منتدى الاستراتيجيات الأردني
JORDAN STRATEGY FORUM

# Healthcare Sector

## Jordan's Economic Vision Roadmap

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The Jordan Strategy Forum (JSF) is a not-for-profit organization, which represents a group of Jordanian private sector companies that are active in Corporate and Social responsibility (CSR) and in promoting Jordan's economic growth. JSF's members are active private sector institutions, who demonstrate a genuine will to be part of a dialogue on economic and social issues that concern Jordanian citizens. The Jordan Strategy Forum promotes a strong Jordanian private sector that is profitable, employs Jordanians, pays taxes and supports comprehensive economic growth in Jordan.

The JSF also offers a rare opportunity and space for the private sector to have evidence-based debate with the public sector and decision-makers with the aim to increase awareness, strengthening the future of the Jordanian economy and applying best practices.

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This is an expert opinion report based on discussions and focus group meetings held by the Jordan Strategy Forum (JSF). The overall objective of this effort is to analyze different sectors (14) of the Jordanian economy and their respective challenges, and come-up with practical solutions and initiatives to enhance their competitiveness. Throughout this exercise, the JSF facilitated the focus group meetings, and supported the work-stream managers with any needed research and logistics.

**Acknowledgment:**

The JSF would like to extend its appreciation to the following work-stream members of the **Healthcare sector**, who contributed to the focus group meetings, and in editing the proposed initiatives and sectoral report:

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## Acronym

| | |
|---|---|
| AMR | Antimicrobial Resistance |
| ANC | Antenatal Care |
| CIP | Civil Insurance Program |
| COVID-19 | Coronavirus disease |
| EHRs | Electronic Health Records |
| ERP | Enterprise Resource Planning |
| GDP | Gross Domestic Product |
| GLASS | Global Antimicrobial Resistance Surveillance System |
| GoJ | Government of Jordan |
| GP | General Practitioner |
| HCAC | Health Care Accreditation Council |
| HHC | High Health Council |
| HRH | Human Resources for Health |
| JFDA | Jordan Food and Drug Administration |
| JMMSR | Jordan Maternal Mortality Surveillance and Response system |
| JNC | Jordan Nursing Council |
| JMC | Jordan Medical Council |
| JPFHS | Jordan Population and Family Health Survey |
| KHCC | King Hussein Cancer Center |
| KPIs | Key Performance Indicators |
| MENA | Middle East and North Africa |
| MMR | Maternal Mortality Ratio |
| MOE | Ministry of Education |
| MOF | Ministry of Finance |
| MOH | Ministry of Health |
| NCDs | Non-Communicable Diseases |
| NGO | Non-Governmental Organization |
| NRP | National Residency Program |
| OOP | Out-of-pocket payment |
| PESTEL | Political, Economic, Sociocultural, Technological, Environmental, and Legal |
| PNC | Postnatal Care |
| RHAS | Royal Health Awareness Society |
| RMS | Royal Medical Services |
| SDGs | Sustainable Development Goals |
| SWOT | Strengths, Weaknesses, Opportunities, and Threats |
| UNHCR | The United Nations High Commissioner for Refugees |
| UNRWA | The United Nations Relief and Works Agency for Palestine Refugees in the Near East |
| USAID | The United States Agency for International Development |
| WHO | World Health Organization |

# 1. Executive Summary

The Jordan health Care system fairs well on many of the indicators measured by national and international organizations such as mortality, fertility, access to primary healthcare, availability of physicians, vaccinations and others. It also was a pioneer in service provision for years as well as in medical education with good healthcare outcomes. Unfortunately, these successes came to a standstill due to many reasons some of which included regional political burdens, lack of vision and guided growth, and budgetary constraints.

Despite individual excellence and good performance, the health care sector as a whole has been struggling tremendously recently from several angles. Most importantly, it functions without governance: no clinical pathways, no clinical audits, no accountability, no measurement of health care outcomes, quality of life, near misses, medical errors, mis diagnosis, medication error, hospital infections, and patient experience among others. This vacuum of real data masks the outcomes; the costs incurred both financially and at a humanitarian level, and the specific areas of improvement. Exacerbating the situation, is the overburdened medical education sector coupled with weak residency programs that are not properly monitored or accredited; let alone the lack of enforcement of continuing education and continuous skills evaluation and monitoring. The primary healthcare sector, despite its breadth, has no depth, is not empowered and lacks efficiency and effectiveness. While the tertiary care is mis managed, has no leadership or goals to improve performance and decrease cost. This all of course is further complicated with a scattered health insurance and coverage system despite all the efforts towards universal health coverage. Investments in the health sector are unorganized, focused on infrastructure and do not follow a road map. Even the medical tourism was based on government-to-government agreements and serving countries whose health sector in itself is damaged.

This document describes the strengths, weaknesses, threats and opportunities to the health sector in Jordan and does not attempt to provide solutions for all the ongoing challenges. On the contrary, it selects and proposes a few initiatives that the experts believe would commence the implementation of a road map for reform of the sector.

The first and foremost recommendation would the establishment and empowerment of a governance body to oversee the sector and enforce its growth, measure its performance and set its benchmarks. Beyond that, more initiatives are proposed that focus on:

1. Strengthening the quality and competence of healthcare workforce
2. Strengthening the primary health care system and empowering it to be the gateway to proper referral
3. Designing developing and implementing a quality improvement system
4. Collaborative financing schemes to make use of the strong private sector and decrease burden on the public sector,
5. Learning from the pandemic on the importance of health digitization and empowering such activities,
6. Outsourcing and strengthening the management of the public hospitals through partnerships with the public sector and specific performance goals
7. Establishing centers of excellence in specialized areas of healthcare delivery

## 2. Introduction

Over the past three decades, public health outcomes in Jordan have improved considerably. Since 1980, life expectancy has increased from 66 to 73.5 in 2019, while infant mortality has decreased from 45 to 17 per 1,000 live births over the same period [1]. In comparison, the life expectancy in Jordan in 2019 is higher than the world average (72.6) and only 3 years lower than the upper middle-income countries average (75.9). [2] These achievements have been a result of concerted efforts from a large public health sector and a supportive private sector.

Despite the progress, the country faces many challenges that are still evident and growing. Non-Communicable Diseases (NCDs) were responsible for 2.6 million deaths in the Eastern Mediterranean Region in 2016, a figure expected to increase to 3.8 million by 2030 [3]. Similarly, noncommunicable diseases (NCDs) are the leading cause of morbidity and mortality in Jordan, constituting 78% of the total deaths, being mainly cardiovascular diseases, cancer, diabetes and chronic respiratory diseases [4]. The economic consequences and costs are undoubtedly significant and growing. Dedicated efforts by all relevant stakeholders and sectors are required to effectively address non-communicable diseases, specifically with focus on prevention and primary health care. Unless this takes place, all attempts to improve public health would be undermined, as well as reaching the 2030 Sustainable Development Goals (SDGs).

Exacerbating the situation, Jordan's health system's efficiency and effectiveness are faced with several challenges. A scattered and fragmented health insurance framework coupled with poor utilization of primary healthcare services, no gatekeeping to tertiary care, and an overall sub optimal quality of services provided are seen. Specifically, the main challenge facing the health insurance framework is its weak financial sustainability, while other services suffer from weak regulatory enforcement. For Jordan, in a nutshell, the main challenge, given Jordan's demographic profile, is higher health spending needed in the immediate term. Additionally, in the long term, the proper planning, management, and removal of inefficiencies and inequities across the system is what will be critically needed. [5].

Of course, the recent COVID-19 pandemic has placed a tremendous strain on the healthcare systems. Despite significant steps taken to respond to the COVID-19 pandemic, all countries

around the world remain dangerously unprepared to meet future epidemic and pandemic threats. Inadvertently, countries finally now have an increased sense of urgency and an opportunity to sustaining newly developed preparedness tools and building additional capacities to better protect lives and livelihoods against the next pandemic.

Further improvements in the governance, quality, and cost of care in the healthcare system are key priorities [6]. Clinical governance, well planned specialized skills, patient and community engagement, as well as performance-based reporting stand out as critical weaknesses especially post pandemic. For instance, the majority of healthcare facilities in Jordan are not accredited to international standards. Only 45% of the Royal Medical Services (RMS) hospitals, 16% of Ministry of Health hospitals, and 13% of private hospitals are accredited to date.

In order to better identify the successes and weakness, and propose initiatives to sustain the achievements made in the health sector and address the aforementioned challenges, this health vision roadmap was developed by a group of diverse experts from the health sector including private sector involvement and economic outlook of the sector. To ensure its compatibility with other papers being developed it adopts the World Health Organization pillars and stands on the following strategic principles:

- Accountability
- Responsiveness
- Financial Protection
- Quality Improvement
- Partnership
- Competitiveness
- Equity

**The most important goal that this vision seeks to achieve is attaining safe, high quality, reliable, accessible, efficient and equitable healthcare services for all.**

## 3. Strategic Analysis

The Jordan Strategy Forum, through the health strategic planning team, has held several workshops and meetings in order to analyze Jordan's health sector environment.

The Strategic analysis was done based on the health sector situational analysis **(Annex 1),** using the SWOT model as well as PESTEL model. The two models combined included a study of internal and external environment for the health sector in terms of identifying strengths and weaknesses. Additionally, the opportunities and risks in the external environment were identified as they relate to: political, Economic, Social, Technological/technical, Environmental, and Legal factors.

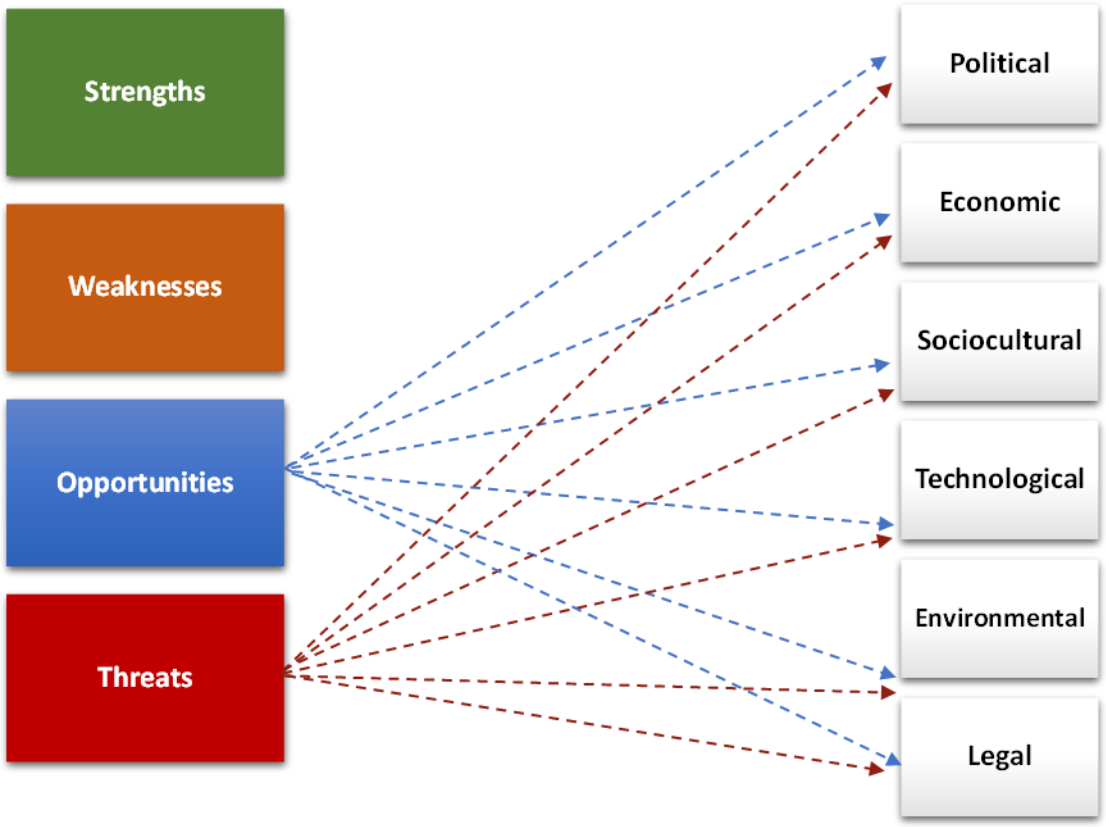



Figure 1 Strategic Analysis Framework-SWOT PESTEL Analysis

The following sections showcase the results of the analysis:

## Strengths and Weaknesses

Jordan prides on several strong pillars for a strong local health sector and a potentially attractive medical tourism sector especially with its widely available regulations, good density and education of health workforce, large network of service providers, and good access to healthcare. However, those same strengths have much room for improvement and require immediate attention to be able to maintain and grow the health sector.

| Area | Strengths | Weaknesses |
|---|---|---|
| **Human Resources** | • Highly skilled workforce with individualized competency<br>• High-density workforce, relative to population (Human Capital)<br>• High caliber expertise on tertiary level care compared to the region<br>• Strong medical education systems | • Shortage of physicians in multiple specialties (ex. Infectious diseases, ER, trauma, etc.)<br>• Migration of skilled health care providers<br>• Imbalance between output and market need for many health professions<br>• Imbalanced distribution of workforce across the different sectors.<br>• Inadequate training slots for interns and residents in Jordan for graduates of Jordanian medical schools<br>• Poor planning and management of HRH, lack of structured capacity building programs, and no monitoring of workforce performance<br>• Outdated Educational programs |
| **Reputation /Experience** | • Strong civil society-based organizations working on disease prevention services | • Inconsistency in the quality-of-service provision, and lack of standardization |

| Area | Strengths | Weaknesses |
|---|---|---|
| | • Good reputation in the region and around the world<br>• Strong proposition for medical tourism<br>• Advanced pharmaceutical industry<br>• Well established Maternal and Child health services | |
| **Infrastructure / Access** | • Good infrastructure and advanced technology in the areas of medical diagnostic, curative and rehabilitative services<br>• Availability of wide network of health centers affiliated to the Ministry of Health for all population<br>• Existence of distinct and highly reputable specialized medical centers competitive at the regional level<br>• Strong private sector healthcare facilities<br>• High index coverage and access to services | • Lack of coordination and integration between the different care levels and across the different health sectors<br>• Limited bed capacity: hospital bed availability of merely 1.4 beds per 1000 of the population)<br>• Weak utilization of primary healthcare services. (Bypassing primary centers and burdening secondary and tertiary care)<br>• Lack of comprehensive national health records |
| **Regulation and Financing** | • Wide health insurance umbrella covering children under 6 years, people above 60 years and other less advantaged groups.<br>• Good foundation of healthcare regulations<br>• Existence of national accreditation body and increased percentage of accredited healthcare institutions | • Limited and unsustainable financial resources<br>• Lack of financing strategies and policies to contain and recover costs, taking into account the increase in costs and inflation %<br>• Decreased efficiency in public sector with increasing financial waste |

| Area | Strengths | Weaknesses |
|---|---|---|
| | | • Slow enactment of the legislation (Medical liability law, Mandatory accreditation)<br>• No accountability structure to prevent poor performance in health organizations<br>• No mandates for accreditation as a prerequisite to license health facilities in order to ensure minimum levels of quality / safety<br>• Weak implementation of national strategies, and weak operational continuity<br>• Absence of a solid Evaluation, Monitoring and Quality Improvement system to supervise healthcare institutions performance and provide evidence for policy and decision makers<br>• little autonomy and accountability of hospital managers on efficiency management |

## Opportunities and Threats

Similarly, Jordan has a multitude of opportunities to grow and strengthen the sector and make it quite a pillar for economic stability as well as a locally well reputed exemplary healthcare provision model; however, the threats are undoubtedly growing quickly and require immediate mitigation plans.

| Factors | Opportunity | Threat |
|---|---|---|
| **Political** | • Stable national political climate.<br>• Regional political instability leading to the positioning of Jordan as a medical hub in the region (instead of Lebanon)<br>• High governmental commitment to health as a priority<br>• Supportive regulations towards local medical manufacturers<br>• Strong high-level commitment towards Sustainable Development Goals<br>• Inter-Ministerial Committee for Health Sector Reform declared PHC as the top priority for health sector reform | • Growing well-structured competing health sector in the region. with services provided based on quality, health care measurement, strong infrastructure, and well-regulated systems. (i.e., Gulf Region, Turkey)<br>• Losing healthcare investment opportunities to regional competitors<br>• Regional political instability<br>• Increased influx of refugees |
| **Economic** | • Established foreign funding channels and financing opportunities<br>• Effective cooperation with international organizations<br>• Public private partnership<br>• Attraction of investments through recognized and reputable organizations in the pharmaceutical industry, cancer treatment, addiction treatment and rehabilitation services.<br>• Increased investments in healthcare continuous readiness and emergency preparedness | • High debt, economic instability, lack of pooled financing, and lack of cooperation between services<br>• Poor incentives for investors<br>• Slow economic growth<br>• Scaling costs to provide treatment for chronic conditions due to lack of preventive services and growing prevalence of non-communicable diseases (NCDs) |

| Factors | Opportunity | Threat |
|---|---|---|
| | | • Delayed payments for service providers and suppliers<br>• Low financial budget and investments in marketing Jordan's medical tourism.<br>• High insurance subscription rates specially with the absence of national health coverage |
| **Sociocultural** | • Increased health awareness and health seeking behaviors<br>• Increased health sector international reputation and medical tourism<br>• COVID-19 leading to the prioritization of health system strengthening | • Patient dissatisfaction with service quality and care experience<br>• Weak citizen empowerment<br>• High Population growth rate, and demographic changes<br>• Increased rates of non-communicable disease and its risk factors. |
| **Technological** | • Established telehealth and home-based care initiatives<br>• Promising advancements in electronic health care solutions, technologies, national health records and data repositories<br>• E government, digital transformation efforts & improvement in IT infrastructure<br>• Formulated Health Technology Assessment (HTA) national committee<br>• Well established Higher council for science and technology | • Lack and in accurate data on health care needs |
| **Environmental** | • Prioritization of environmental health and safety, as well as infection prevention and control. | • Efflux of human power, and migration of |

| Factors | Opportunity | Threat |
|---|---|---|
| | • Fostering of green and sustainable services | competent workforce (Brain drain).<br>• Emerging infectious diseases, outbreaks, pandemics, and emergencies including COVID<br>• Climate change |
| **Legal** | • Newly established National Center for Epidemics and Communicable Diseases Control.<br>• Existing legislation supporting health system governance (mandatory accreditation)<br>• Established system for relicensing and enforcing Continuous Professional Development (Professionals License Renewal Bylaw)<br>• Existing Medical Liability Law<br>• Presence of independent strategic and regulatory institutions (High health council, Jordan Medical Council, CDC, and Professional associations)<br>• Clear legislations and enhancement of medical tourism | • Loss of a governance body - freezing of the High Health Council<br>• Stagnant MoH pricing regulations that do not support high quality standards implementation<br>• Corruption, nepotism, and lack of accountability<br>• Increased litigation due to inferior standards and lack of application of medical liability law.<br>• Resistance to implementing reform/changes |

## 4. Objectives, Priorities and Health Roadmap

The initial discussions and responses to the SWOT analysis rendered a number of high-level objectives that the Jordanian health sector should think through and address.

- Improve Governance
- Strengthen the Human Resources
- Prioritize and activate Primary Health Care
- Improve Quality based on Indicators
- Manage demand and optimize services
- Invest in / Expand needed Infrastructure

After intense deliberations and a multitude of ideas collated from the working team (Annex 2 - Collated Raw feedback from team members), eight initiative areas were deemed of the most pertinent immediate priorities for a tangible improvement in the health sector reforming current weaknesses, attracting investments, and engaging the private sector.

1. Effective Governance of the Jordanian Health Sector Through an Empowered and Independent Regulatory Body
2. Health Workforce Strengthening and Capacity Building
3. Systematic Monitoring and Evaluation of Healthcare Quality on a National Level
4. Primary Healthcare Services Structural Reform
5. Expansion in Financial Health Coverage under the Umbrella of a Single Insurer
6. Digitalization of Healthcare Services
7. Operational Efficiency of Tertiary Healthcare Management
8. Fostering Innovation and Enhancing Quality through Centers of Excellence Models

The goal for these recommended initiatives is a health road map that leads to safer care built on quality indicators, accessible and equitable for all. So based on the strategic analysis of the internal, external environment, and the identification of strategic health priorities, a strategic framework was established depicting the main expected outcomes, outputs and initiatives. As shown in the figure below:

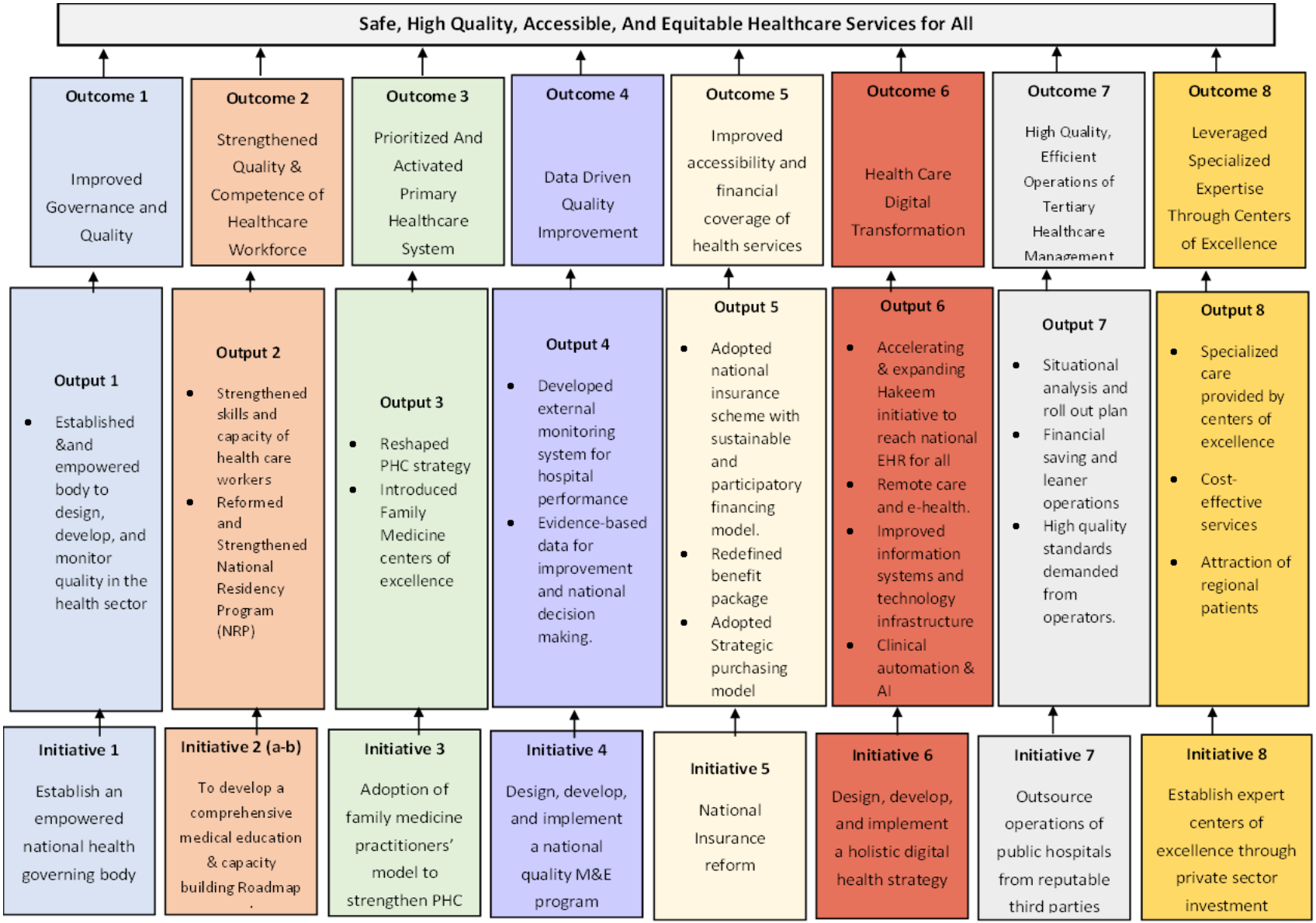



*Figure 2 General Framework for Health Vision Roadmap*

Additionally, and in order to integrate these recommendations and synchronize them with other efforts in the country, the initiatives were mapped with the WHO Health System framework [32] that focus on the six essential building blocks of any successful national program.

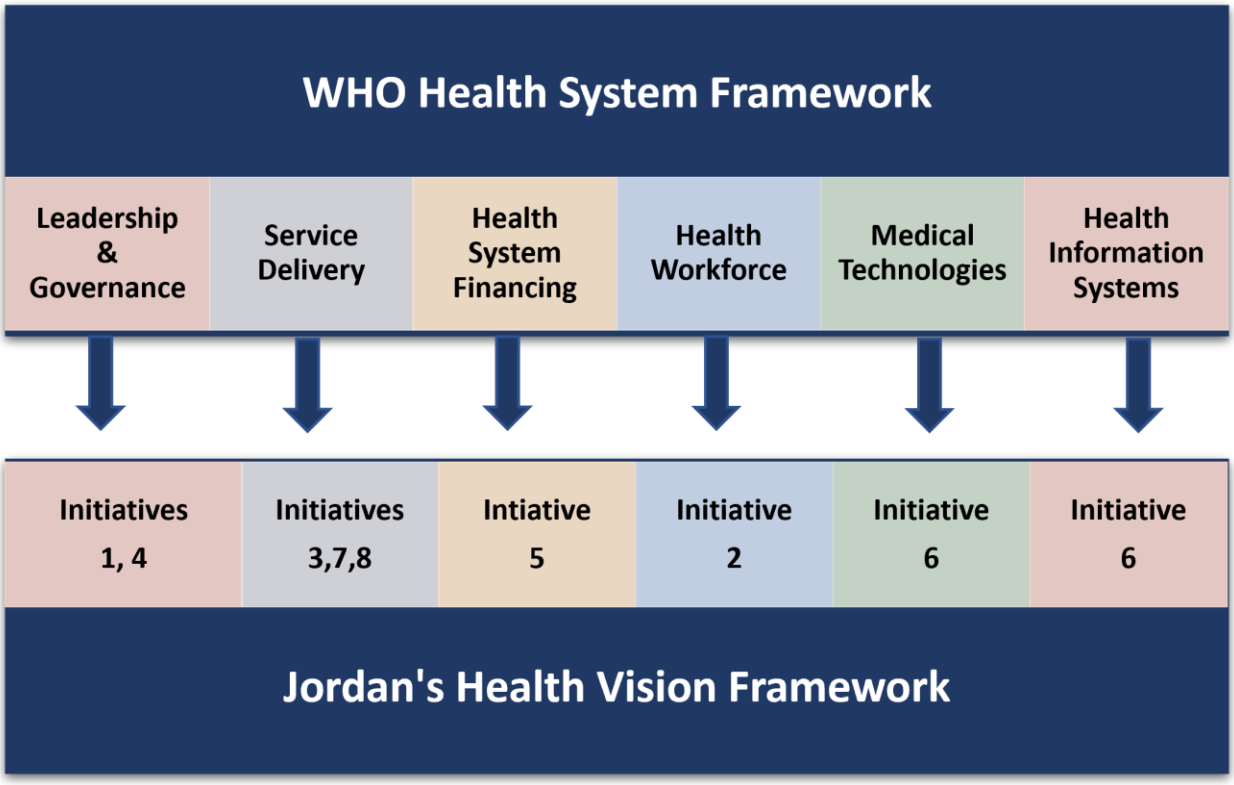
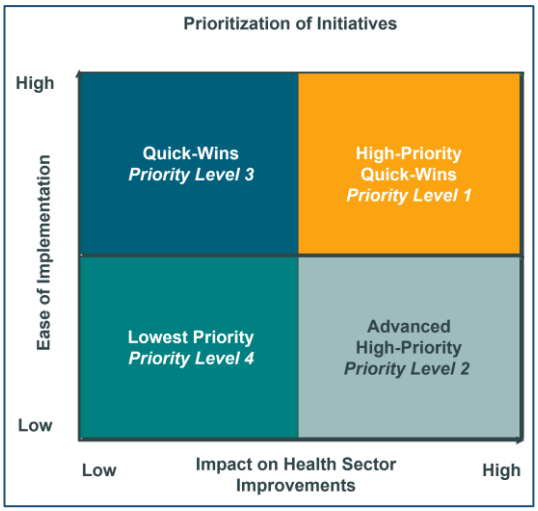



Figure 3: Framework with WHO Health System Building Blocks Framework

## 5. Strategic Initiatives




The working team for the health sector considered the prioritization matrix to look at the applicability / implement-ability of the recommended initiatives as well as the impact.

The first and foremost initiative, is quite an undertaking, however, it is the platform to all issues that need improvement. Without a national governance and regulatory model, Jordan cannot guide the growth and competitiveness as well as the quality of its health sector. Lessons learned from countries like Turkey, the UAE and Ireland. Other programs like digital health a and quality improvement, are the change agents within the health sector, yet without the proper investments in human resources and financing, little progress can be made. Service improvement initiatives in primary health care and hospital management will be the examples of tangible successes that directly impact the patients and beneficiaries.

Therefore, the recommended strategies cover a range of interventions that support a comprehensive uplifting of the Jordanian health sector and if followed through would be the drivers of a full change. Their leadership will be critical to their success as well as steady oversight and funding.

Moving forward, another prioritization exercise will take place from an economic perspective.

**Initiatives Priority Matrix**

| Initiative No. | Impact (High 3, Medium 2, Low 1) | | | | | Ease of Implementation (High 3, Medium 2, Low 1) | | | | Priority Index (Avg Impact X Avg Ease of Implementation) From 1-9 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Impact on GDP | Impact on Job Creation | Social Impact | Positive Impact on Environment | Average Overall Impact | Risk Reduction Degree | Implementation Speed | Cost Reduction | Average Ease of Implementation | |
| Initiative No. 1 | | | | | | | | | | |
| Initiative No. 2 | | | | | | | | | | |
| Initiative No. 3 | | | | | | | | | | |
| Initiative No. 4 | | | | | | | | | | |
| Initiative No. 5 | | | | | | | | | | |

### Initiative 1: To Establish an Empowered and Independent National Health Governing Body

Governance is an essential component of healthcare as it plays a monumental role in steering systems, organizations, and professionals in the right direction and allows them to fulfil their obligation towards their patients and wider community. **Healthcare Governance** sets the rules that define the relations between societal actors relevant to health; citizens, state, and providers. It also ensures that healthcare organizations are well-led and serve their beneficiaries. Moreover, it supports professionals in offering safe and high standard care.

This initiative offers a synopsis of the main actions needed to achieve a strong governance structure that is empowered, active, and independent. Both the **SWOT and situational analysis** have shed light on the lack of empowerment and non-existence of an independent national health governing body capable of regulating, guiding, and overseeing all healthcare sectors including MoH, RMS, University hospitals, and the private sector.

This initiative is **primarily serving the improvement in health governance** structure. However, it has a **positive ripple effect** on many aspects of healthcare including: strengthening the human resources, prioritizing and activating primary health care, improving Quality based on Indicators, managing demand and optimizing services, as well as expanding needed Infrastructure.

This initiative **aims to** create/reactivate a health governing body with the highest empowerment possible to oversee all needed reform in the health sector and to regulate all sectors **through the following actions**:

- Developing policies and strategic plans for the health sector
- Regulating capital investments for the public and private health sectors
- Managing international donor funded programs for the health sector.
- Develop clear and sustainable plans and tools for the partnership between the public and private sectors as well as civil society organizations
- Developing unified systems for cost analysis in all health institutions public and private
- Developing an effective and fair system for setting prices and fees for health services

- Updating the licensing systems for health institutions in the Kingdom
- Establishing an incentive system for health institutions to obtain and maintain accreditation.
- Regulating the work of the accreditation bodies of local and international health institutions
- Activation of the medical liability law
- Standardization of treatment protocols at the national level
- Standardization of national health information systems
- Developing a rigorous and fair system for patient's referral
- Developing a national medical emergency plan to deal with emergency conditions
- Standardization of human resource systems in the public health sector
- Consolidation of plans and systems for training and continuous professional development for health cadres in public and private sectors

This initiative can be **implemented through** obtaining support and patronage to ensure the body's full independence, authority, and complete interest effacement. Followed by clearly defining roles, responsibilities, and accountability structure of the governing body.

To ensure the successful implementation, this initiative requires governmental approval, collaboration of the different healthcare stakeholders, and proper change management processes. The establishment **budget** would range from 3-5 million JDs over 2 years and then an operation 3 million JDs per year would be expected looking at its peers worldwide, though the running costs would eventually be generatable from activities and fees. This initiative is **expected to** establish an independent body qualified to generate the data and regulations for the health sector, set the national goals and monitor achievement.

The **private sector** will play a critical role in the provision of the needed expertise to set up this body. Additionally, many private sector international companies would have vested interest to play as a sub provider for this entity.

We strongly believe that the endorsement and implementation of **this initiative will lead to improved national healthcare governance and quality. It will also generate a positive spillover effect addressing many other gaps in on the healthcare sector.**

| Initiative 1 | To establish an Empowered and Independent National Health Regulatory Body | Lead | Cabinet of Jordan |
|---|---|---|---|
| | | Support | Ministry of Health |

| Description/Objectives | | Dependencies / Interdependencies | ▸ A change management process for all stakeholders.<br>▸ Support from a Royal Champion to lead the initiative. |
|---|---|---|---|
| This initiative aims to create/reactivate a health governing body with the highest empowerment possible to regulate all healthcare sectors including MoH, RMS, University hospitals, and the private sector. This would include direction of growth (HR, infrastructure, referral, collaboration…etc), quality assurance, data provision among other key elements. | | Other Key Stakeholders | ▸ Councils and syndicates<br>▸ Private sector providers<br>▸ Academia |
| | | Budget | ▸ 2 million Jordanian Dinars per year |
| **Main Actions** | | Time | ▸ 2 year setup then ongoing |
| ▸ Collaborative governance, through the establishment of an independent body or activating/empowering existing bodies (i.e., High Health Council).<br>▸ Obtaining support and patronage to ensure the body's full independence, authority, and complete interest effacement.<br>▸ Defining roles, responsibilities, and accountability structure | | KPIs | ▸ A new/amended law<br>▸ A new organizational structure for the council<br>▸ Number of policies issued by the council<br>▸ Stakeholders participation in consultative meetings |

Figure 4 Initiative1-Roadmap

## Initiative 2: To Develop a Comprehensive Medical Education Roadmap and Capacity Building Programs

### 2a Strengthen the skills and capacity of health care workers

This initiative offers a synopsis of the main actions needed to develop a Comprehensive Medical Education Roadmap and Capacity Building Programs. **Both the SWOT and situational analysis** have shed light on the shortage of physicians in multiple specialties, Inadequate training slots for interns and residents, the lack of structured capacity building programs, and the weak of monitoring of workforce performance.

**The aim of this initiative is to** strengthen the skills and capacity of the Jordanian health workforce on both the short term and long-term. Including

- Ensure a long-term vision for the skills of the healthcare workforce.
- The immediate upgrading of healthcare workforce competence in critical areas.
- Influencing University Curriculums to incorporate the constantly expanding work place needs.
- The establishment of a unified training and research center for both private and public healthcare sectors.
- Increase focus on education and capacity building in non-clinical areas, including: leadership, and management.

In order **to ensure successful implementation** supportive legislation, international accreditation, unified training and certification programs, as well as Partnership's agreements among the different stakeholders are needed. The **main actions** needed to develop the comprehensive educational roadmap, include:

1. Implementing a full Health labor Market Analysis
2. Upgrading the Human Resources for Health strategic plan.
3. Developing and implementing immediate capacity building programs for residency programs, leadership and management, as well as high priority medical specialties.

**The private sector** is a key provider in higher education and continuous training. Improved relations between universities and colleges with international academic/medical hubs would be pertinent especially in the practicum area and updated curricula. The private sector is also a main employer benefiting from this improvement and therefore possible CSR opportunities can arise.

We strongly believe that the endorsement and implementation of **this initiative will lead to improved workforce capacity, and not only serve Jordan but the region. It will also will attract huge investment by international academia to partner with existing bodies.**

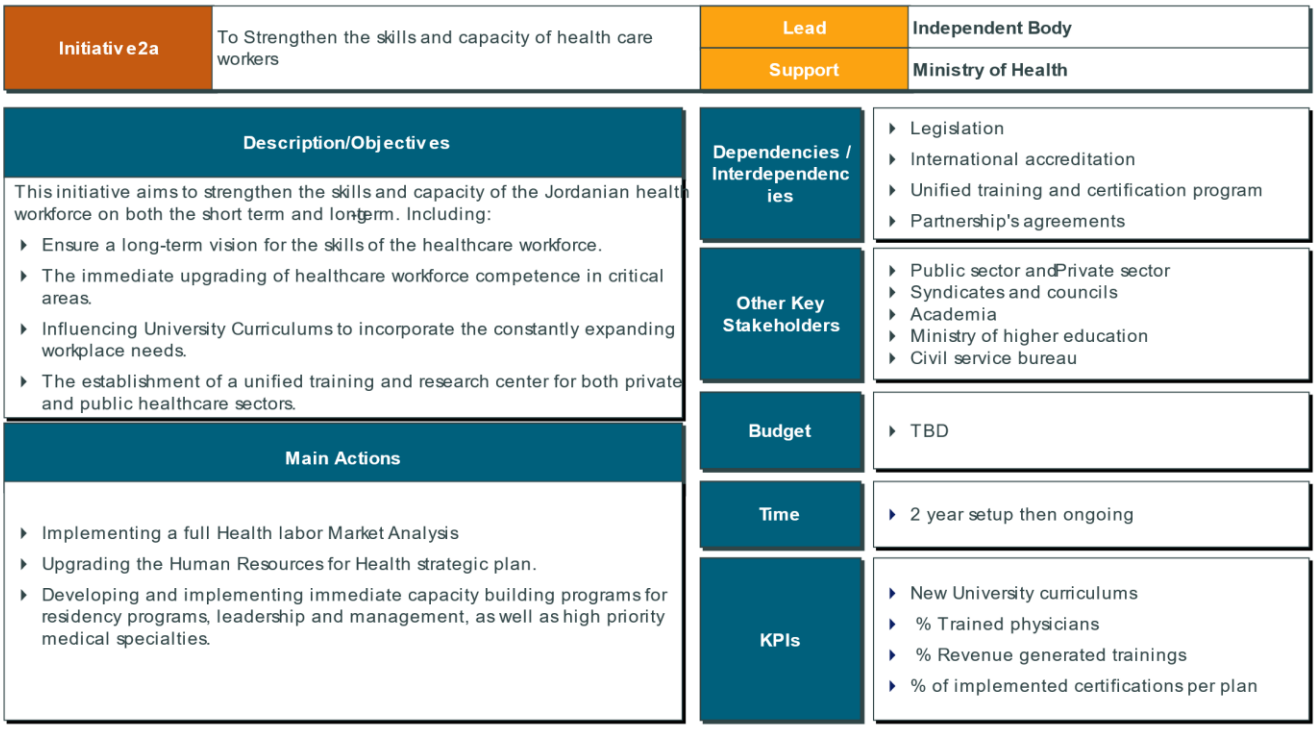



Figure 5 Initiative 2a-Roadmap

**2b: To Reform and Strengthen the National Residency Program (NRP)**

This initiative is primarily serving the strengthening of the quality and competency of health care workforce, with the **main aim of** unifying all residency programs to follow a standardized structure under the umbrella of one regulatory authority.

Under the Jordan Medical Council, to **ensure successful implementation**, an independent expert committee structure is needed with representation from The Ministry of Health, the universities which run residency programs, the private hospitals with residency programs, The Royal Medical Services is to advise and oversee implementation of the program.

The committee will play **a key role** in overseeing the process of revising and evaluating existing programs, building collaborations between the different sectors, and implementing standardized structure for all residency programs.

We strongly believe that this initiative will eventually lead to improved capabilities of residents by producing a full rounded, well-trained resident who is capable of carrying out assigned tasks

with competence in all areas of medicine, and in all geographical locations; leading to equity in the quality of delivered services

| Initiative 2b | To Establish a National Residency Program (NRP) | Lead | Jordan Medical Council |
|---|---|---|---|
| | | Support | MoH, RMS, Universities, and Private sectors |

| Description/Objectives | Dependencies / Interdependencies | Governmental support<br>Financial Investment<br>Adaptation of successful established models |
|---|---|---|
| Encourage the establishment of a National Residency Program (NRP) in order to unify all residency programs with a standardized structure under the umbrella of one regulatory authority. | Other Key Stakeholders | Private Hospital Association |
| **Main Actions**<br>Committee establishment<br>Revising and evaluating existing programs<br>Building collaborations between the different sectors<br>implementing standardized structure for all residency programs. | Budget | A minimum of 500.00 JD |
| | Time | 1 year setup-then ongoing |
| | KPIs | The number of residents passing the Jordan Board from the first time<br>The percentage of falloff complaints made against residents working in public or private institutions. |

Figure 6 Initiative 2b-Roadmap

### Initiative 3: To Adopt Family Medicine Practitioners' Model to Strengthen Primary Healthcare

Faced with increasing rates of chronic conditions, multi-morbidities and a growing population, strengthening the primary health care model in Jordan is of critical importance. Moreover, recent health system reviews have signaled with clear consensus the importance of reviewing the organization of primary care to best respond to population and individual health needs. In this context, this initiative sets out to integrate family practice approach of care, in order to improve and address highlighted gaps in the healthcare sector.

This initiative is multifaceted in its type as its focused on Improving governance, Strengthening the Human Resources as well as, Improving Quality. Both the **SWOT and situational analysis** have shed light on the Weak utilization of primary healthcare services (bypassing primary centers and burdening secondary and tertiary care), as well as the limited focus on preventive medicine and health promotion services.

**The main aim** of the initiative is to integrate family practice approach of care, and showcase the impact of a comprehensive primary health care system through Family Medicine centers of excellence. With the focus on:

- Ensuring continuous availability of family physicians within health centers
- Introducing an intensive and short-term training system to train general practitioners and internists on the fundamentals of the family medicine.
- Introducing a system to rotate doctors from the major specialties to health centers in all regions of the Kingdom on a regular basis and as needed, with the participation of all sectors
- Increasing admission to residency programs in the most needed specialties (family medicine, emergency, and major specialties)
- Creating an incentive system to encourage doctors and health personnel to work in the governorates and peripheral regions (remote areas)
- Implementing a comprehensive program for quality management and improving the quality of services provided in health centers

- Standardization of treatment protocols, training on them and follow-up on their application
- Expansion of accreditation programs so that all centers obtain accreditation to guarantee Highest quality
- Develop solid referral systems

Adopting the Family Medicine practitioners' model **will lead to** strong primary healthcare centers, establishing private sector polyclinics with strengthened family medicine, new employment opportunities, improved gatekeeping into tertiary care, in addition to cost savings at the national level.

This model can be effectively established and **implemented through** the following actions:

1. Selection of comprehensive health centers representing the country regions (south, middle, north).
2. Aligning the governance, human resources, care processes and technological infrastructure of the health centers to accommodate the delivery of the principles of the family practice approach.
3. Capacity building of the selected teams (Team approach).
4. Adopting and adapting an appropriate information system (EHS, IRES): to deliver and improve care, and monitor the health of the community. Electronic health records (EHR), adapted to the specific needs of family physicians.
5. Engaging community by mobilizing the citizens form surrounding community and include them in decision-making.
6. Evaluating the efficiency and effectiveness of the center over a period of 3 years using the predetermined Key Performance Indicators (KPI's).

To ensure the **successful implementation**, this initiative requires governmental approval, Legislation to support the transformation, Buy-in from insurance companies and collaboration of the different healthcare stakeholders including civil society and the private sector. Additionally, it is vital to improve PHC infrastructure and country distribution, establish Family

Medicine training programs, regulate referrals, and evaluate preventive services provision by RHAS and HCAC.

The establishment **budget** would range from 500k JDS to 1 million per year, over a period of three years. The comprehensive polyclinics model is of interest to lots of **private sector** entities as well as investment in preventive medicine and health promotion services.

We strongly believe that the endorsement and implementation of this initiative will lead to improved national healthcare governance and quality. It will also generate a positive spillover effect **relieving the burden on tertiary care, prioritizing preventive medicine and health promotion services, as well as improving public health as a whole.**

| Initiative 3 | To Adopt Family Medicine Practitioners' Model to Strengthen Primary Healthcare | Lead | Ministry of Health |
|---|---|---|---|
| | | Support | Civil society & Private sector |

| Description/Objectives | |
|---|---|
| Integrate family practice approach of care, through showcasing centers of excellence that would demonstrate the positive impact of a comprehensive primary health care system which will require: continuous availability of doctors, training, rotation, referral, more residents, incentives, quality management, and standardization of protocols. | |
| **Main Actions** | |
| ▸ Selection of centers of excellence<br>▸ Aligning the governance, human resources, care processes and technological infrastructure for the provision of the family practice approach.<br>▸ Capacity building of the selected team (Team approach).<br>▸ Adopting and adapting an appropriate information system<br>▸ Engage community by mobilizing the citizens<br>▸ Evaluating the efficiency and effectiveness using the predetermined Key Performance Indicators (KPI's). | |

| | |
|---|---|
| **Dependencies / Interdependencies** | ▸ PHC infrastructure and country distribution<br>▸ Family Medicine training programs<br>▸ Regulation for referral<br>▸ Evaluation of effectiveness and preventive services provision by RHAS and HCAC |
| **Other Key Stakeholders** | ▸ Insurance companies<br>▸ Private sector clinicians |
| **Budget** | ▸ 500 thousand JDs per year |
| **Time** | ▸ 3 years |
| **KPIs** | ▸ # of centers with Family Medicine Practitioners.<br>▸ # of trainings conducted on FM methodology<br>▸ # of standardized protocols implemented<br>▸ % increase in accredited Health centers |

Figure 7 Initiative 3-Roadmap

### Initiative 4: To Design, Develop, and Implement a National Quality Monitoring & Evaluation Program

Recent substantial increases in international funding for health have been accompanied by increased demand for statistics to accurately track health progress and performance, evaluate impact, and ensure accountability at country and global levels. The use of results-based financing mechanisms by major global donors has created further demand for timely and reliable data for decision-making. There is increasing in-country demand for data in the context of health sector reviews in order to assess the quality of services provided, identify gaps and ensure taking effective actions for improvement.

**The main aim** of this initiative is designing, gathering, organizing, and disseminating quality and performance metrics and indicators and providing a solid platform for healthcare providers and decision makers to benchmark their Key Performance Indicators (KPIs) against the national metrics and indicators as well as against regional and international indicators. Including:

- Development of an external monitoring system for hospital performance
- Providing evidence-based data for improvement requirements and national decision making
- Performance evaluation of hospitals vis-à-vis quality indicators
- Providing Specific goals for improvement
- Publishing tangible performance reports, challenges and successes on yearly basis
- Improving quality of services of healthcare institutions
- Improving healthcare outcomes

Establishing a national independent body for quality monitoring & evaluation program **will lead to** improving the quality of healthcare based on the development and monitoring of Indicators, Improving Governance, managing demand, optimizing services, and properly invest in and expand needed Infrastructure.

This initiative can be effectively established and **implemented through** the following actions:

1. Establishment of HCAC's Evaluation, Monitoring and Quality Improvement Program (EMQuIP)
2. To develop knowledge, tools, and data needed to improve the health care system and help Jordanians, health care professionals, and policymakers make informed health decisions.
3. To provide research studies and periodic publications.
4. To design and provide tools and toolkits that will support healthcare providers and decision Makers in improving their quality and enhancing patient safety.

In order to establish an independent body that provides real time data and recommendations on the performance of the sector from a quality perspective, an establishment **budget** of 5 million per year is needed over a period of three years.

We strongly believe that this initiative **will have positive impact on the health sector on multiple levels, including: improving governance, expanding research capacities, and posing good investment opportunity**. International expertise and system adoption from successful approaches worldwide is required, the likes of Press Ganey and others implement many of which, so this would be a good opportunity to bring them in. Additionally, when healthcare outcomes are measured and published this will have a direct impact on medical tourism followed by employment opportunities.

| Initiative 4 | To Design, Develop, and Implement a National Quality Monitoring & Evaluation Program | Lead | HCAC |
|---|---|---|---|
| | | Support | Ministry of Health |

| Description/Objectives | |
|---|---|
| Focus on designing, gathering, organizing, and disseminating quality and performance metrics and indicators and providing a solid platform for healthcare providers and decision makers to benchmark their Key Performance Indicators (KPIs) against the national metrics and indicators as well as against regional and international indicators. | |
| **Main Actions** | |
| ▸ Establishment of HCAC's Evaluation, Monitoring and Quality Improvement Program (EMQuIP)<br>▸ To develop knowledge, tools, and data needed to improve the health care system and help Jordanians, health care professionals, and policymakers make informed health decisions.<br>▸ To provide research studies and periodic publications.<br>▸ To design and provide tools and toolkits that will support healthcare providers and decision makers in improving their quality and enhancing patient safety. | |

| | |
|---|---|
| Dependencies / Interdependencies | ▸ A body that deals with non-performers<br>▸ A binding mandate given to HCAC by government or higher so that hospitals comply<br>▸ A well-trained team and supporting IT infrastructure |
| Other Key Stakeholders | ▸ Academia<br>▸ Councils |
| Budget | ▸ 5 million per year |
| Time | ▸ Until self-sufficiency is reached ~ 5 years (then will be ongoing |
| KPIs | ▸ Completion of accreditation of all hospitals<br>▸ Establishment of the indicators and their databases<br>▸ 80% of hospitals reporting into the indicators/database by year 2<br>▸ Yearly reports and targets<br>▸ Improved targets |

Figure 8 Initiative 4-Roadmap

### Initiative 5: To Improve Healthcare-Financing Model through National Insurance Reform

Results from both the situational and SWOT analysis have showed that the implications of the current health financing system have been burdensome and the economy is facing a severe financial crisis in attempting to meet the health care needs of the population. Mainly due to inefficiencies in service delivery, fragmented insurance and delivery systems, inability to control utilization or quality, and growing demand from refugees among other things

**This initiative aims to** Improve the efficiency of healthcare expenditure and ensure financial protection for patients through developing and adopting a national insurance scheme with sustainable financing and participatory financing model, focusing on Consolidation of current systems, provision of essential health services, improved and strategic procurement, fair premiums, and solid financial projections and actuarial studies.

Evidently, this initiative will improve the demand and utilization of healthcare services, improve governance, activate Primary Health Care, improve quality, manage demand, and optimize services. To ensure the **successful implementation**, this initiative requires support

from Ministry of Health, Insurance companies, Government bodies (MoF, PM…etc.), Social Security, as well as experts in health finance and insurance

In order to achieve **National Insurance Reform**, **actions** related to improving governance, redefining benefit packages, adopting strategic purchasing, and improving private insurance. Including:

1. **Governance:**
    - Segregation of duties between services providers and buyers through separation of insurance function from the MOH and RMS and establishing a national body for health insurance
    - The HHC or MOH will keep the responsibilities of monitoring the performance of the insurer.
2. **Re-defining the benefit packages:**
    - Conducting a thorough actuarial study.
    - Conduct a thorough costing study to identify actual cost of services and interventions at the public sector facilities.
    - Conduct a comprehensive disease profiling study to assess current and future costs and risks.
    - Develop benefit packages that cover both the services and facilities in each package, with an essential package that all people in Jordan should be covered with.
3. **Strategic purchasing:**
    - Adopt a strategic purchasing model of healthcare services from all providers in the public and private sector based on: outcomes, quality indicators and prices
    - Patients will be given the option to be treated in any of the facilities network as long as it's within his/her benefit package.
    - The payments will be based on performance and predefined price list.
4. **Financing model:**

    Develop a sustainable and participatory financing model, with the following suggested sources:

    - The MOF & SSC to cover the cost of premiums for the essential package coverage of all Public Sector staff and their families as well as subsidies or co-subsidies underprivileged people through redirecting the allocation of exemptions.

- Premiums to be paid by the insured people for services beyond their benefit package.
- Premiums to be paid by the employers in the Private Sector for the package of their choice.
- Earmarked taxes on unhealthy products (tobacco, fizzy drinks, process foods…etc.
- Unconventional financing through dedicated endowments and investments.

5. **Improving private insurance offerings through enforcing a minimum essential package, enforcing coverage of chronic disease and NCDs, enforcing coverage of prevention and early detection services.**
    - The insurer will be the risk taker and will hold the full responsibilities of risk assessment
    - The insurer will reinsure through an international third party
    - The insurer will be a consortium of insurance companies from the private sector
6. **The insurer will need to have actuarial studies calculating the risks and providing enhanced services for patients.**

Improving healthcare financing model through national insurance reform requires an establishment **budget** of 500 million based on actuarial study over a setup period of three years.

We strongly believe that the reform of healthcare financing is vital, through **collaborative financing schemes that utilize the strong private sector and decrease burden on the public sector**, which will eventually lead to effective and efficient health protection.

| Initiative 5 | To Improve Healthcare Financing Model through National Insurance Reform | Lead | Independent body |
|---|---|---|---|
| | | Support | Ministry of Health & Private sector |

| Description/Objectives | |
|---|---|
| Improve the efficiency of healthcare expenditure and ensure financial protection for patients through developing and adopting a national insurance scheme with sustainable financing and participatory financing model, focusing on Consolidation of current systems, provision of essential health services, improved and strategic procurement, fair premiums, and solid financial projections and actuarial studies. | |
| **Main Actions** | |
| ▸ Governance model<br>▸ Benefit packages<br>▸ Strategic purchasing<br>▸ Financing model<br>▸ Partnership with private sector. | |
| **Dependencies / Interdependencies** | ▸ Establishing a health insurance Monitoring arm in MOH<br>▸ Healthcare technological solutions , ERP systems, and National health record<br>▸ Improve/upgrade Public Health Services through training and Accreditation Grants |
| **Other Key Stakeholders** | ▸ Insurance companies<br>▸ Government bodies (MoF, PM..etc)<br>▸ Social Security<br>▸ Experts in health finance and insurance |
| **Budget** | ▸ 500 million base don actuarial study |
| **Time** | ▸ 2 years |
| **KPIs** | ▸ Patient satisfaction being treated<br>▸ Accurate allocation of budget<br>▸ Health coverage<br>▸ health services<br>▸ Quality of Data<br>▸ Lower health bill<br>▸ Financial savings<br>▸ Number of patients |

Figure 9 Initiative 5-Roadmap

### Initiative 6: To Design, Develop, and Implement a Holistic Digital Health Strategy

The vision of this Digital Health Strategy is to attain sustainable and harmonized country led digital health system that covers all areas of service provision and enables efficient delivery of health services to beneficiaries at all levels of the health system.

**This initiative aims to** design, develop and implement a holistic digital transformation and digital health strategy that will improve patients' experience and outcomes, enhance

efficiency and effectiveness, increase productivity for healthcare practitioners and support timely and informed decision making.

In order to achieve a holistic digital transformation and digital health strategy the following **actions** are needed:

1. developing and implementing a comprehensive strategy for health sector digital transformation that covers the following areas:
    - Accelerating and expanding Hakeem program to attain unified electronic health records for all.
    - Virtual remote care and e-health model for follow-up services and advanced home care
    - Healthcare informatics and artificial intelligence to support decision-making in the health field- Integration of clinical and claims data to enable population health management insight, disease profiling and projection, behavioral insights…etc.
    - Information systems and information technology infrastructure
    - Cybersecurity and health data protection
    - Automation of operations (appointments, claims/ invoices, patients' records…etc.) to ensure effectiveness
    - Clinical Innovation- acquiring latest cost-effective technologies that have tangible impact in treatments outcome
2. Setting standards and methodologies to assess the current situation and ways to improve, studying global and regional best practices, and then defining the framework and principles for integrated design.

3. Developing a comprehensive execution plan for each of the elements, as well as the functional and technical requirements to develop a roadmap for the implementation stages.

4. Developing a stakeholder participation plan and a communication plan, in addition to the initiative's governance framework to define roles, responsibilities and working relationships between the concerned authorities

To ensure the **successful implementation**, this initiative requires support from the Ministry of Health in collaboration with Ministry of Digital Economy, Electronic Health Systems and HAKEEM program, the private sector, ICT companies, as well as health regulatory bodies.

The strategy development phases require one year with an estimated **budget** of 500 thousand JDs, while the implementation would be done over 5-10 years requiring at least 1 million per year.

We strongly believe that implementing a national approach to digitization with public/private partnerships is of paramount importance. In order to achieve equal accessibility, effectiveness, and affordability of digital solutions and tools by all stakeholders

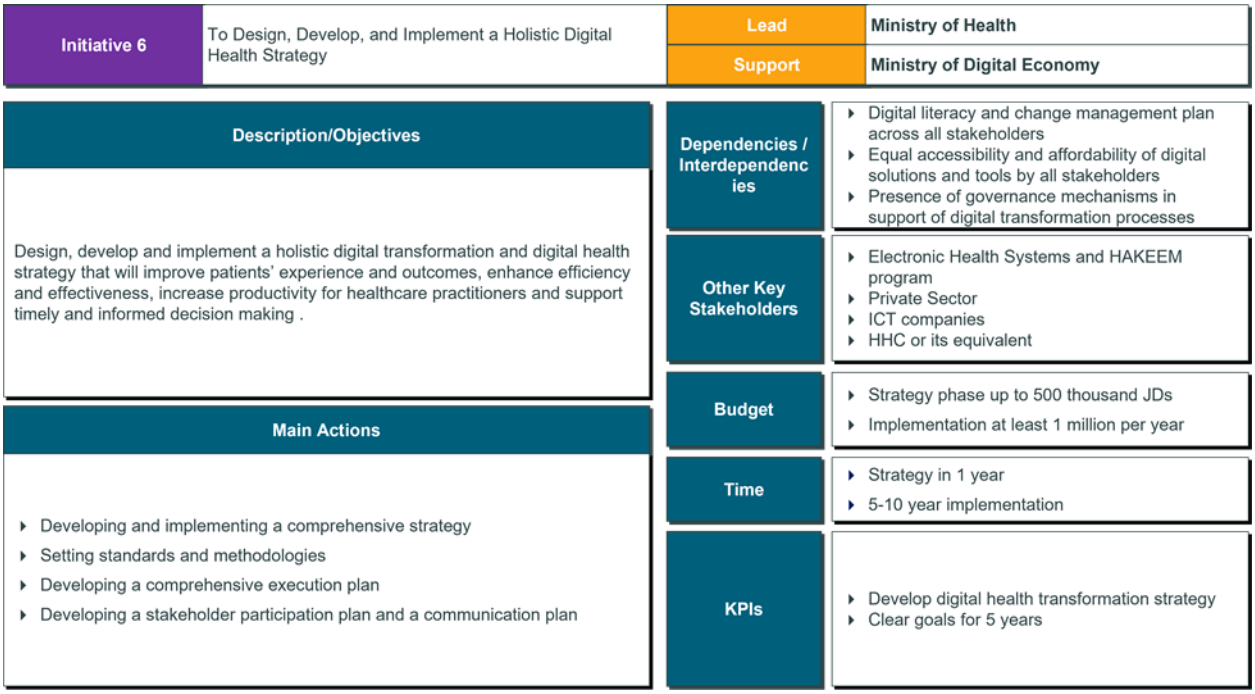



Figure 10 Initiative6-Roadmap

### Initiative 7: To Outsource Operations of Public Hospitals from Reputable Third Parties

Outsourcing yields a lot of benefits to healthcare organizations including improving quality of services, enhancing the productivity of work, and containing cost.

**The aim of this initiative** is to enhance the performance (quality, efficiency, lean operation, etc.) of public hospitals by outsourcing management to internationally recognized hospital operators. Which can be implemented through **the following actions:**

1. Outsourcing operations of a small number of Secondary or tertiary MOH hospitals (3-4) to a third-party operator as a pilot initiative
2. Hiring a consultant to conduct research on the 3-4 selected hospitals. This will include technical and financial feasibility.
3. Hiring a recognized international operator to operate/manage the selected hospitals for five years. The operations would include medical and non-medical operations as well as all back-office operations.
4. Roll out to the rest of hospitals in phases with the help of the operator but with limited scope. Thus, gradually pass the operations/management back to MOH leadership
5. Developing the system for operations, the mandates of the operator would include training leaders and technical MOH staff.

**In order to achieve** cost savings, improved healthcare outcomes, and Improved patient satisfaction acceptance and support is needed from the government, the Civil service Bureau, and the private sector.

The expected **duration required** to implement the initiative is around 5 years. With a budget that is equal to the current cost for hospital operations in addition to management fees.

We strongly believe that the effective outsourcing operations of public hospitals from reputable organizations will result in **well-managed, efficient, and, effective public hospitals**

| Initiative 7 | To Outsource Operations of Public Hospitals from Reputable Third Parties | Lead | Ministry of Health |
|---|---|---|---|
| | | Support | |

| Description/Objectives | Dependencies / Interdependencies | Governance structure<br>Grant support<br>Change Management |
|---|---|---|
| Enhance the performance (quality, efficiency, lean operation, etc.) of public hospitals by outsourcing management to internationally recognized hospital operators. | Other Key Stakeholders | Civil service Bureau<br>Private Sector expertise / consultants specialized in this field |
| | Budget | TBD (approximately current cost of running a hospital plus management fees) |
| | Time | 5 years |
| **Main Actions** | KPIs | Cost savings<br>Improved healthcare outcomes<br>Improved patient satisfaction |
| Hiring a recognized international operator to operate/manage a selected number of Secondary or tertiary MOH hospitals (3-4) as a pilot initiative for five years which will include medical and non-medical operations as well as all back-office operations.<br>Hiring a consultant to conduct research on technical improvements and financial feasibility.<br>Roll out to the rest of hospitals in phases with the support of the operator while transferring knowledge gradually as the system for operations would mandate the operator to include training leaders and technical MOH staff. | | |

Figure 11 Initiative7-Roadmap

### Initiative 8: To Establish expert centers of excellence through private sector investment

Centers of excellence have the ability to dramatically enhance the depth and breadth of healthcare services available in communities. The centers afford many advantages for healthcare providers and the populations they serve, as they supply exceptionally high concentrations of expertise and related resources centered on particular medical areas and delivered in a comprehensive, interdisciplinary fashion.

This initiative **aims to** encourage the establishment of centers of excellence in specialized areas of healthcare delivery (ex: pediatric tertiary care, orthopedics and physical rehabilitation, geriatrics, nursing homes…etc.) in order to improve the service provided, entice private sector investment in these areas, and create regional attraction.

To ensure the **successful implementation**, this initiative requires support from the Ministry of Health, Ministry of Industry and Trade, as well as the Private Hospital Association. With efforts aligned to achieve the following **actions:**

1. Entice private sector investment in specialized care areas.

2. Establish centers to provide comprehensive and fully integrated practice within a holistic healthcare delivery model.
3. Attract regional and international patients.
4. Bolster clinical trials, and research

**In order to establish** centers of excellence that would improve healthcare outcomes and improve medical tourism, direct investment from the private sector is required. Each center **cost** around 30 million JDs and takes around 5 years to be established.

We strongly believe that this initiative will increase Jordan's health sector competitiveness, attract investment, strengthen medical tourism, as well as improving quality of services

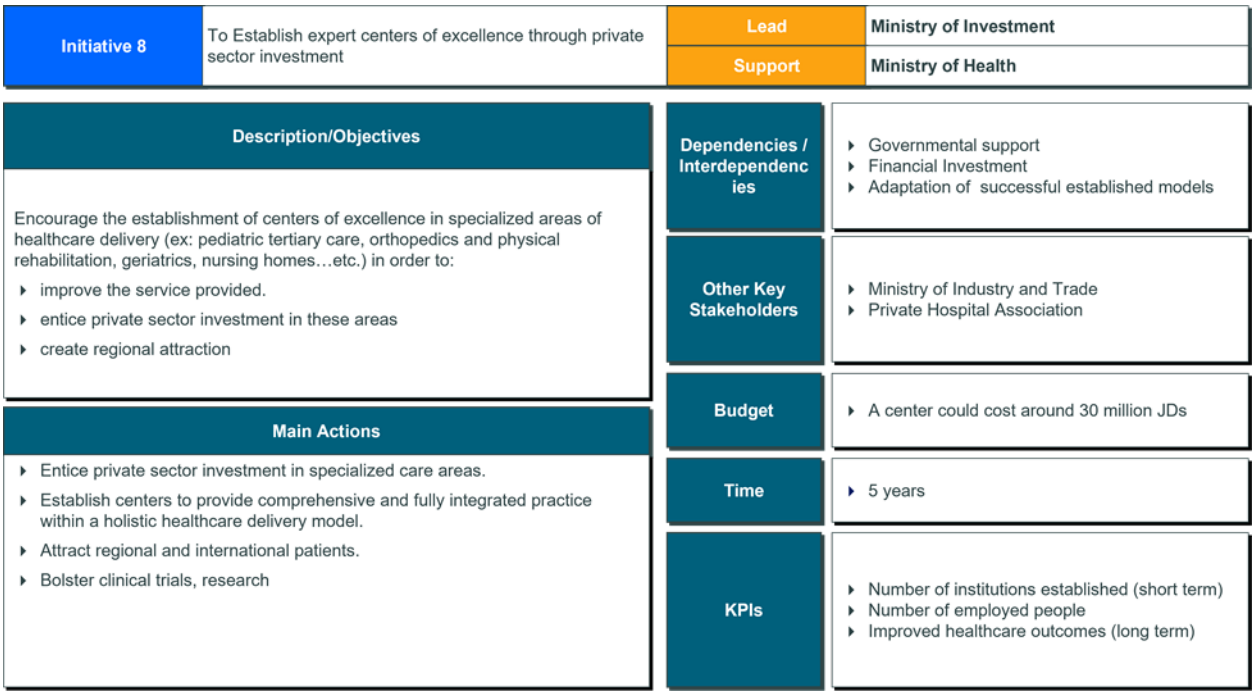



Figure 12 Initiative 8- Roadmap

# 6. ANNEX

## Annex1

### I: Detailed Health Sector Situational Analysis

### 1. Current Demographic and Socioeconomic situation:

Jordan is a country that has limited natural resources, upper- middle-income rates, and high population growth rate. Jordan is positioned as a gateway to the Middle East, with an estimated population of around 10.55 million inhabitants and a total area of 89,342 square kilometers [7]. It is important to note that Jordan's population jumped from 6.1 million in 2010 to 10.6 in 2019 due to the political instability in the region. For decades now, Jordan has been a hub for refugees from the region, it has over 2 million registered Palestinian refugees [33], and 1.36 million Syrian refugees (nearly 15% of Jordan's total population), making it the second host country of highest number of refugees per capita in the world [34], [35].

According to the Department of Statistics, the total number of people in the kingdom has reached 10,554,000 million in 2019, an equivalent of 0.13% of the world's population, with a population growth rate of 2.3 [1]. Such a demographic profile entails higher healthcare costs in the medium to long run term, translating into higher healthcare financing needs.

It is estimated that 91% of the Jordanian population resides in urban areas. With 17.8% of the population living under the international poverty rate as reported in 2018 [3]. A rise in the unemployment percentage was seen over the years reaching 18.6% in 2019 [1], which was further exacerbated by the COVID-19 pandemic reaching 24.7% in the fourth quarter of 2020 [9].

Jordan's health expenditure as a share of GDP fluctuated substantially in recent years, though it tended to decrease through 2004 - 2019 period starting from 9% and ending at 8.1 % in 2019, which is still higher than both the Middle East and North Africa (MENA) average and the upper-middle income countries average [8]. Over the years, Jordan has witnessed changes in its key demographic indicators, as shown in Table 3:

| Table 1: Changes in Key Demographic Indicators in Jordan [1] | | | | | |
|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 |
| Population (million) | 9,531,712 | 9,798,000 | 10,053,000 | 10,309,000 | 10,554,000 |
| Population Growth % | 5.3 | 2.4 | 2.6 | 2.4 | 2.3 |
| Life expectancy at birth - Females (Years) | 76.6 | 74 | 74.2 | 74.2 | 74.2 |
| Life expectancy at birth -Males (Years) | 72.7 | 72.5 | 2.8 | 72.8 | 72.8 |
| Life expectancy at birth-Overall (Years) | 74.4 | 73.2 | 73.5 | 73.5 | 73.5 |
| Unemployment % | 13% | 13% | 15.3% | 18.6% | 18.6% |
| Health expenditure (% of GDP) [36] | 7.6 | 7.3 | 8.1 | 7.8 | 8.1 |
| Out of pocket expenditure on health [36] | 29.4 | 30.6 | 30.4 | 60.7 | 30.6 |

In terms of the pandemic's economic repercussions, the COVID-19 crisis is estimated to have increased poverty by around 38 percentage points (p.p.) among Jordanians, and by 18 p.p. among Syrian refugees, according to a new joint study by the World Bank and the UN Refugee Agency (UNHCR) [37].

The Department of Statistics in Jordan has issued its quarterly report on the unemployment rate for the third quarter of 2021; with the following main results [9]:

1. Unemployment Rate has reached (23.2%) during the third quarter of 2021; representing a decrease by 0.7 percentage points from the third quarter of 2020.
2. Unemployment rate for males has remained stable and decreased for females by 2.8 percentage points compared to the third quarter of 2020.
3. By comparing the Unemployment rate for the third quarter with the second quarter of 2021, it is clear that the unemployment rate for males has decreased by 1.5 percentage points and has decreased for females by 2.3 percentage points.
4. The Unemployment Rate is high among the university degree holders (Bachelor degree and higher divided by labor force for the same educational level) by 27.8% compared with the other educational levels

5. As for the Governorates, the highest rate of Unemployment was recorded in Tafilah at 29.0%, and the lowest rate was recorded in Madaba at 20.3%.

## 2. Health Care Indicators

The health of Jordan's population has improved considerably over the last decade, with child and maternal mortality reduced and vaccination rates covering 95% of all children in 2019 [10]. Health indicators in Jordan reflect that the overall average life expectancy has stabilized at birth to 73.5 years during the period from 2007 to 2019. Moreover, infant mortality rates have declined since 2012 [11] reaching 17 deaths per 1,000 live births in 2019.

Over the past decade, Jordan achieved substantial progress in improving maternal health, with a decline in Maternal Mortality ratios (MMR) from 58 in 2005 to 32.4 deaths per 100,000 live births in 2019 [38]. However, existing data still shows that mothers are dying from preventable causes. In an effort to assess the true magnitude of maternal deaths, identify the causes, and provide decision makers with reliable information to avert future deaths, Jordan Maternal Mortality Surveillance and Response system (JMMSR) was launched in 2018.

At the end of 2018 the first National Maternal Mortality Report was published, highlighting Jordan's MMR for 2018 of 29.8 per 100,000 live births [12]. However, in 2019, Jordan's National Maternal Mortality Report showed that Maternal Mortality rate has reached 32.4 Deaths per 100,000 live births. [13] which is still better than the global target of 70 deaths per 100,000 live births, but worse than the year before despite the fact that Jordan remains at par with its neighboring counterparts in reducing maternal mortality. [39] The most common direct causes to maternal deaths were obstetric complications (obstetric embolism, venous complications in pregnancy, and complications of the puerperium) (22.6%). While Postpartum hemorrhage was the second most common direct cause of maternal deaths (17.7%). Postpartum hemorrhage was the second most common direct cause of maternal deaths

**Table 3: Changes in Key Health Indicators in Jordan [1]**

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Total fertility rate (Life births per women) | 3.5 | 3.4 | 2.7 | 2.7 | 2.7 |
| Crude death rate (per 1000 population) | 6.1 | 6.1 | 6 | 6 | 6 |
| Maternal mortality rate (Deaths per 100,000 live births) | 19[1] | 19 | 19 | 29.8 [12] | 32.4 [13] |
| Infant mortality rate (Deaths per 1000 live births) | 17 | 17 | 17 | 17 | 17 |

[1] 2015 WHO estimate of 58 deaths per 100,000 live births in Jordan

| | | | | | |
|---|---|---|---|---|---|
| Mortality between exact ages 30 and 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease (%) [14] | 18.9 | 18.8 | 18.6 | 18.4 | 18.3 |

**Fertility Rates**

In 2019, total fertility rate for women in Jordan was reported as an average of 2.7 children. The pace of fertility rates varied across the decades, where it declined steadily from 1990 to 2002, stabilized from 2002 to 2012, and continued to decrease between 2012 and 2019.

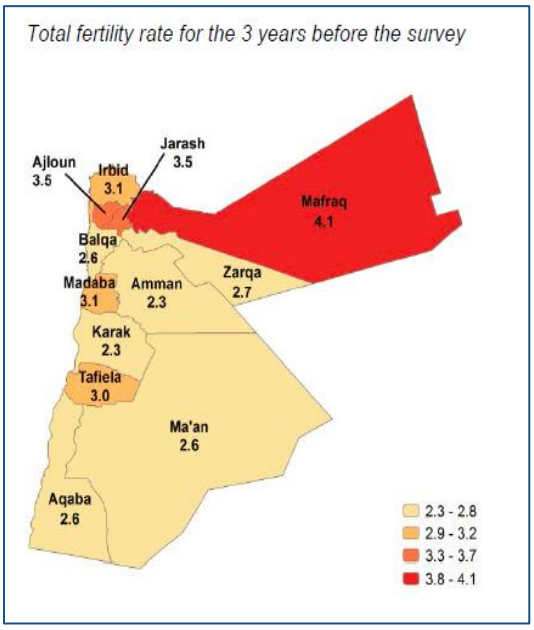



*Figure 13 Fertility Rate Per Governorate 2017-2018*

According to Jordan 2017-18 population and family health survey, variance in fertility rates is noticed across the different governorates; women in Mafraq have the most children (4.1 on average) while women in Amman and Karak have the fewest (2.3). Difference in fertility is also noticed across the different nationalities, results showed that Jordanian women have an average of 2.6 children, while Syrian women have an average of two more children (4.7). When it comes to house hold wealth, women in the poorest quintile have 3.9 children, on average, while women in the wealthiest quintile have an average of 1.4 children [11]. (Figure 14)

In terms of family planning practices, the 2017-18 Population and Family Health Survey (JPFHS) showed that 52% of currently married women use a method of family planning (37%) of married women age 15-49 use a modern method of family planning; 14% use a traditional method. Withdrawal is the most commonly used traditional method, which is

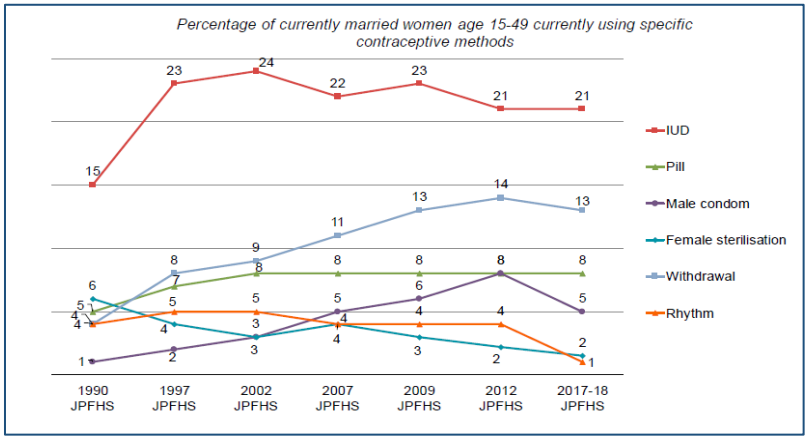



*Figure 14 Trends in Contraceptive Use*

used by 13% of married women. On the other hand, the most popular modern family planning method is Intra-Uterine Device (IUD) s, used by 21% of married women, followed by the pill (8%). *(Figure 16)*

As for exposure to family planning messages, more than 80% of women and 45% of men age 15-49 have heard or seen a message about family planning in the media in the months before the survey. Television is the most common source of family planning messages, seen by 71% of women and 30% of men [11].

**Maternal Health**

Over the past two decades, Jordan made significant progress in improving the quality of safe motherhood services and maternal and child health outcomes.

In 2019, Jordan's Maternal Mortality Ratio (MMR) was 34.2 per 100,000 live births. The percent of maternal deaths was highest among women aged between 25-29 years accounting for (28.6%) of all maternal deaths [13].

The findings showed that of the 62 cases, 39 cases (62.9%) died due to direct obstetric causes, and 23 cases (37.1%) died due to indirect obstetric causes. Other obstetric complications (obstetric embolism, venous complications in pregnancy, and complications of the puerperium) were the most common direct causes in 14 (22.6%) of maternal deaths. Postpartum hemorrhage was the second most common direct cause of maternal deaths and the most frequent cause-specific maternal mortality factor in 11 cases (17.7%). Other maternal diseases related to conditions which complicate the pregnancy, or serve as the main reason for obstetric care were the most common cause of indirect deaths in 20 cases (32.3%). [38]

With regards to delivery almost all (98%) births in Jordan are delivered by skilled health workforce. Two-thirds of births occur in public sector health facilities, while one-third occur in private sector health facilities; 2% occur at home. Home births are most common among Syrians (5%) and those with no education (10%).

With regards to antenatal care (ANC) coverage (97%) of women attended at least seven antenatal services from a skilled provider (doctor or nurse/midwife). With regards to postnatal care (PNC) coverage, a national survey revealed that the rate of PNC utilization within 48 hours of delivery among Jordanian women is 83.4% [11]. However, a

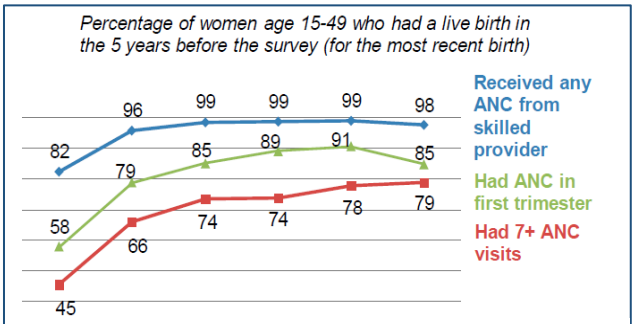


Figure 15 Trends in Antenatal Care Coverage

high utilization rate of maternal and child healthcare services does not necessarily reflect a high quality of care. *(Figure 17)*

**Child Health**

The 2017-18 JPFHS results showed that nearly 1 in 50 children in Jordan die before reaching their fifth birthday. Most (90%) of the deaths occur in the first year of life, and 58% take place in the first month of life. Mortality rates are generally higher among children born to Syrian women than among children born to Jordanian women or women of other nationalities. Overall, improvement was seen over the years in which the under-5 mortality rate has declined remarkably [15]. *(Figure 18)*

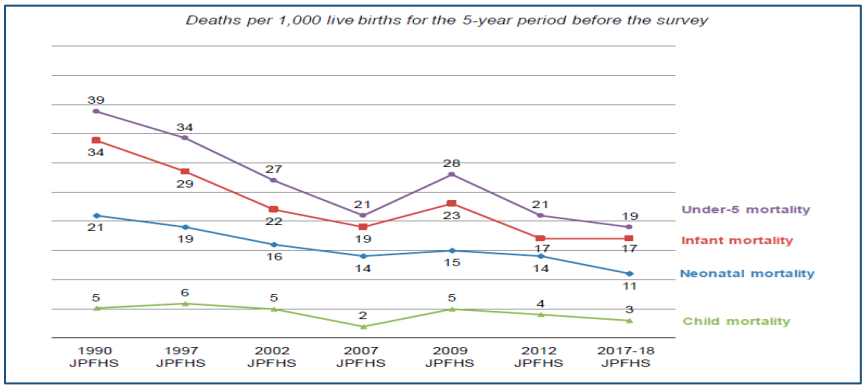



*Figure 16 Trends in Early Childhood Mortality Rates*

On the other hand, the latest data on prevalence of stunting show that 7.8% of children under 5 years of age are affected, which is lower than the average for the Asia region (21.8%). Similarly, data on wasting show a prevalence of 2.4% of children under 5 years of age, which is lower than the average for the Asia region (9.1%). The prevalence of overweight children under 5 years of age is 4.7%, [40]

With regards to Children's Nutrition, despite the obvious health and economic benefits, more than 9 in 10 children in Jordan are breastfed, but only 67% were breastfed in first hour of life. Contrary to recommendations, 43% receive a pre-lacteal feed. Additionally, the median duration of any breastfeeding is 9.7 months among children less than age 36 months. The median duration of exclusive breastfeeding is 0.9 months. The feeding practices of only 23% of children age 6-23 months meet minimum acceptable dietary standards. [11]

**Non-communicable Diseases**

The Kingdom has seen in recent years a remarkable change in the epidemiological map given the rising rates of non-communicable diseases, including: heart diseases, circulatory system diseases, diabetes and cancer. In line with the global trends, Jordan is increasingly affected by

a significant epidemiological transition towards NCDs, accounting for 78% of deaths, which make them the leading cause of mortality and morbidity among Jordanians.

At the end of 2019, the Ministry of Health, conducted a national STEP wise survey (STEPs) with the technical support of the World Health Organization (WHO). Main findings showed that Prevalence of hypertension (raised blood pressure) is 22% of the survey population; half of them (47.8%) do not take medication. Diabetes (raised blood glucose) is found in 20% of adults aged 45-69 years old, and raised total cholesterol is reported in 17.7%. Moreover, those currently suffering from cardiovascular diseases or at high risk of developing cardiovascular diseases in the next 10 years reach 24.5% of the survey population. [4]

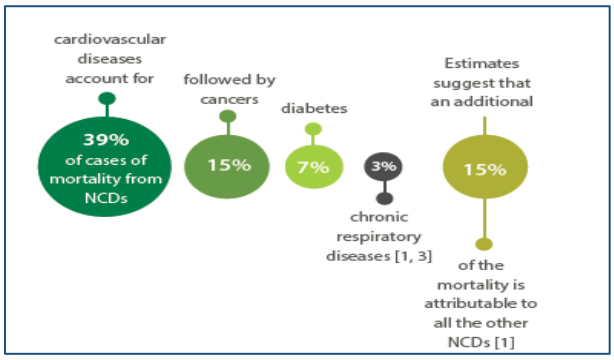



Figure 17 NCDs related Mortality

Cardiovascular diseases account for 39% of cases of mortality from NCDs, followed by cancer 15%, diabetes 17%, Chronic respiratory diseases 3%, and 15% of the mortality is attributable to all the other NCDs [4]. (Figure 19)

This calls for concerted national efforts of all relevant sectors to control and reduce the spread and in a way that is reflected positively on the health and safety of the individual and society on the one hand, and to reduce the cost of diseases on the other.

### A. Tobacco smoking

Jordan ranks among the highest rates of tobacco use in the world with alarming smoking prevalence. The findings of STEPs 2019 regarding tobacco use compared to the previous STEPs 2007 reflect that smoking rates among Jordanian males and females (29% and 6%) increased substantially over the past 12 years reaching (66% and 17%, respectively) in 2019 [4].

Main findings from STEPs show that one of the major NCDs risk factor in Jordan is smoking and vaping. 41% of Jordanians and Syrians are current tobacco smokers and 9.2% are current users of electronic cigarettes. Second-hand exposure to smoke during the past 30 days reached 79% among the same group. Their monthly expenditure for manufactured cigarettes is JOD 60.3 per person with an average consumption of 21 cigarettes a day.

Jordan adopted the National tobacco control strategy for 2017-2019, which is based on the implementation of the WHO's MPOWER strategy, a comprehensive set of tobacco control measures. The strategy seeks to decrease tobacco use by 30 percent by 2025.

Tobacco has also a negative impact on the economy being one of the highest expenditures at a household. The average monthly expenditure on manufactured cigarettes is JOD 60/month and the cost of 100 packs of manufactured cigarettes as a percentage of per capita Gross Domestic Product are consistent with the 2019 economic study "Tobacco Control Investment Case in Jordan" [41].

Progress has been made on tobacco control in recent years, in terms of setting policies and legislations to expand smoking free spaces, sales restriction, cigarette contents and disclosures. However, people continue to die and become sick needlessly, and the costs to society from tobacco use continue to mount [42]. Jordan can still do more to make the proven tobacco control tools work for its citizens' wellbeing.

**B. Cancer Prevalence:**

Cancer in Jordan is increasing steadily, as the overall incidence of cancer in Jordan ranks among the highest in the Eastern Mediterranean Region, as reported in 2018, at 155.3 per 100,000 population [3].this could be attributed to actual rise in cancer incidence, strengthened cancer screening and detection programs, or both.

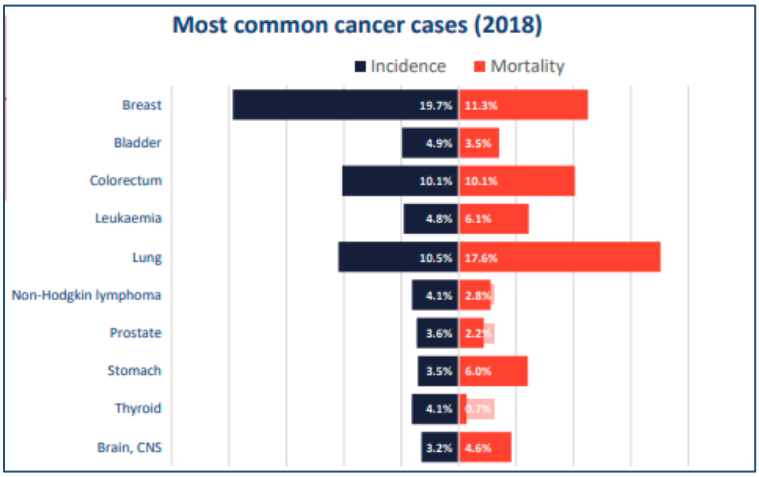



*Figure 18 Cancer Incidence and Mortality in Jordan-2018*

In 2018, reports showed that breast and lung cancers were the most common types of cancer in Jordan with incidence rate of 19.7%, and 10.5% respectively. While the mortality rates of lung cancer were the highest at 17.6%, followed by breast cancer at 11.3%. [43] *(Figure 20)*

It is essential to support early cancer detection programs in order to reduce morbidity and mortality. As well as tackling already known risk factors of cancer

currently prevailing among Jordanians including tobacco smoking, obesity, physical inactivity, pollution, and unhealthy diet.

**C. Diabetes Prevalence:**

The prevalence of diabetes in Jordan has been increasing over the past few decades. Results from the Jordan National STEPwise survey for NCDs risk factors (2019) showed that diabetes was found in 8% of adult population (18-69 years old), which further rose in older adults (45-69 years old) to reach 20%, with equal presentation in both genders. [4].

Additionally, the rate of impaired blood glucose (a fasting glucose level ≥ 6.1 mmol/L (110 mg/dl) and <7.0 mmol/L (126 mg/dl) or raised blood glucose [fasting glucose levels ≥ 7.0 mmol/L (126 mg/dl) constituted 14% of the overall study population

The survey has also identified gaps in terms of respondents' awareness of their blood glucose levels. Having half of the sample and one third of adults above 44 years old never having their blood glucose measured proves insufficient early detection of diabetes.

Efforts should be made to improve glycemic control in people with diabetes, strengthen health promotion, early detection and prevention interventions. Improving the utilization of Primary Health care as the first line of defense is paramount to combat the rising rates of diabetes [3].

## A. Health Service Delivery

Healthcare services in Jordan are divided into 'primary', 'secondary', 'tertiary and quaternary healthcare, with each representing increased levels of specialization and catering to smaller number of patients who would be filtered out at the lower levels. According to the WHO, the vast majority of patients can be fully dealt with at the Primary health care level [44].

Jordan's health care system offers public health, primary and comprehensive health care services to most citizens, all at 20% subsidized cost to patients at the point of service. The public sector consists of the MOH, the Royal Medical Services (RMS), the National Center for Diabetes, Endocrinology, and Genetics, and the university hospitals (UH). Jordan has a strong NGO sector, such as the King Hussein Cancer Center and charity-funded clinics. The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) and the United Nations High Commissioner for Refugees (UNHCR) offer primary, secondary, and tertiary health care services to registered refugees in Jordan through contracts with implementing parties.

## Primary Health Care services

Primary health care services are provided through the MoH network of comprehensive, primary, and village health centers, The RMS comprehensive centers and clinics, the private sector wide network of general medicine clinics, and many international charity organizations offering services for vulnerable populations and refugees. The distribution of Primary Health Care services across the different sectors is presented in the below table:

**Table 4: Primary Healthcare Service Network/Sector [1]**

| Sector | Primary Health Service Network |
|---|---|
| Ministry of Health | • 112 Comprehensive Health Center<br>• 377 Primary Health Center<br>• 187 Peripheral Health Center<br>• 506 MCH centers<br>• 429 Dental clinics |
| Royal Medical Services | • 8 Comprehensive Health Centers |
| UNRWA | • 25 Clinics |
| Jordan Society for Family Planning and Protection | • 16 Clinics |
| Private Sector | • Thousands of GP Clinics |
| International NGOs | • Clinics targeting Syrian refugee camps in the main form. |

This extensive network provides basic curative and preventive services like immunization, child's health, women's health services including antenatal, postnatal care, family planning, and regular checkup. Additionally, health promotion services are provided to support: reproductive health, water safety, food control, school health, occupational health, dental health, combating smoking, unhealthy lifestyles, and combating communicable diseases.

The network of health centers in Jordan has dealt effectively with the largest wave of refugees during the period 2011-2015. Despite the overwhelming load on the network; basic national health indicators were maintained, especially within the disease prevention areas, which indicates the effectiveness and comprehensiveness of primary health service provision in Jordan.

It is estimated that there are 9 health centers for every 100,000 population, which is very close to WHO recommended average of 10 health centers for every 100,000 population, where most Jordanians (90.6%) live at 4km or less from a health center. [17]

In Jordan as in many countries of the EMR Primary health care is facing several challenges including: changing demography of the population and related ageing health issues; changes in health technology; and ensuring the financial protection of households when accessing health services. Additionally, protracted complex humanitarian emergencies and conflicts are causing forced displacement of people, many of which belong to vulnerable population groups including women and children.

Similar to the region, despite the high density of primary network in Jordan, many challenges and gaps exist, including:

- There is evidence about the significant variation between MoH health centers in numbers and types of health workforce, which was not proportional to the catchment area of neither the centers nor the numbers of registered patients
- Many comprehensive health centers lack main medical specialties including: internal medicine, pediatrics and gynecology.
- The majority of primary health care facilities in Jordan are managed by general practitioners who have neither vocational training nor experience in creating family practice-oriented health care teams.
- One of the main barriers to scale-up of family practice is inadequate numbers of trained human resources, mainly due to a shortage of training programs and lack of support from policy-makers for the specialty.

## Curative Care: secondary and tertiary care - hospitals

In 2019 Jordan had 69 private hospitals and 2 university hospitals, in addition to 32 MOH hospitals and 15 Royal medical services. In Jordan, the hospital bed rate of about 14 beds per 10 000 people is lower than the Mena average rate (16), the upper middle income countries average rate (35), and the global rate (29) [45]. With the recent increase in the population, the high influx of refugees to Jordan, and the burden of the recent pandemic, the density of hospital beds is considered suboptimal. The distribution of hospitals across the different sectors is presented in the below table: [1]

**Table 5: Hospital Distribution Across Sectors**

| Sector | Number of Hospitals | Number of Beds | Percentage |
|---|---|---|---|

| | | | |
|---|---|---|---|
| MoH | 32 | 5119 | 34.8% |
| RMS | 15 | 3091 | 21.0% |
| University | 2 | 1156 | 7.9% |
| Private | 69 | 5334 | 36.3% |

The main challenges in the curative care sector are:

- Limited number of some medical specialties and subspecialities
- Brain-drain, internal and external
- The centralization and dependency of public hospitals on the ministry of health, resulting in the loss of adaptation, innovation, and lack of initiative.

The public sector struggles with the migration of cadres abroad, and to the private sector which is posing a major challenge to the availability of qualified staff and needed specialties in public health sector. This brain drain problem is partially attributed to the bad working environment and the low incentive systems currently provided to medical cadres and specialized doctors [5].

The private sector suffers from a limited oversight and control over physicians, which is supposed to be the responsibility of medical syndicates who lack the executive arm. In a lesser way, it also suffers from the limited influence of the supervisory authorities, and the variation in quality of services across the different private hospitals. There is also a lack of specialized centers in the private sector to act as a regional attraction and medical destination for specialized services similar to the successful model of King Hussein Cancer Center.

## Health Service Referral System

The health system in Jordan functions on the basis of referrals from primary-level care provided in health centers to higher levels of care, according to the patient's case or condition. The National Strategy for the Healthcare Sector 2016-2020 stated that among its objectives are "reaching a level of synergy between primary, secondary and tertiary health services" and the "implementation of an effective referral system for patients between the different levels of care and between the public and private sector entities" [23].

There are two types of health service referrals:

- Referrals within the Ministry of Health (Primary-Secondary- Tertiary care)
- Referrals from the Ministry of Health to other facilities.

Currently, there are numerous loopholes which allow patients to bypass the lower levels of care and go directly to higher levels, even if they do not truly necessitate it. It is common in Jordan to seek specialized care at a hospital instead of visiting primary health care clinic for the first visit. Overuse of secondary care due to the bypassing of PHC centers is a widespread problem in Jordan. Moreover, there is a general perception that primary health care facilities are of inadequate quality.

Jordan's burden of disease is dominated by noncommunicable diseases (NCDs). There is overall recognition that improving the provision of promotive, preventive, and curative health services through a sound primary health care system can reduce the excessive costs associated with providing services (outpatient and inpatient care) at secondary / tertiary care hospitals.

The inadequate working hours in health centers, as well as the lack of specialized doctors and adequate medications, forces patients to resort directly to hospitals. Additionally, patients are not trusting the competencies of GPs who work in these centers, this further causes overload on hospitals and overworks the staff. The limited number of specialized doctors in governmental hospitals forces the Ministry to refer patients extensively, which is costly and takes a toll on patients. Given that the vast majority of patients can be fully dealt with at the Primary level [44]. It is clear that the referral system in Jordan and the quality of services provided at the primary care are in need of significant improvements.

## B. Health Information System and Digitalization

### Data Surveillance and reporting

Since 2015, Jordan has been implementing a national program called the Interactive Electronic Reporting System with support from WHO. The program includes modules on communicable diseases, NCDs, mental health, pandemic influenza preparedness and event-based surveillance [3].The system also covers refugees residing in Jordan and has a specific module on foreigner screening to monitor the status of tuberculosis (TB), HIV and hepatitis B among refugees.

In 2017, Jordan was the first country in the region to join The Global Antimicrobial Resistance Surveillance System (GLASS) and build upon existing surveillance programs for national AMR reporting. In November 2020, Jordan also successfully released their first national Antimicrobial Resistance (AMR) surveillance report. [46]

To date, we still have the so called "translation Gap" due to ineffective presentation and dissemination of data. Timely data/evidence is vital to inform practitioners and policy makers. Therefore, it's of high importance to prioritize gathering and reporting data in order to drive evidence-based decisions. Data reporting systems need to be put in place, accuracy of data need to be further validated, and most importantly the analysis and interpretation of big data is needed in order to reflect on the performance of health sector and the quality of its services.

## Electronic Health Records

In 2009, the Jordanian government initiated the first E-health program in Jordan (Hakeem Program) with the aim of building a nationwide EHR database system. So far, many hospitals, and health centers in Jordan have their manual health records transferred to electronic health records (EHRs), with around 7 million EHRs currently available in the database. However, there is still heterogeneity, lack of interoperability and many complexities in sharing EHRs on the national level, across the different sectors [47].

A nationwide survey showed that the level of adoption of EMRs in Jordanian hospitals at the national level, was found to be 10.3% for the comprehensive system that was used in all major units [18]. These low levels of adoption can drive national strategic plans to address goals and implementation processes of EMR systems in all Jordanian hospitals. Plans should be composed of all aspects of implementation such as transition from basic and paper-based systems to comprehensive systems, the interoperability of systems, and the training of human resources and healthcare personnel. This fact should impel policy makers to resolve the challenges and obstacles for such adoption. National strategic plans are needed to address the goals and implementation processes of electronic health record systems in all Jordanian hospitals.

### Tele Health

Telemedicine has successfully served as an effective way to cover the unmet need for safe, routine clinical care during the pandemic in several countries, including the United States of America (USA) and the United Kingdom (UK) [48].

Telemedicine represents an opportunity to continue providing quality routine healthcare during the pandemic, and several countries have successfully implemented telehealth measures. The early introduction of telemedicine to the Kingdom of Jordan dates back to the early 2000s. However, there has not been a successful or wide adoption of telemedicine in Jordan [49].

Digital or regular telecommunication is widely available in Jordan. According to Internet world stats (IWS), in 2017 87.8% of the population were internet users [50]. This represents an opportunity to design and implement a successful telemedicine program in the country. With the aim of providing remote access to quality healthcare services without increasing the risk of transmitting infection, as well as addressing the health care needs of patients with chronic diseases, and mental health conditions.

The introduction of a national telemedicine program would help hundreds of thousands, if not millions, of people in Jordan to receive their routine care without the need to have in-person visits to hospitals where a significant number of COVID19 cases are being treated. Further, telemedicine will help relieve the healthcare sector and allow for proper sanitation techniques and proper use of personal protective equipment by the frontline workers when caring for patients who need in-person care or hospital admission.

## C. Health Funding and Investments

### Health Financing and spending

In 2019, the health expenditure as a percentage of GDP was 8.9 percent. Public health expenditure accounts for the majority of total health expenditure in the past decade or so, total expenditure on health averaged around 8.4 percent of GDP; public expenditure was about 5.5 percent of GDP. [16].

Jordan's total expenditure and public expenditure in the health sector are both higher than most regional countries and peer averages, and are close to the averages of OECD countries most of which have universal coverages *(Figure 21).* The proportion of out-of-pocket (OOP) payments is low, partly due to the heavy subsidies provided by the government for uninsured

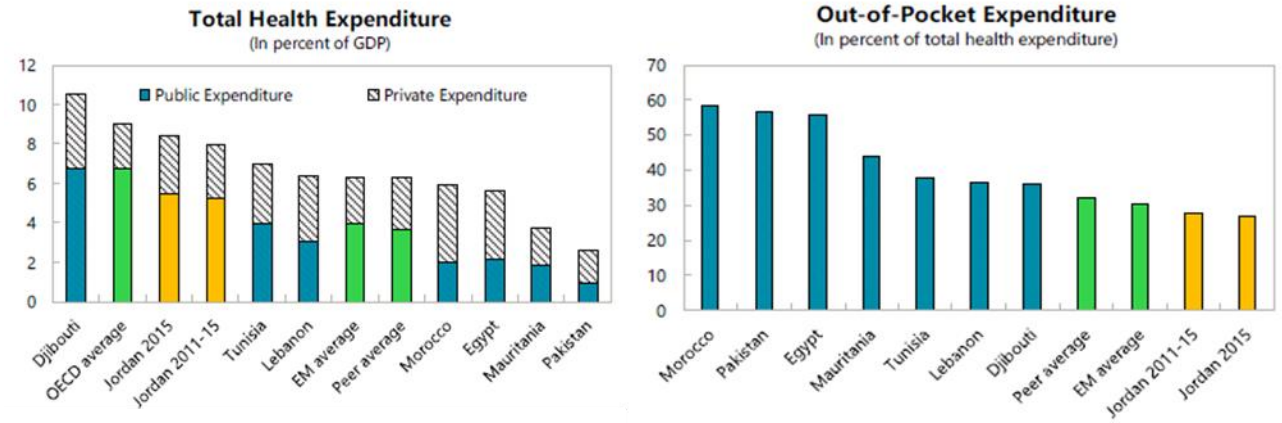



Figure 19 Jordan's Health Expenditure

Jordanians through the "affordable price". [19]

The majority of Jordan's health spending is spent on curative care (75%) instead of primary care (Figure 22) [5]. While the current health financing system is providing effective health protection and lessening the burden of healthcare costs on the general population in general and on the poor in specific, the financial implications have been burdensome and the economy is facing a severe financial crisis in attempting to meet the health care needs of the population mainly due to inefficiencies in service delivery, fragmented insurance and delivery systems, inability to control utilization, and growing demand from refugees among other things [20].

Due to all these issues, health arrears have been accumulating over time. By the end of 2017, Jordan had a health services debt exceeding JD442 million, including JD342 million accumulated though the end of 2016 with an additional JD100 million added in 2017 alone (30% increase) [51]. This means that the health sector lost JD100 million in 2017 alone, and has added this figure to an already mounting pile of health arrears.

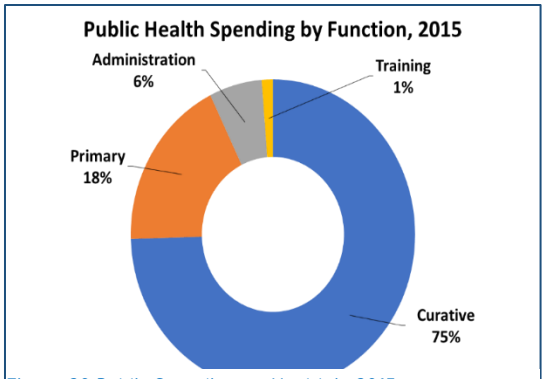



Figure 20 Public Spending on Health in 2015

MoH is the major provider and procurer of health services on behalf the CIP, which gives it purchasing power and ability to raise revenues. given that the CIP is under the MoH, then we can consider the MoH to be the insurer, purchaser, and provider of services. The case is similar to the RMS. Such a governance structure entails large ramifications regarding the quality and financial sustainability of public healthcare in Jordan.

Much of the low efficiency of MOH/CIP arises from the incentives built in the financial arrangement. First, all expenses of MOH facilities are paid through the budget. There is, therefore, no incentive to economize. Second, without own budgets, there is little autonomy and accountability of hospital managers on efficiency management. Third, referral controls are apparently weak, as MOH facilities keep referring patients to RMS and other hospitals despite their own low occupancy rate. Fourth, wages and bonuses are based on seniority instead of actual workload and performance [5].

As can be concluded from the above analysis, the financing of Jordan's healthcare system is largely unsustainable and is leading to the accumulation of significant arrears. This is largely due to the governance and complexity of healthcare financing in the Kingdom that include large inefficient insurance schemes coupled with subsidized prices and exemptions.

## Health Insurance Coverage

Access to universal health insurance for all citizens has become a strategic goal for all successive Jordanian governments for more than three decades. The official Housing and Population census conducted in 2015 found that 68.1 percent of Jordanian citizens and 54.9 percent of the whole population were covered by insurance, distributed as follow: MoH/CIP (41.7%); RMS (38%); JUH (2.5%); private insurance companies (12.4%); and UNRWA (2.5%). (Figure 23) [16], [21].

This coverage has increased to 71.8 percent [22] due to expanding the health insurance by optional CIP and covering the elderly over 60.

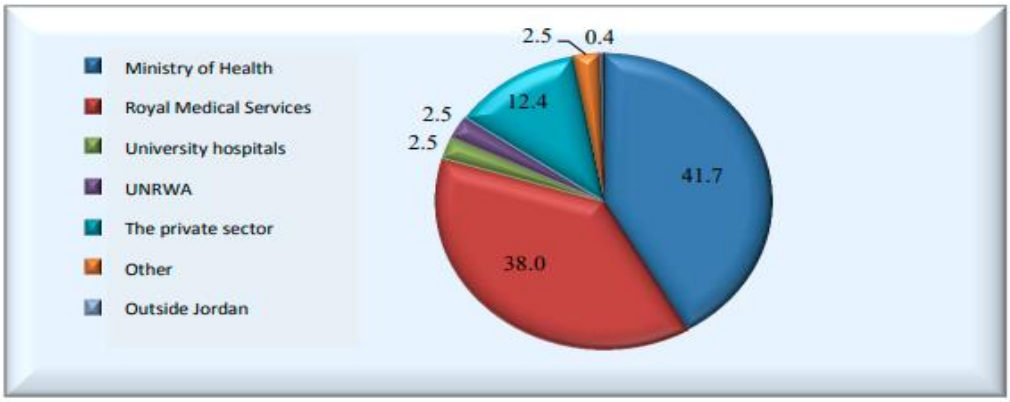



Figure 21 Percent Distribution of Jordanians with One Health Insurance by Insuring Party 2015

Further, estimates indicate that a significant share of those who are insured (around 8%) are insured by more than one type of health insurance. For the uninsured Jordanians, they pay a subsidized price (20% of cost) for select inpatient and outpatient services at the MoH facilities or pay full cost at private facilities [52].

The efficiency of heath spending appears to be low. In total spending, it is less efficient than Tunisia; and government spending is less efficient than that in Tunisia and Lebanon. Some peer middle-income countries, such as Albania, have achieved much better outcomes with much less expenditure than Jordan [19]. According to a World Bank review, Jordan's health Insurance system is very Complex, fragmented and non- harmonized. Low premiums and copayments encourage higher demand and contribute to inefficiency [53].

## Medical Tourism

Jordan was ranked by the World Bank in 2017 to be the number one medical tourism provider in the Arab region and among the top five in the world, as well as being the top medical tourism destination in the Middle East and North Africa [26].

Jordan Medical Tourism income in 2015 was estimated by 1.2 billion US dollars. According to the Association of Private Hospitals, the number of foreign patients visiting Jordan for treatment has dropped by 40 % during 2016 and 2017. Moreover, according to the latest statistics of the country's Central Bank a 44% decline was reported during the first half of 2021 as compared to the same period in 2020.

Findings from a recent research study showed that the main challenges facing medical tourism in Jordan were: (1) The high cost of medical services in Jordan, (2) Lack of availability of modern equipment in medical tourism centers, (3) Lack of development of legislation governing the tourism sector in line with changes in the medical tourism sector, (4) Increased competition in the neighboring countries of Jordan in the medical tourism sector, and (5) High taxes imposed on the medical tourism sector in Jordan [54].

It is paramount at this point of the pandemic to take strategic actions in order to revive the medical tourism sector. Starting by conducting analysis of medical tourism demand change, and the impact of the pandemic on the sector. After which, a clear recovery plan for the sector is to be set, in order to tackle previously existing challenges as well as the additional challenges that resulted from the pandemic.

## 1. Jordan Health Sector Competitiveness and Security Index

Jordan's **competitiveness** position fares relatively well with a relatively good life expectancy, mortality rates, and universal health coverage index as well as high expenditure and low out

Table 1 Jordan Health Competitiveness Indicators

| | Health expenditure | Out-of-pocket expenditure | Life expectancy at | Mortality rate | | Cause of death by NCD | Universal health coverage tracer index (n. | Service capacity | | Global health security index |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Maternal | Under 5 | | | Hospitals | Health workforce density | |
| Jordan | 8.12% | 30.43% | 74.3 | 58 | 17 | 78 | 76 | 1.4 | 2.3 | 42.1 |
| MENA Average | 6.7% | 34.26% | 74 | 57 | 22 | 75 | 68.53 | 1.6 | 1.3 | n/a |
| Upper Middle-Income Average | 5.84% | 32.87% | 75 | 57 | 13 | 83 | 74.96 | 3.5 | 2.0 | n/a |
| World Average | 9.9% | 18.21% | 73 | 211 | 39 | 71 | 65.96 | 2.7 | 1.6 | 40.2 |

of pocket payments.

On the other hand, Jordan's performance is relatively worse in comparison to benchmarking countries with regards to high rates of death caused by NCDs in addition to weak service coverage in terms of number of hospital bed per population. [8]

It is important to note here that Jordan was ranked by the World Bank in 2017 to be the number one **medical tourism** provider in the Arab region and among the top 5 in the world, as well as being the top medical tourism destination in the Middle East and North Africa [26]. However,

with the regional competition and the COVID19 implications, medical tourism has been declining.

**Health security risks** in Jordan remain high due to threats of communicable diseases and pandemics as well as the high burden of non-communicable diseases (NCDs). Jordan's scores across the six categories of the 2021 Global Health Security[2] (GHS) Index are relatively good and mirrored somehow in its response to the COVID-19 pandemic; ranking well in the 'rapid response' but poor in the 'prevention' index [8]. *(Figure 2)*

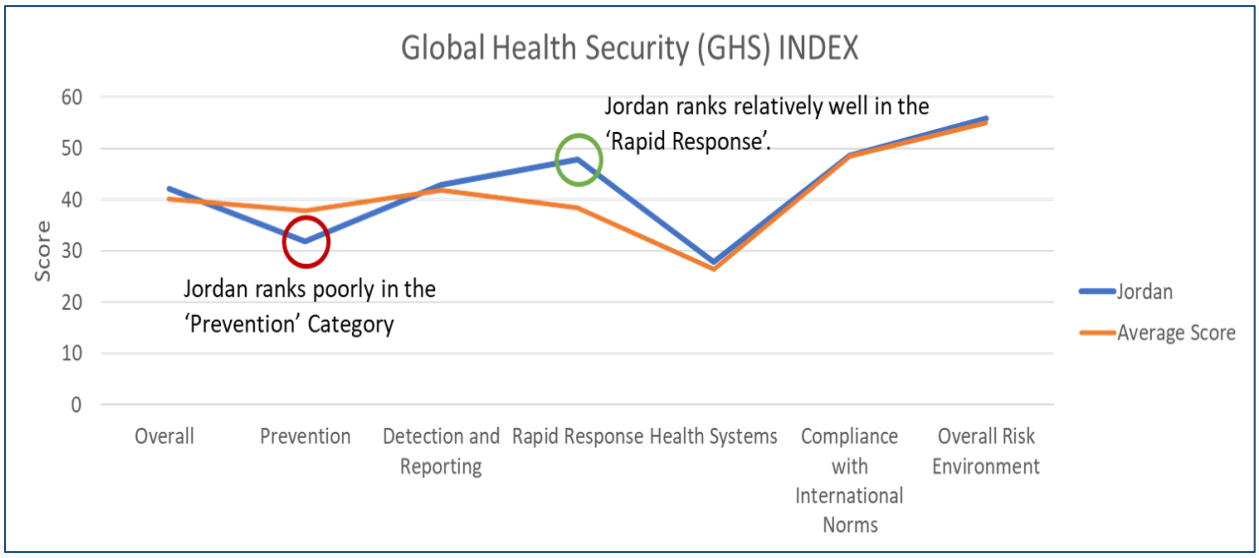



Figure 22 Global Security Health Index-Jordan

## 2. Healthcare Quality

With regards to the quality of healthcare services, the Kingdom faces the dual challenge of extending its overburdened health services to meet the increased demand while continuing to strengthen the resilience and quality of those services. additionally, the country faces challenges retaining and appropriately deploying a skilled healthcare workforce, and introducing treatment guidelines and protocols across the different sectors all in a vacuum of data.

The Jordan Vision 2025 document explicitly states that, among its key priorities are "improvements to the quality and cost of care in the healthcare system. Moreover, the importance of accreditation has been mentioned in the numerous national and institutional strategies, aiming to provide high-quality health services, and improve the performance in the

[2] 1) Prevention, (2) Detection and Reporting, (3) Rapid Response, (4) Health System, (5) Commitments to Improving National Capacity, Financing, and Global Norms, (6) Risk Environment.

healthcare sector through adoption of evidence-based standards, and the capacity building of healthcare providers.

In 2007, a national non-profit health accreditation body was established leading healthcare quality improvement efforts in Jordan and the region through the design and provision of accreditation schemes, quality management consulting services and capacity building programs. The Healthcare Accreditation Council (HCAC) was the first entity in the Eastern Mediterranean region to receive all three International Society for Quality in Health Care (ISQua) External Evaluation Association accreditations.

Almost 15 years since the inception of HCAC, Jordan now boasts a large number of accredited organizations, well-trained expertise in infection control, quality and patient safety as well as risk management and several programs in quality management at the organizational and diseases specific levels. Despite established efforts accreditation has been increasing at a slow pace and the majority of healthcare organizations are not accredited yet.

Currently, few data are available to evaluate and reflect the quality of the services provided across the country. Therefore, it is paramount to establish accountability structure and build a solid monitoring and evaluation program to provide healthcare providers and decision makers with results of Key Performance Indicators (KPIs) against the national, regional, and international indicators.

## 3. Healthcare workforce in Jordan

Jordan has the highest literacy rate in the Middle East, with a literacy rate of 95% [1], and is among the highest spenders in the region on education and manpower development. In Jordan, the number of physicians is 27.8 doctors per 10,000 population, the number of nurses is 32.5 nurses per 10,000 population, the number of midwives is 3.4 per 10,1000 population, the number of pharmacists is 13.7 pharmacists per 10,000 population, and the number of dentists is 7.7 dentists per 10,000 population [1].

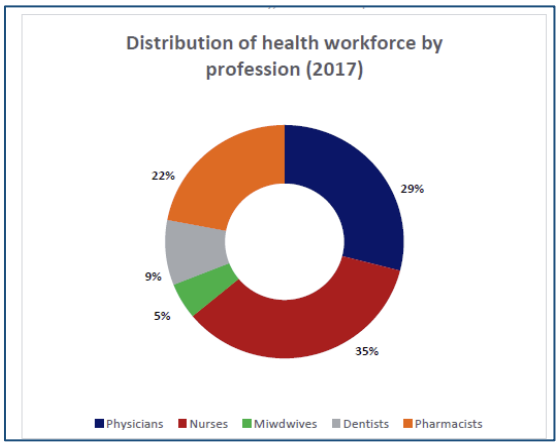



Figure 23 Distribution of health workforce by profession 2017

Health workforce density in Jordan is higher than the regional average (1.3), upper-middle income countries average (2), and the world average (1.6) [45]. According to the National Human Resources for Health Observatory Report in 2017,

most of the health professionals working in Jordan are registered nurses (35%) followed by physicians (29%), then pharmacists (22%), dentists (9%) while the least are midwives (5%). [55] as shown below *(Figure 24):*

Nurses and midwives in Jordan constitute 45% of the health workforce and have a recognized role in protecting the public and ensuring access to quality and continued care. The rate of staff working in the nursing profession in Jordan is higher than the rate in most Arab countries. [25].

Despite the high density of health workforce in Jordan, there are imbalances in the distribution of health personnel between different health sectors and between primary and secondary health care levels and between different governorates.

While the non-governmental sector (private and civil organization sector) is the main employer of health cadres in Jordan (especially medical doctors, dentists and pharmacists), The private sector attracts experienced professionals from the public sector due to the high financial returns in the private sector, noting that it is prohibited for public sector doctors and other health personnel to work in the private sector. There is also a continuous increase in the external migration of health personnel and technicians especially to the Gulf States. Therefore, the public sector struggles with the migration of cadres abroad, and to the private sector which is posing a major challenge to the availability of qualified staff and needed

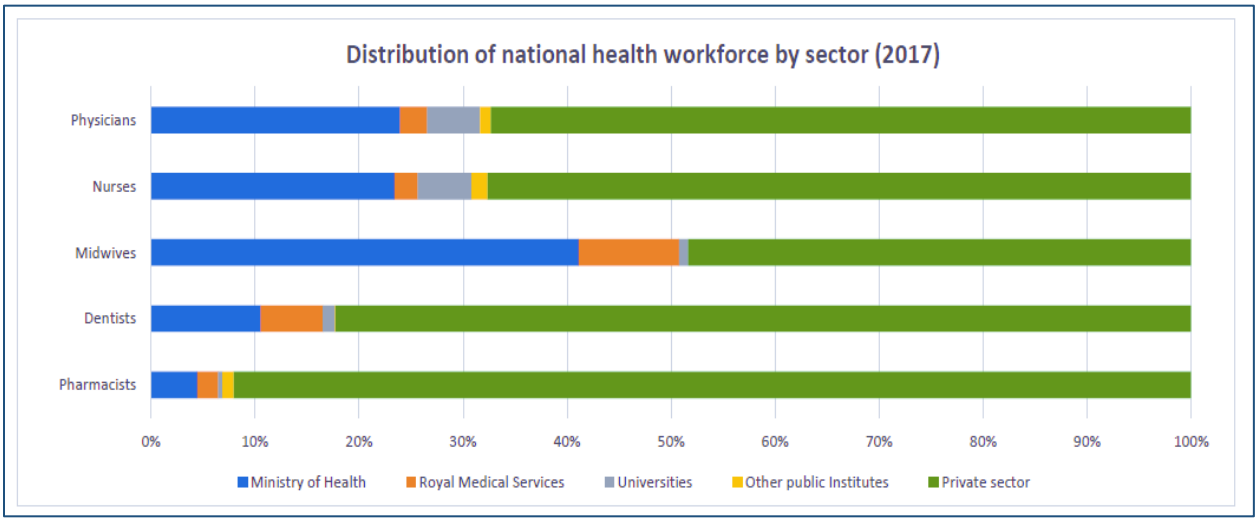



Figure 24 Distribution of National Health Workforce by Sector 2017

specialties in public health sector [55]. (Figure 25)

Additionally, there is a shortage of some medical specialties, such as psychiatry, family medicine, infectious diseases, emergency medicine, anesthesia, neurosurgery, cardiovascular surgery and others. Additionally, the rate of cadres working in the nursing profession in Jordan

is higher than the rate found in most Arab countries, although there is a shortage in the female nursing in some specialties [23].

Furthermore, geographic maldistribution of health workforce causes shortages in rural areas and in the southern and eastern parts of the country, as the majority of workforce are concentrated in the Central Region with a geographic disparity in the distribution of health workers between the governorates of the Kingdom, especially doctor's category.

In 2017, The USAID HRH2030 activity was conducted to support the GOJ in strengthening the health workforce to improve health services. the study resulted in clear recommendations for improving the motivation and retention of the health workforce in the MOH. These recommendations include [56]:

- Critically assessing the actual workload, facility staffing and efficiency in relation to current requirements at facility level
- Introducing more defined career paths (offering specialization) or performance-related incentives to improve motivation of younger staff; Improving implementation of human resources management (HRM) practices, including leadership, team building, coaching, support, supervision and communication
- Building capacity of managers in conflict management to support staff in dealing with conflicts, aggression and abuse
- Supporting decentralizing decision-making, particularly as it relates to HRM practices, the directorate and facility levels
- Providing frequent and equitable opportunities for CPD for staff to regularly update their knowledge and skills

## 4. Jordan Health Sector Competitiveness

Jordan's competitiveness position in healthcare is assessed by looking at Jordan's position compared to other countries in the following indicators: health expenditure, out-of-pocket expenditure, life expectancy at birth, mortality rates, NCDs, universal health coverage index, service capacity, and finally global health security index. The table below summarizes these indicators [45]

Table 2 Jordan Health Competitiveness Indicators

| | Health expenditure | Out-of-pocket expenditure | Life expectancy at | Mortality rate | | Cause of death by NCD | Universal health coverage tracer index (0- | Service capacity | | Global health security index |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Maternal | Under 5 | | | Hospitals | Health workforce density | |
| Jordan | 8.12% | 30.43% | 74.3 | 58 | 17 | 78 | 76 | 1.4 | 2.3 | 42.1 |
| MENA Average | 6.7% | 34.26% | 74 | 57 | 22 | 75 | 68.53 | 1.6 | 1.3 | n/a |
| Upper Middle-Income Average | 5.84% | 32.87% | 75 | 57 | 13 | 83 | 74.96 | 3.5 | 2.0 | n/a |
| World Average | 9.9% | 18.21% | 73 | 211 | 39 | 71 | 65.96 | 2.7 | 1.6 | 40.2 |

Jordan spends a considerable share of its GDP on health (8.1%), higher than both the MENA average and average of upper-middle income countries. According to Jordan's Vision 2025, the high levels of health expenditure, estimated to make up 8.12% of the national GDP, will continue to drive growth in the sector in the short and medium term. [6]

The country also experiences relatively low out-of-pocket expenditures at 30.4% of health expenditures which is lower than both the MENA average and the average of upper-middle-income countries. In the specific context of Jordan, the levels of out-of-pocket expenditure can be largely attributed to payments made to the private sector, since the majority of the population are insured and the rest are either exempted or pay a subsidized price at MoH facilities.

Overall, the ranking of Jordan in all these areas is relatively good. Jordan fares relatively well with a relatively good life expectancy and mortality rates, as well as a good score on the universal health coverage index. On the other hand, Jordan's performance is relatively worse with regards to high rates of death caused by NCDs in addition to weak service coverage in terms of number of hospital bed per population. [8]

Although characterized by relative high health expenditure and health worker density, Jordan's health system is fragile and easily overwhelmed with a hospital bed availability of merely 1.4 beds per 1,000 of the population and mal distribution of health workforce. Hence, the health system may find it challenging to deal with the large case load that would accompany a sharp rise in COVID-19 cases. This is also attributed to the fact that Jordan is a relatively poor country with high budget deficit and relatively high reliance on public health services. [5]

## 5. The Impact of the COVID-19 on the Health Sector

Since the emergence of the Corona Virus Disease-2019 (COVID-19) outbreak in December 2019, the Government of Jordan implemented various preventive and control measures to mitigate the spread of the disease. Measures taken started early in March 2020, as a nationwide lockdown intended to curb the spread of the virus and cushion the impact on the healthcare system, and the population. Despite the initial stringent measures, the number of COVID-19 cases in Jordan has elevated rapidly, as the second wave of the pandemic hit the country leading to a significant rise in local transmission. In Jordan, from 3 January 2020 to 17 December 2021, there have been 1,019,691 confirmed cases of COVID-19 with 12,048 deaths, reported to WHO. As of 11 December 2021, a total of 8,196,286 vaccine doses have been administered [27].

The figure below explores Jordan's efforts to combat the COVID-19 pandemic, providing a comparison of in terms of total confirmed cases over the course of the pandemic with other countries with changes in virus incidence [28].

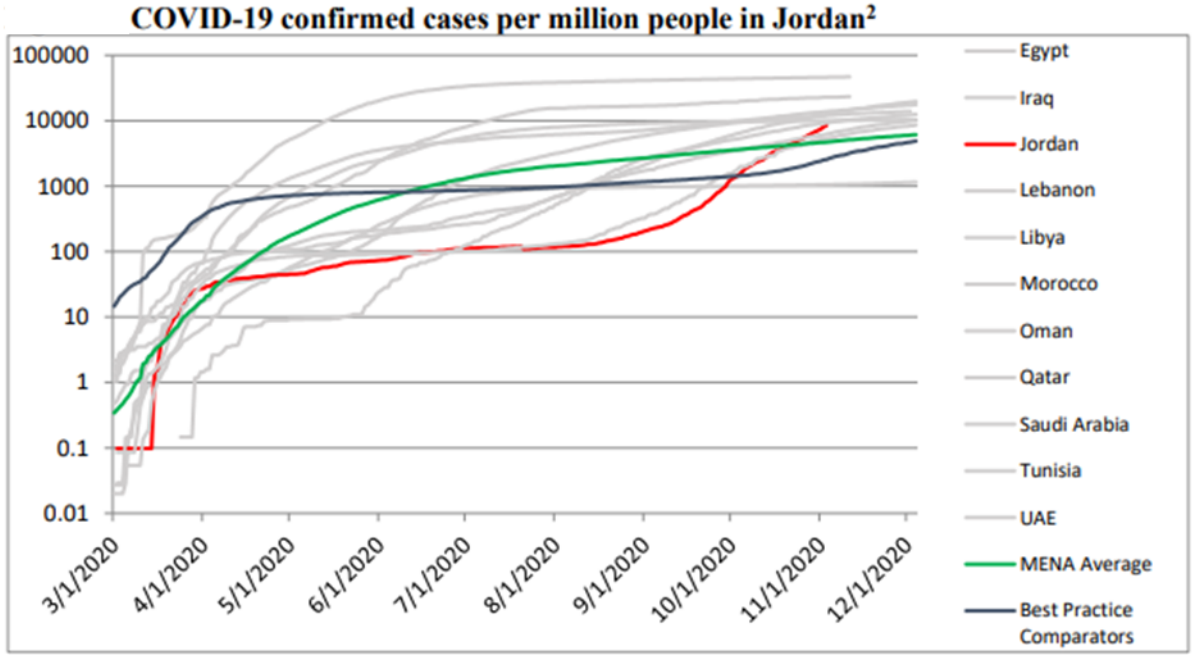



Figure 25 COVID-19 cases in Jordan-2020

Given Jordan's previously mentioned challenges, during the surge of cases, hospitals were overwhelmed and understaffed, expertise were in dire need, and home care was not well organized.

In 2020, 35 % of countries including Jordan reported interruptions in **essential health services** such as reproductive, maternal, newborn, child and adolescent health services, along with nutrition services as well as one or more disruptions to essential NCD services. One of the mitigation strategies implemented during lockdown, was a web-based tool to improve access to NCD medications; an electronic platform called "e-Med Hakeem" was established to meet the prescription refill needs.

Jordan ranks 70th globally for its COVID-19 **vaccination** rates and has reached 38.36 per cent of fully vaccinated Jordanians by the end of December 2021 [29]. The vaccination campaign in Jordan is led by the Ministry of Health and National Centre for Security and Crises Management and provides four different types of vaccines to anyone above the age of 12. In January 2021, Jordan became the first country in the world to launch a comprehensive, free-of-charge vaccination program for refugees and asylum seekers as a part of its national vaccination plan [30].

Of course, restrictions have particularly impacted the Jordanian economy, hampering movement and business operations. Healthcare facilities especially in the private sector are facing major financial challenges related to the COVID-19 pandemic. From a global economic standpoint, The World Bank projects that global growth is projected to shrink by almost 8% with poorer countries feeling most of the impact [31].

## ANNEX 2: Collated Objectives and Initiatives

### Improve Governance

| # | Objective Name | Measures |
|---|---|---|
| **1** | To activate, enhance, empower, and broaden the role of established entities (ex. HHC) to coordinate service across all healthcare sectors in Jordan. | • Revised and expanded mandates of existing entities. (e.g. HHC)-Process-<br>• The entity is provided with enforcing power, such as to be led by the prime minster. -Process-<br>• Complementation achievements in certain areas across the different sectors-outcome. (e.g. Sharing data) |

| # | Objective Name | Measures |
|---|---|---|
| 2 | To standardize service provision according to best practices, starting with national accreditation, and utilizing clinical pathway guidelines and clinical audits to ensure implementation | • % increase in no. of accredited health institutions-Outcome.<br>• Institutions engaged in preparedness for quality improvement-Process<br>• Establishment of clinical guidelines and its implementation |
| 3 | Good governance and policy environment to strengthen health system | • Number of developed, upgraded health policies<br>• Number of national strategies with M&E |
| 4 | Restructuring the health sector governance model by establishing a new governance umbrella with full empowerment | • Establish a national entity to regulate the health sector |
| 5 | Establishment of an Evaluation, Monitoring and Quality Improvement Program that focuses on supervising healthcare institutions performance and provides evidence for policy and decision makers | • launching of the Evaluation, Monitoring and Quality Improvement Program in place. |

**Strengthen the Human Resources**

| # | Objective Name | Measures |
|---|---|---|
| 1 | To create medical education programs for high priority specialties and strengthen skills-based training and education | • % of created medical educational programs vs. total number of identified priority programs.<br>• No. of externally funded projects supporting medical education programs |
| 2 | Create up to date synergy between educational institutions and job requirements | • Evidence of cooperation between universities and employers in the healthcare industry<br>• Evidence of new up-to-date curriculum and training programs |
| 3 | To retain qualified technical workforce through developing and implementing incentive systems | • Enhanced incentive system, such as: financial and educational, and career path incentives-Process-<br>• % increase in workforce retention - Outcome- |
| 4 | Ensure specialized and skilled human resources | • Number of specialized health personnel<br>• Number of health personnel enrolled in training courses |

| # | Objective Name | Measures |
|---|---|---|
| **5** | Make proper investment in health workforce (Proper planning and management of HRH/ empowering and strengthening the capacity and capability of the health workforce/ solid education and practice etc.) | • Revision and implementation of the National Human Resources Strategy 2018-2022<br>• Expenditure on health workforce as percentage of GDP and Total expenditure on training and research |
| **6** | Human power development: Continue to feed in high quality manpower to those areas which are excellent to maintain quality. At the same time improve the staffing of the institution which human power play a major factor in its demise. A strategic goal would be to create the Unified Jordanian Residency Program, in which all health care delivery high level institutions accredited for teaching will share in the production of a high-quality health worker: doctor. | • The level of infrastructure and quality of human power vary between one place and the other in one sector and between private and public.<br>• Decreased movement of patients from the governates of Jordan seeking medical care in Amman.<br>• Increased staffing in the public sector by high quality health workers who were able to pass the JMC examinations |
| **7** | Make the internship an integral part of the medical school program. | • All medical graduates have available internship slots in their universities.<br>• Reduction of graduates because the input in medical schools have to come down to stay in bar with training slots.<br>• Improvement in the clinical skills of graduates |
| **8** | Apply the regulation that medical schools have to have a teaching hospital irrespective whether they are public or private | • Improvement of the level of medical graduate as evidenced by the achievement in international program |
| **9** | Update Regulations | • Creation of a professional laboratory medicine association, plus mandatory accreditation of medical laboratories<br>• Evidence of new up-to-date regulations |

**Prioritize and activate Primary Health Care**

| # | Objective Name | Measures |
|---|---|---|
| 1 | Focus on providing preventive medicine health promotion services, and home-based care through primary healthcare, family medicine, hospice services, and nursing homes. | • Utilization rate of Primary care centers for preventive medicine rather than curative medicine.<br>• Utilization rate of telehealth. home-based care, and hospice services. |
| 2 | Make proper investment in Primary Health Care by reforming service models concentrated on hospital care and focus instead on prevention and on the efficient provision of high-quality, affordable, integrated, community-based, people-centered primary and ambulatory care, paying special attention to underserved areas. | • Expenditure on PHC as percentage of GDP<br>• Referral system in place<br>• Needs assessment of professional development and capacity building programs in PHC for the health workforce |
| 3 | Enhance primary health care services | • Lowered health care bill and hospitalization rate.<br>• Increased healthy population and lower mortality rate by not less than 5%.<br>• Health care providers Job opportunity |

**Improve Quality based on Indicators**

| # | Objective Name | Measures |
|---|---|---|
| 1 | Implement value-based healthcare-Specialized care | • No. of established value-based, specialized health facilities |
| 2 | Sustain established efforts and expand accreditation schemes on a national level and ensure quality measurements and evaluation | • % increase in accredited health institutions.<br>• % of implemented/activated laws and regulations.<br>• Publishing of national data and benchmarking against it |
| 3 | Integrated person-centered care | • Number of integrated health services.<br>• Number of accredited health facilities |
| 4 | Invest in the measurement and provision of data for decision making and utilize that to properly guide investment and drive decision making in the health sector | • Defined measures for National data reporting.<br>• % of data driven decisions and investments<br>• Number of facilities with Implemented reporting systems and channels (HIMS) |

| # | Objective Name | Measures |
|---|---|---|
| | | • % increase in medical tourism. |
| **5** | Establish national database for the purpose of tracking and evaluating health outcomes and indicators | • Established agreed upon national health indicators-Process.<br>• Established national database-Process.<br>• % of institution reporting data -Process.<br>• Utilization of data to affect policy. |
| **6** | Development of a national information database to monitor and track health outcomes (i.e. NCDs, communicable diseases etc.) to provide the data, evidence and knowledge for cost-effective policy decisions and measure impact of policies on quality and health outcomes | • launching of the National information database<br>• Identification of the core indicators for national health information system performance<br>(Indicators related to data generation using core sources and methods (health surveys, civil registration, census, facility reporting, health system resource tracking); and Indicators related to country capacities for synthesis, analysis and validation of data and others) |
| **7** | Serve Patients Better | • Survey from employers regarding medical technologies performance<br>• Follow up with the MoH on new regulations updates / implementation plan<br>• Evidence of new up-to-date curriculum and training programs |

**Increase Demand**

| # | Objective Name | Measures |
|---|---|---|
| **1** | Activate the National health insurance coverage | • High citizen satisfaction<br>• Affordable medicines and treatments |
| **2** | Unified public/social insurance scheme and umbrella | • % insured<br>• مدى الرضى عن أنظمة التأمين الصحي من حيث حزم المنافع مقابل الرسوم<br>• مدى التحسن في مؤشرات الانفاق الصحي العام |
| **3** | Create the Jordanian Health Insurance Agency as a separate entity from the Ministry of Health. It administers the insurance by collecting the contribution and buy the service irrespective if it were from public or private sector depending on availability of prover in the area, deals which are agreed and scope of coverage. | • Increased patient satisfaction<br>• Addressing the debt to private and public sectors |
| **4** | Strike deals with major health systems in the world to bring in foreign patients for treatment in Jordan relieving the pressures created on those systems by COVID. | • Success in striking deals with major foreign care providers.<br>• Increased number of patients arriving into the country |

**Invest in / Expand needed Infrastructure**

| # | Objective Name | Measures |
|---|---|---|
| **1** | To invest in vital health infrastructure, such as: Tele health and Health information management systems | • No. of applied Telehealth Programs-Outcome.<br>• % of health facilities with automated records and implemented HIMS-outcome. |
| **2** | Expanded centers of excellence model building on the current successes | • Increased demand on such services especially by regional patients |
| **3** | Improve investment climate | • Number of medical facilities receiving funding or investment for services improvement.<br>• New policies that support local medical reference centers including investment opportunities and tax breaks<br>• New prices list as well as new policy for price list revisions |
| **4** | Create Jobs | • Number of medical facilities receiving funding or investment for services improvement<br>• Evidence of attractive new investment facilities |

## ANNEX 3: Summary of Initiatives

| Initiative | Initiative Owner | Expected Duration | Estimated Budget | KPIs | Private Sector Role |
|---|---|---|---|---|---|
| (1) | Cabinet | 2 Years | 2 millions/year | • A new/amended law for the High Health Council<br>• A new organizational structure for the council<br>• Number of policies issued by the council<br>• Number of policy consultations.<br>• The number of representatives from different sectors participating in the dialogue sessions | Active partner and stakeholder |
| (2)a | An independent body supported by the Ministry of health and other stakeholders | 2 years setup, then ongoing | TBD | • New University curriculums<br>• % Trained physicians<br>• % Revenue generated trainings | Enforcement of required trainings and certifications programs |

| Initiative | Initiative Owner | Expected Duration | Estimated Budget | KPIs | Private Sector Role |
|---|---|---|---|---|---|
| | | | | • % of implemented certifications per plan | |
| (2)b | Jordan Medical Council | I year setup, then ongoing | A minimum of 500.00JD | • The number of residents passing the Jordan Board from the first time<br>• The percentage of falloff complaints made against residents working in public or private institutions. | Representation on the committee and collaboration |
| (3) | MOH | Three years | 300,000 JD | • Patient satisfaction.<br>• Patients' health outcome | Outsourcing needed services through strategic purchasing of services & funding. |
| (4) | Health care Accreditation Council | Until self-sufficiency is reached ~ 5 years (then will be ongoing) | 5 million per year | • Completion of accreditation of all hospitals<br>• Establishment of the indicators and their databases | HCAC is registered as a private sector non-for-profit entity co-owned by the Government and the private sector - it will be an external |

| Initiative | Initiative Owner | Expected Duration | Estimated Budget | KPIs | Private Sector Role |
|---|---|---|---|---|---|
| | | | | • 80% of hospitals reporting into the indicators/database by year 2<br>• Yearly reports and targets<br>• Improved targets | |
| (5) | An independent and empowered body, with members from the MOH, MOF, Social Security (not Ministers or Members of Parliament to avoid conflict of interest, preferably well experienced Mentors in the field of Health Services, Management and Finance) | 2 years | Over 500 million and to be assigned after actuarial study | - Patient satisfaction<br>- Accurate allocation of budget<br>- Quality of Data<br>- Financial savings<br>- Number of patients being treated<br>- Health coverage<br>- health services<br>- Lower health bill | To establish a consortium from private sector insurance companies |

| Initiative | Initiative Owner | Expected Duration | Estimated Budget | KPIs | Private Sector Role |
|---|---|---|---|---|---|
| (6) | The Ministry of Digital Economy and Entrepreneurship<br>HHC or its equivalent Hakeem | Strategy Development one year.<br>Implementation-3-5 years with ongoing updates | Strategy Development JOD 200 K - 300 K | Comprehensive strategy for health sector digital transformation development and implementation | • Investment<br>• Service provision |
| (7) | MOH | Five years | ------- | • Better patient safety and outcome indicators (all quality indicators)<br>• Patient satisfaction<br>• Employee satisfaction<br>• Safer environment of care<br>• Expenditure saving | • Consultation on research and situational analysis<br>• Could help/partner in operations with an international firm |
| (8) | • Ministry of Health<br>• Ministry of Investment<br>• Ministry of Industry and Trade | 5 years | A center could cost around 30 million JDs | • Number of institutions established (short term)<br>• Number of employed people<br>• Improved healthcare outcomes (long term) | To undertake the investment and management of specialized (and or diseases specific) |

| Initiative | Initiative Owner | Expected Duration | Estimated Budget | KPIs | Private Sector Role |
|---|---|---|---|---|---|
| | • Private Hospital Association | | | | healthcare centers/ institutions (considered centers of excellence) |

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