdom. International and charitable providers include: UNRWA clinics serving Palestinian refugees and UNHCR-supported services for refugees and asylum seekers, King Hussein Cancer Center (KHCC), and charitable association clinics.

Institutions involved in policy, regulation, and stewardship include the High Health Council, the Jordanian Medical Council, the Higher Population Council, the Jordanian Nursing Council, the National Council for Family Affairs, the Jordan Food and Drug Administration (JFDA), and the Government Procurement Department.

Jordan's health sector performs well in terms of access and health outcomes, which are among the best in the Region and compared to other lower-middle-income countries. Services are delivered through an extensive network of public and private facilities, with a relatively high overall capacity in hospital beds and physicians. Nevertheless, important system challenges exist.

### Health Financing

Although Jordan is classified as a lower-middle-income country, its annual per-capita current health expenditure is relatively high. In 2022, per-capita current health expenditure was reported as JD 236.<sup>15</sup>

Public-sector spending is weighted toward secondary care: hospital spending is approximately JD 807 million (75.5%) of public-sector expenditure, while primary health care (PHC) spending is around JD 168 million per year. This imbalance highlights the need for strategies that strengthen primary and preventive services, while also advancing hospital cost-containment and efficiency measures.<sup>16</sup>

Each health subsector has its own financing and delivery arrangements, which directly shape service access and patient pathways. Public programs are financed through the general budget,

premium contributions, and user fees. MOH, Civil Insurance, and RMS budgets are determined annually through the government budgeting process.

### Health Insurance in Jordan

According to Jordan's 2015 census, approximately 56% of the population is covered by at least one type of health insurance (around 69% among Jordanians). Civil health insurance is the most prevalent among Jordanians (41.8%), followed by RMS insurance (38.6%), and private insurance (12.3%).<sup>17</sup>

Uninsured Jordanians can access MOH services as cash payers at subsidized rates. In addition, MOH provides certain expensive medications free of charge for specific conditions (including selected infectious diseases, cancer, kidney diseases, tuberculosis, AIDS, and addiction) regardless of ability to pay.

Civil health insurance coverage is not limited to civil servants and dependents; it also includes specific groups without financial costs to the beneficiary, such as:

- Children under six years of age.
- Adults above sixty years of age.
- People are classified as poor by the Ministry of Social Development.
- Residents of least fortunate and remote areas.
- One family member of an organ donor (valid for five years).
- Blood donors (valid for six months).

Optional health insurance is also available for citizens who wish to enroll, including pregnant women and older persons, following amendments to the civil health insurance bylaw in 2016.<sup>18</sup>

### Health Information System

A health information system (HIS), including civil registration and vital statistics, is essential for generating high-quality data to support effective planning, decision-making, and continuous improvement in health outcomes. In Jordan, ongoing efforts seek to strengthen HIS performance despite persistent fragmentation.

In October 2016, WHO assessed Jordan's HIS at the request of MOH. Based on the assessment's findings, an HIS strategy for 2019–2023 was developed to unify efforts across providers and reduce fragmentation toward a harmonized data system.<sup>19</sup>

Jordan's HIS includes: (1) institution-based systems that manage service delivery and capture data on service users and resources; and (2) population-based systems, such as the census, vital events, and health surveys that describe population health status and behaviors.

Key HIS challenges include limited integration and coordination among systems and stakeholders, weak governance mechanisms, insufficient human resources and capacity building,

and the continued use of paper-based data collection in many settings—resulting in delayed reporting, incompleteness, and data inaccuracies.

In 2009, the Hakeem program was launched as a national initiative to automate parts of the public healthcare sector through electronic health records (EHR). Hakeem has been implemented in more than 424 Ministry of Health (MOH) and Royal Medical Services (RMS) facilities, including 51 hospitals, 118 comprehensive health centers, 244 primary health centers, and 11 specialized centers across the Kingdom<sup>20</sup>. Meanwhile, universities and private hospitals use other health information systems.

### Civil Society

Civil society plays a role in health care delivery and cancer control through patient support and advocacy, coordination and partnerships that facilitate service provision, and capacity-building for healthcare providers. Jordan hosts more than 2,000 non-governmental organizations (including international organizations), many of which operate in the health domain. Cancer-related organizations include the Jordan Cancer Society, the King Hussein Cancer Foundation, oncology societies for adults and pediatrics, the Jordanian Anti-Smoking Society, and other groups working on NCDs including cancer across the Kingdom.

### Health Care Sector Challenges

Jordan's healthcare sector continues to evolve; however, several persistent challenges remain. These include strengthening suboptimal equity in service delivery, duplication, and gaps in coordination among major providers. Primary health care is not yet fully utilized, and structured quality improvement programs are still developing. There is also scoping to improve resource efficiency and expand specialized training in areas such as palliative care, prevention, and early diagnosis. In addition, parallel health information systems continue to limit integration and data sharing.

MOH-affiliated hospitals face operational constraints that can affect service delivery for vulnerable populations. These include centralized management structures, limited access to cost data across levels of care, few incentives to promote efficiency and quality, and underdeveloped information and communication systems.

## Situation Analysis of Cancer in Jordan

### The Burden of Cancer in Jordan

#### Cancer Registry

Established in 1996 by the Ministry of Health, the Jordan Cancer Registry (JCR) monitors cancer incidence and trends in Jordan. Cancer notification has been compulsory since 1996. The JCR aims

to provide timely and accurate national cancer data to support public health decision-making, clinical planning, and epidemiological research. To date, the JCR has published 27 annual cancer reports, which are available on the Ministry of Health official website.

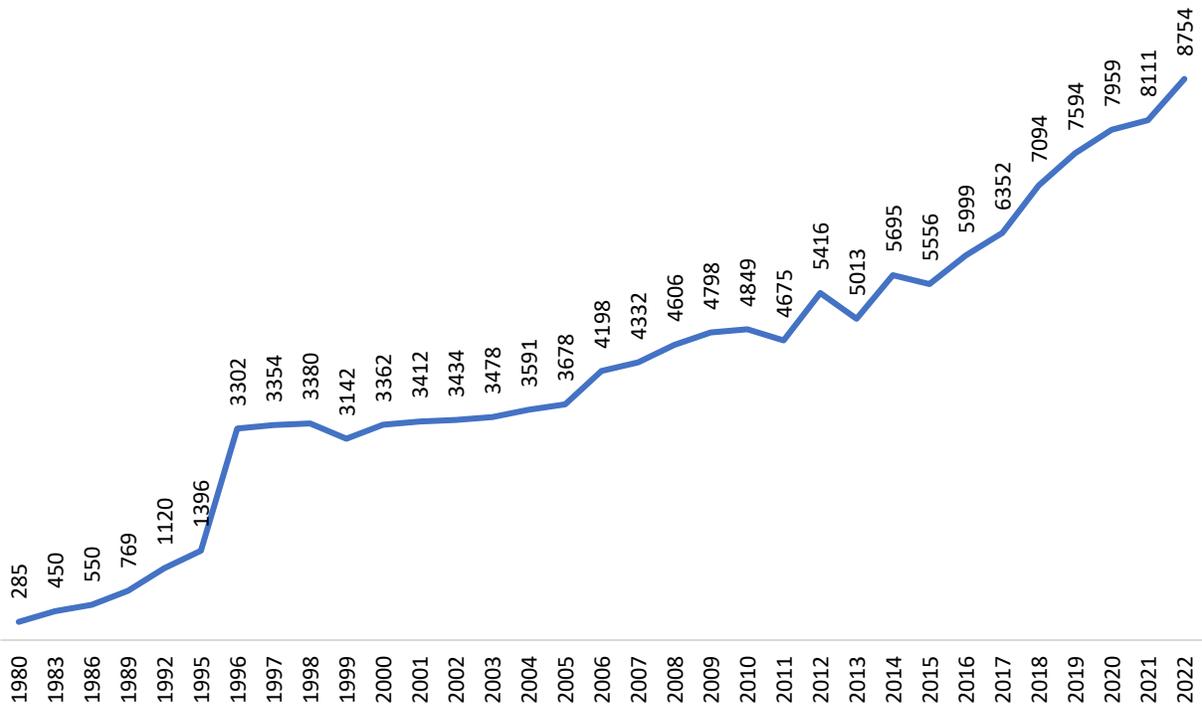
The JCR has made substantial progress, including the completion of annual reports for 2020–2022 and the ongoing, routine monitoring of cancer cases. In parallel, hospital-based cancer registries are being established—building on the model of the King Hussein Cancer Center (KHCC) with structured training provided to hospital and laboratory staff. Data quality is overseen through the National Cancer Registry Committee. Looking ahead, priorities include expanding JCR coverage across all healthcare facilities, scaling up hospital-based registries, issuing an updated guidance manual, awarding ODS certification to registry staff, strengthening public awareness through targeted educational materials, and leveraging registry data to support research and guide evidence-informed policy. Collectively, these efforts aim to keep the registry aligned with evolving standards in cancer care and health information management.

### Cancer Incidence and Mortality

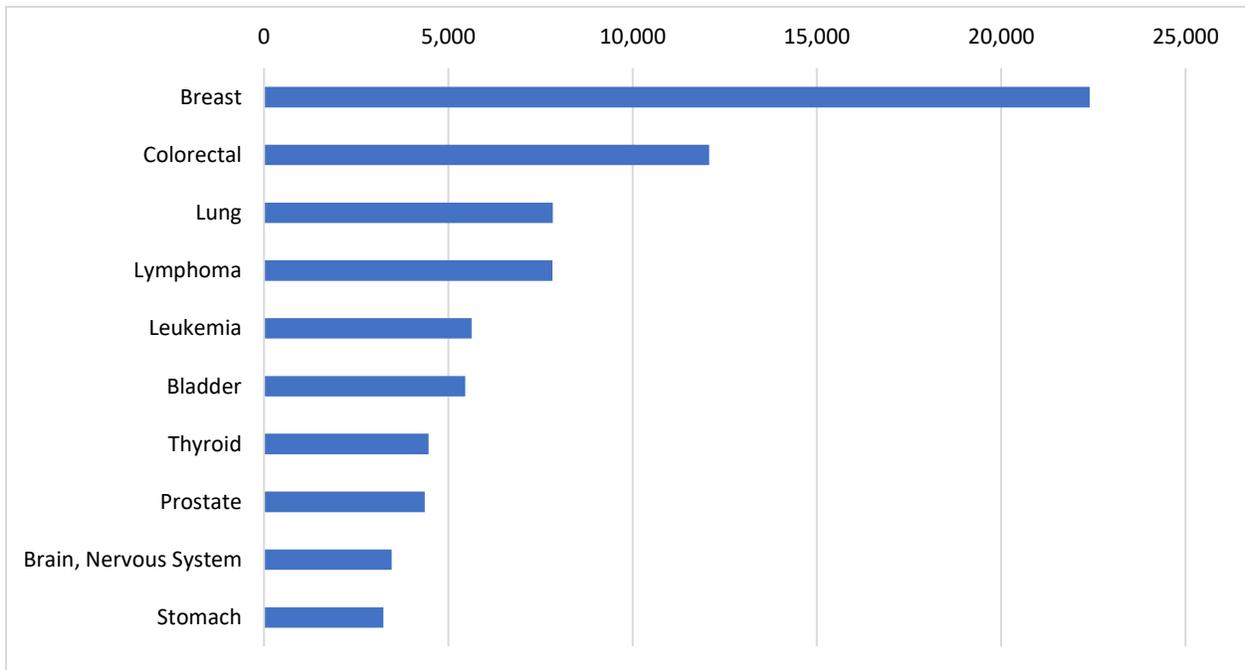
In 2022, the Jordan Cancer Registry recorded 10,775 new cancer cases in Jordan (8,754 among Jordanians and 2,021 among non-Jordanians), with higher case counts in females than males. Overall, mean age at diagnosis was 54.8 (57.2 years for males and 52.8 years for females). Among Jordanians, the crude incidence rate for all cancers was 111.9 per 100,000 (100.8 in males; 123.3 in females) and the age-standardized incidence rate (ASR) was 157.4 per 100,000 (148.7 in males; 166.0 in females); 42.8% of cases were diagnosed at age  $\geq 60$  years, and 3.6% occurred in children aged  $< 15$  years.

Cancer incidence is rising in both Jordanian males and females, with breast, colorectal, lung, lymphoma, and bladder cancers being the most common. The central region reports the highest number of cases. The leading causes of cancer-related death are lung cancer among males and breast cancer among females.<sup>5,6</sup>

Over 2003–2022, breast cancer was the most commonly reported cancer type, followed by colorectal cancer. Lung cancer and lymphoma ranked next, with leukemia and bladder cancer also among the leading diagnoses. Thyroid, prostate, brain/nervous system, and stomach cancers completed the top ten.



**FIGURE 2: CANCER INCIDENCE TREND AMONG JORDANIANS, 1980-2022**



**FIGURE 3: TOP 10 LEADING CANCER TYPES OVER THE YEARS (2003 - 2022)**

## Childhood Cancer

In 2022, 312 new cancer cases were identified among Jordanian children aged 0-14 years, representing 3.6% of all registered cancers among Jordanians, and reflecting a slight decrease compared with 2021. More males (52.6%) than females (47.4%) were affected. The incidence rate was 115.6 per million, and the average age at diagnosis was 6.9 years. Leukemia was the most common childhood cancer, followed by brain and central nervous system (CNS) tumors and lymphoma. In 2022, there were 2,021 registered cancer cases among non-Jordanians, including 134 cases among children under 15 years of age.<sup>6</sup>

Due to limited specialized pediatric oncology services in Ministry of Health facilities, children with suspected cancer are commonly referred to specialized centers such as the King Hussein Cancer Center (KHCC), where approximately 80% receive treatment. Although Jordanian law aligns with international standards on the definition of a child, a uniform pediatric age cutoff is not consistently applied across healthcare institutions.

## Cancer among non-Jordanians

In 2022, non-Jordanians accounted for 18.8% of registered cancer cases in Jordan. Cases were nearly evenly distributed between males and females, with an average age at diagnosis of around 53 years. The most common cancers among non-Jordanians were breast, colorectal, lymphoma, lung, and bladder cancers. Among non-Jordanian children under 15 years of age, 134 cancer cases were registered; eye cancer was reported as the most prevalent cancer among infants under one year of age.<sup>6</sup>

## Cancer Prevention

Effective prevention measures, particularly reducing tobacco use, promoting healthy diets, and increasing physical activity, can substantially reduce cancer morbidity and mortality, especially because the witnessed population ageing and longer life expectancy increase the cumulative exposure to risk factors.

Tobacco remains a critical driver of preventable cancer in Jordan. Between 2007 and 2024, overall smoking prevalence increased from 29% (2007) to 42% (2019) to 51.6% (2024 data include vaping as well as tobacco use)<sup>21,22,23</sup>. The increase was particularly stark in women, with recent estimates indicating that 28.8% of women in Jordan smoke or vape<sup>23</sup>. While recent assessments of tobacco control performance (MPOWER-related measures) indicate that Jordan has made some progress in implementing tobacco control policies, challenges remain:<sup>24</sup> tobacco products remain affordable (despite high tax rates); the use of electronic nicotine delivery devices is increasing and the recent tax reduction on these products is concerning; and enforcement of legislations such as smoke-free and banning tobacco and electronic nicotine delivery device promotion, are suboptimal, highlighting the need for urgent, whole-of-government action.

Obesity-related cancers (breast and colorectal cancer) also rank in the top cancers in Jordan, and according to 2019 national data, approximately 25% and 41% of Jordanian men and women are classified as obese; while 76.4% of Jordanian adults do not engage in vigorous physical activity.<sup>21</sup> More efforts are needed to address these lifestyle-related risk factors.

Infection-related cancers also require stronger prevention focus. The national burden of HPV-related disease is not yet well defined due to limited data, constraining the ability to design targeted prevention strategies; strengthened surveillance and research are therefore important. By contrast, successful hepatitis B vaccination implementation demonstrates the effectiveness of immunization as a long-term prevention tool, including for reducing the risk of liver cancer.

## Cancer Early Detection

Building on Jordan's cancer profile—where breast and colorectal cancers are among the most common—efforts are ongoing to improve early detection. A national breast cancer screening program is in place, primarily serving women covered by public insurance. However, the program would benefit from clearer and more comprehensive regulations, including standardized protocols, quality assurance, and defined referral and follow-up pathways.

To date, organized screening programs for other cancers are limited, and private insurance coverage for screening tests is variable and often incomplete. A national colorectal cancer screening program is currently under development and is expected to start with a pilot phase.

## Cancer Treatment

Medical oncology and surgical oncology services are available in most cancer-treating hospitals in Jordan, but access and quality are not consistent across facilities. In medical oncology, cancer drug availability is uneven and supply chain weaknesses can cause stockouts, including for essential medicines; pooled government procurement could help. Standardizing chemotherapy preparation, conducting periodic audits, strengthening continuing medical education, and implementing national treatment guidelines are key to delivering reliable, evidence-based care. Radiation oncology resources have expanded, yet gaps remain in standardizing service delivery to improve quality, efficiency, and equity.

For pediatric oncology more broadly, Jordan has system capacity to care for children with cancer (Jordanians and non-Jordanians), but quality and standards vary widely. Childhood cancer care should be concentrated in a limited number of centers to build expertise, supported by training primary care providers to recognize early warning signs and ensure timely referral. To strengthen standardization and quality of care, the MOH in collaboration with KHCC, RMS and JUST have developed national clinical guidelines for six index childhood cancers, covering: Hodgkin lymphoma, Wilms tumor, acute lymphoblastic leukemia (ALL), Burkitt lymphoma, retinoblastoma, and low-grade glioma.

## Cancer Palliative Care

The MOH has made important progress in advancing palliative care in Jordan, including establishing a national committee and appointing a focal point for palliative care. The King Hussein Cancer Centre serves as a national center of excellence, and Jordan's strong medical and nursing education system provides a foundation for expanding palliative care competencies. In addition, the national primary health care network offers an opportunity to integrate palliative care services closer to communities.

Despite these advances, several challenges continue to limit nationwide access and integration:

- Limited access to opioid analgesics, restricting adequate pain management.
- Concentration of services in major cities (particularly Amman), with limited coverage in rural and remote areas.
- Limited availability of home-based care services.
- Fragmented practices and lack of standardized models and protocols across providers.
- Shortage of physicians and nurses trained in palliative care.
- Underdeveloped pediatric palliative care services.
- Insufficient and/or fragmented funding to expand and sustain services on a scale.

## Cancer care Insurance and Financing

All Jordanian patients diagnosed with cancer are covered by the government. The national cancer referral system is governed by Cabinet regulations issued in 2018, which aim to facilitate timely access to treatment services for all eligible patients.

Prior to 2026, Jordanians with public insurance received cancer treatment through the providers included in their insurance scheme. For example:

- Ministry of Health (civil) insurance beneficiaries were treated within Ministry of Health facilities.
- Royal Medical Services (RMS) beneficiaries were treated at the RMS Oncology Center.
- University hospital beneficiaries (e.g., KAUH/JUST and JUH/University of Jordan) received treatment at their respective hospitals.

If required services were not available within the patient's primary provider, referrals to other institutions were made under existing collaboration agreements.

Patients who were uninsured, or whose non-governmental insurance did not cover cancer care (or patients who require transfer to a non-Ministry facility), were granted cancer-specific insurance. This was issued through an insurance card (renewable annually) until completion of treatment. Given issuance of the insurance card, health directors in governmental hospitals were authorized to refer patients to KHCC, university hospitals, and RMS—based on capacity and

clinical condition—without returning to the Ministry of Health or the Health Insurance Administration.

As of 2026, a new mechanism was initiated for cancer treatment coverage, based on a formal agreement signed in June 2025 between the Government of the Hashemite Kingdom of Jordan—represented by the Ministers of Health and Finance—and the King Hussein Cancer Foundation<sup>25</sup>. The agreement establishes a dedicated insurance mechanism for cancer treatment at the King Hussein Cancer Center (KHCC) and affiliated facilities, targeting vulnerable and high-risk population groups. Under this agreement, the following categories of Jordanian citizens specifically are eligible for cancer coverage at KHCC, provided they are not already covered by military or private health insurance:

- All children aged 19 years and below.
- All adults aged 60 years and above.
- Beneficiaries of the National Aid Fund and their families, regardless of age.

Cancer care is financed through sector-specific financing and delivery systems. Government hospitals, RMS, and university hospitals each have their own financing arrangements, which shape cancer care delivery within these sectors. Public programs are financed through the general budget, premium contributions, and user fees, with budgets determined annually.

The King Hussein Cancer Foundation (KHCF) also supports financing through fundraising programs that help cover treatment costs for poor Jordanians and some non-Jordanian patients. KHCF introduced a nonprofit cancer insurance program to support access to cancer treatment at KHCC for participants paying affordable premiums; the program is open to all nationalities and age groups. Most private insurance companies do not cover cancer treatment.

## SWOT Analysis for Strategic Action for Cancer Control

Strengths	Challenges
<ul style="list-style-type: none"> <li>• Jordan Cancer Registry (JCR): A population-based registry since 1996 provides data on cancer incidence and trends.</li> <li>• Commitment to data collection: Cancer notification is compulsory, supporting systematic reporting.</li> <li>• A skilled healthcare workforce within MOH and specialized cancer institutions delivering high-quality cancer care.</li> <li>• Reference centers, including the King Hussein Cancer Center (KHCC), as a center of excellence for cancer treatment and research.</li> <li>• Commitment to annual cancer reporting to monitor trends and inform evidence-based planning.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing cancer incidence among Jordanians (males and females).</li> <li>• Geographic concentration of cancer services, with the central region (Amman) receiving a high share of cases and services.</li> <li>• Refugee influx increased demand and costs, particularly for specialized cancer treatment.</li> <li>• Limited primary prevention and rising exposure to risk factors (tobacco use, unhealthy diet, physical inactivity).</li> <li>• Lack of unified diagnostic guidelines for common cancers.</li> <li>• Limited communication and coordination among institutions.</li> <li>• Limited public awareness and prevention programs.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Strengthen primary prevention programs, including tobacco control, healthy nutrition, and physical activity promotion.</li> <li>• Expand hospital-based cancer registries and strengthen data quality and completeness.</li> <li>• Implement the national colorectal cancer screening program (including pilot and scale-up).</li> <li>• Support civil society organizations in awareness-raising and screening promotion.</li> <li>• Update legislation to reduce exposure to cancer risk factors.</li> <li>• Improve communication and coordination among cancer institutions.</li> <li>• Engage patients and survivors in planning and policy development.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing life expectancy and lifestyle shifts may increase cumulative exposure to cancer risk factors and raise morbidity.</li> <li>• Delays in accessing supportive medications due to administrative procedures, worsening outcomes.</li> <li>• Insurance limitations and disparities in coverage, particularly for specialized care pathways.</li> <li>• Limited governance and fragmented oversight mechanisms.</li> </ul>

# Framework for the Cancer Control Strategy

## Vision

Cancer in Jordan is no longer a leading cause of death and suffering, through equitable access to comprehensive, high-quality cancer care for all citizens. We envision a future where every Jordanian is empowered with the knowledge and resources to prevent cancer, detect it early, and receive high-quality treatment and support, resulting in significantly reduced cancer mortality and improved quality of life for cancer patients and survivors.

## Goals

1. **Governance:** Create a collaborative and accountable structure for all cancer control stakeholders to optimize resources and accelerate progress.
2. **Diagnosis & Treatment:** Ensure effective diagnosis and treatment to lower cancer-related illness and death.
3. **Quality of Life:** Improve equitable access and quality of life for cancer patients and their families through support, rehabilitation, and palliative care.
4. **Surveillance:** Enhance the cancer surveillance system for high-quality, timely, and accessible data and strengthen cancer research.

## Strategic Objectives

The Jordan Cancer Control Strategy and Plan is based on Seven overarching Strategic Objectives addressing all aspects of the cancer continuum.

1. **Governance:** to provide oversight and stewardship for the national cancer control program, ensuring effective coordination among key stakeholders.
2. **Prevention:** to reduce cancer incidence through planning, implementing, and scaling up preventive measures to reduce exposure to cancer risk factors.
3. **Early detection, including screening, and early diagnosis:** to increase the cancer survival rate in Jordan through strengthening organized early detection programs, screening (high risk individuals), effective diagnosis.
4. **Management:** to equally and equitably provide all cancer patients with appropriate therapy as per national clinical practice guidelines by qualified health care providers.
5. **Palliative care:** to provide quality and equitable palliative and supportive care services across the care continuum.

6. **Surveillance:** Strengthen national registry and databases that provide timely, accessible cancer data relevant to incidence and care, including hospital-based registries and integration of resources and activities, while implementing robust monitoring and evaluation systems to ensure data quality, completeness, and timeliness.
7. **Research:** Cultivate a dynamic research ecosystem that generates and translates high-quality evidence into actionable policies and interventions, driving continuous improvement in cancer prevention, detection, treatment, and survivorship outcomes.

## Seven Strategic Objectives | Sixty-One Measures

### Strategic Objective 1: Governance

To provide oversight and stewardship for the national cancer control program, ensuring effective coordination among key stakeholders.

#### Measures

- 1. Strengthening national cancer governance:**

Reform and empower the national multispectral high-level committee for cancer control, positioning it as the authoritative body for cancer governance in Jordan. This committee, led by the Ministry of Health (MOH) and informed by specialized technical committees, will be responsible for setting national policies, approving clinical guidelines, and issuing relevant legislation. It will also ensure the alignment of efforts across all stakeholders, enhancing access to comprehensive cancer care for both adult and pediatric patients.

- 2. Capacity building for strategy implementation:**

Bolster the cancer control unit within the MOH by ensuring adequate human resources and creating a conducive environment for staff retention. This unit will play a pivotal role in implementing the NCCP, monitoring progress, and coordinating efforts among all stakeholders involved in cancer care, ensuring consistent and high-quality services across the country.

- 3. Defining and strengthening cancer care integration:**

Integrate cancer care as a core component of Jordan's essential health benefit package, including palliative and supportive care. Strengthen coordination across all healthcare providers, both public and private, to ensure that cancer care services are seamlessly integrated, leading to more efficient and patient-centered care delivery.

- 4. Sustainable and equitable funding models:**

Develop a national, participatory, and sustainable funding model for cancer care that ensures equitable access to high-quality services. This model will include provisions for palliative care and

will focus on expanding health insurance coverage for uninsured and vulnerable populations, including refugees. The goal is to make essential cancer services affordable and accessible, regardless of the insurance plan.

**5. National expansion of cancer care services:**

Implement a comprehensive national expansion plan to ensure equitable access to high-quality cancer care across all regions of Jordan. This will include enhancing resource allocation, addressing the availability of medical equipment, and ensuring that all patients have access to the necessary services, regardless of their geographic location.

**6. Clear and coordinated referral systems:**

Establish and publicize clear regulations and procedures for cancer-related coverage and referral systems, including those for childhood cancer and palliative care. This will ensure that patients receive timely and appropriate referrals, minimizing delays in care and improving overall outcomes.

**7. Fostering international partnerships and collaboration:**

Strengthen international partnerships by actively engaging in global initiatives, such as the WHO's Global Initiatives for Childhood Cancer and Cervical Cancer Elimination and collaborating with organizations like IAEA and IARC. These partnerships will enhance Jordan's technical capacity, access to cutting-edge knowledge, and ability to provide high-quality cancer care.

## Strategic Objective 2: Prevention

Reduce cancer incidence through planning, implementing, and scaling up preventive measures to reduce exposure to cancer risk factors.

### Measures

**1. Promoting a healthy lifestyle through community engagement:**

Establish a multi-sectoral national prevention working group to drive the implementation and monitoring of cancer prevention strategies, including tobacco control, promotion of healthy diets, physical activity, and the control of occupational and environmental carcinogens. This group will operate at both the primary healthcare and community levels, ensuring that prevention efforts are integrated and comprehensive.

**2. Developing and disseminating cancer prevention toolkits:**

Create and regularly update comprehensive toolkits with key awareness content on cancer risk factors, including lifestyle choices such as smoking, diet, and physical activity.

### **3. National communication campaigns on lifestyle risks:**

Conduct national awareness campaigns that communicate the risks associated with lifestyle factors and their correlation to cancer. These campaigns will be designed with unified messaging and will integrate policy improvement initiatives. Key awareness days will be leveraged to maximize impact, including World Cancer Day, Breast Cancer Awareness Month, and Lung Cancer Awareness Month.

### **4. Educational initiatives targeting families, children, and adolescents:**

Implement education and awareness activities focused on healthy lifestyles, stress reduction, and mental health. These initiatives will target mothers, children, and adolescents through maternal, child health, and school health programs. Efforts will also include strengthening the prohibition of tobacco marketing and sales near schools, creating tobacco ambassadors among students, and embedding tobacco cessation into school curricula.

### **5. Training healthcare providers on healthy lifestyle promotion:**

Conduct training programs for healthcare providers at primary healthcare centers, equipping them with the knowledge and tools to promote healthy lifestyles and provide effective counseling on cancer prevention.

### **6. Enhancing tobacco control measures:**

Strengthening the capacity of the Ministry of Health (MOH) employees in tobacco control and expand the department to increase the enforcement of tobacco-related laws. This includes raising taxes on tobacco products, enforcing bans on tobacco advertising, and prohibiting tobacco industry sponsorships. Additionally, regulations on tobacco product packaging and marketing will be tightened, including the introduction of plain packaging and the ban on flavored tobacco products.

### **7. Expanding smoking cessation services:**

Sustain and expand smoking cessation services across Jordan, ensuring availability in primary healthcare centers. This includes training healthcare professionals to counsel children and improve access to cessation medications. Surveillance of tobacco use will also be enhanced by incorporating occupation and sociodemographic data into databases.

### **8. Promoting healthy environments and nutrition:**

Establish criteria for healthy public spaces that encourage physical activity for all age groups and genders. Additionally, review and enforce regulations on nutrition labeling, the reduction of sugar, salt, and trans fats in food, and the marketing of unhealthy food products. These efforts will be coupled with monitoring school canteen menus and promoting healthy food options in schools and universities.

### **9. Strengthening occupational and environmental health regulations:**

Review and update environmental and occupational health regulations, focusing on the prevention of cancer caused by workplace exposures. This will include regular inspections and monitoring of compliance with safety standards, raising awareness of occupational risks, and enforcing regulations related to the use of pesticides and herbicides.

### **10. Preventing infectious diseases related to cancer:**

Increase awareness of infectious diseases such as HBV and HPV, which are linked to cancer. This will include community education on the importance of vaccination and screening, as well as assessing the burden of HPV infection in specific populations.

### **11. Implementing cancer prevention roadmaps:**

Roll out the colorectal and cervical cancer prevention roadmaps, with a focus on early detection and preventive measures. These efforts will be closely monitored to ensure effective implementation and impact on reducing cancer incidence.

## **Strategic Objective 3: Early detection**

Including screening and early diagnosis: to increase the cancer survival rate in Jordan through strengthening organized early detection programs, screening.

Measures:

### **1. Strengthening governance for early detection:**

Reformulate and reactivate a national multispectral working group dedicated to overseeing the implementation and monitoring of the early detection component of the National Cancer Control Program (NCCP) for both adult and pediatric cancers. This group will ensure that efforts are coordinated and aligned across all relevant stakeholders, including government agencies, healthcare providers, and NGOs.

### **2. Comprehensive situation analysis for evidence-based action:**

Conduct a thorough situation analysis to assess clinical data, available medical resources, financial capacity, and the current referral system for breast and colorectal cancer. The analysis will generate evidence-based recommendations to prioritize early diagnosis and screening efforts according to the country's needs and available resources.

### **3. Developing and standardizing guidelines and referral pathways:**

Review and develop evidence-based guidelines for the early diagnosis and screening of breast and colorectal cancers, deciding on whether to adopt opportunistic or systematic screening

approaches. Establish clear referral pathways from primary healthcare to specialized cancer hospitals and implement standardized referral forms and protocols to ensure consistency and accuracy in patient information across the healthcare system.

#### **4. Capacity building for healthcare providers:**

Implement capacity-building programs to train healthcare providers, including general practitioners, family medicine doctors, midwives, nurses, radiologists, and surgeons, on the newly developed guidelines for early cancer detection. This training will be mandatory or incentivized through professional credits and will focus on fostering collaboration across different levels of care to ensure seamless patient referrals and effective early diagnosis.

#### **5. Enhancing patient navigation and monitoring systems:**

Develop and implement information technology systems to monitor compliance with early diagnosis protocols and ensure effective patient navigation through the healthcare system. Establish a robust monitoring and evaluation framework to track patient outcomes, identify areas for improvement, and conduct regular audits of the early diagnosis pathway to maintain high standards of care.

#### **6. Integrating cervical cancer screening into broader women's health programs:**

Conduct a situation analysis to evaluate the impact of cervical cancer early detection efforts and explore potential integration with breast cancer programs to create a comprehensive “women’s cancer package.” Monitor HPV prevalence and incidence data to inform decisions regarding the HPV vaccination program and secure dedicated funding to support these initiatives.

#### **7. Raising public awareness of early detection and screening:**

Develop and implement community-based campaigns to raise awareness about the signs, symptoms, and benefits of early detection for breast and colorectal cancer. These campaigns will be timed with key awareness days and will aim to increase the uptake of screening services among the general population.

#### **8. Educational initiatives for healthcare providers:**

Conduct educational activities focused on the early detection of the most common cancers, both in adults and pediatrics, at the primary healthcare center level. Training sessions will be held regularly to ensure that healthcare providers are equipped with the latest knowledge and skills to identify cancer symptoms early and refer patients for further testing and treatment.

#### **9. Developing educational materials for early detection:**

Create and distribute educational materials that highlight the signs and symptoms of the most common cancers in adults and pediatrics. These materials will be made available to both healthcare providers and the public, promoting early detection and timely intervention.

## Strategic Objective 4: Management

To equally and equitably provide all cancer patients with appropriate therapy as per national clinical practice guidelines by qualified health care providers.

Measures:

### **1. Strengthening governance for cancer treatment:**

Reformulate and reactivate a national multispectral working group to oversee the implementation and monitoring of the treatment component of the NCCP for both adult and pediatric cancer. This group will be composed of experts with documented qualifications, experience, and free from conflicts of interest, ensuring that treatment practices are consistent and evidence-based across all institutions.

### **2. Developing unified clinical practice guidelines:**

Establish a working group of experts to develop, review, and update national clinical guidelines for the management of common cancers such as breast, colorectal, lung, and bladder cancers. These guidelines will be adapted from established protocols like the UK NICE and NCCN/ASCO guidelines, with an emphasis on palliative care from the outset. Additionally, unified radiotherapy treatment guidelines will be developed, starting with these common cancer sites.

### **3. Training and education of healthcare providers:**

Implement extensive training programs to educate healthcare providers, including physicians, pharmacists, and nurses, on the newly developed clinical guidelines. These programs will standardize competency-based education, ensure proper credentialing, and enforce compliance with national standards. The goal is to create a well-trained oncology workforce capable of delivering high-quality cancer care across all healthcare facilities.

### **4. Developing pediatric cancer management guidelines:**

Formulate unified national clinical guidelines for the treatment of pediatric cancers, focusing on leukemia, B-cell lymphoma, and retinoblastoma. Additionally, standardize the cut-off age for pediatric cancer treatment at 18 years across all facilities, ensuring consistency and alignment with evidence-based practices.

### **5. Specialized oncology training for pediatric care:**

Establish specialized oncology training programs for healthcare providers working in pediatric cancer care. Ensure that pediatric cancer patients are treated by specialists trained specifically in pediatric oncology, thereby improving survival outcomes and the quality of care provided to young patients.

### **6. Defining referral pathways and survivorship programs:**

Develop and implement survivorship and follow-up referral procedures for both adult and pediatric cancer patients. These procedures will ensure that patients receive continuous care post-treatment, with a focus on long-term survivorship. The management of common diagnostic and treatment procedures will be decentralized, while rare and complex cases will be centralized to specialized centers, ensuring that all patients receive the appropriate level of care.

**7. Ensuring the availability of essential cancer drugs:**

Review and update the essential drug list for cancer treatment, ensuring that all necessary drugs, including those not currently approved by JFDA, are available. Explore pooled procurement strategies and strengthen the supply chain to guarantee the uninterrupted availability of essential and supportive drugs for cancer care.

**8. Monitoring compliance with clinical guidelines and improving outcomes:**

Define and collect data sets to monitor compliance with the clinical practice guidelines. Establish a Quality Assurance and Quality Improvement Program to continually assess and enhance the quality of cancer care provided. Regular statistical reports will be generated to track outcomes and identify areas for improvement.

**9. Ensuring radiation safety and security:**

Improve the justification and optimization of diagnostic and treatment procedures involving radiation, in line with IAEA Safety Standards. Collaborate with the Energy and Minerals Regulatory Commission (EMRC) to fully implement existing regulations and establish guidance on site security plans for healthcare facilities utilizing radioactive sources. Additionally, explore training opportunities for healthcare providers on the security of radioactive sources to ensure the safe and effective use of radiation in cancer treatment.

## Strategic Objective 5: Palliative Care

To provide quality and equitable palliative and supportive care services across the care continuum.

Measures:

**1. Establishing national policies for palliative care integration:**

Reformulate and reactivate the national multispectral working group responsible for implementing and monitoring the palliative care component of the NCCP for adult and pediatric cancer. This group will advocate for the inclusion of palliative care in the new MOH strategy and push for the issuance of national policies that support the integration of continuum care, including home health care, within primary healthcare centers.

**2. Conducting a comprehensive assessment of current palliative care policies:**

Conduct an assessment and review of the existing national palliative and home care policies, laws, and regulations, with a focus on the availability and access to essential drugs and opioids. A high-level meeting with the Minister of Health will be convened to discuss and advocate for improved legislation around opioid access and availability, ensuring that palliative care patients receive the medications they need without unnecessary barriers.

**3. Developing and updating national palliative care guidelines:**

Develop and update national policies, procedures, and guidelines for palliative care and home health care, including an ethical and legal framework that addresses the needs of both adult and pediatric patients. These guidelines will include a review of current pain management drugs based on the WHO essential drug list, ensuring that the most effective medications are available for palliative care.

**4. Expanding collaborative agreements to ensure coverage across the kingdom:**

Establish national collaborative agreements across healthcare facilities to ensure that palliative care services are available in all regions, including remote and underserved areas. This will involve partnerships between public and private sectors, NGOs, and other key stakeholders to ensure that patients can access the care they need, regardless of location.

**5. Including palliative care in insurance coverage:**

Advocate for the inclusion of palliative care and home care services within the national cancer care insurance plan. This will ensure that visits and services delivered by physicians, nurses, social workers, and psychologists are covered, making palliative care more accessible to all patients.

**6. Developing and implementing national clinical guidelines for palliative care:**

Review existing guidelines and develop unified national palliative care and pain management guidelines, which will include supportive services such as psychosocial, spiritual, and physiotherapy care. These guidelines will be applied consistently across all healthcare facilities, with ongoing monitoring to ensure compliance.

**7. Training healthcare providers in palliative care:**

Implement comprehensive training programs to build the capacity of healthcare providers, including physicians, nurses, social workers, psychologists, and pharmacists, in palliative care and pain management. This training will also extend to primary healthcare providers to ensure that palliative care is integrated into the broader healthcare system.

**8. Integrating palliative care into medical education:**

Work with educational institutions to integrate palliative care into undergraduate and postgraduate curricula as a mandatory component. This will ensure that new generations of

healthcare providers are equipped with the knowledge and skills needed to deliver high-quality palliative care from the outset of their careers.

**9. Creating a national palliative care database and surveillance system:**

Develop comprehensive data sets and IT systems for palliative and home care services, enabling the collection, analysis, and reporting of data to monitor and improve service delivery. This database will support the continuous improvement of palliative care services and inform future policy decisions.

**10. Promoting palliative care research:**

Encourage and support research and studies on palliative care and home care services, fostering collaboration between healthcare providers, academic institutions, and other stakeholders. This research will contribute to the evidence base for improving palliative care practices and outcomes in Jordan.

## Strategic Objective 6: Surveillance

Strengthen national registry and databases that provide timely, accessible cancer data relevant to incidence and care (including hospital-based registries)

Measures:

**1. Establishing governance for cancer surveillance:**

Formulate a dedicated working group responsible for cancer research and surveillance. This group will coordinate all activities related to cancer registry data collection and reporting for adult and pediatric cancer cases. The group will hold bi-annual meetings to ensure consistent progress and collaboration across all stakeholders, including government and private institutions.

**2. Evaluating and improving current cancer registry systems:**

Conduct a thorough evaluation of both manual and electronic systems used by the Jordan Cancer Registry and all cancer care facilities. This will include a review of current registry variables, with the goal of defining a standardized data set for staging, treatment, and other essential information. The data dictionary will be revised to ensure clarity and consistency, and regular access to diagnostic reports (e.g., pathology, radiology) will be provided to registrars for accurate data entry.

**3. Enhancing cancer data reporting through legislation:**

Review existing legislation related to cancer data reporting and propose amendments to make reporting mandatory for all healthcare providers. This will ensure that complete and accurate cancer data is consistently reported, facilitating better cancer surveillance and research across the country.

#### **4. Integrating civil registration and health data:**

Integrate civil status data, including death registries, with the cancer registry to enhance the accuracy of survival data and provide a comprehensive view of cancer outcomes. This integration will allow for more accurate tracking of patient survival rates and cancer-related mortality.

#### **5. Developing cancer indicators and upgrading pediatric data collection:**

Develop key cancer indicators and upgrade the Jordan Cancer Registry (JCR) to capture more detailed pediatric cancer-specific information using internationally recognized diagnosis classification and staging systems, such as ICC-3 and the Toronto staging system. The goal is to ensure that cancer outcomes are consistently documented and used for improving care.

#### **6. Shifting to electronic cancer data reporting:**

Transition from manual to electronic cancer data reporting systems across all hospital-based registries. This will involve harmonizing the software systems to ensure interoperability with the Jordan Cancer Registry (CanReg5). The electronic reporting system will enable the generation of real-time statistical reports, providing timely insights into the state of cancer control in Jordan.

#### **7. Developing SOPs for hospital-based cancer registries:**

Develop comprehensive Standard Operating Procedures (SOPs) and technical manuals for hospital-based cancer registries. These guidelines will standardize the processes for cancer data registration and reporting, including guidelines for cancer staging, demographic data collection, and data quality assurance.

#### **8. Training and capacity building for registry staff:**

Conduct training programs to enhance the skills and knowledge of both population-based and hospital-based cancer registry staff. The training will focus on SOPs, data reporting and analysis, and quality control. These programs will ensure the availability of qualified full-time registry staff, and additional training will create a cadre of trainers to sustain capacity-building efforts.

#### **9. Ensuring data quality and assessing outcomes:**

Implement quality checks to ensure the completeness and accuracy of cancer registry data. Continuous assessment of cancer stages and survival outcomes for both adult and pediatric cancer cases will be conducted to identify areas for improvement in diagnosis, treatment, and patient care.

#### **10. Monitoring and improving cancer diagnostic data:**

Regularly assess the quality of cancer diagnostic data, with a focus on ensuring accurate staging and registration of cancer cases. Monitoring will be a continuous process, with the goal of

improving the accuracy and usefulness of the national cancer database for future planning and research.

## Strategic Objective 7: Research

To direct and empower research and evidence generation to inform policies, processes and interventions to enhance cancer control outcomes.

Measures:

### **1. Developing a coordinated cancer research strategy:**

Formulate a multidisciplinary group to coordinate collaboration between research institutions and cancer care facilities. This group will identify and prioritize urgent research gaps and needs, ensuring that research efforts align with national cancer control priorities. The group will meet bi-annually to review progress and update priorities as needed.

### **2. Establishing research priorities:**

Identify research gaps based on clinical and public health needs, focusing on areas that will directly inform policy and guideline development. The research priorities will be developed through collaboration with relevant stakeholders, including universities, healthcare facilities, and professional councils, to ensure that they address the most pressing challenges in cancer care.

### **3. Updating national surveys to include cancer-related data:**

Update existing national surveys, such as the Steps Survey and the Department of Statistics Survey, to include questions related to cancer control and its main risk factors. This update will also include data on individuals diagnosed with cancer, providing a comprehensive understanding of the cancer burden in Jordan and informing future research and policy development.

### **4. Promoting research, education and training:**

Collaborate with private and public universities to conduct training and educational courses on cancer research for undergraduates, graduates, and healthcare professionals. These courses will aim to build research capacity and foster a culture of research within the healthcare workforce, ensuring that future research is grounded in high-quality methodology and addresses relevant clinical and public health questions.

### **5. Securing sustainable funding for cancer research:**

Identify and establish sustainable funding sources for ongoing cancer research. This will involve forming partnerships with national and international organizations, government agencies, and private sector stakeholders to secure financial support for research initiatives. Sustainable

funding will ensure that research efforts can continue long-term, contributing to continuous improvements in cancer care and control.

# Action plan for Cancer Control 2026-2027

## 1. Governance

Objectives	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation
<b>Objective: Oversee and lead cancer control programs in Jordan.</b>				
Establish national governance of cancer control (administrative, clinical, and financial)	- Reformulate and reactivate the national multisectoral high-level committee for Cancer Control informed by established technical committees' recommendations (working groups), led by the MOH to act as the national governing body (set national financial policies, approve plans and clinical guidelines, issue legislations, align and coordinate efforts, enforce and monitor implementation) for adult and pediatric cancer with the inclusion of all cancer stakeholders to enhance support and access to cancer care for patients and their families.	Responsible: MOH  Relevant: RMS, KHCC, JUH, KAUH, PHA, private sector, WHO, JCDC	M1-M2	TORs developed; members nominated through a MOH bylaw.  progress reports
	- Strengthen the cancer control unit by allocating adequate human resources and ensuring staff retention through contractual enhancements, to oversee the strategy implementation, monitor progress, and coordinate with all adult and pediatric cancer care stakeholders.	Responsible: MOH	M1 – M12	TORS developed, job descriptions developed, salaries improved, & quarterly progress reports shared with all relevant stakeholders.
	- Define the cancer care component within the overall health essential benefit package of cancer care including palliative care and supportive therapy, satisfying strong coordination and integration of cancer care across all service providers.	Responsible: MOH  Relevant: RMS  Private sectors KHCC, JUH, KAUH, PHA, FDA, GPD, WHO, health insurance	M3-M12	Essential package, developed, approved, and disseminated
	- Develop a plan for a national participatory and sustainable funding model for cancer care including palliative care, that:	Responsible: MOH/ HIA	M3-M 24	Engagement with the relevant and responsible bodies, funds

Objectives	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation
	<ul style="list-style-type: none"> <li>- Ensure consistent, high-quality cancer care and equitable access across all treatment facilities for all individuals diagnosed with cancer.</li> <li>- Increase health insurance coverage, specifically for cancer, of uninsured people (including refugees and other vulnerable groups).</li> <li>- Increases access and affordability to essential benefit packages of cancer services, regardless of insurance plan.</li> </ul>	<p>Relevant: RMS</p> <p>MOH, KHCC, JUH, KAUH, private sector, Prime Ministry Office, Ministry of Finance (tax department), KHCF, Social Security, Parliament &amp; Senate, WHO, private health insurance companies, JCDC</p>		identified, legal and economic mapping conducted, and regulations developed and endorsed.
	<ul style="list-style-type: none"> <li>- Develop and implement a comprehensive national expansion plan for cancer care units in Jordan, ensuring patients equitable access to high-quality services across all regions (north, middle, and south) to enhance resource allocation and address medical equipment availability and needs.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS</p> <p>Private sector KHCC, JUH, KAUH, PHA, JFDA, GPD, WHO, health insurance.</p>	M1-M12	Approved documented national expansion plan
	<ul style="list-style-type: none"> <li>- Review, coordinate, and publicize clear cancer-related coverage and referral system regulations and procedures including childhood cancer and palliative care.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS KHCC, JUH, KAUH, HIA, PHA, WHO</p>	M3-M12	Procedures & regulations developed, endorsed, & communicated. Numbers of referrals.
International partnership and technical support	<ul style="list-style-type: none"> <li>- Explore collaboration between Jordan pediatric oncology centers (RMS and KAUH) through Pediatric Oncology Eastern and Mediterranean Group (POEM) Multidisciplinary Tumor Board MDTB discussions.</li> <li>- Engage in WHO Global Initiatives include Cervical Cancer Elimination Initiative, Global Initiative for Childhood Cancers, and Childhood Cancer Medicine Platforms.</li> <li>- Participate in IAEA Technical Cooperation cancer-related Program and Rays of Hope Initiative.</li> <li>- Join IARC Global Initiative for Cancer Registry Hub in Izmir, and Cancer Screening initiatives.</li> </ul>	<p>IARC, WHO, MOH, IAEA, RMS KHCC, JUH, KAUH,</p>	M1-M24	<p>No. of collaborations and partnerships.</p> <p>Capacity-building training, technical missions and assessments performed</p>

## 2. Prevention

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
<b>Objective 2: Reduce cancer incidence through planning and implementing preventive measurements and reduce exposure to cancer risk factors</b>					
Promoting a healthy lifestyle through implementing social and behavioral communication programs with a focus on the primary healthcare level (PHC) and community level	- Formulate a multi-sectoral national prevention working group tasked with the implementation and monitoring of the prevention component of the strategy for adult and pediatric cancer (e.g., tobacco control, diet and physical activity promotion, infectious diseases, and occupational/ environmental carcinogen control).	Responsible: MOH  Relevant: RMS, KHCC/KHCF, JUH, KAUH, PHA, relevant NGOs, National Women Health Care Center, WHO, JFDA. MOE, MOHE, medical syndicates and councils, universities, GAM,	M1-M2	Members nominated; TORs developed Regular meetings with Minutes of Meetings and progress reports	2000 JD
	- Develop, pretest/pilot, approve, and regularly update a comprehensive toolkit containing key awareness content focused on lifestyle, quality of life of smokers and their family/ dependents, and risk factors and their correlation with cancer targeting health care providers and community. - Design campaigns with clear implementation channels and reporting mechanisms such as establishing and promoting a hotline to the target group.	Responsible: MOH  Relevant: RMS, university hospitals (JU, KAUH), RHAS, JBCP, KHCC/KHCF, EMPHNET, relevant tobacco control, nutrition, environment, and physical activity-related NGOs, RHAS, National woman health care center, JFDA, WHO	M3-M9  Continuous	Toolkit (concept, messages) developed and approved.  No. of campaigns, Reach, and engagement.	2000 JD
	- Conduct national communication awareness campaigns with a unified message and outreach activities about lifestyle risks and their correlation to cancer and integrate policy improvement messages into campaigns.	Responsible: MOH  Relevant: RMS, University hospitals (JUH, KAUH), KHCC/KHCF, EMPHNET, RHAS, WHO, tobacco control, nutrition, environment, and physical activity related NGOs, JFDA, National Women Health Care Center, WHO	M3-M24  Annual, ongoing, with key dates (e.g cancer day, colorectal month, breast cancer	Number of awareness campaigns/ activities implemented (digital, and outdoor).	100,000 JD annually

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
			month, cervical cancer day, prostate cancer day, Lung Cancer)	No. of people reached. Post-campaign assessment report	
	<ul style="list-style-type: none"> <li>- Implement educational and awareness activities about healthy lifestyles, stress reduction, and mental health, targeting mothers, children, and adolescents through maternal and child health, and school health programs in primary health care centers.</li> <li>- strengthen the prohibition of selling/ marketing tobacco to/(at) schools and monitor compliance.</li> <li>- Enforce regulations related to the distance of tobacco selling points from schools.</li> <li>- Enforce regulations prohibiting the sale of smoking products next to candy and food items at supermarkets.</li> <li>- Strengthen the capacity and the role of community health workers in smoking secession efforts.</li> <li>- Invest in school-health-related interventions.</li> <li>- Create tobacco ambassadors among students.</li> <li>- Embed tobacco cessation into educational curricula at schools.</li> <li>- Include stress reduction &amp; mental health.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: MoE, CSOs (e.g., Tobacco-Free Jo), Institute for Family Health, Noor Al Hussein Foundation, RHAS, KHCC/KHCF, MoHE, Youth empowerment-related NGOs, relevant EMPHNET, tobacco control, nutrition, environment, and physical activity related NGOs, JFDA, National woman health care center, WHO, UNFPA, JBCP</p>	<p>M3-M24</p> <p>10 schools/universities per year.</p> <p>190 PHC</p>	<p>No. of schools/universities</p> <p>No. Of activities</p> <p>No. Of participants</p> <p>PHC</p> <p>NGOs</p>	25,000 JD annually
	<ul style="list-style-type: none"> <li>- Conduct educational and training activities on healthy lifestyles for healthcare providers at the primary healthcare centers.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, University hospitals (JUH, KAUH), KHCC/KHCF, EMPHNET, RHAS, WHO, tobacco control, nutrition,</p>	M3-M24	<p>No. of activities.</p> <p>No. of participants.</p>	35000 JD annually

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
		environment, and physical activity-related NGOs, JFDA, National Women Health Care Center, WHO		No. of centers trained  Training material	
Tobacco governance	<ul style="list-style-type: none"> <li>- Strengthen the capacity of MOH employees in all aspects related to tobacco control and expand the department.</li> <li>- Increase taxes on tobacco to lower affordability.</li> <li>- Enforce laws of tobacco control and assign tasks to MOH.</li> <li>- Establish selection criteria for tobacco and food legislation committees to be health-oriented rather than industry-friendly (scrutinize candidates for their affiliations, expertise, conflict of interest, etc.).</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: Ministry of Industry, Trade, and Supply, Municipalities, Ministry of Labor, tobacco control NGOs, JFDA, WHO, Parliament.</p>	M3- M24		
Promote an enabling environment conducive to a healthy lifestyle through legal enforcement.  (Tobacco-related interventions extracted from National tobacco strategy)	<ul style="list-style-type: none"> <li>- Enforce the ban on the marketing and promotion of tobacco products and e-cigarettes.</li> <li>- Prohibit tobacco industry sponsorship of events e.g. school events or sports activities, etc.</li> <li>- Ban nicotine products before coming to market.</li> <li>- Regulate and monitor online sales of tobacco products.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: Ministry of Industry, Trade, and Supply, Municipalities, Ministry of Labor, tobacco control NGOs, JFDA, WHO, Parliament.</p>	M3- M24	No. of inspections  No. of incidents and violations	20, 000 JD
	<ul style="list-style-type: none"> <li>- Enforce the ban on indoor smoking (traditional tobacco and e-cigarettes) in public places to prevent second-hand smoking.</li> <li>- Increase the legal age for cigarettes and e-cig sales to 21 years old and link it to alcohol regulation.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: Ministry of Industry, Trade, and Supply Municipalities, Ministry of Labor, JFDA, tobacco control NGOs, WHO.</p>	M3- M24	No. of inspections  No. of incidents and violations	20,000 JD
	<ul style="list-style-type: none"> <li>- Review and update the content and graphical health warning for cigarettes and molasses (shisha) and push for plain packaging.</li> </ul>	<p>Responsible: MOH</p>	M3 – M6	Issues of new standards for	20,000 JD

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
	<ul style="list-style-type: none"> <li>- Prohibit the use of deceptive language for tobacco products.</li> <li>- Increase the size of the graphic warning to cover 50-85% of the packaging.</li> <li>- Ban flavors in smoking products e.g. menthol and molasses.</li> <li>- Ban advertisements through social media channels.</li> </ul>	Relevant: JSMO, JFDA.		cigarettes and molasses	
	<ul style="list-style-type: none"> <li>- Sustain and continue building capacity for smoking cessation services and ensure availability in primary health care centers.</li> <li>- Increase the number of tobacco cessation clinics.</li> <li>- Train health care professionals in clinics to counsel children.</li> <li>- Improve the availability and sustainability of tobacco cessation medication.</li> <li>- Enhance surveillance of tobacco use by incorporating occupation and sociodemographic data into databases for better profiling of smokers.</li> </ul>	Responsible: MOH Relevant: KHCC, WHO.	M1-M24	No. of smoking cessation clinics  Available drugs and tools  No. of the clients who participated in the quit smoking program No. of PHC-provided smoking cessation services.  No. of trained healthcare providers on smoking cessation counseling	15,000 JD annually
	<ul style="list-style-type: none"> <li>- Establish criteria for healthy public places and promote spaces to practice physical activity for all age groups and genders.</li> </ul>	Responsible: MoH  Relevant: Ministry of Public Works and Housing, MOY, GAM, municipalities, WHO	M12- M24	No. of public places with outdoor gyms, sidewalks, and bicycle trails	10, 000 JD

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
Healthy Nutrition, and promotion of physical activity	- Review and enforce the regulations of nutrition facts labeling, and food products marketing.	Responsible: MOH Relevant: JSMO, JFDA, MIT WHO.	M3 – M24	Regulations developed and endorsed	22,000 JD
	- Review regulations on sugar, salt, and trans fatty acids reduction in staple food. - Review regulations relevant to the manufacturing and packaging of smoked and processed food. - Review and update regulations on marketing and sponsorship by the food industries. - Increase the size and font of food labeling. - Raise public awareness of food regulations and the importance of reading food labels. - Unify the names of food ingredients.	Responsible: MOH Relevant: JSMO, JFDA, MIT, WHO.	M3 – M24	Regulations developed and endorsed  Developed and disseminated messages.	2,000 JD
	- Monitor school food canteen menus and vending machines to prevent and ban the sale of unhealthy foods and sugary drinks in schools and universities. Encourage healthy food options.	Responsible: MOH, Relevant: JSMO, JFDA, MOE, MOHE, relevant NGOs, WHO.	M3 – M24	Healthy food menus approved and endorsed by MOE and MOHE	16,000 JD
Promote the concept of occupational health and raise awareness about work-related exposures and risks	- Review environmental and occupational legislation and governmental stakeholder roles to develop an occupational health action plan for the prevention mapping of a high-risk area.	Responsible: MOH  Relevant: MOL, ministry of environment, MOIT, SSD, environmental and labor societies, JSMO, WHO  Ministry of Industry and Trade	M3-M8	Recommendation's report	2,000 JD
	- Apply and monitor environmental and occupational (radiation, chemical, biological) compliance against safety standards in workplaces.	Responsible: MOH  Relevant: MOL, ministry of environment, MOIT, SSD, environmental and labor societies, JSMO, WHO	M3-M24	No. of inspections  No. of incidents and violations	32,000 JD

Objective	Action	Responsible and relevant institutions/agencies	Timeline	Monitoring & Evaluation	Estimated cost
	<ul style="list-style-type: none"> <li>- Increase awareness of workforces on occupational health and the environmental and occupational risks.</li> <li>- raise awareness, put and enforce regulations related to the use of pesticides and herbicides.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: MOL, ministry of Environment, SSD, environmental and labor societies, JSMO, WHO.</p>	M3-M24	<p>No. of visits</p> <p>No. of people reached</p>	5,000 JD
Prevent infectious diseases related-cancers.	<ul style="list-style-type: none"> <li>- Increase awareness of infectious disease risks (HBV, HPV, ...) in the community</li> <li>- Increase awareness of the age for screening.</li> <li>- Assess the actual burden of HPV infection in the general population (in Mafraq governorate).</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, University hospitals (JUH, KAUH), private hospitals KHCC/KHCF, Institute for Family Health/ Noor Al Hussein Foundation, RHAS, EMPHNET, JCDC, and other NGOs, JFDA, WHO, UNFPA, community health workers</p> <p>Relevant: RMS, University hospitals (JUH, KAUH), private hospitals KHCC/KHCF</p>	<p>M3-M24</p> <p>M1-M9</p>	<p>No. of activities conducted (digital campaigns, brochures)</p> <p>Report of findings</p>	<p>10,000 JD</p> <p>50,000 JD</p>
	<ul style="list-style-type: none"> <li>- Implementation of Colo-rectal and cervix cancer roadmap. Move to early detection section</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private hospitals. JFDA WHO.</p>	M3-M12	Recommendations issued	60,000 JD

### 3. Early Detection

Objectives	Action	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
<b>Objective: Increase the survival rates of cancers in Jordan that are amenable to early detection through early diagnosis and screening</b>					
Strengthen and establish early diagnosis and screening national programs for breast cancer and colorectal cancer, respectively.	- Reformulate and reactivate the national multispectral working group responsible for implementing and monitoring the early detection component of the NCCP for adult and pediatric cancer.	Responsible: MOH  Relevant: RMS, KHCC/KHCF/JBCP, JUH, KAUH, PHA, National Women Health care center, relevant NGOs, WHO, JBCP	M1-M2	Members nominated; TORs developed; meeting twice a year with Minutes of Meetings and Bi-annual progress reports	2, 000 JD
	- Conduct overall situation analysis (in terms of clinical data, available medical resources, financial resources, and referral system ...) to generate evidence-based recommendations about early diagnosis and screening of breast cancer and colon cancer according to priorities.	Responsible: MOH  Relevant: RMS, KHCF/ KHCC, University hospitals (JUH, KAUH), private sector, oncology societies, medical syndicates, and councils, HCAC, National Women Health care center, JCDC, WHO, JBCP UNFPA	M3- M12	Assessment finalized and recommendations issued	60,000 JD
	- Review and prioritize existing and/or develop evidence-based guidelines (early diagnosis and screening) for breast and colorectal cancers to choose opportunistic or systematic screening. - Develop a clear referral pathway for early diagnosis of cancer from primary health care to cancer hospital with the participation of relevant stakeholders. - Implement standardized referral forms and protocols to ensure consistency, compliance and accuracy in patient information and referral processes.	Responsible: MOH  Relevant: RMS, KHCF/ KHCC, University hospitals (JUH, KAUH), private sector, oncology societies, medical syndicates, and councils, National woman health care center, HCAC, WHO, JCDC. JBCP UNFPA	M12-M18	Approved and endorsed guidelines.	6,000 JD

Objectives	Action	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	<ul style="list-style-type: none"> <li>- Conduct capacity building on these guidelines for healthcare providers (GPs, family medicines, community medicine) midwives, and nurses, at the PHC level. This training should be mandatory or provide credits.</li> <li>- radiologists, internists, pediatricians, surgeons, etc.</li> <li>- Foster collaboration between healthcare providers across different levels of care to ensure seamless patient referral</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, medical syndicates, and councils, Institute for Family Health/ Noor Al Hussein Foundation, National woman health care center, JCDC, and WHO, JBCP UNFPA</p>	<p>M12- M24</p> <p>Annual refreshment</p>	<p>No. of training sessions</p> <p>No. of participants</p>	50,000 JD
	<ul style="list-style-type: none"> <li>- Establish &amp; Monitor compliance and data reporting through the development of information technology systems to ensure patient navigation.</li> <li>- Establish a monitoring and evaluation system to track patient progress and identify areas for improvement in the cancer early diagnosis pathway.</li> <li>- Conduct regular audits of the early diagnosis pathway to identify gaps and develop improvement measures.</li> <li>- Monitor and evaluate the effectiveness of the early diagnosis pathway in terms of outcomes, provider satisfaction, and cost-effectiveness. Quality Assurance for early detection.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC/KHCF, University hospitals (JUH, KAUH), private sector, HCAC, JCDC, WHO. JBCP UNFPA</p>	<p>M9-</p> <p>Continuous</p>	<ol style="list-style-type: none"> <li>1. No. of screening tests</li> <li>2. % of early detection of total diagnosed cases.</li> <li>3. Cancer stages</li> </ol>	500,000 JD
	<ul style="list-style-type: none"> <li>- Conduct situation analysis on the impact of cervical cancer early detection and potential integration with breast cancer programs within a “women’s cancer package”.</li> <li>- Monitor HPV prevalence and strengthen incidence data of cervical cancer to inform</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC/KHCF, University hospitals (JUH, KAUH),</p>	M3-M12	Recommendations issued	Included in the second activity (60,000 JDs).

Objectives	Action	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	<p>decision-making on the HPV vaccination program (based on cost-effectiveness).</p> <p>- Secure a dedicated budget for this program.</p>	<p>private sector, HCAC, National woman health care center, JCDC, WHO.</p> <p>JBCP UNFPA</p>			
Conduct awareness campaigns on early detection and screening of colorectal and breast cancer	<p>- Develop and implement community-based campaigns about signs/symptoms, and early detection benefits.</p>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC/KHCF, University hospitals (JUH, KAUH), CSOs, media, Institute for Family Health/ Noor Al Hussein Foundation, RHAS, EMPHNET, National woman health care center, other relevant NGOs, JCDC, WHO. JBCP UNFPA</p>	<p>M18-M24</p> <p>Annual</p> <p>ongoing, with key dates (e.g October, March)</p>	<p>Post-campaign assessment report</p> <p>No. of screening tests</p>	50,000 JDs
Enhance the knowledge and skills of healthcare providers about signs and symptoms of the most common cancers amenable for early detection in adults and pediatrics at the primary healthcare center level.	<p>- Conduct educational activities on screening and early detection of the most common cancers in adults and pediatrics at the PHC level (start with specific locations)</p>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, medical syndicates, and councils, Institute for Family Health/ Noor Al Hussein Foundation, RHAS, EMPHNET, other relevant NGOs, WHO. JBCP UNFPA</p>	<p>M18-M24</p> <p>Annual refreshment</p>	<p>No. of training sessions</p> <p>No. of participants</p> <p>No. of centers trained</p>	35,000 JD annually

Objectives	Action	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	<ul style="list-style-type: none"> <li>- Develop early detection educational material on signs and symptoms of most common cancers for adults and pediatrics.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, medical syndicates, and councils, Institute for Family Health/ Noor Al Hussein Foundation, RHAS, EMPHNET, other relevant NGOs, WHO.</p>	M12-M18	Booklet produced	10,000 JDs
Specific cancer-related interventions	<p><b>Breast Cancer</b></p> <ul style="list-style-type: none"> <li>- Increase capacity in breast imaging services, image guided biopsies and in histology laboratories.</li> <li>- Enable centralization of image archiving and interpretation and facilitate transfer of images via teleradiology.</li> <li>- Implement a demonstration project on the feasibility and sustainability of a breast cancer screening program based on mammography, given that histology and IHC laboratories and treatment facilities (surgery, RT and chemotherapy) are in place.</li> </ul> <p><b>Colorectal cancer</b></p> <ul style="list-style-type: none"> <li>- Launch colorectal cancer screening program.</li> </ul> <p><b>Lung cancer</b></p> <ul style="list-style-type: none"> <li>- Conduct a situation analysis and feasibility, acceptability, safety study for lung cancer screening based on low dose CT screening (medium term).</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, medical syndicates, and councils, Institute for Family Health/ Noor Al Hussein Foundation, RHAS, EMPHNET, other relevant NGOs, WHO. JBCP UNFPA.</p>	M18-M24	<p>Gaps identified.</p> <p>Recommendations approved and issued.</p>	3,000 JDs

## 4. Diagnosis and Treatment

Objectives	Actions	Relevant institutions/Agencies	Timeline	Monitoring & evaluation	Estimated Cost
<b>Strategic Objective 4: All cancer patients receive treatment as per standard clinical practice guidelines by qualified health care providers</b>					
Develop and implement unified clinical practice guidelines for breast, colorectal, lung, and bladder cancers.	- Reformulate and reactivate the national multisectoral working group responsible for implementing and monitoring the treatment component of the NCCP for adult and pediatric cancer, based on documented qualifications, experience and independent of any conflict-of-interest including workplace.	Responsible: MOH  Relevant: RMS, KHCC/KHCF, JUH, KAUH, PHA, relevant NGOs, WHO	M1-M2	Members nominated; TORs developed, meeting twice a year with Minutes of Meetings and Bi-annual progress reports	2,000 JD
	- Formulate a working group of experts to develop, review, and update national clinical guidelines based on documented qualifications, and experience and independent of any conflict-of-interest including work location (with emphasis on palliative care early on). - Establish national cancer management protocols and guidelines (diagnosis, staging and treatment) by adapting existing guidelines like UK NICE, and resource-stratified NCCN/ASCO guidelines, including auditing of treatment adherence. - Develop unified/national radiotherapy treatment guidelines, starting with common sites including breast, lung, colorectal, and bladder cancer.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, JFDA, WHO.	M3-M15	Members and TOR identified  and guidelines developed and endorsed	20,000 JD
	- Train and educate healthcare providers on guidelines including physicians, pharmacists, nurses, etc. - Standardize competency-based education and training and credentialing of oncology workforce programs and ensure compliance oversight.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), and private sector, medical syndicates, and councils	M15-M24	No. of healthcare providers trained  No. of facilities participated	30,000 JD

Objectives	Actions	Relevant institutions/Agencies	Timeline	Monitoring & evaluation	Estimated Cost
Develop and implement unified standard treatment guidelines for three pediatric cancers: leukemia, B-Cell Lymphoma, and Retinoblastoma	- Develop unified national clinical guidelines.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector	M3-M12	Members and TOR identified, and guidelines developed and endorsed	15,000 JD
	- Establish and unify the cut-off age (18 years old of age) for pediatric cancer treatment based on scientific evidence of survival outcomes at the national level and across all treatment facilities.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, WHO.	M3-M12	The Pediatric cut-off age endorsed	-
	- Train and educate healthcare providers on these three guidelines and the other three guidelines (low-grade glioma, Wilms tumor, Hodgkin Lymphoma).	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, medical syndicates, councils, WHO.	M12-M24	No. of healthcare providers trained  No. of facilities participated	30,000 JD
	- Establish a specialized oncology training program for healthcare providers working in the field of cancer care at MOH (Al Bashir).  - Assure that pediatric cancer patients are treated by pediatric oncology-trained specialists, where possible.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), and private sector, medical syndicates, and councils	M3-M24	Training topics identified.  Training curriculums and outlines were developed.  No. of trained staff.	100,000 JD
National guidelines and referral pathways defined	- Develop survivorship and follow-up referral procedures for adults and pediatric patients across all treatment facilities and other healthcare institutions.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH,	M 12-M24	Follow-up referral procedures between treating facilities and other healthcare	2,000 JD

Objectives	Actions	Relevant institutions/Agencies	Timeline	Monitoring & evaluation	Estimated Cost
	<ul style="list-style-type: none"> <li>- Develop survivorship programs for follow-up and long-term care of cancer survivors.</li> <li>- Align insurance coverage with follow-up and survivorship treatment guidelines and plans.</li> <li>- Develop dedicated PHC centers across the country staffed with trained family medicine specialists on using standard protocols.</li> <li>- Decentralize management of common, simple diagnostics and treatment procedures, and centralize management of rare cancers, complex diagnostics, and treatments (e.g., BMT, pediatric cases, limb salvage). Develop a referral system between centers for patients with specialized needs, such as stereotactic radiotherapy, pediatric radiotherapy, or treatment of rare cancers.</li> </ul>	KAUH), private sector, WHO.		institutions developed and issued.	
Ensure the availability of all essential drugs and supportive drugs for cancer care	<ul style="list-style-type: none"> <li>- Review currently available drugs in the essential drug list and availability on-premises and issue recommendations based on WHO EDL and work on joining the UICC coalition for drug procurement.</li> <li>Explore pooled procurement of drugs/consumables and strengthen the supply chain for uninterrupted availability.</li> <li>Ensure the availability of six commonly used childhood chemotherapy agents currently not on the JFDA-approved drug list (e.g., Procarbazine, Peg-asparaginase).</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, JFDA, GPD, WHO.</p>	M1-M3	Recommendations issued	1,000 JDs
Monitor compliance with Clinical Practical Guidelines, outcome, and survival.	<ul style="list-style-type: none"> <li>- Define data set, collect and assess data.</li> <li>- Enhance Quality Assurance and Quality Improvement Program (immediate).</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, JFDA, GPD, WHO.</p>	<p>M3-M6</p> <p>Continuous</p>	Data variables identified and approved. Statistical reports. % of incomplete and incorrect data	2,000 JD

Objectives	Actions	Relevant institutions/Agencies	Timeline	Monitoring & evaluation	Estimated Cost
<b>Radiation Safety and Security of Radioactive Sources</b>	<ul style="list-style-type: none"> <li>- Improve the justification and optimization of diagnostic and treatment procedures (to comply with IAEA Safety Standards) and which are part of the regulations and monitor adherence.</li> <li>- Increase collaboration between MoH and EMRC to fully implement existing regulations (MoU on carrying out joint activities has been prepared but not yet signed.)</li> <li>- Establish guidance on the site security plan for all operators, including healthcare facilities. Ensure that all machines using RS (Gamma Knife and brachytherapy) are equipped with a sound physical protection system.</li> <li>- Explore training opportunities in security of radioactive sources provided by EMRC, IAEA and others.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC, University hospitals (JUH, KAUH), oncology societies, JFDA, GPD, WHO.</p>	M1-24	M&E report issued	

## 5. Palliative Care

Objective	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
<b>Strategic Objective 5: Provide quality and equitable palliative care services across the kingdom</b>					
Develop national palliative care and home health care policies and procedures to support the integration of continuum care within PHC including availability and access to drugs and opioids.	<ul style="list-style-type: none"> <li>- Reformulate and reactivate the national multisectoral working group responsible for the implementation and monitoring of the palliative care component of the strategy for adult and pediatric cancer.</li> <li>- Conduct a high-level meeting with the Minister of Health to raise the priority accorded to palliative care; advocate for issuance of a policy for palliative care, and inclusion of adult and pediatric PC in the new upcoming MOH strategy</li> </ul>	Responsible: MOH -National Palliative Care Committee  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private hospitals, Al Malath Society, oncology societies, Jordanian Society for Palliative Care and Pain Management, JFDA, WHO	M10-M11	Members nominated; TORs developed; meeting twice a year with Minutes of Meetings and Bi-annual progress report	2,000 JD
	<ul style="list-style-type: none"> <li>- Conduct assessment and review of current available national palliative and home care policies, laws, and regulations including drugs and opioids amount and duration, availability, and access (prescription legislation).</li> <li>- Convene a meeting with all key stakeholders to review the opioid legislation to improve access and availability of opioids.</li> </ul>	Responsible: MOH -National Palliative Care Committee  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, Jordanian Society for Palliative Care and Pain Management, JFDA, WHO, Ministry of Interior Antinarcotics Department, UNODC	M3-M6	Situational analysis report and recommendations issued.	2,000 JD
	<ul style="list-style-type: none"> <li>- Update or develop national policies and procedures and guidelines for adults and pediatric palliative care and home health care including an ethical and legal framework.</li> </ul>			No. of policies developed or modified. No. of developed and approved policies.	12,000 JD

Objective	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	- Review current available palliative and pain management drugs based on the WHO essential drug list.	Responsible: MOH -National Palliative Care Committee  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, Jordanian Society for Palliative Care and Pain Management, JFDA, WHO.	M3-M9	EDL-approved and palliative care drugs included.	2,000 JDs
	- Establish national collaborative agreements across facilities to ensure coverage of all peripheries.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, Jordanian Society for Palliative Care and Pain Management, WHO.	M3-M12	No. of agreements issued No. of referred patients. No. of institutions engaged	2,000 JDs
	- Include palliative care and home care visits and services delivered by physicians, nurses, social workers, and psychologists within the cancer care insurance plan.	Responsible: MOH-National Palliative Care Committee  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, Jordanian Society for Palliative Care and Pain Management, WHO.	M3-M12	Legislation approved and issued.	12,000 JD
Develop and implement national palliative care, pain management, and home health care clinical guidelines for adult and pediatric patients	- Review currently available guidelines and - develop unified national palliative care and pain management guidelines including supportive services, psychosocial, spiritual, and physiotherapy	Responsible: MOH -National Palliative Care Committee  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, Jordanian Society for Palliative Care and Pain Management, JFDA, WHO.	M6-M12	Clinical Practical Guidelines application Guidelines developed and approved. No. of implementing institutions % of compliance in facilities	10,000 JD

Objective	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	- Train and build the capacity of healthcare providers in palliative care and pain management including physicians, nurses, social workers, psychologists, and pharmacists in addition to primary healthcare providers.	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, Al Malath Society, EMPHNET, Jordanian Society for Palliative Care and Pain Management, JFDA, WHO.	M12–M24	No. of training sessions  No. of participants.	30,000 JD
	- Integrate palliative care in the undergraduate and postgraduate curriculums as a mandatory component	Responsible: MOH  Relevant: RMS, KHCC, University hospitals (JUH, KAUH), private sector, MOE, MOHE, medical syndicates, and councils.	M3-M24	No. of universities that engaged.  No. of curriculums modified.	2,000 JDs
Create a national palliative and home care database and surveillance systems	- Develop palliative care and home care data sets and create IT systems.	Responsible: MOH  Relevant: HIA, Jordan Association for Medical Insurance, RMS, KHCC, University hospitals (JUH, KAUH), PHA, HIA, private sector, Jordan Association for Medical Insurance, Jordanian Society for Palliative Care and Pain Management. HCAC, Hakeem, WHO.	M12-M24	Set of variables identified and approved	12,000
	- Train healthcare providers on data collection and entry.		M12-M24	No. of participants.  No. of educational sessions	10,000 JD
	- Analyze and report data regularly.		12-M24	Annual report	-
	- Encourage palliative care and home care research and studies with concerned parties.		M12-M24	No. of research and publications	10,000

## 6. Cancer Registry and Surveillance

Objectives	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
Strategic Objective 6: Maintain and expand an updated and accurate national cancer database					
Improve quality of hospital and population-based cancer registry reporting system for adults and pediatric cancer cases	- Formulate a working group for cancer research and surveillance.	Responsible: MOH Relevant: RMS KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M1	TORS developed and progress report issued	1,000 JD
	- Evaluate current manual and electronic systems and processes used at the Jordan Cancer Registry and across all cancer care and diagnostic facilities. - Review current registry variables and define the data set for the staging, treatment, and other information needed for adult and pediatric cases. - Revise and standardize the data dictionary of registries. - Create access to collect cancer-related data (risk factors, early detection tests) from all working parties on regular basis. - Ensure registrars access to required diagnostic reports including pathology and radiology reports.	Responsible: MOH Relevant: RMS KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.  -to include international parties (IARC, WHO....)	M2-M6	Assessment report findings	-
		Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M2-M6	Identification of variables	2,000 JD
	- Review current legislation regarding mandatory cancer data reporting and propose any legal amendment if needed.	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M1-M12	Recommendations Report	-
	- Integrate and synchronize civil status data/ death registry with the cancer registry system.	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO. Civil registration.	M6-M12	% of integration Survival data	20,000 JD
	- Develop key cancer indicators and link the CanReg5 to Datawarehouse.	Responsible: MOH	M3-M12	Indicators developed	5,000 JD

Objectives	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated Cost
	- Upgrade the JCR to better capture pediatric cancer-specific information, using the appropriate diagnosis classification (ICCC-3) and staging (Toronto). Documentation of cancer case outcomes.	Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.			
	- Shift cancer data reporting from a manual to an electronic system and ensure harmonization of the software across hospital-based registries and their interoperability with the Jordan Cancer Registry (CanReg5).	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M6-M12	Launch of electronic system	50,000
	- Develop Hospital-based cancer registry with technical manuals and SOPs for data registration and reporting and specific focus on guidelines for cancer staging. - (Source of data, demographics, address coding system, health facilities identification, data dictionary, etc.)	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M12-M18	Approved SOPs and manuals Standards and unified guidelines	7,000JD
	- Train and build the capacity of population-based cancer registry staff on the updated SOPs, cancer reporting and analysis, data quality, and validation. - Ensure the availability of full-time registry staff and provide training to build a cadre of trainers.	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M18-M24	No. of training courses No. of participants	10,000 JDs
	- Train and build the capacity of Hospital-Based Cancer Registry focal points and registrars on cancer registration and reporting SOPs.	Responsible: MOH Relevant: RMS, KAUH, JUH, KHCC, and Private hospitals, Hakeem, JCDC, WHO.	M18-M24	No. of training courses No. of participants	9,000 JDs annually
Improve monitoring and registration of cancer diagnostic data and staging	- Apply quality checks in terms of completion and accuracy of the cancer registry data collection, analysis, and reporting. - Assess stages and survival of diagnosed adult and pediatric cancer cases.	Responsible: MOH Relevant: Hakeem, RMS, KHCC, University hospitals (JUH, KAUH), private sector, JCDC, WHO.	Continuous	Stages data Quality assurance report	5,000 JD

## 7. Cancer Research

Objectives	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated cost
<b>Strategic Objective 7: Generate scientific evidence to inform policies, guidelines, and decisions</b>					
Develop and implement a cancer research plan for adults and pediatric cancers.	- Formulate a multi-disciplinary group to coordinate collaboration between research institutions and cancer care facilities and identify and prioritize urgent gaps and needs.	Responsible: MOH  Relevant: RMS KHCC/KHCF, university hospitals, Private hospitals, Medical professional syndicates and councils, MOHE/ Scientific Research Fund, JCDC, EMPHNET, JFDA, WHO.	M2-M6	Recommendations' report  launched national research priorities	1,000 JD
	- Establish research priorities to inform policies. - Identification of research gaps based on the clinical and public health needs and priorities.	Responsible: MOH  Relevant: RMS, KHCC/KHCF, university hospitals, Private hospitals, Medical professional syndicates and councils, MOHE/ Scientific Research Fund, JCDC, RHAS, JFDA, EMPHNET, WHO.	M2-M6	Member's Nomination Development of TORs No. of meetings and progress reports Developed plans	2,000 JD
	- Update the Steps Survey, Department of Statistics Survey, and other relevant national surveys ensuring the inclusion of questions related to cancer control and its main risk factors, with the inclusion of individuals diagnosed with cancer.	Responsible: MOH  Relevant: RMS, KHCC/KHCF, university hospitals, Private hospitals, Medical professional syndicates and councils, MOHE/ Scientific Research Fund, JCDC, EMPHNET, WHO.	M12-M24	Surveys conduct	500,000 JDs
	- Raise awareness and liaise with private and public universities to conduct training and educational courses on research for undergraduates, graduates, and the health workforce.	Responsible: MOH  Relevant: RMS, KHCC/KHCF, university hospitals, Private hospitals, Medical professional syndicates, and councils, MOHE/ Scientific Research Fund, JCDC, EMPHNET, public and private universities, WHO.	M12-M24	No. of training courses  No. of participants	5,000 JD

Objectives	Interventions	Relevant institutions/Agencies	Timeline	Monitoring & Evaluation	Estimated cost
	<ul style="list-style-type: none"> <li>- Search and establish ongoing sustainable sources for funding cancer research.</li> </ul>	<p>Responsible: MOH</p> <p>Relevant: RMS, KHCC/KHCF, university hospitals, Private hospitals, Medical professional syndicates, and councils, MOHE/ Scientific Research Fund, JCDC, EMPHNET, public and private universities, JFDA, WHO.</p>	M16-M24	No. of partnerships	50,000

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# Annex

## 1. First Stakeholders Meeting in 2008

### Primary Prevention

**Group Leader: Sami Khatib (KHIBC)**

**Co-leader: Titiana El-Kour (WHO)**

Topic	Topic Leader
Tobacco Control	Malek Habashneh (MOH)
Diet & Physical Activity	Tatyana El-Kour (WHO)
Infectious Diseases	Bassam Hijjawi (MOH)
Chemicals, Occupational/ Environmental causes & UV radiation	Salah Heyari (MOH)

#	Name	Organization
1.	Ali Nemer Odatallah	UNRWA
2.	Awad Smeirat	Ministry of Social Development/Head of Jerash Center
3.	Bassam Hijjawi	Ministry of Health/ Director of the Communicable Disease Directorate/Jordan
4.	Enaam Barrishi	Director of the Royal Health Awareness Society /Jordan
5.	Fawaz El-Fayez	Environmental Police Dept. (Rangers)
6.	Feras Hawari	Director, Smoking Cessation Program, KHCC
7.	Hashem Elzein Elmousaad	WHO – Jordan
8.	Haya Yaseen	Ministry of Social Development
9.	Khalid Al-Shaqran	Press
10.	Madi Al-Jaghbeer	Dean of Faculty of Medicine, Hashemite University/ Jordan
11.	Malek Al-Dabbas	Director of Preventive Medicine and Public Health, Royal Medical Services/Jordan
12.	Malek Habashneh	Ministry of Health/ Public Health Awareness Directorate (Antismoking Department) /Jordan
13.	Mohammad Khashashneh	Ministry of Environment/Jordan
14.	Muwaffaq Zobi	Managing Director, School Curricula & Textbooks, Ministry of Education
15.	Rima Al-Najjar	Officer of Cancer Planning, KHIBC, Jordan
16.	Salah Al-Heyare	Ministry of Health/ Environmental Health Directorate/Jordan
17.	Sami Baj	Environmental Police Dept (Rangers)
18.	Sami Khatib	KHIBC
19.	Sana Shakhshir	Jordan Smoking Society
20.	Sherry Rasas	USAID Health Projects
21.	Shtewi Abu Zayed	UNRWA/Jordan
22.	Tatyana El-Kour	WHO – Amman

### Early Detection

**Group Leader: Otis Brawley (ACS)**

**Co-leader: Fa'eq Madanat (RMS)**

Topic	Topic Leader
<b>Downstaging</b>	<b>Sankaranarayanan (IARC)</b>
<b>Screening</b>	<b>Asem Mansour (KHCC)</b>
<b>Registry</b>	<b>Mohammad Tarawneh (MOH)</b>

#	Name	Organization
1.	Adel Bilbaisi	MoH
2.	Ali Nemer Odatallah	UNRWA
3.	Anwar Bateiha	Professor of Epidemiology, JUST

4.	Asem Mansour	Chairman of Radiology, KHCC
5.	Faeq Madanat	Adult Medical Oncologist, Royal Medical Services
6.	Fawaz Ratrout	Ministry of Social Development
7.	Laura Slobey	USAID Health Projects
8.	Luna Zaru	Director of Clinical Research & Cancer Registry, KHCC
9.	Maher Sughayer	Chairman of Pathology & Laboratory Medicine, KHCC
10.	Mohammed Al-Tarawneh	Ministry of Health/ Non communicable Disease Directorate, National Cancer Registry/Jordan
11.	Naghham Abu Shaqra	Private Sector Project for Women Health
12.	Otis Brawley	American Cancer Society
13.	Rabab Diab	Officer of Screening & Early Detection, KHIBC, Jordan
14.	Rengaswamy Sankaranarayanan	IARC Commission on Breast Cancer Screening
15.	Sawsan Nasraween	Medical Records & Registry, Royal Medical Services
16.	Shtewi Abu Zayed	UNRWA

### Cancer Therapies

**Group Leader: Mahmoud Sarhan (KHCC)**

**Co-leader: Essam Haddadin (RMS)**

Topic	Topic Leader
Unified national evidence-based guidelines for cancer therapy	Hikmat Abdel-Razeq (KHCC) Mahmoud Sheyyab (JUST)
Essential Drug List	Fadwa Attiga (KHIBC)

#	Name	Organization
1.	Ahmed Ktetat	Department of Medical Specialties, MoH
2.	Fadwa Attiga	Assistant Director, KHIBC
3.	Faris Madanat	Chairman of Pediatrics, KHCC, Jordan
4.	Haitham Tuffaha	Clinical Pharmacist, KHCC, Jordan
5.	Hanan Kiswani	Press
6.	Hikmat Abdel Razeq	Chairman of Medical Oncology, KHCC, Jordan
7.	Issam Haddadin	Pediatric Oncologist, Royal Medical Services
8.	Mahmoud Al-Masri	Chairman of Surgery, KHCC, Jordan
9.	Mahmoud Al-Sheyyab	Director of King Abdullah I University Hospital, Jordan University for Science & Technology, Jordan
10.	Mahmoud Sarhan	Director General & CEO, KHCC, Jordan
11.	Mohammad Jabr	Head of Drug Policy and Evaluation Center, KHCC/Jordan
12.	Nour Obeidat	Health Economist, KHIBC
13.	Rolando Camacho	IAEA/ Vienna

### Palliative Care

**Group Leader: Joe Harford (NCI)**

**Co-leader: Layla Jarrar (JFDA)**

Topic	Topic Leader
Essential Drug List for PC	Imad Treish (KHCC)
National referral system	Mohammad Shtayat (MOH) & Muna Aleco (KHCC)
Awareness & Advocacy	Eric Perakslis (Informatics)

#	Name	Organization
1.	Abdellatif AlMousa	Chairman of Radiotherapy, KHCC
2.	Eric Perakslis	Informatics, Advocacy expert

3.	Haifa Madi	WHO
4.	Hasan Fadel Abbas	Palliative Care/KHCC/Jordan
5.	Imad Treish	Chairman of Pharmacy, KHCC
6.	Jafar Abu Taleb	Quality Control Expert
7.	Joe Harford	NCI-USA
8.	Mohammed Shtiyat	Palliative Care/ Al-Basheer Hospital/Jordan (MOH)
9.	Muna Aleco	Director of Nursing and Quality Management, KHCC, Jordan
10.	Rabia Nuqul	Assistant Director, KHIBC, Jordan
11.	Reem Younis	Grants Manager, KHIBC, Jordan

## 2. 2010 National Cancer Control Plan working groups

### Introduction

Topic leaders: Ms. Taghreed Nusairat

Other contributors: Ahmad Barmawi, Mohammed Tarawneh, Maria Stella de Sabata

### Cancer Primary Prevention

Topic leaders: Dr. Sami Khatib, Dr. Rabab Diab

First Stakeholder meeting working group participants:

Sami Khatib, Malek Habashneh, Bassam Hijjawi, Saleh Al-Heyare, Mohammed Khashashneh, Enaam Barrishi, Mahmoud Al-Turk, Tatyana El-Kour.

Other contributors: Adnan Eshaqat, Maysoon Bsiso, Bassem Bani Hani, Maria Stella de Sabata

### Cancer Early Detection

Chapter leader: Dr. Rabab Diab

First stakeholder meeting working group participants:

Otis Brawely, Asem Mansour, Faeq Mdanat, Luna Al-Zaru, Nagham Abu Shaqra, Mohammed Tarawneh, Rengaswamy Sankaranarayanan, Maher Alzughair

Other contributors: Adnan Eshaqat, Maysoon Bsiso, Bassem Bani Hani, Maria Stella de Sabata

### Cancer Treatment

Topic leaders: Dr. Fadwa Attiga; Dr. Nour Obeidat

First stakeholder meeting working group participants:

Hikmat Abdel Razeq, Fadwa Attiga, Rolando Camacho, Issam Haddadin, Mohammad Jabr, Hanan Kiswani, Ahmed Ktetat, Faris Madanat, Mahmoud Al-Masri, Nour Obeidat, Mahmoud Sarhan, Mahmoud Al-Sheyyab, Haitham Tuffaha

Other contributors: Imad Treish, Adi Nusairat, Maria Stella de Sabata, Abdel-Razzaq Al-Shafei

### Palliative Care

Topic leaders: Dr. Sami Khatib, Ms. Taghreed Al Nusairat

First stakeholder meeting working group participants:

Abdellatif Al Mousa, Eric Perakslis, Haifa Madi, Hasan Fadel Abbas, Imad Treish, Jafar Abu Taleb, Joe Harford, Mohammed Shtiyat, Layla Jarrar, Muna Aleco, Rabia Nuqul, Reem Younis

Others: Ahmed Al Khatib, Rana Hammad, Maria Stella de Sabata

### 3. TOR of 2021 National Cancer Control Plan Working Group

#### Background

Cancer is the second leading cause of death in Jordan, following cardiovascular diseases. Cancer care in the country has primarily focused on treatment, with limited emphasis on other components of the cancer care continuum. Despite various initiatives, Jordan does not have a comprehensive national cancer control plan. A draft plan was developed in 2010 and reviewed in 2013; however, it has not been fully implemented.

To address this gap, the Ministry of Health (MoH) has established a committee to review and develop a National Cancer Control Plan (NCCP) with the participation of key cancer care stakeholders.

#### Purpose

The purpose of the formulation of the group is to participate in and support the development of the Cancer control Plan by updating the cancer control planning document.

#### Term

This TOR is effective from November 2021 and continue until the completion of the NCCP in January 2022.

#### Membership

Dr. Ghazi Sharkas, Ministry of Health  
Dr. Nashat Al Taani, Ministry of Health  
Dr. Omar Al Nimri, Ministry of Health  
Dr. Jihad Al Maani, Ministry of Health  
Dr. Mohammed Obeidat, Royal Medical Services  
Dr. Firas Fararjeh, University of Jordan Hospital  
Dr. Hani Al Taani, King Abdullah University Hospital  
Dr. Noor Obeidat, King Hussein Cancer Center  
Dr. Sami Al Khatib, Private Sector/ Jordan Oncology Association  
Mr. Nedal Ghaith, Private Sector/ Jordan Hospital Association  
Dr. Hala Boukerdenna World Health Organization

#### Roles and Responsibilities

- Review the 2010 National Cancer Control Plan.
- Facilitate and support situational analysis and data collection.
- Help in meetings coordination and correspondence with relevant parties in the institution.
- Review updated NCCP main chapters.
- Participate in consultative sessions to finalize NCCP chapters.
- Provide any technical support required.

#### Meetings

- All group meetings will be conducted every two weeks.
- If required subgroup meetings will be arranged based on the requirements of updating and finalizing the plan.
- Minutes of meetings and agendas will be prepared and shared at a convenient time.

#### Modification or Amendment

The Terms of Reference may be amended or modified in writing after consultation and agreement of the group members based on the plan updating and finalization requirements.

4. Cancer Control Plan Workshop 22 <sup>nd</sup> July 2022		
#	Name	Institution
	Dr. Riyadh Al Sheyyab	Ministry of Health
	Dr. Anas Al Muhtaseb	Ministry of Health
	Dr. Mohammed Al Azhari	Ministry of Health
	Dr. Zina Halasa	Ministry of Health
	Dr. Basim Zubi	Ministry of Health
	Dr. Hala Boukerdenna	WHO Jordan
	Ms. Taghreed Al Nusairat	WHO Jordan
	Dr. Lamia Mahmoud	WHO EMRO
Adults Working Group Members		
	Dr. Omar Al Nimri	Jordan Cancer Society
	Dr. Jihad Al Maani	Al Bashir Hospital/ Ministry of Health
	Dr. Mohammed Obeidat	Royal Medical Services

	Dr. Firas Fararjeh	Jordan University Hospital
	Dr. Hani Al Taani	King Abdullah University Hospital
	Dr. Noor Obeidat	King Hussein Cancer Center
<b>Adults Working Group Members</b>		
	Dr. Iyad Sultan	King Hussein Cancer Center
	Dr. Maher Khader	Royal Medical Services
	Dr. Sulieman Sweedan	King Abdullah University Hospital
	Dr. Faiha Al Bazzeh	King Hussein Cancer Center
	Dr. Hadeel Halalsheh	King Hussein Cancer Center
	Dr. Mais Al Jazzazi	Royal Medical Services
	Dr. Nisreen Amayiri	King Hussein Cancer Center

### 5. National Consultative Session 25<sup>th</sup> July, 2022

Institution	Name/ Directorate/ Department
Adults Working Group Members	Dr. Omar Al Nimri
	Dr. Jihad Al Maani
	Dr. Mohammed Obeidat
	Dr. Firas Fararjeh
	Dr. Hani Al Taani
	Dr. Noor Obeidat
	Dr. Sami Al Khatib
Pediatric Working Group Members	Dr. Iyad Sultan
	Dr. Maher Khader
	Dr. Sulieman Sweedan
	Dr. Rawad Rihani
	Dr. Faiha Al Bazzeh
	Dr. Hadeel Halalsheh
	Dr. Mais Al Jazzazi
	Dr. Nisreen Amayiri
Dr. Ruba Hazaimeh	
WHO	WHO - CEHA (environment)
	UNRWA office head – NCDs focal point
	UNHCR office head – NCDs focal point
	WHO Pharmaceutical officer
	WHO Immunization
	EMRO regional advisors
	WHO Health Information & Research focal point
	WHO M&E focal point
	EMRO cancer control focal point
	NCDs coordinator
Cancer control consultant	
United Nations	Head of NCDs Department
	Head of Awareness and Communication Department
	Cancer control focal person
	PHC focal person
	Head of environmental & occupational health
	Head of Family Medicine
	Head of Quality Management
	Head of training and education
	Head of the immunization department
	Nutrition unit
	School health Department
	Tobacco control unit
Physical activity Unit	

	Medial and Equipment Procurement department
	Health economist
	Al Bashir's palliative care
	Cancer control focal person
	Health technology assessment
	HTA department
	Pharmaceutical department
	MOH registrars
	Cancer registry focal point
	Health information Department
	Research Department
Governmental/Semi-government organizations	Ministry of Higher Education
	Ministry of Environment / environmental risk factors
	The Jordan Standards and Metrology Organization
	Greater Amman Municipality – Head of Health and Environmental Affairs
	Jordan Center for Disease Center
	Ministry of Education
	Jordan University Hospital palliative care
	RMS palliative care
	King Abdullah University Hospital palliative care
	Jordan Food and Drug Administration
	Governmental Procurement Department
	Jordan Nursing Council
	Jordan Medical Council
	Pharmaceutical department RMS
	HTA department RMS
	Center for Strategic Studies/ University of Jordan
	KAUH registrars
	Scientific Research Fund
	Department of Statistics
	Higher Population Council
RMS registrar	
Jordan University	
Jordan University Hospital Registrar	
NGOs	Royal Health Awareness Society
	EMPHNET
	Jordan Cancer Society
	KHCC prevention/ early detection
	KHCF prevention/ JBCP
	Pharmaceutical department KHCC
	HTA department KHCC
	Health Care Accreditation Council
	Noor Al-Hussein Center for Family Health Care
	Hakeem focal point
	KHCC/ Pain management/ Palliative care
	Al Malath Foundation for Humanitarian Care
	Jordanian Society for Palliative Care and Pain Management
	Arab Palliative Care Academy
	Tobacco Free Jordan
	KHCC Cancer Registry
	The Higher Council for Research and Technology
	The National Center for Research and Development (NCRD)
KHCC Research department	