High Health Council

National Human Resources for Health Strategy for Jordan (2018-2022)

His Royal Majesty

King Abdullah II Ibn Al Hussein

His Royal Highness

Crown Prince Al Hussein Bin Abdullah II

Contents

Forward

It is my pleasure to present to you the National Human Resources for Health Strategy for Jordan (2018-2022). It comes at a time in which the health sector is facing major challenges as a result of rapid population growth, the transformation of diseases, growing populations of elderly and young persons, and the impact of the Syrian refugee crisis. This is in addition to other challenges that face Human Resources for Health in Jordan more broadly. These challenges will create difficulties for Jordan in achieving the Sustainable Development Goals (SDGs) and reaching universal health coverage by 2030**.**

Jordan lacks a comprehensive national human resources for health strategy, despite the launch of several national initiatives and strategies that have included human resources for health as a key component. The High Health Council is responsible for the formulation of health policy in the Kingdom and the development of the strategy to achieve it, in addition to its role in the formulation of policies to improve the competency of health workers; based on Law No. 9 of 1999 and amended Law No. 13 of 2017. The High Health Council has developed Jordan's National Health Sector Strategy 2016-2020, which included six main pillars, one of which was human resources for health. Human resources for health is a basic building block of any health system. Consistent with the framework of the World Health Organization, the purpose of this pillar is to identify the issues, objectives and outputs required to meet the challenges facing human resources for health in Jordan. In order to implement the strategy, the High Health Council has been mandated to develop a national strategy for human resources for health in a holistic manner and with the participation of all stakeholders.

This strategy is closely aligned with, and based on, guidance set out by the Hashemite leadership to improve human resources for health in Jordan outlined in national policy documents such as the National Strategy for Human Resources Development 2016-2025, the Jordan 2025 document, the Economic Growth Plan, the Jordan National Health Sector Strategy 2016-2020, and the Health Sector Reform Plan 2018 – 2022. The strategy also draws from local, regional and international evidence and best practice with respect to using participatory approaches to ensure the involvement of all partners and stakeholders during all stages of strategy development. In addition, the strategy is aligned with the broad principles of sustainable development and universal health coverage with a particular focus on being realistic, practical and feasible with clear monitoring and evaluation plans.

The active participation of all concerned sectors has had a significant impact on the development of this document through the various national committees that were formed to prepare and review it prior to finalization.

Finally, I would like to extend my sincere thanks to all those who participated in the preparation of this strategy, particularly HRH203), funded by the US Agency for International Development (USAID) for their technical support, as well as members of the Advisory Committee. In addition, I would like to thank the committees and those involved through interviews and workshops conducted during the preparation and review process from all health sectors.

We hope that this strategy will contribute to enhancing and empowering the health workforce to ensure the provision of the best health service to all of the Kingdom's people in accordance with best practice to achieve the Royal vision for the health sector in Jordan.

Allah is the grantor of success,

Minister of Health
Chairman of the High Health Council
Dr. Ghazi Al Zaben

Forward

It is a pleasure and an honor to present to you the National Human Resources for Health Strategy 2018-2022. It is timely that the Kingdom reconsiders its policies on human resources for health as the health system is facing a number of challenges. The most important of which are: inequitable access to services due to geography; gender-based distribution; workplace violence; weaknesses in human resource information systems; the lack of a national system for continuing professional development; imbalances in the skills between different groups of health professionals; the brain-drain created when qualified health professionals leave Jordan; weaknesses with respect to incentive systems, particularly when incentives are not linked to performance; and the urgent need to improve the competency of health workers.

The healthcare sector is one of the sectors most affected by the increasing number of asylum seekers. This has placed a strain on the system due to the high demand for health services, especially in the public sector; and the emergence of new diseases that had previously been eliminated in Jordan. It has also negatively impacted the quality of health services and resulted in increased spending on them. All of these issues require the concerted efforts of all stakeholders and institutions in the public and private sectors to maintain the readiness and competency of health workers.

A participatory approach was taken to the development of the National Human Resources for Health Strategy including the involvement of all components of the health sector to reflect the principle of partnership between all areas of the health sector in Jordan. The strategy focused on four strategic pillars: human resources governance; management; production, education, training and development; as well as planning. The strategy also focused on a number of areas of commonality including research studies, transparency, accountability, leadership, innovation, finance and investment.

This strategy represents the general framework through which the capacity of health sector workers will be developed and strengthened to meet the existing challenges and enhance Jordan's leadership position in the provision of healthcare services.

I would like to thank all members of the committees and those who have worked on this strategy in the public, private and international sectors, in particular HRH2030, which is funded by the U.S. Agency for International Development.

I hope that together we will achieve the objectives of developing this strategy, and remain committed to the objectives, interventions and activities outlined within to ensure that there is a qualitative leap in the field of human resources for health in Jordan. May Allah help you and us to serve this country and the health sector in the presence of His Majesty King Abdullah II ibn Al Hussein; may Allah protect and preserve him.

Allah is the grantor of success,

Secretary General of the High Health Council

Dr. "Mohammad Rasoul" Tarawneh

Acronyms

CPD	Continuing Professional Development
HHC	High Health Council
HR	Human Resources
HRH	Human Resources for Health
HRH2030	Human Resources for Health in 2030 activity
HRMS	Human Resources Management System
JD	Jordanian Dinar
M&E	Monitoring and Evaluation
MOH	Ministry of Health
NCDs	Non-Communicable Diseases
NHA	National Health Account
RMS	Royal Medical Services
SDGs	Sustainable Development Goals
UHC	Universal Health Coverage
UNWRA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USAID	United States Agency for International Development
WHO	World Health Organization

Definitions

Accountability: is the willingness to invest in decision-making and express ownership in those decisions. Accountability is the core of shared governance.

Active health worker: One who provides services to patients and communities (practicing health worker) or whose medical education is a prerequisite for the execution of the job (e.g. education, research, public administration) even if the health worker is not directly providing services (professionally active health worker).

Alliance: An association formed for mutual benefit

Bridging Program: Is an agreement between a four-year institution and a two-year institution to provide a direct and well-defined path for a student to be admitted to the four-year institution after taking coursework at the two-year institution.

Clinical healthcare employees: Clinical roles often have face-to-face contact with patients for the purpose of diagnosis, treatment, and ongoing care. This includes (1) Physicians, (2) Nurses, (3) Pharmacists, (4) Medical Lab Technologist, (5) Therapist (Physical Therapist, Radiation Therapist), (6) Radiology technicians, (7) Medical Assistants, (8) Dietician.

Clinical supervision: Support mechanism for practicing professionals within which they can share clinical, organizational, developmental and emotional experiences with another professional in a secure confidential environment in order to enhance knowledge and skills. This process will lead to an increased awareness of other concepts including accountability and reflective practice.

Competencies: The combination of observable and measurable knowledge, skills, abilities and personal attributes that contribute to enhanced employee performance and ultimately result in organizational success

Competency-based curriculum is based on (1) professional roles, that is titles or positions and (2) responsibilities or expected functions that students will assume after completing their training competencies which are required for effective performance.

Competency-based job description: emphasizes the skills and experience the jobholder will need, or will need to learn, to successfully handle in the position.

Continuing professional development: is training that is beyond clinical update and includes wide-ranging competences like research and scientific writing; multidisciplinary context of patient care; professionalism and ethical practice; communication, leadership, management and behavioral skills; team building; information technology; auditing; and appropriate attitudinal change to ensure improved patient service, research outcomes, and attainment of the highest degree of satisfaction by stakeholders.

Credentialing: Credentialing is the process of verifying qualifications to ensure current competence to grant privileges. The term credentialing involves verification of education, training, experience, and licensure to provide services.

Employment: persons of working age who, during a short reference period, are engaged in any activity to produce goods or provide services for pay or profit. They comprise: (a) employed persons "at work", i.e. who work in a job for at least one hour; (b) employed persons "not at work"

due to temporary absence from a job, or to working-time arrangements (such as shift work, flex-time and compensatory leave for overtime.)

Equity: is the measure of valuing every role in the organization and that each team member is essential to providing safe and effective care.

Ethical norms refer to formal standards to guide countries in the international recruitment of health workers, based on the principles of transparency, fairness, and mutuality of benefit with respect to source countries, destination countries, institutions, recruiting agencies, and migrant health workers.

Evaluation: "Systematic and objective assessment of an on-going or completed project/strategy which looks at its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability." The evaluation aims to identify lessons learned for supporting decision-making.

Foreign trained health worker: A domestic health worker who obtained his/her qualification (degree) in another country and is entitled to practice in the receiving country.

Global code of practice: refers to an international agreement on ways and means to ethically recruit and manage skilled health workers. The code focuses on three broad themes: protecting individual migrant workers from unscrupulous recruiters and employers; ensuring that individuals are properly prepared for and supported by their places of employment; and ensuring that flows of migrant health workers do not unduly disrupt the health services of the source countries.

Health workforce education: a "coherent set or sequence of educational activities or communication designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period" with the objective to improve health knowledge, skills and competencies applied to health and enable the training of new health workers. Health workforce education and training programs will often have numerus clauses that restrict the number of places for a given program

Implementation: The process/plan/service is put into effect and beneficiaries are able to benefit from the outcome

In service training: is training received while one is employed in the health sector. Training aimed at maintaining core competences and developing new competences in response to consumer demand and evolving public health needs.

International healthcare institution: any healthcare institution situated outside Jordan.

Interprofessional education occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.

Job vacancies: A job vacancy is defined as a paid post that is newly created, unoccupied, or about to become vacant: (a) for which the employer is taking active steps and is prepared to take further steps to find a suitable candidate from outside the enterprise concerned; and (b) which the employer intends to fill either immediately or within a specific period of time.

M&E refers to a "process of measuring changes in program or policies [or strategies] and assessing their impact"

Memorandum of understanding (MOU): is a nonbinding agreement between two or more parties outlining the terms and details of an understanding, including each parties' requirements and responsibilities.

Mentorship: Teaching-learning process acquired through personal experience within a one-to-one, reciprocal, career development relationship between two individuals diverse in age, personality, life cycle, professional status, and/or credentials, for a period of several years, for professional outcomes, such as research and scholarship; an expanded knowledge and practice base; affirmative action; and/or career progression; socialization into the professional community.

Monitoring: "continual and systematic collection of data on specified indicators" to track progress in achieving the objectives.

Occupied posts: An occupied post means a paid post within the organization to which an employee has been assigned

Other health service providers include: (1) Environmental and occupational health and hygiene professionals**,** (2) Physiotherapists, (3) Dieticians and nutritionists, (4) Audiologists and speech therapists, (5) Optometrists and ophthalmic opticians, (6) Health professionals not classified elsewhere.

Ownership: is the recognition and acceptance of the importance of everyone's work and of the fact that an organization's success is bound to how well individual staff members perform their jobs.

Partnership: links healthcare providers, patients along all points in the system and other stakeholders.

Performance appraisal: is the systematic evaluation of the performance of employees and to understand the abilities of a person for further growth and development.

Preceptorship: Method of preparation for practice, utilizing clinical staff, as opposed to faculty staff, who provide supervision and clinical instruction to new practitioners.

Privileging: Privileging is the process of authorizing a specific scope of practice for patient care based on credentials and performance.

Re-licensure: recertifying a health worker as having attained the standards required to practice a particular occupation.

Scope of Practice: The scope of practice delineates the parameters for a health worker cadre, defining the types of activities and responsibilities the cadre is allowed by law to perform.

Self-employed workers: workers who, working on their own account or with one or more partners or in a cooperative, hold a "self-employment job", i.e. one in which the remuneration is directly dependent upon the profits derived from the goods and services produced.

Shared governance model: Shared decision-making based on the principles of partnership, equity, accountability, and ownership at the point of service. This management process model empowers all members of the healthcare workforce to have a voice in decision-making, thus encouraging diverse and creative input that will help advance the business and healthcare missions of the organization.

Student: a person not economically active who attends any regular educational institution, public or private, for systematic instruction at any level of education.

Task-shifting: The process of delegation whereby tasks are moved, where appropriate, to less specialized health workers.

Tertiary-type A programs (ISCED 5A) are largely theory-based and are designed to provide sufficient qualifications for entry to advanced research programs and professions with high skill requirements, such as medicine and dentistry

Tertiary-type B programs (ISCED 5B) are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labor market, although some theoretical foundations may be covered in the respective programs. They have a minimum duration of two years full-time equivalent at the tertiary level.

Total health workers, defined as all persons eligible to participate in the national health labor market by virtue of their training, accreditation, skills, and, where required, by age.

Unemployment: all persons of working age who are qualified for a job, are not in employment, have carried out activities to seek employment during a specified recent period, and are currently available to take up employment given a job opportunity.

Wage and salaried workers (employees): workers who hold a job defined as "paid employment", with explicit (written or oral) or implicit employment contracts that give them a basic remuneration that is not directly dependent upon the revenue of the unit for which they work

Preamble

Addressing human resources for health (HRH) challenges is critical to attaining the HRH-related Sustainable Development Goals (SDGs) and accelerating progress on universal health coverage (UHC). Without a strong and motivated health workforce, Jordan is at risk of not only facing difficulties to meet the targets of the SDGs and UHC but also of reversing progress in the face of population growth and unexpected challenges such as the Syrian refugee crisis.

Recently, there have been serious concerns about HRH in Jordan, including a population that is expected to double by 2030, an increase in the prevalence of non-communicable diseases (NCDs), and already existing HRH challenges such as retention and continuous training.

To date, there is no comprehensive national HRH strategy in Jordan, although there have been several initiatives to develop national health-related strategies and sub-sectoral strategies which incorporated human resources as a sub-element.

The United States Agency for International Development (USAID)-funded Human Resources for Health in 2030 (HRH2030) activity in Jordan is working with High Health Council (HHC), the Ministry of Health (MOH), and national health stakeholders to improve HRH governance. To help achieve this result, HRH2030 is providing technical assistance to the HHC and newly appointed National HRH Advisory Committee to develop an evidence-based national HRH strategy for Jordan owned by the High Health Council.

Jordan Context

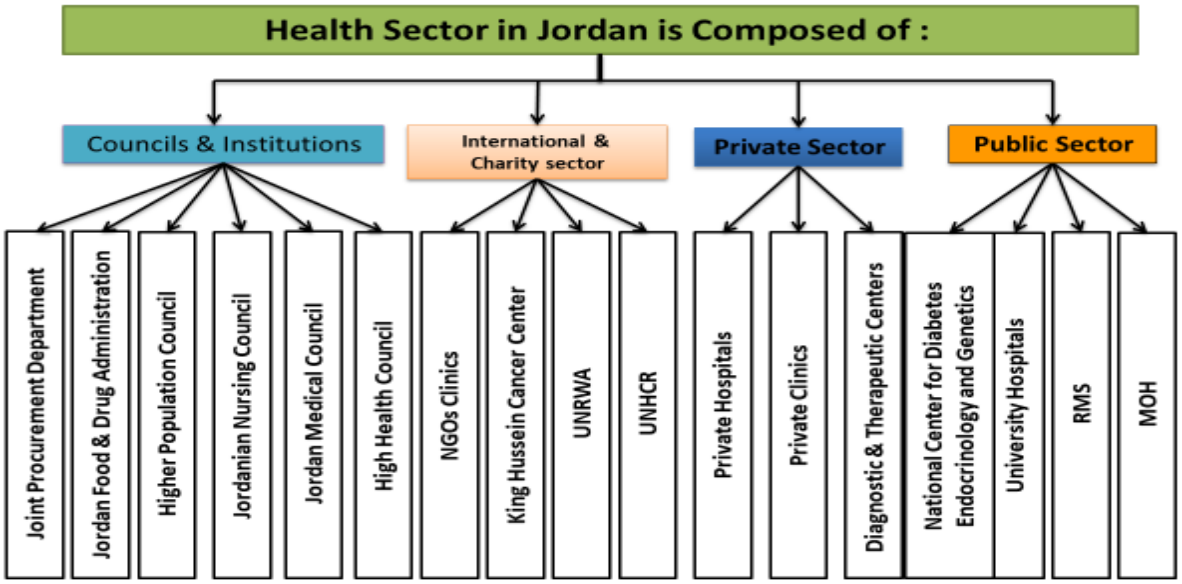
The Hashemite Kingdom of Jordan is a middle-income country that lies in the Middle East with a surface area of about 89,300 km² (WHO, 2006; Hadidi, 2017). Jordan is bordered by Saudi Arabia, Iraq, Syria, Israel, Palestine, the Dead Sea, and the Red Sea. There are 12 governorates in Jordan that include Irbid, Ajloun, Jerash, Mafraq, Balqa, Amman, Zarqa, Madaba, Karak, Tafilah, Ma'an, and Aqaba; each governed by a governor assigned by the King. The population in Jordan is about 9.798 million of which 42.06% live in the capital Amman (Hadidi, 2017), 2.1 million are registered Palestinian refugees (UNRWA, 2016), and 654,582 are Registered Syrian refugees that fled Syria after 2011 and are mostly residing in Amman, Mafraq, and Irbid (UNHCR, 2017).

Health statistics have shown improvement in the health status of the population over time. The overall average life expectancy reached 72 for males and 75 for females (El-Jardali & Fadlallah, 2017). Jordan attained universal child immunization in 1988 and had no reported polio cases since 1995, which supported a decline in the infant and child mortality rate. In fact, infant mortality declined from 23 deaths per 1,000 live births in 2009 to 17 in 2016 (Hadidi, 2017). The decline in the infant mortality rate, along with the high total fertility rate of 3.5 in 2014, were one of the reasons that resulted in an increase in the population in Jordan (Hadidi, 2017). Similar to several countries in the region, Jordan is undergoing an epidemiological transition whereby the major burden of disease is due to NCDs rather than infectious diseases (Al-Nsour et al., 2012). Currently, NCDs are the leading cause of death in Jordan accounting for one-third of all deaths and expected to increase to two-thirds by 2030 (Al-Nsour et al., 2012).

The healthcare system in Jordan is mainly composed of three healthcare providers: the public sector, the private sector, and the international and charity sector. The two major providers in the public sector are the Ministry of Health (MOH) and the Royal Medical Services (RMS). The private sector is composed of private hospitals, clinics, and diagnostic and therapeutic clinics (Figure 1). The governance of the private sector remains fragmented and partially regulated (El-Jardali & Fadlallah, 2017; WHO, 2006). The third healthcare provider in Jordan is the international and charity sector of which the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) is a major contributor due to the high number of Palestinian refugees in Jordan. UNRWA currently operates 25 primary healthcare centers with 1,552,936 annual patient visits (UNRWA, 2016).

Currently, there are 59 private hospitals, 45 public hospitals, 102 comprehensive healthcare centers and 380 primary healthcare centers in Jordan ((Annual Statistical Book, MOH, 2016).

Figure 1 - Components of health sector in Jordan



Based on the National Health Account (NHA) 2015, Jordan spent approximately 2.2 billion Jordanian Dinar (JD) on health (236 JD per capita). Jordan's health expenditure represented 8.44% of its gross domestic product (Hadidi, 2017). The public sector is the largest source of health funding (60.7%), followed by the private sector (34.5%) and the donor sector (4.8%) (Hadidi, 2017; El-Jardali & Fadlallah, 2017).

Although the statistics in Jordan show improvements in relation to mortality rates, the healthcare system in Jordan faces several challenges. These include accessibility to healthcare services, duplication of services and uncoordinated healthcare delivery, lack of commitment to quality improvement initiatives, poor management of health information system, limited accountability (El-Jardali & Fadlallah; WHO, 2006) and challenges at the level of HRH (figure 2) (El-Jardali & Fadlallah, 2016).

According to Law 9 (1999) and its amendment Law 13 (2017), the HHC is headed by the Minister of Health and is responsible to develop general national health policies and strategies. Additionally, the MOH is required to supervise, monitor, and enact laws.

Health Workforce Situation Jordan

Human resources for health are a critical component of health system strengthening (WHO, 2007). The performance and quality of services delivered by a system are highly dependent on the knowledge, skills, and motivation of health workers responsible for delivering the respective health services (WHO, 2000). Thus, without effective staffing and a committed health workforce, it is unlikely that health sector reform will be successful (WHO 2006; Martineau et al., 2000). Several HRH factors such as size, composition, and distribution of the healthcare workforce, workforce training, and migration of health workers influence the success and capacity of the health system to provide equitable, high-quality healthcare services (Kabene, Orchard, Howard, Soriano, & Leduc, 2006). Also, the absence of explicit policies to strengthen HRH has been identified as the main reason for previously failed efforts to reform health systems (Kolehmainen-Aitken, 1998).

Globally, the estimated health workforce shortage is seven million with an estimated increase to 12.9 million by 2035 (Abhicharttibutra, Kunaviktikul, Turale, Wichaikhum, & Srisuphan, 2017). This shortage in health workforce is exacerbated by skill-mix deficiencies and maldistribution (Fadi El-Jardali, Jamal, Abdallah, & Kassak, 2007). In the Eastern Mediterranean Region, several countries encounter key

issues that hamper HRH development including shortages of personnel, inappropriate skill-mix, underemployment, inadequate/inappropriate training, poorly defined scopes of practice, geographic maldistribution, and poor working environments (El- Jardali et al., 2007; EMRO 2005; Kabene, Orchard, Howard, Soriano and Leduc, 2006; Fritzen, 2007).

Health Workforce Stakeholders in Jordan

Various stakeholders have different responsibilities towards managing HRH in Jordan (**Table 1).** For example, the MOH is mandated to develop and enact national policies in collaboration with the HHC, in addition to managing its own HRH at the MOH as a healthcare provider, which comprises 30% of the total health workforce in Jordan (Hadidi, 2017). The Cabinet of Ministers is required to propose and initiate HRH laws and by-laws to be legislated by the Parliament, as appropriate.

Table 1 - HRH stakeholders and responsibilities in Jordan (Hadidi, 2017)

HRH Stakeholder	Responsibilities
1. The Parliament	a) Enacting HRH legislation. b) Monitoring health policy implementation.
2. The Cabinet (Council of Ministers)	a) Proposing and initiating HRH laws and by-laws (through Legislative and Opinion Bureau). b) Enforcing regulations and monitoring performance of the health sector. c) Providing broad policy and strategic directions. d) Approval of senior position assignments in the MOH (i.e. undersecretary). e) Defining the terms and conditions of public sector employment and the relationship between central and local governments and providers of health services.
3. Ministry of Health	a) Developing HRH policies and strategies with the cooperation of the HHC. b) Regulating and monitoring health services provided by public sectors and private sectors. c) Direct management of human resources employed by the MOH (about 30% of HRH in Jordan). d) Licensing, monitoring, and regulating all health professions and institutions. e) Participating in the provision of pre-service and continuing education for HRH. f) Setting and controlling health professionals' fees in coordination with other stakeholders. g) Setting standards of care and investigating malpractice cases. h) Collecting and disseminating HRH statistics.
4. Higher Education Council	a) Formulating the general policy of higher education including HRH. b) Endorsing the establishment of new educational institutions. c) Monitoring the quality of HRH education. d) Determining the basic admission requirements at HRH education institutions.
5. Ministry of Higher Education and Scientific Research	a) Implementing the general policy of higher education. b) Coordinating between higher education institutions and public and private centers for consultations and research. c) Recognizing foreign institutions of HRH education and equating certificates issued by them.
6. Higher Education Accreditation Commission and quality assurance	a) Setting accreditation standards of higher education institutions including HRH, amending and developing them considering the general policy of higher education. b) Monitoring the performance of higher education institutions and their commitment to accreditation standards.
7. High Health Council	a) Proposing and initiating national HRH policy and strategic plans. b) Coordinating the major issues related to HRH within health subsectors (MOH, RMS, university hospitals, private health sector, etc.).

HRH Stakeholder	Responsibilities
	c) Proposing reforms and proposals to strengthen HRH. d) Encouraging health system research agenda and facilitating the implementation of this agenda including HRH research.
8. Health Professionals Associations (Jordan Medical Association. Jordan Registered Nurses & Midwifery Association, Jordan Dentists Association, Jordan Pharmacists Association)	a) Registering health professions (with the MOH). b) Monitoring practice and professional conduct. c) Setting practice standards. d) Conducting continuing education programs for health professionals. e) Setting professional fees (with the MOH). f) Investigating malpractice cases and professional misconduct and imposing professional penalties. g) Maintaining database for health professionals.
9. Civil Service Bureau	Setting regulations for hiring, compensating, promoting, retirement and monitoring performance of all civil servants including HRH working in MOH.
10. Jordan Medical Council	a) Setting standards and conditions for teaching hospitals. b) Certifying facilities as teaching hospitals. c) Regulating and monitoring residency programs in teaching hospitals. d) Certifying physicians as general practitioners and specialists.
11. Jordanian Nursing Council	a) Setting and promoting nursing care standards. b) Developing and disseminating criteria for nursing professional classification (professional ladder). c) Certifying registered nurses as general practitioners, specialists, or consultants.
12. RMS, University Hospitals, Private Hospitals, UNRWA, Philanthropy Health Sector	a) Direct management of HRH employed by each sector. b) Providing continuing education. c) Provides information about HRH. d) Participating in national HRH policy formation and planning through their representatives in the HRH National Coordination Policy Forum (HRH NCPF)at the HHC.
13. Consumer Protection Society	a) Defending and promoting patients' rights and interests. b) Monitoring adherence of health professionals to formal fees schedules.
14. International Health Organizations and Donors	a) Providing technical support to HRH projects, programs, and interventions in collaboration with national stakeholders. b) Financing, organizing, implementing and monitoring HRH training projects and studies sponsored by international agencies with the partnership of local organizations.

Health Workforce Challenges in Jordan

Recent studies indicate that Jordan lags in many HRH related factors including HRH governance, policy & partnership, management, education, production, development, and planning (figure 2). The number of health workers in Jordan remains below international ratios. At the national level, the ratio of physicians to 10,000 population is 14.4 (Hadidi, 2017) compared to 15.41 in Oman (WHO, 2016b), 19.4 in Qatar (WHO, 2016c), 24, 25, and 28 physicians in Canada, the USA, and the United Kingdom, respectively (WHO, 2017). Moreover, the HRH observatory reports showed that there are major disparities in HRH distribution among the 14 governorates in Jordan. For instance, the ratio of physicians per 10,000 population in Amman is 19.6 in comparison to 6.9 in Zarqa. Similar results are found among registered nurses. The nurse to 10,000 population ratio in Amman is 22.4 in comparison to 6.9 in Zarqa (Hadidi, 2017). Gender maldistribution is another issue in Jordan. For example, the majority (83.1%) of physicians at Ministry of Health are male, whereby most nurses (63.8%) and pharmacists (75.3%) are female (Hadidi, 2017). Similar results were observed at Royal Medical Services (Hadidi, 2017).

There are several challenges at the governance, educational, and delivery levels that specifically affect nursing and midwifery in Jordan (Figure 2). Notably, the turnover rate in 2009 among registered nurses in Jordanian hospitals was 36.6% compared to an average turnover rate of 19.9% in Canada (Duffield, Roche, Homer, Buchan, & Dimitrelis, 2014; O'Brien-Pallas, Murphy, Shamian, Li, & Hayes, 2010), with the highest turnover rates in the middle region (Amman, Zarqa, Madaba, and Balqa) and lowest in the southern region (Aqaba, Ma'an, Karak, and Tafela) (Hayajneh, AbuAlRub, Athamneh, & Almakhzoomy, 2009). Factors positively associated with intention to stay in Jordan include being married, decreased commuting time, and improved financial incentives (F. El-Jardali et al., 2013). Studies reported high stressors and low job satisfaction among nurses in Jordan (Hamaideh & Ammouri, 2011; Mrayyan, 2007; Nawafleh, 2014; USAID, 2016). Nurses reported several stressors including struggle to gain public respect as nursing is not considered prestigious in Jordan (Mrayyan & Al-Faouri, 2008; Nawafleh, 2014), lack of professional recognition, and limited professional development opportunities, especially in remote/underserved areas (Raeda F. AbuAlRub, El-Jardali, Jamal, Iblasi, & Murray, 2013; F. El-Jardali et al., 2013; Nawafleh, 2014).

Another serious HRH-related issue in Jordan is workplace violence (figure 2). A study showed that 75% of nurses are exposed to violence, whereby 64% experienced verbal violence, and 48% experienced physical violence (M & Aljezawi, 2016). Another study showed that 15% of physicians and nurses face violent acts (R. F. AbuAlRub & Al Khawaldeh, 2014). In a cross-sectional study in general hospitals, 52.8% of nurses were physically attacked, of those, 26.5% were attacked with weapons (Al-Omari, 2015). Abuse was 1.5 times more prevalent among female nurses than male nurses (Al-Omari, 2015). Factors contributing to workplace violence were overcrowding, staff shortages (M et al., 2015; M & Aljezawi, 2016), the absence of workplace violence prevention and management policies, and lack of training on violence prevention and management (R. F. AbuAlRub & Al Khawaldeh, 2014).

The figure below portrays the main challenges faced by the HRH in Jordan in accordance with the four pillars of the HRH strategy:

1- Governance, Policy & Partnership
2- HRH Education, Production & Development
3- HRH Management
4- HRH Planning

Figure 2 - Policy mapping and analysis identified key HRH challenges through document review and key informant interviews

Governance, policy & partnership	HRH management
▪ Absence of a national HRH strategy ▪ Inadequate generation of evidence-based HRH decisions ▪ Deficient endorsed national job descriptions ▪ Absence of a national board to license/relicense healthcare fields (LaRocco, 2015) ▪ Lack of nursing and midwifery up to date database (Jordan Nursing Council, 2016) ▪ Lack of collaboration with other healthcare fields (Jordan Nursing Council, 2016) ▪ Adoption of the Civil Service Bureau performance appraisal system represents a change from current practices ▪ Pressure, particularly in the governorates, to hire more staff at the MOH because of the high unemployment rate in remote/underserved areas	▪ Lack of awareness and skills on the part of top management team and other managerial levels of the critical linkages between MOH strategic/operational planning and human resources planning ▪ Difficulty in attracting and retaining qualified health personnel ▪ Overemphasis on tenure and credentials over performance ▪ Weak performance management (unclear criteria, lack of transparency) system to inform career path and succession planning ▪ Weak linkages between the current performance appraisal system and incentives ▪ Risk that employees will focus on behaviors that are rewarded and neglect other work-related behaviors ▪ High stress and low job satisfaction (Hamaideh & Ammouri, 2011; Mrayyan, 2007; Nawafleh,

	2014) in remote/underserved areas (Nawafleh, 2014) ▪ Workplace violence
HRH education, production & development	**HRH planning**
▪ Interdependence of CPD with other HR policies (e.g., employee selection, career path planning, succession planning, and job analysis and description) ▪ Lack of requisite skills on the technical aspects of training and development for those who work at training and development directorate ▪ Lack of national CPD system linked with re-licensing ▪ Lack of funding for human resources development ▪ Weak capacity building and continuing education initiatives (Jordan Nursing Council, 2016) ▪ Educational lags in areas related to advanced healthcare skills such as newborn resuscitation and holistic nursing care (Kassab, Alnuaimi, Mohammad, Creedy, & Hamadneh, 2016; Shoqirat, 2015) ▪ Educational programs do not meet national, regional and international health needs and technological advancements ▪ Clinical training lags in quality and period ▪ Fragmented research and lack of research integration into clinical practice (Jordan Nursing Council, 2016) ▪ Lack of internship opportunities ▪ Limited provision of holistic care	▪ Limited supply of specialties in the labor market as they take considerable time to develop ▪ Skill-mix, gender, and facility maldistribution of human resources across the country ▪ Weak linkages between the human resources planning system on one hand and the performance management, reward, incentive, training, and development systems ▪ Shortage of midwives ▪ High turnover ▪ Weak effective HRH information system especially that of the private sector

Country Response to Health Workforce Challenges in Jordan

To date, there is no national HRH strategy in Jordan, although there have been several initiatives to develop national health-related strategies and activities, which have incorporated human resources as a sub-element (Table 2).

Table 2 - HRH relevant components in existing health-related strategies and activities

National strategies/ activities	HRH relevant components
Jordan Vision 2025	▪ Included components on the health sector and human resources: improve the quality of universities and public-private partnerships and decrease unemployment
Executive Development Plan 2016-2020	▪ Incorporated goals related to human resources development, management, and fair distribution, expanding application of accreditation programs including HRH standards and training and strengthening nursing profession and education ▪ Goals are regularly monitored based on accomplishment ▪ NHRHO was addressed in the EDP to be a tool for strategy development and policy formulation in Jordan
The National Strategy for Health Sector in Jordan 2016-2020	▪ Incorporated an output regarding trained, sufficient and competent HRH ▪ Incorporated an output regarding the HRH observatory as a national resource on HRH data for policy development and decision making ▪ Included a specific output regarding HRH strategic planning and on the fair distribution of human and financial resources ▪ Included indirect outputs on human resources: evidence-based plans, policies, and decisions and active partnership across sectors to improve HRH

National strategies/ activities	HRH relevant components
National Strategy for Human Resource Development 2016-2025	▪ Focused on strengthening the education, skills, and capacity of the human resources in Jordan, including training health workers with a focus on maternal and child health
National Strategy for Nursing and Midwifery: A Road Map to 2025	▪ Proposed strategic objectives to strengthen nursing and midwifery: regulation and governance, innovative quality education, responsive, dynamic practice, and empowered workforce
Hospital Accreditation System in Jordan	▪ Included components on human resources management and development to ensure the availability of staffing plans, job descriptions, personnel files, staff orientation, staff education and training, performance appraisal, governance, leadership and staff satisfaction evaluation.
The gap between the supply and demand sides in the health sector (2014)	▪ Showed a need for legal nursing secretaries and pharmacists, training healthcare workers on providing care to people with disabilities, expanding and strengthening continuing education and training
Jordan's National Employment Strategy (2011-2020)	▪ Presented strategies to overcome unemployment: ▪ increase investment opportunities ▪ introduce progressive taxing ▪ increase job opportunities in governorates and remote/underserved areas ▪ ensure needs-based training ▪ rationalize foreign labor to complement (rather than replace) local labor ▪ incorporate females and personnel with special needs into the labor market ▪ strengthen data collection and analysis on the labor market ▪ encourage evidence-informed policies ▪ ensure social protection for employees
National HRH Observatory Assessment Report 2016	▪ The National HRH Observatory was launched in 2009 to provide timely data for HRH policies and decisions ▪ The assessment report was developed to assess the observatory, its challenges and to develop an action plan for the observatory in 2016. ▪
HRH2030 activities	▪ HRH2030 activities are based on three components tackling HRH in Jordan: ▪ Component 1: Improved HR practices at the MOH ▪ Component 2: Improved health workforce competency ▪ Component 3: Strengthened national HRH governance ▪ Policy mapping and analysis identified key HRH challenges through document review and key informant interviews (Figure 2)
National Agenda 2006-2015	▪ Developed in 2006 to improve the quality of life of Jordanians ▪ Aims at decreasing unemployment rates through (NASC, 2006): ▪ Establishing a Higher Council for Human Resources Development ▪ Establishing a National Commission to accredit education institutions ▪ Expanding access to education ▪ Increasing private sector involvement in vocational education ▪ Revising universities' admission policies ▪ Upgrading skills of faculty and administration at universities ▪ Improving management, financing & curricula of community colleges ▪ Establishing a National Commission for Scientific Research ▪ Encouraging scientific research and a culture of innovation
MOH strategy (2013-2017)	▪ Included objectives to improve: ▪ The attraction of qualified and trained technical and managerial healthcare workers to work at the MOH ▪ Improve competency of current workers at the MOH ▪ Improve competency of faculties of nursing and allied health professionals ▪ Contribute to the development of the national human resources for health strategy

What We Know from Evidence

Eleven systematic reviews, one overview of systematic reviews, seven literature reviews, and ten studies (Appendix 7) reported on several interventions implemented internationally, regionally, and nationally to strengthen HRH. The interventions cover five major areas: policy, management systems, education, partnership, and finance. Studies showed that these interventions led to increased career satisfaction, recruitment, and retention, especially in remote/underserved areas,

improved knowledge, and skills, and decreased job stressors. Successful experiences in health workforce development planning originate from Oman, England, and Australia.

To overcome the challenges in HRH in Oman, the Sultanate developed initiatives focused on establishing a robust HRH system. Successful initiatives included:

- Planning for workforce needs
- Regionalization policy for nursing schools
- Setting up post-basic education
- Review of nursing and physician curricula
- Improving and accrediting CPD programs
- Developing staff development units in hospitals and in regions
- Establishing a health information system used to decrease delay in recruitment from civil services and improve the assignment of employees on actual need basis rather than an ad-hoc request by managers or department heads
- Increasing partnerships and collaborations among stakeholders on HRH-related issues
- Providing workshops for senior personnel on HRH planning (Ghosh, 2009).

Moreover, a multi-stakeholder taskforce that worked across professional and organizational boundaries to oversee all suggested strategic priorities was developed in Oman; a similar taskforce was established in England and Qatar (Ghosh, 2009; MOPH Qatar, 2017; NHS, 2000).

Table 3 - What We Know from Evidence

Intervention	Rationale	Country	References
Element 1 Policies and regulations			
Develop and implement regulatory interventions to expand the scope of practice for areas where supply of healthcare professionals is low (i.e., remote/ underserved areas and primary healthcare centers)	One overview of systematic reviews and one systematic review found low evidence that policies to expand the scope of practice of nurses and midwives were successful in increasing supply of nurses and midwives in primary healthcare centers and remote/underserved areas.	Australia, Cameroon Canada, Germany, Indonesia, Kenya, Netherlands, New Zealand, Rwanda, Tanzania, Uganda, United Kingdom, United States & South Africa	(Dawson, Nkowane, & Whelan, 2015; Mbemba, Gagnon, Pare, & Cote, 2013)
Establish compulsory remote/underserved area service policies	One systematic review and one literature review found that compulsory remote/underserved area service increases healthcare workers in remote/underserved remote/underserved areas.	Bangladesh, Brazil, Cambodia, Ghana, Global, Guatemala, India, Kenya, Mozambique, Nigeria, Paraguay, Sri Lanka, Tanzania, United Kingdom, Australia, South Africa, Ecuador, United States, New Zealand, Niger & Spain	(Dolea, Stormont, & Braichet, 2010; Lassi et al., 2016)
Support the attainment of health profession-related accreditation in the hospital	One systematic review found that magnet accreditation may have a positive impact on job satisfaction and retention of nurses.	Australia, Canada, Developed countries, Ireland, New Zealand, Sweden, United Kingdom, United States	(Hastings, Armitage, Mallinson, Jackson, & Suter, 2014)
Establish profession regulations (i.e., licensure and registration) for	One systematic review and one literature review found that higher registered nursing staff mix resulted in better patient outcomes.	Canada and United States	(Lankshear, Sheldon, & Maynard, 2005; Tourangeau, Cranley, & Jeffs, 2006)

Intervention	Rationale	Country	References
nurses, physicians, dentists, and pharmacists	One systematic review found a correlation between medical licensing and some patient outcomes and patient complaints. Evidence of licensure of medical doctors remains inconclusive.	Not specified	(Archer et al., 2016)
Improve remote/underserved area infrastructure	One overview of systematic reviews showed that improving the infrastructure of remote/underserved areas (i.e., roads, water, and phone) may have a positive effect on retaining nurses in remote/underserved areas.	Australia, Canada & South Africa	(Mbemba et al., 2013)
Element 2 Management Systems			
Improve work environment through support, recognition and job satisfaction	One systematic review showed that strategies such as part-time employment, decreased workplace bureaucracy and workload pressure, supporting workforce health, and providing opportunities for career development supported an increase in intent to stay in job positions.	United States, Australia, Canada, Israel, and the United Kingdom	(Silver, Hamilton, Biswas, & Warrick, 2016)
	One correlational descriptive study reported that an increase in social support and job satisfaction leads to an increase in intent to stay. High level of social support indicates a high level of job satisfaction.	Jordan	(R. F. AbuAlRub, Omari, & Al-Zaru, 2009)
	One primary study showed that nurses who are more recognized for their performance and achievement have less level of job stress.	Jordan	(R. F. AbuAlRub & Al-Zaru, 2008)
Implement mentorship, clinical supervision, and preceptorship of healthcare workers	One overview of systematic reviews showed moderate evidence that supportive supervision (i.e., mentorship, preceptorship, clinical supervision) has a positive effect on promoting nurse retention in remote/underserved areas.	Australia, Canada & South Africa	(Mbemba et al., 2013)
Establish shared governance in healthcare organizations	One systematic review reported that shared governance (i.e., shared decision-making in the clinical area) was positively related to empowerment. In fact, shared governance was reported to increased job satisfaction, retention, and relationships among coworkers. Shared governance should be accompanied with clear communication among staff.	Australia, Canada, Developed countries, Ireland, New Zealand, Sweden, United Kingdom, United States	(Hastings et al., 2014)
Implement career pathways for remote/underserved area health	One overview of systematic reviews reported that implementing career pathways for remote/underserved area health may have a positive effect on recruiting healthcare professionals in remote/underserved areas. However, the study reported a need for further research in this area. The four-stage remote/underserved area career pathway is as follows: Structured contact between secondary schools and health professionals Remote/underserved area student selection (i.e., selection of remote/underserved area students) Remote/underserved area exposure through training Educational and professional support in remote/ underserved area	Australia, Canada & South Africa	(Mbemba et al., 2013)
Strengthen human resources information system	One literature review showed that information technology is essential in collecting, evaluating and communicating data. This leads to better-targeted interventions and higher efficiency in providing services.	Not specified	(Ajami & Arab-Chadegani, 2014)

Intervention	Rationale	Country	References
to integrate data sources to ensure timely access to data for evidence-informed decisions	One case study reported that monitoring of human resources data is critical to understand the matches/mismatches between demand and supply of human resources regarding skill mix, gender, and specialties. This can be accomplished through the strong involvement of stakeholders in the process of development and implementation of information systems.	Germany	(Kuhlmann, Lauxen, & Larsen, 2016)
	One case study showed that implementing a five-step approach to develop the Human Resources Management System (HRMS) in Uganda provided a valuable source of information on health workforce including regulating non-registered health workers and preventing them from being employed. The five-step approach is as follows: ▪ Building HRMS stakeholder leadership ▪ Strengthening information and communication technology infrastructure ▪ Developing an HRMS software solution ▪ Promoting a culture of evidence-based decision-making ▪ Building HRMS capacity ensuring data quality and security	Uganda	(Spero, McQuide, & Matte, 2011)
Utilize information and communication technologies support in remote/ underserved areas	One overview of systematic reviews showed that information and communication technologies (i.e., telehealth) support might have a positive effect on healthcare professionals regarding recruitment and retention in remote/underserved regions as it decreases feelings of isolation.	Australia, Canada & South Africa	(Mbemba et al., 2013)
Establish a confidential reporting system for workplace violence	One primary study showed that implementing a population-based surveillance system provided up to date information on trends of violence which would help implement target-based interventions.	America	(Arnetz, Aranyos, Ager, & Upfal, 2011)
	One study found that a program allowing the registration of violent events and feedback to the violent acts increased reporting of cases, and increased awareness to violent acts incidence and strategies to deal with the situation.	Sweden	(Arnetz & Arnetz, 2000)
Element 3 Education			
Provide pre-service education to healthcare professionals	One systematic review found that scaling up education and training and deployment to underserved areas, particularly poor remote/underserved communities have increased midwives and nurses in those areas.	Taiwan	(Grobler, Marais, & Mabunda, 2015)
	One overview of systematic reviews found moderate evidence that recruiting from and training in remote/underserved areas and early exposure in undergraduate studies to remote/underserved areas affects nurse retention in remote/underserved areas.	Australia, Canada & South Africa	(Mbemba et al., 2013)
	One literature review found that the inclusion of rotations in remote/underserved areas and remote/underserved area's health issues in curricula increases the interest of health professions to work in remote/underserved areas.	Australia, Canada, Japan, Mali, New Zealand, South Africa & United States	(Dolea et al., 2010)
Strengthen in-service training (such as education and continuous professional interventions) to healthcare professionals	Four systematic reviews and one literature review reported that continuing education based on local needs has an important role in improving health professional skills and performance.	Bangladesh, Brazil, Cambodia, Ghana, Global, Guatemala, India, Kenya, Mozambique, Nigeria, Paraguay, Sri Lanka, Tanzania, Benin, China, Egypt, Eritrea, Ethiopia,	(Bhutta, Lassi, & Mansoor, 2010; Hastings et al., 2014; Nguyen, Leung, McIntyre, Ghali, & Sauve, 2013; Sarkis & Mwanri, 2014; Willis-Shattuck et al., 2008)

Intervention	Rationale	Country	References
		Iran , Mali, Morocco, Niger, Pakistan, Peru, Senegal, South Africa, Sudan, Switzerland, Togo, Uganda, UK, U.S., Uzbekistan, Vietnam, Zambia, Australia, Canada, Ireland, New Zealand, Sweden, Africa, Georgia, Indonesia, Jordan, Malawi, Malaysia Zimbabwe	
	One systematic review found that training district managers on human resources management topics increases their knowledge on planning, monitoring, and evaluation of human resources.	Cambodia, Colombia, El Salvador & Mexico	(Rockers & Bärnighausen, 2013)
	One overview of systematic reviews found moderate evidence that supporting continuous professional development in remote/underserved areas affects nurse retention in remote/underserved areas.	Australia, Canada & South Africa	(Mbemba et al., 2013)
Provide workplace violence training and education to healthcare professionals	Two literature reviews and two studies found that educating healthcare professionals on workplace violence increased their awareness to violence and helped them cope with violence.	America, Nigeria, Sweden, United Kingdom Canada, New Zealand & Australia	(Anderson, FitzGerald, & Luck, 2010; G. Gillespie, Farra, Gates, Howard, & Atkinson, 2013; G. L. Gillespie, Gates, Kowalenko, Bresler, & Succop, 2014; Wassell, 2009)
Establish selection criteria for target admission of students willing to work in remote/underserved areas before acceptance into health profession education	One overview of systematic reviews and one critical review found moderate evidence that targeted admission of students from remote/underserved areas and those interested in pursuing careers in remote/underserved areas affects retaining healthcare professionals in remote/underserved areas.	Australia, United States, Canada & South Africa	(Mbemba et al., 2013; Wilson et al., 2009)
Develop medical schools in remote/underserved areas	One literature review reported that medical schools located in remote/underserved areas which are coupled with compulsory remote/underserved area service increase retention of healthcare professionals in remote/underserved areas.	Australia, South Africa, Ecuador, United States, New Zealand, Niger & Spain	(Dolea et al., 2010)
Element 4 Partnership			
Strengthen partnerships among health-associated stakeholders	One case study found that partnerships among stakeholders lead to: ▪ Identifying the current HRH country situation and current/future human resources needs ▪ Developing a national HRH plan ▪ Developing a plan to improve pre- and in-service training ▪ Facilitating agreements and collaborations among ministries ▪ Increasing numbers of registered and certified healthcare professionals ▪ Facilitating scholarships in remote/underserved areas	Indonesia	(Kurniati, Rosskam, Afzal, Suryowinoto, & Mukti, 2015)

Intervention	Rationale	Country	References
	▪ Mobilizing agreement to develop HRH observatory		
	One exploratory study showed that partnerships between the ministry of health and donor agencies led to increased job opportunities and positive effects on retention.	Zimbabwe	(Taderera, Hendricks, & Pillay, 2016)
Element 5 Finance			
Provide financial incentives to healthcare professionals	One overview of systematic reviews, one systematic review, and one literature review found that financial incentives such service requiring scholarships, educational loans with service requirements, service option educational loans, loan repayment programs, and direct financial incentives attract healthcare professionals to remote/underserved areas. Service-requiring scholarships, educational loans with service requirements, and service-option loans require students to commit to the program before or during their education in return provide students with financial incentives during their education. Loan repayment programs and direct financial incentives require health professionals to commit to the program after graduation. The direct financial incentive is paid at the beginning of the service in remote/underserved areas and is the only financial incentive among the programs that can be used for any purpose, Other programs must be spent on education. Loan repayment programs are paid after the service. Higher effects were seen among programs that commit students after graduation since preferences changed during education.	Australia, Canada, South Africa, Ecuador, United States, New Zealand, Niger, Spain, Africa, Georgia, Ghana, Indonesia, Jordan, Kenya, Malawi, Malaysia, Mali, Tanzania, Uganda, Vietnam & Zimbabwe	(Dolea et al., 2010; Mbemba et al., 2013; Willis-Shattuck et al., 2008)

National HRH Strategy – Vision, Mission, and Values

Vision

To have adequate, competent, and responsive health workforce to maximize the performance of the health system in Jordan towards UHC and SDGs.

Mission

To strengthen all functions of HRH (governance, policy, partnership, management, education, production, development, and planning) for better health services.

Values

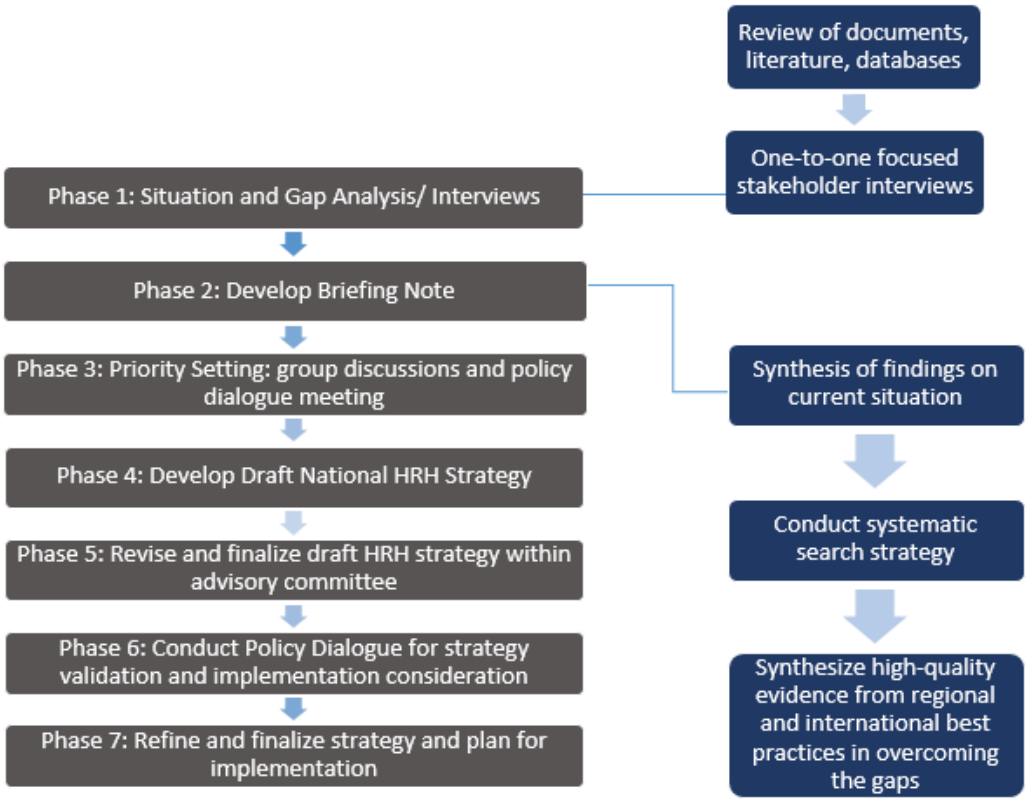
In conceptualizing, developing, and implementing the HRH strategy, the following core values were considered:

- **Quality improvement** of health services and human resources
- **Engagement** of stakeholders in decision making
- **Accountability** of stakeholders and stakeholder organization
- **Innovation** in human resources development
- **Evidence-informed decision making** in human resources for health
- **Transparency** in decision making

National HRH Strategy Methodology

The National HRH Strategy was developed using a systematic and collaborative approach as shown in *Figure 3*. The first phase included the identification of current HRH gaps and priority areas. Situation and gap analysis were conducted initially through review of documents, conducting a literature review, utilization of databases which includes the HRH observatory and national health accounts, and key stakeholder interviews. As such, a documentation and review synthesis report was developed that aimed to synthesize what has already been done on HRH.

Figure 3 - National Strategy Process



An initial assessment of the work on HRH in Jordan was conducted. Several relevant documents were reviewed (Appendix 1) and a detailed content analysis of the documents was developed. The purpose of the content analysis was to synthesize what has been already done which enabled the team to build on the work to proceed with developing a national HRH strategy. Based on the assessment, priority areas for discussion and target-based interventions that fit the context of Jordan were identified.

This was followed by the development of an evidence-based briefing note which synthesized global research evidence and local evidence on HRH. The briefing note aimed to quickly and effectively inform policymakers and stakeholders about HRH in Jordan. A systematic search strategy was developed to identify and synthesize high-quality evidence from regional and international best practices in overcoming the HRH gaps in Jordan.

Priority setting (Appendix 2) was conducted through policy dialogue, frontline health worker discussion, and one-to-one interviews to identify key challenges and priorities in the HRH system. More than 35 key stakeholders were consulted, which included government officials, parliamentarians, managers in non-governmental organizations, representatives from health professional associations and institutions, and researchers.

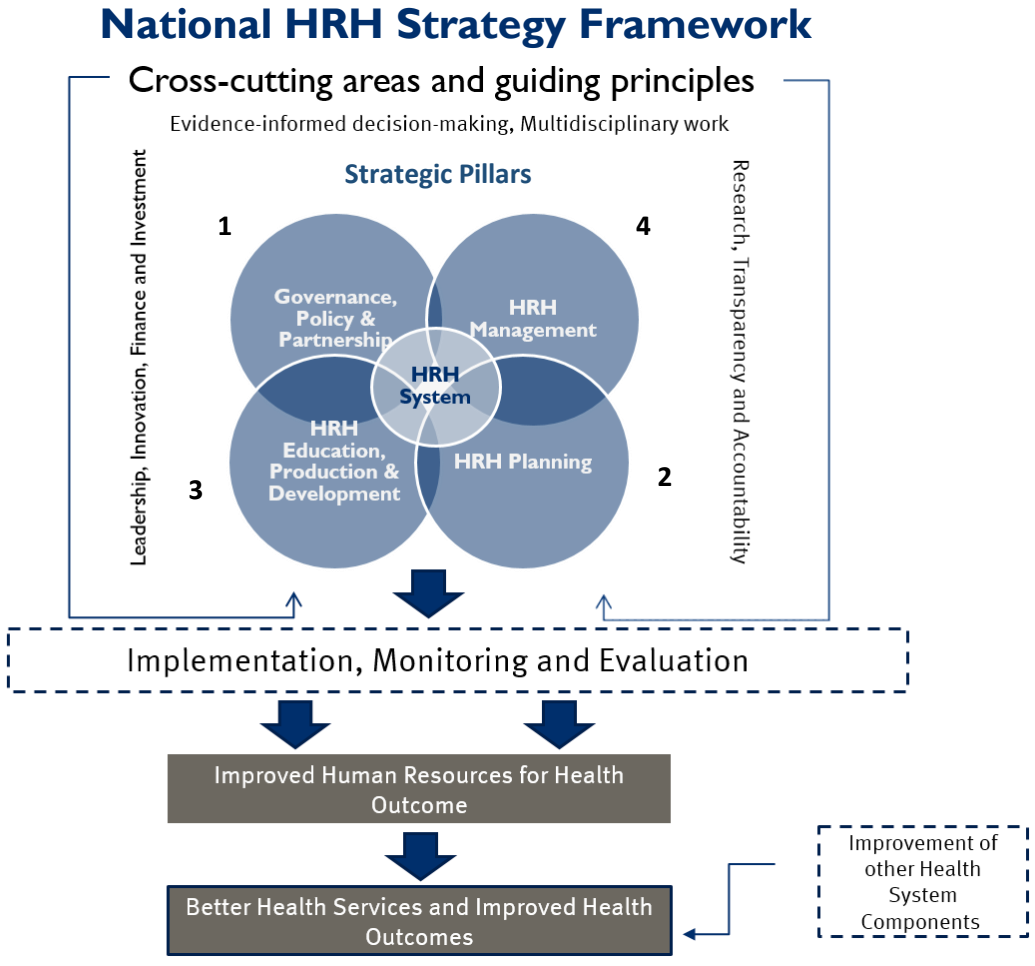
Based on the briefing note and stakeholder consultations, a draft national HRH strategy was developed. A priority setting workshop was conducted with more than 30 participants to build consensus and to ensure that all proposed strategic objectives are context-specific and reflect priority needs to enhance the HRH body in Jordan (Appendix 3). The review of the strategic pillars, objectives, and interventions was done using a guiding tool (Appendix 4) within working groups based on pre-identified criteria. The criteria included identifying the urgency, relevance, feasibility, critical success factors, and stakeholders responsible for the objectives/pillars. Working groups were divided according to pillar and stakeholders were categorized based on their area of expertise. Stakeholder responses were analyzed, and results (Appendix 5-6) were validated on the second day of the workshop. Building on the results, the national HRH strategy was drafted.

To ensure implementation of the strategy, an implementation plan was developed in collaboration with key stakeholders to support the national HRH strategy. Activities to support the interventions and indicators were informed by national, regional and international evidence. Stakeholder organizations responsible for the activities were identified through rigorous stakeholder consultation. Initially, a draft implementation plan was developed and discussed with the advisory committee and internally with the HRH2030 team. Feedback on the activities, stakeholders involved and stakeholders responsible and indicators were integrated in the implementation plan. The implementation plan was then revised by stakeholders during an external stakeholder consultation workshop. More than 60 stakeholders (including policymakers, academicians, researchers and representatives from professional associations and non-governmental organizations) participated in the workshop. During the workshop, participants were divided into 4 to 6 groups according to the pillars. Each group filled a tool (Appendix 8) and submitted it to the facilitators. Three tools with different objectives were completed by each group. Once tools were returned, responses were analyzed and presented for validation the second day. Indicators decreased from 103 to 61 indicators and revisions were integrated within the strategy and implementation plan. In addition, a Monitoring and Evaluation (M&E) framework and Performance Indicator Reference Sheet was developed to ensure regular follow up on the activities and outcomes. The M&E framework was informed by international and regional practices that have been contextualized to Jordan. The M&E framework was revised with the advisory committee. In addition, several rounds of internal revisions to the M&E framework and Performance Indicator Reference Sheet were implemented.

Note that short-term refers to a period of one to two years, medium-term refers to a period of three to four years, and long-term refers to a period of 5 years and beyond for the achievement of the interventions from adoption of the strategy

National HRH Strategy – Framework

The national HRH strategy framework was adapted from the WHO HRH action framework and revised based on a rigorous synthesis of evidence and stakeholder consultation to contextualize the framework to Jordan. The framework aims at achieving better health services and improved health outcomes by improving HRH outcomes. The framework provides recommendations based on four strategic pillars (1) HRH governance, policy, and partnership, (2) HRH management, (3) HRH education, production, and development, and (4) HRH planning. This also considers the crosscutting guiding principles in providing recommendations which include leadership, innovation, finance and investment, evidence-informed decision making, multidisciplinary work, research, transparency, and accountability. Implementation, monitoring, and evaluation of the recommendations should be ensured to improve the HRH system considering the critical success factors for their implementation.



Adapted from the WHO HRH Action Framework

Strategic Pillars

Strengthen governance structure, policies, and partnerships to strengthen HRH regulation, management, and monitoring

Objectives

1.1. Ensure alignment of existing laws/policies/ legislation to current needs and demands of community and providers
1.2. Scale up HR component in healthcare accreditation systems to include standards on education, occupational health and safety, work-life balance, clinical governance, shared decision making, privileging and credentialing and violence prevention
1.3. Develop or update legislated national scope of practice for physicians, registered nurses, midwives, pharmacists, dentists, and allied healthcare professionals that are aligned with required competencies
1.4. Develop and implement interventions and policies to expand the scope of practice for areas where supply of healthcare professionals is low (as remote/underserved areas and primary healthcare centers)
1.5. Establish policies to motivate and retain HR to work in remote/underserved areas
1.6. Conduct mandatory examination for licensure of clinical healthcare professionals
1.7. Strengthen partnerships in HRH among stakeholders
1.8. Revise Civil Service by-law to align with HRH needs
1.9. Develop and implement policies to address education and working abroad to align with the national needs

Strategic Pillar 2

Establish workforce planning based on current and emerging health service and community needs

Objectives

2.1 Update human resources registries to integrate up to date data sources and ensure timely access to data for evidence-informed decisions
2.2 Ensure mechanisms to collect, report, analyze, and use reliable workforce data to inform HRH decision making
2.3 Identify priority needs of the community and burden of disease by leveraging existing national surveys to forecast the human resources needs.
2.4 Predict the human resources needs for the next five years at both the national and sub-national (governorate) levels based on priority HR needs and implement strategies to respond to these needs
2.5 Attract and orient youth career choices to health programs and specialties with HRH shortage
2.6 Reinforce gender balance in health institutions and within health professions
2.7 Mobilize and secure adequate funding to improve the production, employment, and capacity building for all health professionals

Strategic Pillar 3

Enhance the competencies of the human resources for health based on current and emerging health service needs

Objectives

3.1. Revise and unify current health profession educational strategies and tools based on the set of required profession competencies
3.2. Establish inter-profession education in universities and institutions
3.3. Develop license renewal bylaw and establish continuing professional development (CPD) system for health professionals
3.4. Scale up bridging programs in health education
3.5. Establish selection criteria for target admission of students before acceptance into health profession education

Strategic Pillar 4

Manage HRH with a purpose to attract, deploy, retain, and motivate health workforce in both public and private sectors and especially in remote/underserved areas

Objectives

4.1 Improve work environment for health workers
4.2 Strengthen clinical governance through mentorship, clinical supervision, and preceptorship of healthcare workers
4.3 Establish shared governance (shared decision making and accountability) in hospitals and primary healthcare centers
4.4 Enhance job-person fit in all healthcare institutions and governmental positions
4.5 Conduct performance evaluation based on competencies in a manner that reflects actual performance of HR and link to credentialing and privileging in institutions
4.6 Provide financial and non-financial incentives to healthcare professionals based on performance evaluation
4.7 Promote women in health leadership
4.8 Develop and implement succession planning in the public sector
4.9 Provide training to HR departments and health managers on HR related topics
4.10 Ensure equitable distribution of health workforce throughout the country

Implementation Plan

Strategic Pillar 1:

Strengthen governance structure, policies and partnerships to strengthen HRH regulation, management, and monitoring

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
Objective 1. **Ensure alignment of existing laws/ policies/ legislation to current needs and demands of community and providers**	1.1. Establish an advocacy taskforce represented by key stakeholders to initiate/ review, update and enforce existing regulations	Short-term (Y1)	- Hire a coordinator entity for the taskforce - Identify and approach participants within the taskforce - Establish the taskforce with its terms of reference for the taskforce - Conduct regular meetings for the taskforce - Identify, implement and evaluate taskforce activities	HHC / MOH/ CSB / private sector / Ministry of public sector development / parliament / Jordan Bar Association / health professional Associations/ RMS/ university hospitals/ JMC/ JNC/ Ministry of Labor / Ministry of Higher Education and scientific research	HHC	An assessment report that includes the following: - Current laws/ legislations/ policies that relate to HRH - Gaps identified in HRH laws based on needs and demands of community and providers, - List of laws that are not implemented - Revised/ updated/ additional laws policies and legislation	Availability and implementation of HRH laws/policies/legislations
	1.2. Identify laws policies/ legislation that are related to HRH and assess loopholes and gaps according to national priorities	Short-term (Y2)	- Map out the laws related to HRH - Revise the current laws and identify the gaps in the laws according to current/ emerging HRH needs	CSB / HHC / private hospital association / Jordanian Hospital assosication/ HCAC / health professional assosications /	HHC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Consult with providers and stakeholders on additional challenges in relation to HRH which are directly related to legal procedures.	Jordan University hospital / Ministry of Higher education and scientific research/ Ministry of public sector development / MOH			
	1.3. Update/ revise existing laws/ policies/ legislation based on gap analysis and needs and demands of community and providers	Medium -term	- Identify critical areas in the law that need to be revised - Suggest law revisions/ updates - Consult with key stakeholders on the revisions	CSB/ parliament (health committees) / Ministry of Labor / Ministry of Health	HHC		
	1.4. Develop additional laws/ policies/ legislation needs as per requirement	Long - term	- Based on gaps, identify laws that are currently not developed in Jordan - Conduct thorough review of regional and international experiences and laws - Identify suggestions for laws to support the HRH in Jordan	CSB private sector / Ministry of public sector development / parliament / Jordan Bar Association / health professional associations/ Ministry of Labor	HHC		
	1.5. Identify the articles within laws / policies/	Short-term (Y2)	- Conduct stakeholder meetings to identify laws that are currently	Ministry of Labor / Health professional	HHC	Strategy to reinforce laws	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	legislation that need for implemention		implemented in Jordan and laws that are available yet not implemented - Identify the articles within laws that are not being implemented but could support HRH in Jordan if implemented - Develop implementation considerations to support the implementation of the law - Conduct HHC board meeting to portray to stakeholders the laws that are not being implemented, the implementation considerations to support the implementation of the law	Associations / Private hospital association / HHC / CSB / private sector / Ministry of public sector development / parliament / Jordan Bar Association		that are not implemented	
Objective 2. **Scale up HR component in healthcare accreditation systems to include standards on education, occupational health, and safety,**	2.1. Assess current standards on HRH and compare against international healthcare accreditation standards to identify gaps	Short-term (Y2)	- Identify HRH related standards in current accreditation system - Identify from international accreditation systems the standards on HRH - Assess gaps in current accreditation system	HHC/ HCAC/ Public and private hospitals / councils / Health professional Associations/ Ministry of Health/ Jordan Institution for	HCAC	Report that includes the gaps in the current hospital accreditation system on HRH	Percentage of human resources accreditation standards that are implemented

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
work-life balance, clinical governance, shared decision making, privileging and credentialing and violence prevention.	and additional healthcare needs in HRH			Standards and Metrology			
	2.2. Develop group of experts to provide feedback on healthcare accreditation standards	Short-term (Y2)	- Delineate selection criteria for the experts - Open call for experts - Select multidisciplinary experts to revise standards - Send to experts the standards with a defined evaluation tool - Receive back tools from experts	HHC/ HCAC	HCAC	Revised set of HRH standards	
	2.3. Modify current accreditation standards to integrate/modify HRH standards according to gaps and healthcare needs in relation to regional and international accreditation standards	Short-term (Y2)	- Based on gaps, identify standards that can be modified/ revised to include HRH component - Develop new standards when needed	HHC/ HCAC	HCAC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	2.4. Pilot test and finalize the revised set of standards	Short-term (Y2)	- Identify hospitals to pilot test the standards on them - Develop piloting tool for standards - Contact the hospitals - Pilot the standards using the tool - Launch the standards - Communicate the standards with the accredited organizations - Train the evaluators on the new standards - Implement the standards	HHC/ HCAC	HCAC		
Objective 3. **Develop or update legislated national scope of practice for physicians, dentists, pharmacists, registered nurses, midwives, laboratory specialists and allied healthcare professionals that are aligned with required competencies**	3.1. Identify a task force in each key profession to develop the competencies and scope of practice of its related profession	Short-term (Y1)	- Define the profession that does not have competencies/ scope of practice developed - Develop a task force in each of health profession and identify the members of this task force - List the roles and responsibilities of the task force - Conduct regular meetings of the task force - Identify activities of the task force	HHC/ MOH / CSB / health professional associations / universities	JMC/JNC / HHC	Taskforce developed in each healthcare discipline that will revise the competencies and scope of practice of their related profession when needed.	Percentage of health professions that have a legislated national scope of practice aligned with required competencies

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Implement and evaluate activities of the task force				
	3.2. Assess current scope of practices, when available, to identify gaps according to competencies	Short-term (Y2)	- Identify current scope of practice - Identify international and regional scope of practices - Conduct key stakeholder meeting in the profession - Identify gaps in current scope of practice	HHC / MOH / CSB / health professional associations / universities	JMC/JNC / HHC	Report of current gaps in scope of practice Revised set of legislated scope of practice that is aligned with the required profession competencies	
	3.3. Assess gaps in the laws that relate to healthcare professions and suggest revisions based on scope of practice	Short-term (Y2)	- Identify the laws related to the profession - Compare revised scope of practice to current laws - Identify the gaps, needs to revise laws and develop new laws - Suggest revisions to the laws	HHC/ MOH / CSB / health professional associations / universities	JMC/JNC / HHC		
	3.4. Delineate the competencies (skills, knowledge, and attributes) of each healthcare profession including,	Long-term	- Asses with associations and councils if competencies are already developed - Identify international and regional competencies for the profession	HHC / MOH / CSB / health professional associations / universities	JMC/JNC / HHC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	physicians, nurses, midwives, pharmacists, dentists and allied healthcare professionals based on international and regional evidence and needs		- Develop and/ or revise the competencies for the profession in alignment with the scope of practice and laws				
	3.5. Develop/ revise scope of practice, as needed, for each physician, nurses, midwives, pharmacists, dentists and allied healthcare professionals based on best available evidence	Long-term	- Based on gap analysis and international and regional scope of practice, suggest revisions to the scope of practice - Conduct task force meeting to discuss revisions - Revise scope of practice within the taskforce	HHC/ MOH / CSB / health professional associations / universities	JMC/JNC / HHC		
	3.6. Align scope of practice of health occupations and recognize and accommodate	Long-term	- Develop a list of stakeholders from various associations/ councils - Conduct stakeholder meeting to discuss	HHC / MOH / CSB / health professional associations / universities	JMC/JNC / HHC/ Health professional associations		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	overlapping of scope of practice through collaborative stakeholder consultation		revised scope of practice - Align scope of practice among the profession - Finalize scope of practices and communicate them publically				
	3.7. Organize awareness sessions for hospitals/ primary healthcare centers/ key stakeholders and healthcare professions on the scope of practice	Long-term	- Develop plan for awareness of hospitals and primary healthcare centers and stakeholders in each association/ council - In each association/ council identify the list of hospitals/ primary healthcare centers to conduct awareness sessions - Develop material for awareness sessions - Conduct awareness sessions in each hospital / primary healthcare center/ stakeholder and document the implementation	HHC / MOH / CSB / health professional associations / universities	JMC/JNC / HHC	Key HRH stakeholders and healthcare providers are aware of the scope of practice and required competencies of the healthcare professions	
Objective 4. **Develop and implement interventions and policies to expand**	4.1. Assess the areas (governorates and services) where task shifting is	Short-term (Y2)	- Develop list of stakeholders for dialogue on task shifting - Conduct regular meetings to discuss task shifting in the hospitals	MOH / Private hospitals associations / health profession Associations /	JMC/JNC / HHC/ MOH	Evaluation report of current practices in task shifting according to governorates	Conduciveness of legal framework to task-sharing/ shifting of HRH

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
the scope of practice for areas where supply of healthcare professionals is low (as remote/ underserved areas and primary healthcare centers)	already taking place and is needed		and primary healthcare centers - Receive and analyze the results - Identify areas where task shifting is needed	JNC / JMC / RMS / HHC			Number of services where task-shifting is implemented (undertaken by allied health professionals) Percentage of areas/governorates where task-shifting is implemented
	4.2. Assess and develop (if needed) legislation(s) or administrative regulations that enable/ regulate task shifting especially in remote/ underserved areas	Short-term (Y2)	- Develop current challenges in task shifting - Develop taskforce to revise task shifting laws - Identify the laws that may enable/ regulate task shifting - Identify additional laws/ regulations needed to enable/ disable and assign roles that can be task shifted	Health professional associations / JNC / JMC / HHC/ MOH / RMS	JMC/JNC / HHC/MOH	Evaluation report and suggestions for legislation or administrative regulations to enable/ regulate task shifting in remote/ underserved areas	
	4.3. Develop standards (i.e., credentialing) to govern the recruitment and training of allied healthcare professionals	Short-term (Y2)	- Based on task shifting needs, identify the allied healthcare professionals that need additional training to undertake the tasks assigned to them - List the training/ certifications needed for the allied health professionals to undertake the tasks - Train and document the training take by the	HHC / Health professional associations / JMC /JNC /HCAC	JMC/JNC / HHC/MOH	Standardized set of training/ credentialing for allied healthcare workers	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			allied healthcare professionals				
	4.4. Train existing healthcare workers to undertake the new tasks that will be implemented	Medium-term	- Identify the training needed for healthcare workers to pertain task shifting - Develop and implement regional awareness session on task shifting for hospitals / primary healthcare centers were task shifting is implemented - Conduct training for healthcare workers to pertain task shifting	Ministry of health / HHC / Health professional associations /Private hospitals associations / RMS	JMC/JNC / HHC/MOH	Existing healthcare workers are trained on their expanded scope of practice	
Objective 5. **Establish policies to motivate and retain HR to work in remote/ underserved areas**	5.1 Assess the gap in human resources for health in different governorates	Short-term (Y2)	- Unify the definition for underserved / remote areas that is based on literature and stakeholder consultation according to selected inclusion criteria - Analyze the current human resources available in different governorates using needs assessment of each governorate - Identify the gaps in human resources in the governorates - Communicate the results with key stakeholders (i.e.	CSB/ HHC / MOH/ Private hospitals association/ Ministry of Finance/ RMS	HHC	Evaluation report of current human resources for health according to governorates	Retention rate Geographical distribution of HRH

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			hospitals, primary healthcare centers, ministry of higher education, ministry of health, Civil service bureau) through stakeholder dialogue				
	5.2 Develop policies on human resources for health posting for a delineated time frame in remote/ underserved areas	Short-term (Y2)	- Identify international and regional policies on rural/ underserved area posting - Formulate a team of multi-stakeholder organization to develop a policy for rural area/ underserved area posting - Develop policy on human resources for health posting - Communicate the policy with stakeholders - Revise the policy based on discussion	HHC / CSB / RMS	HHC	Policies on HRH posting in areas with HRH shortage	
	5.3 Establish career pathways for remote/ underserved area	Long-term	- Based on needs assessment, identify the needed healthcare professions - Communicate the needs with universities - Develop collaboration between secondary schools and health education institutions	Ministry of Education / Ministry of Higher Education and Scientific Research / MOH/ CSB / University / Schools/ RMS	Ministry of Education / Ministry of Higher Education and Scientific Research	Collaborations between secondary schools and health education institutions to introduce students to needed health professions	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Develop criteria for healthcare professionals for the selection of students that takes into consideration gender, geographic origin and career intent			Selection criteria per health profession cadre that consider gender, geographic origin, and career intent Curriculum of physicians, nurses, midwives, pharmacists and dentists integrate rotations/ training in areas with shortage as remote/ underserved areas Institutional plans to support healthcare professionals in areas with shortage as remote/ underserved areas in continuing professional development programs	
	5.4 Develop, implement and assess financial and nonfinancial incentive plan	Medium-term	- Conduct an assessment of the incentive of healthcare workers in rural/ underserved areas	CSB / MOH / RMS / Ministry of Finance	Ministry of Finance	Assessment report of the incentive of healthcare	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	for HRH working in remote/ underserved areas		- Conduct stakeholder meeting to discuss results of assessment - Develop plan for incentives in rural/ underserved area - Communicate plan for incentives with key stakeholders - Implement and evaluate the plan			workers in rural/ underserved areas Incentive plan for HRH in remote/ underserved area	
Objective 6. **Conduct mandatory examination for first time licensure of clinical healthcare professionals.**	6.1. Develop mandatory national board examinations for the licensing of clinical healthcare professionals.	Long-term	- Based on a needs assessment, identify the clinical health professionals in need for first time licensure. - Modify the public health law to mandate national board examination for the clinical health profession in Jordan - Develop and implement a system for mandatory examination - Evaluate implementation of the system	MOH / RMS / University Hospitals	MOH	National board examinations for licensing of the identified clinical healthcare professions	Existence of a law to mandate national board examination for each clinical health profession in Jordan
Objective 7. **Strengthen partnerships in**	7.1 Conduct an assessment of the current practiced role of the High Health Council	Short-term (Y2)	- Identify the entity/ organization to assess the role of the HHC - List team members name - Identify the current role of HHC	HHC	Consultant team	Assessment report of current practice role for HHC, identified gaps and strategies to	Development of an assessment report of current practice role for HHC, identified gaps and strategies

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
HRH among stakeholders	(HHC) in human resources for health and develop an action plan to strengthen the role of the HHC as a high reference body that draws health policies and coordinates between all health sectors and other concerned parties		- Identify the gaps in the current role (i.e. roles that are not effectively implemented, roles that need revisions, and additional roles required)			overcome challenges Active role of the HHC in governing HRH policies	to overcome challenges
	7.2 Strengthen the institutional capacity of the HHC such as providing the HHC with the necessary physical and human resources to support their role.	Short-term (Y2)	- Based on gap analysis, identify the needed resources at the HHC - Support the HHC by providing it with the needed resources to close the identified gap	HHC, MOH, CSB	HHC	Physical and human resources are provided to the HHC based on identified needs	
	7.3 Formulate a health sector public-private	Short-term (Y2)	- Agree on a unified definition, key actors	HHC	HHC	Strategy for the formulation of a healthcare sector	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	partnership (PPP) committee.		and expected role for the private sector - Assess the role and function of the PPP unit - Identify areas where PPP can be achieved - Develop a plan to formulate a health sector PPP committee.			public-private partnership committee	Number of partnership MOUs between educational institutions and healthcare organization Number of partnership MOUs between healthcare sector institutions
	7.4 Compose a plan to foster collaboration and partnership between services and education.	Short-term (Y2)	- Identify potential areas for services and education partnership - Develop plan for partnership - Evaluate the partnership	MOH / Private hospital association / Ministry of Higher Education/ HHC	HHC	Plan/strategies to enhance collaboration and partnership between services and education	
	7.5 Establish partnerships between public and private institutions and the international organizations/ Donors	Medium-term	- Assess the current contribution of the international organizations in developing the health sector and idetify gaps/opportunities for more effective and efficient contribution - Develop a participotry plan for more effective and efficient international contribution - Implement the plan - Evaluate the implementation of plan	MOH / Private hospital association / Ministry of Higher Education/ Ministry of Planning & International Cooperation	MOH/ Ministry of Planning & International Cooperation / HHC	Partnerships between public and private institutions and international organizations are developed.	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			and suggest revisions to the plans				
Objective 8. **Revise Civil Service by-law to align with HRH needs**	8.1 Integrate HRH job titles, requirements, credentials and other criteria within CSB by-laws and regulations	Medium-term	- Assess and Identify gaps in the by-law - Integrate HRH job titles, requirements, credentials and other criteria based on the gap analysis and HRH needs within CSB by-laws and regulations - Suggest revisions of the by-law to the concerned parties	CSB/ HHC/ MOH JMC /JNC / University Hospitals	CSB	Integration of HRH job titles, requirements, credentials and other criteria based on the gap analysis and HRH needs within CSB by-laws and regulations	1- CSB implemented information system that has up to date data on the status of health professionals
	8.2 Support the Civil Services Bureau (CSB) information system to achieve dynamic applicant status update through the HRMS	Long-term	- Conduct stakeholder meeting to identify the challenges of the current CSB system - List all challenges in the CSB system - Identify activities/ strategies to improve the CSB system - Develop plan to revise the CSB system - Implement and evaluate the plan	CSB / HHC/ MOH JMC /JNC / University Hospitals	CSB	Information system that is up to date and real-time data on health professionals	
Objective 9. **Develop and implement policies to address**	9.1 Assess current situation of Jordanians studying	Medium-term	- Collect data on the Jordanians studying health sciences abroad - Analyze the proportion of Jordanians studying	Ministry of Higher Education / health professional Associations / National	National Committee to study supply and demand indicators in	Evaluation report on current status of Jordanians studying in a	Percentage of Jordanians enrolled in health-

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
education and working abroad to align with the national needs	(medicine, nursing, pharmacists, dentists, laboratory specialists and allied health professionals) abroad.		(medicine, nursing, pharmacists, dentists, allied health professionals) abroad - Develop evaluation report on current situation	Committee to study supply and demand indicators in the labor market	the labor market	health-related field abroad	related tertiary education abroad Percentage of Jordanians working in health-related professions abroad Percentage of foreign-trained Jordanian health-related professionals that returned to work in Jordan Number of agreements developed with international institutions to compensate for HRH shortage
	9.2 Assess current situation of Jordanians still working and/ or returning from aboard to work in Jordan in the field of medicine, nursing, pharmacists, dentists, allied health professionals.	Medium-term	- Collect data on Jordanians - Analyze the data - Develop evaluation report on current situation	Ministry of Higher Education and Scientific Research / Ministry of Health / health professional associations	National Committee to study supply and demand indicators in the labor market	Evaluation report on current situation of Jordanians still working and/or returning from aboard to work in Jordan	
	9.3 Identify current needs in Jordan regarding medicine, nursing, pharmacists, dentists, allied health professional's	Medium-term	- Based on data from the HRH observatory and community assessment, identify the shortages/ needs in HRH specialization - Identify the availability of the specializations internationally and regionally	Ministry of Health / Ministry of Higher Education and Scientific Research / Ministry of Labor/HHC / CSB	Ministry of Labor	Evaluation report and action plan on physicians, dentists, pharmacists, nursing, allied health professional's specialization	Establishment and implementation of global code of practice and international recruitment ethical

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	specialization and develop an action plan, to compensate for shortage through bilateral agreements		- Develop an action plan, to compensate for shortage through bilateral agreements			shortages in Jordan	norms (country level)
	9.4 Identify current challenges in employing Jordanians that studied abroad in Jordan and identify action plan to overcome the challenges	Long-term	- Conduct dialogue among healthcare institutions, education institutions, councils and associations and healthcare workers who study abroad to identify challenges of employing Jordanians that studied abroad - Develop an action plan to overcome the challenges	Ministry of Higher Education and Scientific Research / Ministry of Labor/ National Committee to study supply and demand indicators in the labor market/ HHC / CSB	Ministry of Higher Education and Scientific Research /	Evaluation report and action plan to overcome current challenges in employing Jordanians that studied abroad in Jordan	
	9.5 Ensure the implementation of the Global code of practice on the international recruitment of health professionals (competency-based criteria	Long-term	- Receive endorsement of the global code of practice from the ministry of labor and ministry of Higher education and ministry of health - Communicate the global code of practice with all hospitals and primary healthcare centers	HHC /Ministry of Health /Ministry of Higher Education and Scientific Research / Ministry of Labor/ National Committee to study supply and demand indicators	HHC	International HRH code is implemented	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	for selection, equitable working conditions, pay rates…)		- Develop a plan for implementing the code in Jordan - Evaluate the implementation of the code in Jordan - Develop strategies to overcome the challenges for the implementation of the plan	in the labor market			
	9.6 Develop bilateral agreement for international medical/ nursing education including specialization	Long-term	- Identify the areas where bilateral agreements may be applicable - Contact the education institution - Sign on bilateral agreements with the education institutions	JMC/JNC/HHC/ Ministry of Higher Education / Ministry of Labor/ National Committee to study supply and demand indicators in the labor market	JMC/JNC	Bilateral agreements with key international institutions are developed	
	9.7 Identify international continuing professional development opportunities	Long-term	- Based on HRH needs assessment, identify the CPD needs - Identify international CPD programs / sessions - Develop means to allow healthcare professionals to attend the CPD sessions/ programs	JMC/JNC/HHC/ MOH/ Private hospital association / Ministry of Labor/ Ministry of Higher Education/ National CPD Committee	JMC/JNC	List of international continuing professional development opportunities	

Strategic Pillar 2:

Establish workforce planning based on current and emerging health service and community needs

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
Objective 1. Update human resources registries to integrate up to date data sources and ensure timely access to data for evidence-informed decisions	1.1. Assess and identify gaps in current human resources information systems in health professional associations and councils including Jordanian Medical Council, Jordanian Nursing Council, Jordan Medical Association, Jordan Nurses, and Midwives Association, Jordan Dental Association, and Jordan Pharmacists Association and other sources when available	Short-term (Y1)	- Assess the current situation of the human resources information systems in health professional associations, councils and other sources when available, its functions, elements, and measurements - Identify the function elements and measurements of international and regional professional councils and associations - Assess current human resources information systems in health professional associations and councils in reference to the international and regional practices - Develop a plan to improve the	CSB / health profession Associations / MOH/ RMS / Private hospital association / University hospitals / HHC/ National Coordination Policy Forum/ JMC /JNC/ HHC/ NGOs/ UNRWA	Health Profession Associations/ National Coordination Policy Forum/ HHC/ MOH	Up to date registries at Jordanian Medical Council, Jordanian Nursing Council, Jordan Dental Association, and Jordan Pharmacists Association Trained HRH focal points/data collectors on information management	Regularity of updating the data in the registries Human resources registries used for HRH decision-making

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			information system for HRH				
	1.2. Update registries to include National Health Workforce Account set of indicators	Short-term (Y1)	- Identify and adopt a set of indicators from the minimum set of NHWA indicators - Update registries to include information based on the set of identified indicators	MOH / Health Professional Associations/ RMS/ Private hospital association/ University hospitals/ JMC /JNC/ HHC / UNRWA/ National Coordination Policy Forum	HHC		
	1.3. Train HRH focal points/data collectors on the improved information management	Medium-term	- Identify the list of focal points/data collectors from different entities to train on information management - Develop material for training focal points/data collectors on information management - Conduct training sessions	HHC / MOH	HHC	Trained national coordination	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	1.4. Train national coordination policy forum team on developing evidence-informed decisions	Short-term (Y2)	- Identify the members to be trained in developing evidence-informed decisions - Develop material on evidence-informed decisions - Invite members to attend training - Conduct training	MOH/ Health Profession Associations/ RMS/ University Hospitals/ Private hospital association /National Coordination HRH Policy Forum	HHC	policy forum team on developing policy tools for evidence-informed decision making	
Objective 2. Ensure mechanisms to collect, report, analyze and use reliable workforce data and information to inform HRH decision making	2.1 Strengthening the national HRH observatory to be the National HRH resource in Jordan	Short-term (Y1)	- Train qualified staff members at the HHC to manage and lead the work of the National HRH Observatory. - Restructure the governance and re-steer the strategic direction of the National HRH Observatory, including membership and TOR for the NCPF - Formulate a taskforce from the NCPF to develop and implement an action plan for activation of the observatory based on the gaps identified in the assessment report	MOH / HHC / CSB	HHC	New organizational structure for the National HRH Observatory. A marketing/ advocacy strategy for the National HRH Observatory is developed and implemented NHWA concept is introduced and a set of indicators are identified Evidence-informed	Number of decisions/policies taken that were based on data and information from the HRH observatory Percentage of NHWA implementation Proportion of governmental health facilities implementing the WISN

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Assess and update all sources of HRH information - Establish an electronic data base/ centralized web based system for the observatory to be used as a national reference for HRH health workforce information - Identify and train M&E focal points on M&E system - Monitor, evaluate and document the progress and achievements of the National HRH Observatory - Develop and implement a marketing/ advocacy strategy for the National HRH Observatory - Develop a list of HRH research priorities - Scale up the observatory to a dynamic and web-based system			decision-making on HRH Up to date national HRH information system List of decisions informed by the HRH observatory	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	2.2 Introduce the concept of National health workforce accounts into the Jordanian healthcare system	Short-term (Y2)	- Identify ownership of NHWA - Identify stakeholders responsible to support NHWA - Present the concept of NHWA to stakeholders - Formulate a taskforce from all stakeholders to develop, implement and monitor an action plan for the NHWA - Draft a minimum set of key national HRH indicators based on local, regional and international published indicators - Identify set to NHWA indicators based on needs and availability of data - Conduct NHWA workshop to discuss and agree on the set of indicators - Identify the sources of HRH data and information required for calculating the selected indicators	MOH / HHC /National Coordination HRH Policy Forum	HHC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Identify focal points from the concerned HRH data sources - Train the focal points on their roles and responsibilities - Collect data by the focal points and submit it to the NHWA secretariat for centralizing - Extract/ calculate the indicators and disseminate them - Review and evaluate the NHWA plan - Prepare for the second round (new sources new indicators…)				
	2.3 Implement Workload Indicators of Staffing Need (WISN) in the Ministry of Health to fairly distribute workload among human resources for health	Long-term	- Develop WISN implementation plan - Pilot WISN in one health directorate - Develop assessment report on the piloting of WISN - Roll-out the implementation on other health directorates in Jordan - Identify small scale hospitals to pilot on - Implement WISN at the large scale in	MOH	MOH	WISN implemented in the Ministry of Health	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			hospitals and the MOH - Evaluate the implementation of WISN and the possibility of scaling up to other sectors				
Objective 3. Identify priority needs of the community and burden of disease by leveraging existing national surveys to forecast the human resources needs	3.1 Identify existing national databases and population surveys (i.e. USAID health population survey) on current population demography (age, sex, and region) and epidemiologic transition.	Short-term (Y1)	- Develop taskforce to identify priority needs of community and burden of disease - Develop through review of databases and population survey disease surveillance systems in Jordan - List the different sources of information	MOH / HHC / Department of Statistics / RMS/ members of the disease research committee	HHC	Analysis report of demography and disease trends in comparison with regional variations Key stakeholder dialogue on analysis report of the demography and epidemiologic trends from the available national databases and population surveys Set of HRH priorities based on the demographic and disease composition	HRH needs are identified based on the priorities in the community and burden of disease
	3.2 Analyze demography and epidemiologic trends from the available national databases and population surveys	Short-term (Y2)	- Develop report showing current demography, geographic and epidemiological trends - Highlight areas of concern	MOH/ HHC/ Department of Statistics/ UNRWA/ research bodies that develop studies on disease epidemiology	HHC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	3.3 Compare current trends based on regional variations	Medium-term	- Identify regional and international databases for population demography and epidemiological transition - Compare current trend to countries with similar economic and situation status to Jordan	MOH / HHC/ Department of Statistics	HHC		
	3.4 Deliberate results with key stakeholders	Medium-term	- Identify list of stakeholders in workforce planning - Invite stakeholder to the meeting/ dialogue - Present trends to stakeholder with concentration on areas of concern	MOH / HHC	MOH		
	3.5 Identify priority HRH needs based on the demographic and disease composition	Medium-term	- Based on the demographic and disease composition, identify areas of concern in Jordan - List priority HRH needs in Jordan including HR availability and specialization	MOH / HHC	MOH		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
Objective 4. Predict the human resources needs for the next five years at both the national and sub-national (governorate) levels based on priority HR needs and implement strategies to respond to these needs	4.1 Assess current HRH availability against population demography and epidemiologic transition	Short-term (Y2)	- Identify databases / studies show HRH distribution in Jordan - Compare current HRH availability against population demographics and epidemiology	MOH/ Department of Statistics / CSB / Ministry of Higher Education/ Department of statistics / councils in governorates / UNRWA	MOH/ councils in governorates	Evaluation report of current HRH skill-mix, gaps, and identified skill-mix needs.	Human resources for health need for the next 5 years are predicted Unemployment rate in health-related jobs
	4.2 Identify current skill-mix gaps and determine the most appropriate skill-mix among and within professions	Short-term (Y2)	- Based on HRH demographics and epidemiological trends, identify areas of concern - Identify the skill-mix required at the national level	MOH/ CSB / Ministry of Higher Education/ Department of Statistics/ councils in governorates/ health sector	MOH/ councils in governorates		
	4.3 Assess and analyze current health workforce challenges/ shortages at the governorate level	Short-term (Y2)	- Assess HRH availability in governorates - Compare with population demography and epidemiological trend in governorate - Identify gaps in the HR skill-mix at the governorate level	MOH/ CSB / Ministry of Higher Education/ Department of Statistics/ councils in governorates/ healthcare providers/ health directorates	MOH/ councils in governorates	Evaluation report of health workforce at the governorate level and identified priorities and gaps. Stakeholder meeting on gaps and priorities	
	4.4 Identify priorities based on community	Short-term (Y2)	- Based on gaps at the national and governorate level, list the HR priorities	MOH/ CSB / Ministry of Higher Education/ Department of	HHC	Governorate-based HR plan	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	needs assessment		at the national and governorate level	Statistics/ councils in governorates			
	4.5 Deliberate results with key stakeholders	Short-term (Y2)	- Identify list of stakeholders - Invite stakeholder to the meeting - Present the gaps and priorities to the stakeholders	MOH/ HHC/ CSB / Ministry of Higher Education/ Department of Statistics/ Healthcare providers	MOH		
	4.6 Develop governorate-based HR plans that are linked to a national HR needs-supply plan to overcome HR shortages and gaps	Medium-term	- Identify taskforce to develop governorate based HR plan at each governorate level - Develop plan using key areas of priority in the governorate - Deliberate with key stakeholders about the plan - Revise and implement the plan	MOH/ CSB / Ministry of Higher Education	MOH		
Objective 5. Attract and orient youth career choices to health programs and specialties with HRH shortage	5.1 Establish partnerships among healthcare institutions, the education sector and governmental bodies for the development of recruitment campaigns.	Medium-term	- Identify areas where partnership between healthcare institutions, the education sector, and governmental bodies are applicable and feasible for the development of recruitment campaigns	Ministry of higher education / Ministry of education/ Universities/ healthcare institutions / MOH / CSB / Ministry of youth/ ministry of labor	Ministry of Higher Education/ CSB	Partnerships between healthcare institutions, education sector and governmental bodies to for the development of recruitment campaigns	Geographical distribution of HRH

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			- Contract potential partners - Decide on areas of partnerships for recruitment campaigns			Informational and promotional campaigns to attract/ orient students/ young generation to HRH priority fields Incentive plan for student/ young generation to enroll in programs with HRH shortage	
	5.2 Develop informational and promotional campaigns to attract/ orient students/ young generation to HRH priority fields	Medium-term	- Identify taskforce to develop informational and promotional material for campaign - Develop material for the campaigns - Identify start and end date of campaign - Initiate the campaign - Evaluate effectiveness of the campaigns	Ministry of higher education / Ministry of education/ MOH/ Universities/ CSB / National Committee to study supply and demand indicators in the labor market / Ministry of youth	Ministry of Higher Education,		
	5.3 Develop incentive plan to attract students/ the young generation to enroll in programs with HRH shortage	Medium-term	- Identify programs with HRH shortage - Develop incentive plan for the programs with shortage - Contact financial support at the university to implement the plan	Ministry of higher education / Universities	Ministry of Higher Education/ Ministry of Labor		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
Objective 6. Reinforce gender balance in health institutions and within health professions	6.1 Develop frameworks on a national level to enforce and monitor equity and nondiscrimination by gender	Medium-term	- Identify areas of gender gap in healthcare professions on a national level - Conduct national dialogue among key stakeholders to discuss current gaps and discuss additional areas of gaps - Assess current legal/ ethical framework in health professional associations and their role in promoting, enforcing and monitoring equity and nondiscrimination by gender - Identify regional and international frameworks on enforcing and monitoring equity and nondiscrimination by gender Adapt the frameworks to health professional associations	Health professional associations/ MOH/HHC/ CSB/ Private Hospital Association / Ministry of Higher Education/ HAEC / National committee for women affairs	Private Hospital Association / MOH/ Ministry of Higher Education	- Framework implemented by health professional associations to promote, enforce and monitor equality and non-discrimination by gender - Framework implemented in institutions to promote, enforce and monitor equality and non-discrimination by gender - Evaluation report in health professional associations and action plan on promotion of gender balance	Percentage of female health workers in active health workforce Gender wage gap in the health sector Proportion of corrective actions undertaken in the health professional associations to reinforce gender balance on a national level

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
	6.2 Develop frameworks for institutions to promote, enforce and monitor equity and nondiscrimination by gender	Medium-term	- Identify areas of gender gap in healthcare professions on an institutional level - Conduct internal meeting among managers, staff, leadership and board members to discuss current gaps and identify additional areas of gap - Assess current legal/ ethical framework in the health institution and its role in promoting, enforcing and monitoring equity and nondiscrimination by gender - Identify regional and international frameworks on enforcing and monitoring equity and nondiscrimination by gender - Adapt the frameworks to current institutions Educate healthcare	Healthcare facilities / Private Hospital associations / MOH/ HAEC / health committee in the parliament/women affairs committee in the parliament	Healthcare facilities	- Evaluation report of gender equality promotion plans	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			workers on the framework				
	6.3 Develop action plans to overcome gender imbalance in the institutions	Medium-term	- Formulate taskforce at the institution to develop the plan - Develop plan to overcome gender imbalance in the institutions - Revise the plan with the healthcare workforce, governance, and leadership - Educate the healthcare workers about the plan - Implement the plan	Healthcare facilities / Private Hospital association / MOH/ HAEC / health committee in the parliament / women affairs committee in the parliament	Private Hospital Association / MOH		
	6.4 Monitor and evaluate gender balance plans	Long-term	- Develop a system/ process to monitor and evaluate the plan - Identify indicators to monitor and evaluate the plan - Develop monitoring and evaluation report on regular bases - Revise the plan, if needed	Healthcare facilities/ private Hospital associations / MOH/ HAEC	Private Hospital Association / MOH		
Objective 7. Mobilize and secure adequate funding to improve	7.1 Identify resources and requirements to improve the	Medium-term	- Identify the current and additional financial resource needs based on	MOH / Private Hospital Association / Ministry of	MOH / Private Hospital Association / PPP Committee	Costing plan for the HRH system	Expenditure on health workforce as

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
the production, employment, and capacity building for all health professionals	production, employment and capacity building for health professionals		national and governorate gaps - Revise the financial resources identified with key stakeholders	Finance / Ministry of Higher Education		Sustain investment to improve the HRH system in Jordan Monitoring and evaluation report on financial status and needs	percentage of GDP Total expenditure on training and research Total expenditure on public health workforce as percentage of total health expenditure
	7.2 Plan a budget to improve the production, employment and capacity building for health professionals	Medium-term	- Estimate budget delivered for human resources at the national and institutional level - Revise the budget with key stakeholders	MOH / Private sector / Ministry of Finance / Ministry of Higher Education	MOH / Private Hospital Association / PPP Committee		
	7.3 Develop sustainable investment programs such as public-private partnerships	Medium-term	- Conduct meeting between the private and public sector - Identify areas where public-private partnerships are applicable -	MOH / Private sector / HHC / Ministry of Finance/ Ministry of Higher Education/ Health sector PPP Committee	MOH / Private Hospital Association		
	7.4 Monitor and evaluate the financial status and needs to the HRH system	Long-term	- Conduct regular monitoring and evaluation exercises on the alignment of the allocated budget with the financing - Identify additional financial needs - Present additional needs to stakeholders - Collaborate and coordinate with	Ministry of Finance / MOH / Private sector / Ministry of Higher Education	MOH / Private Hospital Association/ PPP Committee		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder Responsible	Output	Indicators
			donors to implement the interventions				

Strategic Pillar 3:

Enhance the competencies of the human resources for health based on current and emerging health service needs

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
Objective 1. Revise and unify current health profession educational strategies and tools based on the set of required professional competencies	1.1 Review and implement a unified competency-based curriculum for all health and allied health professions	Medium-term	- Assign taskforce to work on setting the minimum curriculum requirement to align with the professional competency - If competencies are not available, develop the competencies based on the profession's scope of practice. - Based on profession competencies, identify the minimum curriculum requirement. - Discuss the minimum curriculum requirement and modify the curriculum with the educational institution - Meet with ministry of higher education to enforce a unified minimum curriculum requirement iniin all universities	HHC / Ministry of higher education / JMC/ JNC / MOH / RMS / Private sector / CSB/ Universities/ ministry of education / HCAC/HEAC	Ministry of higher education and scientific research	Competency-based curriculum of medical, nursing, pharmacist, dentist, midwifery and allied health professions.	Percent of Universities and colleges that implement a unified competency-based curriculum Percentage of students that indulged in competency-based curriculum from total students enrolled in health workforce education

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
Objective 2. Establish inter-profession education in universities and institutions	2.1 Agree on a common vision and purpose for inter-professional education with key stakeholders across all faculties and institutions	Short-term (Y1)	- Assign a task force represented from all health professions - Discuss with stakeholder's areas where inter-professional education is applicable and agree on a common vision	Ministry of higher education/ universities / HEAC (Higher Education Accreditation Council)/ HHC	Faculties of health in universities / Ministry of higher education / directorate concerned with the health faculties	Inter-professional education integrated into curricula on educational institutions according to principles of good educational practice Financial support to organizations for the development, staff training and delivery of inter-professional education Inter-professional education integrated into pre-service and CPD training of HRH Trained staff on developing, delivering and evaluating inter-professional education Meetings conducted with	Proportion of educational institutions that have inter-professional programs
	2.2 Develop inter-professional education curricula according to principles of good educational practice.	Short-term (Y2)	- Assess based on principle of good educational practice and stakeholder discussion, areas where inter-professional education is applicable - Develop inter-professional education within educational institutions	Ministry of higher education/ universities/ HEAC/ HHC	Faculties of health universities / Ministry of higher education		
	2.3 Introduce inter-professional education into pre-service and CPD health worker training programs.	Medium-term	- Identify areas where inter-professional education is applicable to CPD or preservice health worker training programs - Develop and implement inter-professional education in those areas - Monitor and evaluation inter-	Ministry of higher education/ universities / MOH / private hospitals / HEAC/ universities/ associations and syndicates / private hospitals association/ Medical Technology and	Faculties of health in universities / Ministry of higher education		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			professional education in preservice and CPD	laboratory Society / RMS		supervisors and key stakeholders in institutions and universities to communicate evaluation of inter-professional education List of training programs of inter-professional education List of supervisors and key stakeholders Evaluation report of inter-professional education	
	2.4 Identify and train staff responsible for developing, delivering and evaluating inter-professional education	Medium-term	- Select and identify staff responsible for developing, delivering and evaluating inter-professional education, within institutions and organizations - Identify training programs for developing, delivering and evaluating inter-professional education - Train staff on developing, delivering and evaluating inter-professional education	Ministry of higher education/ MOH/ HEAC /HHC/ Universities / associations and syndicates / private hospitals association/ Medical Technology and laboratory Society / RMS	Faculties of health in universities / Ministry of higher education		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	2.5 Communicate evaluation of inter-professional education with supervisors and key stakeholders in institutions and universities	Long-term	- Identify the list of supervisors and key stakeholder institutions and organizations - Communicate evaluation with the supervisors and key stakeholder institutions and organizations - Identify areas for improvement	Ministry of higher education / HEAC / Universities /HHC/ Professional associations / private hospitals association/ Medical Technology and laboratory Society / RMS	Faculties of health universities		
Objective 3. Develop license renewal bylaw and establish continuing professional development (CPD) system for health professionals	3.1 Conduct a study on current CPD activities and identify factors influencing CPD needs and effectiveness in the health sector in Jordan	Short-term (Y1)	- Identify current CPD situation - Develop proposal for study on current CPD activities and factors influencing CPD needs and effectiveness in the health workforce in the public and the private sector in Jordan - Attain ethical board clearance / IRB approval - Conduct study in the public and private sector in Jordan - Analyze results - Disseminate results	HHC/ JNC/ JMC /Universities/ RMS/ Professional Associations / Medical Technology and laboratory Society university hospitals	HHC	Study report on current CPD situation-to identify factors influencing CPD needs and effectiveness in the health sector in Jordan Dissemination event on CPD study findings Relicensing national committee is formed	Re- licensure by-law published in official gazette Existence of a national CPD system linked to re-licensing for health workers

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	3.2 Leverage on the study conducted to develop a national CPD system linked to relicensing of health professionals, to provide CPD based on community needs	Short-term (Y2)	- Form a relicensing national committee - Develop a country comparison - Conduct a policy review on existing laws and regulations that tackle CPD, licensing and relicensing - Conduct a Stakeholder analysis and list recommendations based on analysis - Develop a license renewal bylaw - Hold an advocacy/ awareness session on license renewal bylaw - Identify CPD national committee or taskforce - Develop an implementation plan of the CPD system that is linked to re - licensure for health professionals	MOH / HHC/ JNC/ JMC/ Universities/ Medical Technology and laboratory Society RMS/ university hospitals	HHC	Country comparison and policy review reports Stakeholder analysis report Re- licensure by-law is developed Advocacy/ awareness session on re-licensure CPD regulation linked to relicensing of healthcare professionals to provide CPD based on community needs Stakeholders dialogue and dialogue summary on the CPD plan Awareness/ advocacy event on CPD Monitoring and evaluation report	
	3.3 Develop a plan to promote health professionals based on CPD system requirements	Short-term (Y2)	- Identify plan objectives - Identify action points to achieve objectives	HHC/ MOH / JNC/ JMC / Universities/ RMS/ Medical Technology and laboratory Society	HHC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	3.4 Ensure consensus of stakeholders on the CPD system to gain input and leadership commitment	Short-term (Y2)	- Communicate the system with key stakeholders through holding and awareness / advocacy event on CPD - Revise/ amend system based on input and implement plan	HHC/ MOH / JNC/ JMC / Universities/ RMS/ health Professional Associations/ Medical Technology and laboratory Society university hospitals	HHC	on the CPD program	
	3.5 Develop operational policies (regulations) to link re-licensing with CPD	Short-term (Y2)	- Achieve support from key stakeholder institutions on CPD - Draft regulation and communicate with stakeholders	MOH / HHC/ JNC/ JMC/ RMS/ HCAC/ relevant professional associations / Medical Technology and laboratory Society private hospital association	MOH		
	3.6 Create mechanisms to implement CPD within institutions	Short-term (Y2)	- Conduct meeting with institutions and organization on the CPD system - Explain the system to the institutions and organizations	MOH / HHC/ JNC/ JMC / RMS/ HCAC/ relevant professional associations / Medical Technology and laboratory Society private hospital association	MOH		
	3.7 Regulate organizations that are developing and providing CPD	Medium-term	- Develop instructions for and role of institutions offering and certifying CPD	MOH / HHC/ JNC/ JMC / RMS/ HCAC/ relevant associations / Medical	MOH		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	programs (i.e., national accreditation)		- Identify the organizations providing CPD programs - Identify which entity/ institution / organization regulates the institutions offering and certifying CPD - Implement regulation procedures	Technology and laboratory Society private hospital association			
	3.8 Monitor and evaluate the implementation of the CPD system	Long-term	- Identify an entity to monitor and evaluate the system - Conduct and document monitoring and evaluation activities	MOH / HHC/ JNC/ JMC / RMS/ HCAC/ relevant associations / Medical Technology and laboratory Society private hospital association	HHC		
Objective 4. Linking the bridging programs of nursing, pharmacy and laboratory with the needs and priorities of the healthcare system	4.1 Assess current bridging programs	Short-term (Y1)	- Identify team to work on the nursing and pharmacy and laboratory bridging programs - Identify all available nursing and pharmacy and laboratory bridging programs in Jordan - Assess the current bridging programs	Ministry of higher education and scientific research/ professional associations / Medical Technology and laboratory Society /Health faculties at the universities/ Ministry of Health/ JMC / JNC	Ministry of higher education	Evaluation report of current bridging programs Plan to scale up the bridging programs to other professions as necessary Report including gaps in current bridging programs	List of programs with current/ planned bridging programs

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	4.2 Identify and overcome gaps in current programs	Short-term (Y2)	- Conduct meetings with the nursing and pharmacy bridging program stakeholders to identify the barriers, facilitators and needs in current plan - Based on evidence, identify activities to overcome the barriers	Ministry of higher education and scientific research/ Technical and Vocational Education/ Ministry of Health/ Associations / JMC / JNC/ Medical Technology and laboratory Society / universities	Ministry of higher education		
	4.3 Develop, implement and evaluate a plan to scale up the bridging programs, as needed	Long-term	- Identify with other professional institutions areas for scale up - Identify the needs for the bridging programs in the health education - Based on evidence, develop a plan to scale up the bridging programs to other professions	Ministry of higher education / Technical and Vocational Education/ Associations / Universities / health Colleges / Ministry of Health / JMC / JNC/ Medical Technology and laboratory Society / CSB	Ministry of higher education		
Objective 5. Establish selection criteria for target admission of students before acceptance into	5.1 Establish a task force to identify selection criteria for students before	Short-term (Y1)	- Identify members of the taskforce - Agree on roles and responsibilities of the task force	Councils/ Associations / Ministry of Higher Education / MOH / RMS/ Faculties of health in universities /	Ministry of higher education	Taskforce to identify selection criteria for students before enrollment in programs based on community	Proportion of institutions that are implementing selection criteria for target

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
health profession education	enrollment in programs based on community needs and HRH shortages.		- Conduct regular meetings with the task force	Medical Technology and laboratory Society		needs and HRH shortages	admission of students into health profession education. Employment Rate
	5.2 Develop selection criteria per health profession cadre; criteria include gender, geographic origin, and career intent.	Medium-term	- Review the best practices on selection criteria for health professional education - Revise community needs assessment and integrate the shortage criteria into the selection criteria - Implement the selection criteria with the education programs	Councils/ Associations / Ministry of Higher Education / MOH / RMS / Faculties of health in universities/ Medical Technology and laboratory Society	Ministry of higher education	Selection criteria per health profession cadre that takes into account gender, geographic origin, and career intent. Evaluation report every two years on the impact of selection criteria in optimizing student selection and overcoming HRH shortages.	
	5.3 Evaluate the impact of the selection criteria in optimizing student selection and overcoming HRH shortages.	Long-term	- Develop evaluation criteria to assess the impact of the selection criteria - Regularly evaluate the impact of the criteria in optimizing student selection and overcoming HRH shortages - Develop evaluation report - Communicate evaluation report with key stakeholders	Councils/ Associations / Ministry of Higher Education/ MOH / RMS / Faculties of health in universities	ministry of higher education		

Strategic Pillar 4:

Manage HRH with a purpose to attract, deploy, retain and motivate health workforce in both public and private sectors and especially in remote/ underserved areas

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
Objective 1. Improve work environment for health workers	1.1. Conduct regular employee satisfaction and motivation surveys and analyze results and identify gaps in governmental health facilities	Short-term (Y2)	- Develop a satisfaction and motivation survey for employees in healthcare facilities - Conduct meeting with private hospital association to discuss and review survey - Disseminate survey - Analyze results - Identify gaps in satisfaction among facilities	MOH/ RMS / Private hospital association/ HCAC/ Health professional associations and organizations / university hospitals / national centers for women healthcare	Healthcare facilities/ HCAC	- Evaluation report of the current work environment and job satisfaction in governmental health facilities. - A plan to promote professional recognition and status of physicians, nurses, midwives, pharmacists and dentists in all institutions. - A Plan to ensure occupational health in the healthcare organization. - Female friendly environments, flexible schedule and part-time	Staff turnover rates Staff satisfaction Absenteeism Non-fatal work-related injuries and illnesses reported by employers
	1.2. Develop plans to promote professional recognition and status of physicians, nurses, midwives, pharmacists and dentists and allied health professionals in all institutions to overcome identified gaps	Medium-term	- Identify best practices and strategies to overcome the gaps in employee satisfaction and motivation - Propose policies and strategies to motivate and retain health human resources in the organization - Develop a comprehensive plan to overcome the gaps in employee satisfaction and motivation	MOH / Private hospital association / Health Professional Associations and organizations / university hospitals / national centers for women healthcare	Healthcare facilities/ HCAC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	in employee satisfaction surveys.					contracts in all institutions. - Evaluation report of implemented interventions to support retention and motivation of health workforce.	
	1.3. Develop plans to ensure occupational health in healthcare organizations	Short-term (Y2)	- Identify the most common occupational hazard in the healthcare organization (including violence) - Identify best practices and strategies to overcome the hazards - Consult with the healthcare workers on the suggested strategies - Develop a plan with the defined activities, timeline, and outcome	Healthcare facilities	Healthcare facilities/ HCAC		
	1.4. Develop gender sensitive environments (i.e. nursery), flexible schedules and part-time contracts in institutions.	Short-term (Y2)	- Integrate the objective of achieving gender sensitive environment, flexible schedules, and part-time contracts into the strategy of all healthcare institutions - Develop plans with specific actions to achieve the objectives	Healthcare facilities	Healthcare facilities/ HCAC		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	1.5. Evaluate interventions in supporting retention and motivation of health workforce	Short-term (Y2)	- Identify members to monitor and evaluate the activities on supporting retention and motivation in the organization - Conduct monitoring evaluation plans and activities - Develop regular monitoring and evaluation reports	Healthcare facilities/ Health Profession Associations and organizations	Healthcare facilities/ HCAC		
Objective 2. Strengthen clinical governance through mentorship, clinical supervision, and preceptorship of healthcare workers	2.1. Integrate mentorship, clinical supervision, and preceptorship into continuous development curriculum	Short-term (Y2)	- Identify areas/ programs where mentorship, clinical supervision, and preceptorship can be integrated - Identify best practices to integrate mentorship clinical supervision, and preceptorship into the programs	MOH / Private hospital association / RMS / University hospitals/ councils	MOH / private hospital association/ RMS	– Education curriculum that includes mentorship, clinical supervision, and preceptorship – Collaborations and agreements between education institutions and health facilities to provide preceptorship and clinical teaching training programs to clinical staff. – Collaborations between education institutions and	Proportion of education institutions integrating mentorship, clinical supervision, and preceptorship into their curricula
	2.2. Develop collaborations between education institutions and health facilities to provide preceptorship and clinical teaching training	Short-term (Y2)	- Conduct a meeting between healthcare institutions and education institutions on clinical preceptorship and teaching - Identify members of the educational institutions to develop the training program	Universities/ healthcare facilities	Healthcare facilities		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	programs to clinical staff.		- Identify staff from the healthcare organization to undergo the training			health facilities to provide mentorship, clinical supervision, and preceptorship during students' clinical training. – MOUs between education institutions and health facilities are developed and started to become in effect	
	2.3. Develop collaborations between education institutions and health facilities to provide mentorship, clinical supervision, and preceptorship during students' clinical training.	Short-term (Y2)	- Identify the programs where preceptorship is applicable - Conduct meeting with the healthcare facility to discuss mentorship, clinical supervision, and preceptorship - Identify key preceptors in the institution - Implement mentorship, clinical supervision, and preceptorship during students' clinical training	Healthcare facilities / Universities / private hospital association	Universities		
Objective 3. Establish shared governance (shared decision making and accountability) in hospitals and primary healthcare centers	3.1. Develop policies and procedures in hospitals and primary healthcare centers on shared governance	Medium-term	- Identify areas where shared governance is feasible and applicable, based on experience from other countries - Conduct meeting with frontline healthcare workers to discuss shared governance - Develop policies and procedures on shared governance in the healthcare institutions	MOH / Private hospital association / RMS, university hospitals Healthcare facilities/ HCAC/ Ministry of development in public sector	HHC/ JMC /JNC	– A policy on shared governance in institutions is developed – A meeting with healthcare workers is conducted	Percentage of healthcare facilities adapting shared governance model Staff satisfaction

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			- Conduct regular audits to ensure implementation of policies and procedures				
	3.2. Develop awareness sessions and workshops, based on need, to healthcare professionals to implement shared decision-making models.	Short-term (Y2)	- Develop awareness session on the policies and procedures on shared governance for healthcare providers - Identify areas where additional information is requested by healthcare workers - Provide training to overcome gap in knowledge or understanding	Healthcare facilities/ HCAC	HHC	Awareness sessions and workshops for healthcare professionals to implement shared decision-making models.	
Objective 4. Enhance job-person fit in all healthcare institutions and governmental positions	4.1 Update and develop competency-based job descriptions for all positions of health cadres in institutions	Short-term (Y2)	- Identify the current job positions in the institution - Identify the positions that require developing cometency-based job descriptions - Develop/ update the job descriptions with the frontline health workers	Healthcare facilities/ CSB/ MOH / Center for HRH development	Healthcare facilities	Competency-based job descriptions for all positions of health cadres are updated and developed.	Proportion of healthcare institutions with competency-based job descriptions for their healthcare cadres
	4.2 Disseminate competency-based job descriptions developed for HRH to all levels	Short-term (Y2)	- Conduct a meeting with human resource for health in the institution to discuss the accessibility of the competencies ensuring that human resources	Healthcare facilities/ CSB/ MOH	Healthcare facilities	Competency-based job descriptions are disseminated Competency-based job descriptions are clear for all	

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			are informed that they will be evaluated based on the competencies			healthcare providers	
	4.3 Select new employees based on the competency-based job descriptions	Medium - term	- Develop selection criteria for new employees in alignment with the competencies - Monitor the selection of the human resources based on competencies - Document human resources for health fulfillment of the competencies in HR file - Identify areas of the competencies where additional training to the healthcare providers is needed	Healthcare facilities/ CSB/ MOH	Healthcare facilities/ MOH/ Armed forces		
Objective 5. Conduct performance evaluation based on competencies in a manner that reflects actual performance of HR and link to	5.1 Review and develop performance evaluation system based on competencies	Short-term (Y2)	- Develop a process to regularly evaluate the HRH based on competencies - Update the performance evaluation of the HR into an accessible system for the HRH	Healthcare facilities/ CSB / Health profession associations and organizations/ MOH / HCAC	Healthcare facilities	Performance evaluation based on competencies	Percentage of healthcare facilities conducting yearly performance appraisal based on competencies

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
credentialing and privileging in institutions	5.2 Develop policies to link performance evaluation to credentialing and privileging	Medium-term	- Review experiences from other healthcare facilities or countries on linking performance evaluation to credentialing and privileging - Develop policies to link performance evaluation to credentialing and privileging - Revise, review and update the policies	CSB/ Health profession associations/ Healthcare facilities, MOH/ HCAC/ ministry of public sector development	Healthcare facilities	Policies to link performance evaluation to credentialing and privileging	Percentage of healthcare facilities implementing credentialing and privileging
	5.3 Monitor and evaluate performance evaluation activities in institutions	Medium - term	- Conduct regular audits to the implementation of the policy and performance evaluation activities - Document monitoring and evaluation results and identify area of improvement	Health profession associations / CSB / Healthcare facilities/ HCAC/ ministry of public sector development	Healthcare facilities	Monitoring and evaluation report on performance evaluation activities in institution	
Objective 6. Provide financial and non-financial incentives to healthcare professionals based on performance evaluation	6.1 Assess current financial and non-financial incentives and policies provided to healthcare professionals	Short-term (Y2)	- Identify members to assess the incentive plan for HRH - Develop a list of financial and non-financial incentives at the institution - Identify gaps in the current incentives provided	MOH / private hospital association/ CSB/ RMS / ministry of finance / university hospitals	MOH / private hospital association/ RMS	Evaluation report of current financial and non-financial incentives provided to healthcare professionals	Staff satisfaction Staff turnover rates

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	6.2 Develop an incentive plan for health professionals that is linked to performance evaluation	Medium - term	- Identify objectives for the incentive plan - Develop and implement an incentive plan linked to performance evaluation - Share plan with key stakeholders - Revise, review and update the plan	MOH / private hospital association / Ministry of finance / CSB/ RMS / university hospitals / ministry of public sector development	MOH / private hospital association/ RMS / university hospitals	Incentive plan for health professionals that is linked to performance evaluation	
	6.3 Monitor and evaluate the incentive plan	Medium - term	- Develop monitoring and evaluation plan for the incentive plan - Develop regular monitoring and evaluation report on the plan	MOH / private hospital association/ CSB/ RMS / university hospitals / ministry of public sector development	MOH / private hospital association/ RMS/ University hospitals	Monitoring and evaluation report of the incentive plan	
Objective 7. Promote women in health leadership	7.1 Develop and implement a work plan to promote women in leadership based on the research findings of women in leadership in health sector	Medium-term	- Review and discuss results from the women in leadership research and identify gaps in women in health leadership in Jordan through a dissemination event - Review other countries experiences in promoting women in leadership - - Initiate a forum for women in health leadership	Health sector public and private / Ministry of Health/ CSB	Women Leaders in Health Forum	Women Leaders in Health Forum Women Leaders in Health Forum Work plan Monitoring and evaluation report	Percentage of leadership positions in the health sectors that are occupied by women out of total working women Percentage of leadership positions in the healthcare

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			- Develop and implement a work plan by the forum				sector occupied by women
	7.2 Monitor and evaluate the implementation of the plan	Medium-term	- Identify members to monitor and evaluate the implementation of the plan - Develop regular monitoring and evaluation report - Disseminate to key stakeholders	Health sector public and private CSB	Women Leaders in Health Forum		
Objective 8. Develop and implement succession planning in the public sector	8.1 Identify critical positions in the public health sector	Short-term (Y2)	- Formulate a succession planning committee to develop succession planning policy and procedures - A technical team for each institution to identify the critical positions in the public health sector - List the positions	MOH / CSB/ HHC, JMC/ JNC/ HCAC	MOH/ Healthcare facilities	List of critical positions in the public health sector with their required competencies and skills Succession plan and career development action plan for selected employees Evaluation summary annually of selected employees based	Job vacancy rate Job Fill Rate Average time-to-fill a position
	8.2 Identify competencies of critical positions	Short-term (Y2)	- Develop a technical team to develop or revise the competencies for the critical positions - Develop the competencies for the critical positions	MOH / HCC/ CSB / HHC/ JMC/ JNC/ FDA/ JPD/ HCAC	MOH/ Healthcare facilities		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	8.3 Develop and implement succession plan and career development action plan for selected employees	Medium-term	- Select successors - Analyze the successor's competencies to identify the employee's gaps and targets for the succession plan - Develop in collaboration with the successors a career development plan	MOH / HCC/ HCAC/ Healthcare facilities	MOH/ Healthcare facilities	on list of competencies of critical positions Periodic meetings with key stakeholders to discuss and revise succession plan Annual monitoring and evaluation report on the succession plan	
	8.4 Evaluate on an annual basis, the performance of successors based on list of competencies of critical positions	Medium-term	- Conduct yearly performance evaluations for the critical positions in the public sector - Document the performance evaluation successors and provide a copy to the successor - Identify areas for improvement and ensure career development opportunities for improvement based on competencies	MOH / HCC/ CSB/ Healthcare facilities	MOH/ Healthcare facilities		
	8.5 Collaborate on an ongoing basis with key stakeholders to discuss and revise succession plan	Medium-term	- Develop a list of key stakeholders for the succession plan - Contact the stakeholders - Conduct meeting with the stakeholders to	MOH / HCC/ CSB/ Healthcare institution	Healthcare institution		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			revise the succession plan				
	8.6 Monitor and evaluate on an annual basis the succession plan	Medium-term	- Identify team members to regularly monitor and evaluate the succession plan - Develop monitoring and evaluation report on an annual basis	MOH / HCC/ CSB/ Healthcare facilities	MOH		
Objective 9. Provide training to HR departments and health managers on HR related topics	9.1 Identify needs of health managers on Human Resource Development (HRD) and Human Resource Management (HRM)	Short-term (Y2)	- Develop a survey to identify the needs of health managers on Human Resource Development (HRD) and Human Resource Management (HRM) - Analyze the results - Conduct stakeholder meeting to discuss results	MOH/ private sector/ RMS/ CSB	MOH/ private sector	Assessment report on the needs of health leaders on Human Resource Development (HRD) and Human Resource Management (HRM) Plan to scale up HRD and HRM workshops and training to HR departments and health managers in public and private sectors	Number of staff certified on HRM and HRD training
	9.2 Scale up Human Resource Development (HRD) and Human Resource Management (HRM) workshops and training to HR departments	Medium-term	- Identify the employees from the HR department and health managers in the public and private sector in need to attend the workshop and training - Develop an HRD and HRM workshop and training for HR department and the health managers.	MOH/ private sector/ ministry of public sector development	MOH/ private sector		

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
	and health managers in public and private sectors to improve deployment and utilization of HRH		- Contact the participants - Conduct the workshop				
	9.3 Develop capacity building workshops for health workforce on HR related issues.	Long-term	- Develop workshop material - Contact healthcare facilities to inform them of the availability of the workshop - Contact the participants - Conduct the workshop	MOH / private sector/ CSB	MOH/ private sector/ CSB	Capacity building workshops and evaluation report of workshop	
Objective 10. Ensure equitable distribution of health workforce throughout the country	10.1 Analyze the imbalance (geographical, gender, level of facility) in the distribution of health workers, their causes and suggested key strategies to overcome the inequities	Medium-term	- Collect data on the distribution of health workers - Analyze the imbalances at the geographical, gender and facility level among the health workers - Conduct a study to identify the causes for imbalances at the geographical, gender and facility level among the health workers - Disseminate results to stakeholders	Civil service department / HHC / MOH/ HRH National Coordination Policy Forum/ Department of Statistics / CSPD/ / National forum for HRH/ Ministry of public sector development	MOH/ HHC	Evaluation report of health workforce inequities that identifies areas of imbalance, causes and key interventions to overcome the inequities Implemented targeted strategies that monitor health	Stock and density of human resources for health Geographical distribution of HRH

Objective	Interventions	Time-frame	Activities	Stakeholders	Stakeholder responsible	Output	Indicators
			- Identify based on evidence, suggested strategies to overcome the inequities			labor market dynamics and respond to health workforce imbalance	
	10.2 Develop, implement and monitor targeted strategies that overcome the inequities	Medium-term	- Develop a strategy that integrates the evidence informed strategies to overcome the inequities - Disseminate and revise the strategy with key stakeholders - Implement, monitor and evaluate the strategy	CSB/ HHC / MOH / HRH National Coordination Policy Forum/ Department of Statistics / Ministry of public sector development	MOH/ HHC		

Monitoring and Evaluation Plan

A well-functioning monitoring and evaluation (M&E) system is key to ensure implementation of activities and achievement of the objectives[1]. In the context of the National Human Resources for Health (HRH) Strategy, the M&E framework guides key stakeholder institutions in achieving optimal results and overcoming HRH gaps.

This guideline describes the monitoring, evaluating and reporting on the indicators of the National HRH Strategy with Ministries, High Health Council (HHC), professional associations, public and private healthcare facilities, universities and other stakeholder organizations and is an integral part of ensuring the implementation of interventions in the national HRH strategy. It provides a step- by-step guide to be used in conjunction with the Performance Indicator Reference Sheet.

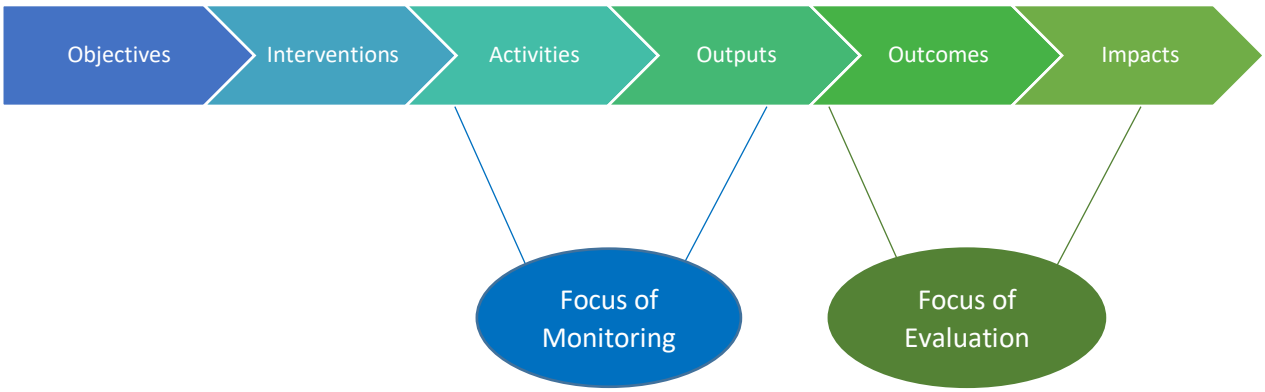


Figure 1 Focus of M&E

Purpose of M&E Framework

The purpose of the M&E framework is to outline the roles and responsibilities of various stakeholder institutions and guide them to follow up on the progress of activities through regular follow up on the indicators and results. The M&E framework can be used as a tool to:

(1) Define the selected indicators and align with the national HRH strategy
(2) Guide the collection of data, analysis and reporting of fsindings
(3) Standardize M&E methodologies and reporting systems among various stakeholder institutions
(4) Communicate the M&E mechanisms and provide a platform for knowledge sharing

Importance of M&E

- Measure performance
- Improve performance and achieve results
- Assess Outputs/Outcomes that are not achieved
- Identify corrective actions
- Identify lessons learned
- Strengthen accountability
- Track progress on achieving targets
- Standardize data collection methods

[1] Zall Kusek, J., & Rist, R. (2004). *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. The World Bank.

M&E Framework

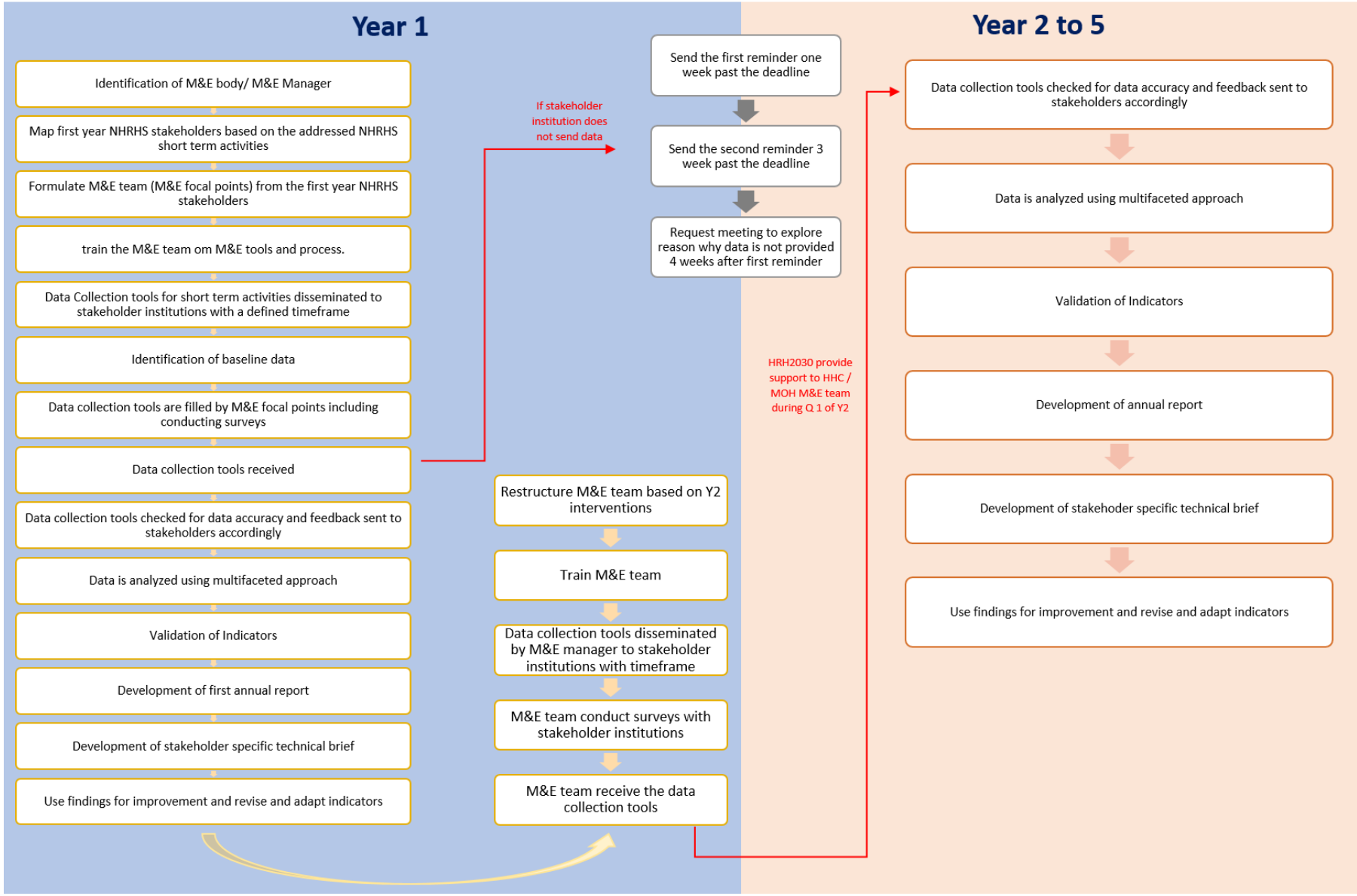
The M&E framework was developed to support the implementation and monitoring of the progress of the national HRH strategy.

Activities to support the interventions and indicators were informed by national, regional and international evidence. Stakeholder organizations responsible for the activities were identified through rigorous stakeholder consultation.

The M&E framework provides support to key stakeholder institutions responsible for follow up of activities, including the HHC, the MOH and HRH2030.

The M&E framework is complemented by the Performance Indicator Reference Sheet that defines specifications for measuring indicators linked to objectives of the HRH strategy, rationale for measurement, calculation methods, data sources, and frequency of reporting (Figure 2)

M&E Framework



Roles and Responsibilities

The implementation of the M&E plan is the responsibility of the HHC / MOH in collaboration with other stakeholders including the HRH2030 (table 1). The M&E activities will be directed by an M&E manager who falls under the supervision of the Secretary-General of the HHC / MOH. The M&E manager will be responsible for the quality and accuracy of the data analysis produced by the M&E system and collection of data. The M&E manager will supervise the data collection process, regularly validate the indicators and produce in accordance with an M&E team the annual reports. Each the M&E manager and team will be trained by HRH2030 on Monitoring and Evaluation prior to taking upon their role.

For year 1, analysis and reporting will be technically assisted-by HRH2030, and for year 2 and on, HRH2030 will support the HHC / MOH in collecting data, analyzing and reporting indicators (figure 2). The indicators that will be measured are related to the national HRH strategy and implementation plan. Output and outcome indicators were selected and integrated within the implementation plan to allow for regular follow up on the achievement of the objectives. The indicators will track the progress of the strategy in impacting the HRH system in Jordan. All indicators were rigorously detailed in the Performance Indicator Reference Sheet.

Table 1 Role of Key Stakeholders

Stakeholder	Role
High Health Council	• Implement the M&E Framework • Collect and analyze the data • Produce yearly reports • Coordinate among the stakeholders • Conduct quality assurance on indicators and process
Ministry of Health	• Advise on the M&E processes • Support the reinforcement of data collection
HRH2030	• Assist the HHC in Implementing the M&E framework for year 1 • Train M&E manager and team in year 1 to carry on the M&E for year 2 and on • Advise and support the HHC / MOH throughout the M&E phase

Performance Indicator Reference Sheet

The Performance Indicator Reference Sheet complements the M&E framework. The manual provides a detailed description of the indicators including the following specifications:

- Relevant objective from the strategy
- Definition
- Rationale
- Formula
- Numerator
- Denominator
- Data Source
- Frequency
- Indicator Responsibility
- Disaggregation
- Benchmark
- References

Data Sources

Data will be extracted from several sources that include primary data collection (i.e. surveys), secondary data collection from data basis and data reporting sheets. Data sources for each indicator, are identified in the Performance Indicator Reference Sheet.

Data Management

Each indicator is complemented by a data collection tool (figure 2). The M&E manager will provide the stakeholders with the data collection tool for collecting and reporting data in accordance with the time frame identified under the "frequency" specification of the relevant indicator. The M&E manager and team will be responsible to ensure that the forms are completed in accordance with the instructions provided (i.e. data collection completion instructions and timeframe). Filled data collection tools will then be submitted to the HHC /MOH. Each tool will be revised for compliance with instructions in the data collection sheet. Data that is not compliant with instructions, will be sent back to stakeholders with specific instructions and request for clarifications. Stakeholders will be expected to submit revisions within 10 working days from receiving feedback from the HHC /MOH. Compliant data collection tools will then be analyzed, according to the instructions in the Performance Indicator Reference Sheet (figure 2)

In the case of interview surveys, the M&E team will be responsible to conduct the surveys, enter the response from the surveys into a data analysis portal and analyze the results.

Stakeholder institutions that have not provided the data collection tools needed within the specific timeframe of the indicator will be sent the first reminder 1 week past the deadline. If the stakeholder institution did not provide the data within 2 weeks after receiving the reminder, the stakeholder institution will receive a second reminder. 4 weeks after the first reminder, request a meeting with the stakeholder institution to understand/explore the reason why data is not being provided (figure 2).

Some outcome-oriented indicators may require baseline data for benchmarking. This will be collected during the second year of the strategy. The baseline and end result of the indicator will provide the stakeholders with an overview of the progress made in the field of human resources for health.

Indicators will be analyzed using a multifaceted process. In the first stage analysis, each indicator will be analyzed individually. In this case, baseline data will be identified when necessary for benchmarking progress. During the second stage analysis, indicators related to the same objectives will be triangulated and analyzed based on the result of the indicators. The triangulation will allow the production of a comprehensive overview of the result of the indicators. The third stage analysis will be based on the identification of patterns from the results of the indicators within the same pillar. The final stage of analysis will be to identify patterns across pillars, which will also provide a general understanding of HRH strategy progress.

Quality Assurance

The M&E team with the support of HRH2030 will ensure that the indicators are valid, reliable and precise to the objectives aimed to measure. Quality assurance assessments will be done on an annual basis to ensure that the data collected and indicators conform to the objectives of the strategy. M&E team members will be responsible to report to the M&E manager if any challenges in the data or indicators are identified. Data challenges will be verified by the source providing the data, and challenges in indicators will be addressed and indicators will be adapted accordingly. Any modification to the indicators will be submitted to HRH2030 and the Secretary-General of the HHC for validation and approval.

Annual Activity Report

On an annual basis, the progress of the strategy based on the M&E framework will be communicated with key stakeholders in a comprehensive report. This report will include the achievements and challenges identified during data collection and analysis phases. Indicators will feed into a dashboard that provides the necessary platform to benchmark and compare results locally, regionally and internationally. The report and dashboard are key to inform decisions on HRH in Jordan, monitor performance in HRH and provide an overview of critical HRH challenges that remain.

Communication Strategy

Aside from the annual report, all stakeholders identified as a "responsible stakeholder" for the objectives, will receive a customized technical brief describing the progress of the objective. The brief will include the indicators, benchmarks, the challenges identified throughout the data management and specific areas for improvement for the stakeholder responsible. A mid-term evaluation workshop will be held during year 3 quarter 1. The evaluation will be held to inform policymakers and stakeholders of the progress on the strategy and receive their feedback on the successes and areas for improvement.

Monitoring the Implementation of the M&E Framework

The M&E team will conduct regular internal evaluation (at year 1, year 2, and year 4) to ensure alignment with the objectives of the strategy and perform regular validity testing of indicators. Challenges to the implementation of the framework will be identified and an improvement plan that includes the activities, timeframe and outcome will be developed and followed up.

Critical Success Factors for M&E

- Agree on a set of indicators that reflect the objectives of the HRH National Strategy
- Identify a body/organization that will lead M&E activities
- Ensure technical and analytical capacity of team working on M&E and capacity of data collectors
- Validate the indicators to ensure that they are measuring what they aim to measure
- Develop a reporting and accountability framework
- Ensure leadership support as a driver for sustainability of M&E
- Engage key stakeholders in the process
- Conduct regular evaluation of the M&E system

Appendices

Appendix 1- Documents reviewed

- HRH2030 Jordan activity documents:
  - HRH Policy Solutions
  - Activity Monitoring, Evaluation, And Learning Plan
  - Baseline Assessment Report
  - Quarterly Progress Report: Quarter 1 of Fiscal Year 2017
  - Quarterly Progress Report: Quarter 2 of Fiscal Year 2017
  - Ministry of Health Human Resources Systems and Capacity Needs Assessment
  - Year 2 Work Plan
  - Motivation and Retention of Health Workers in Ministry of Health Facilities in Four Governorates in Jordan: Findings from a Mixed Methods Study
  - National Human Resources for Health Observatory Assessment Report (2016)
  - HRM and HRD training course modules
  - Communication Strategy
  - Women's Enrollment in the Health Workforce Literature Review
  - Workload Indicators of Staffing Need (WISN) in Jordan: Proposed Implementation Plan
- Jordan Vision 2025
- Executive Developmental Plan 2016-2019
- National Strategy for Health Sector in Jordan 2015-2019
- National Strategy for Human Resources Development 2016-2025
- National Strategy for Nursing and Midwifery: A Road Map to 2025
- Jordan's National Employment Strategy (2011-2020)
- Hospital Accreditation Standards
- Amended HHC law
- EMRO HRH strategy
- Resources for Health Observatory Annual HRH Report, 2016
- Policy Brief: Retaining MOH physicians in remote areas
- HRH policy brief
- National HRH Observatory Roll Up
- The gap between the supply and demand sides in the health sector (2014)
- National Agenda (2006-2015)

Appendix 2 – Development Methodology

One to One interviews

Priority Setting Policy Dialogue

Frontline Health Worker at Governorate Level

Appendix 3 - National HRH Strategic Planning Workshop

National HRH Workshop: Strategic Planning, Observatory Assessment and Annual Report Dissemination

Working Groups – Day 1

Dissemination of Findings- Day 2

Appendix 4 - Workshop Tools

المعايير	مجال التقييم	التعريفات	علامات التقييم المستخدمة
الحاجة/صفة الاستعجال **Urgency**	**التدخل**	قيّم الحاجة لتحقيق هذا التدخل خلال السنوات الـ3-5 القادمة	**1= ملحة جداً** **2= ملحة** **3=ليست ملحة**
ملاءمة/الصلة **Relevance**	**التدخل**	يتماشى التدخل مع الاحتياجات والأولويات الموضوعة حالياً كما هو مدرج في الأجندة الوطنية والاستراتيجيات الأخرى	**نعم/لا**
الجدوى/إمكانية التطبيق **Feasibility**	**التدخل**	هل التدخل واقعي وقابل للتطبيق وفعال من حيث الكلفة؟	**نعم/لا**
الشركاء المسؤولون **Stakeholder(s) Responsible**	**التدخل**	من هم الشركاء المسؤولون عن تطبيق ومتابعة هذا التدخل؟	**قائمة**

المحور الاستراتيجي 1:

Establish governance structure, policies and partnerships to strengthen HRH regulation, management, and monitoring

الأهداف وإجراءات التدخل ذات الصلة	الحاجة Urgency			الصلة Relevance		إمكانية التطبيق Feasibility		الشركاء المسؤولون Stakeholder(s) Responsible
	1	2	3	نعم	لا	نعم	لا	قائمة
الهدف 1 **Enhance alignment of existing laws/policies/legislations to current needs and demands of community and providers**								
التدخل (Intervention):								
1.1. Identify laws that are related to HRH and assess loopholes and gaps according to needs and demands of community and providers in current laws/policies/legislations								
1.2. Update/revise existing laws/policies/legislations based on gap analysis and needs and demands of community and providers								
1.3. Recognize additional laws/policies/legislation needs as per requirement								
1.4. Identify and reinforce laws that are not implemented								
إجراءات التدخل الإضافية								

الرجاء وضع قائمة بأية أهداف غير موجودة حالياً في المحور الاستراتيجي الرابع والتي تعتقد إنها مهمة وذات جدوى وينبغي إدراجها:

_____

_____

الرجاء وضع قائمة بأهم 3 عوامل لنجاح هذا المحور الاستراتيجي :

1. _____
2. _____
3. _____

الملاحظات الإضافية:

_____

Appendix 5 – Identified Criteria

Criteria for analysis

Urgency

- IF the percentage of Very Urgent + urgent is ≥ 70 → urgent
- IF the percentage of Very Urgent + urgent is <70 → not urgent

Relevance

- IF the percentage Yes ≥ 70 → Relevant
- IF the percentage Yes < 70 → Not Relevant

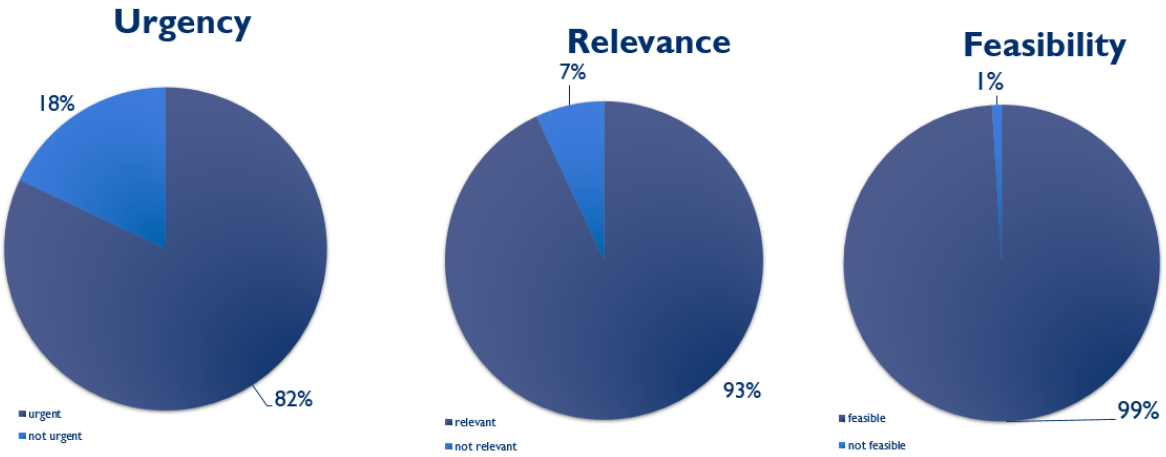
Feasibility

- IF the percentage Yes ≥ 70 → Feasible
- IF the percentage Yes < 70 → Not Feasible

Any intervention that scored <70 on any criteria was kept for discussion

Appendix 6 - Findings from the analysis of stakeholders' completed tools

Strategic Pillar 1



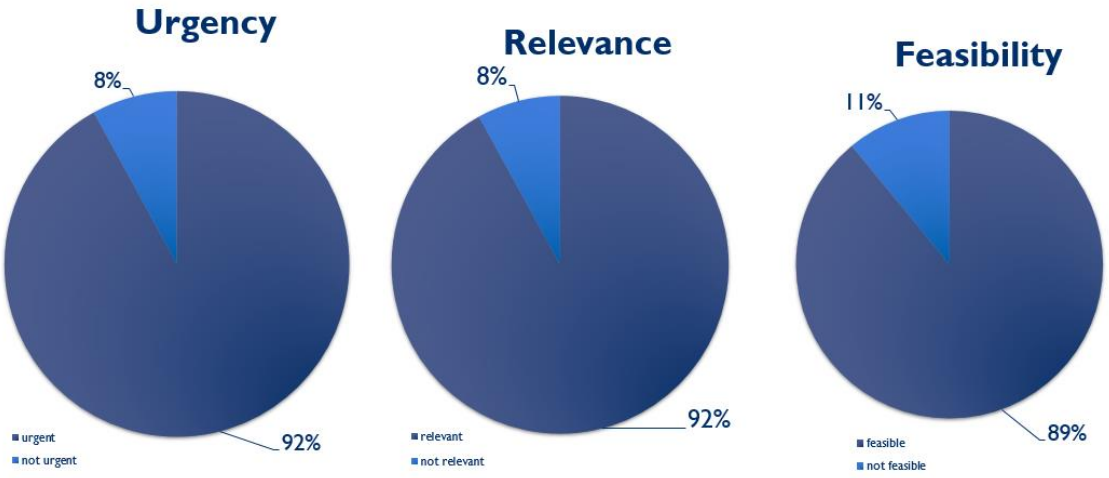
Pending Issues discussed in the workshop on Strategic Pillar 1

	Intervention	Urgency	Relevance	Feasibility	Outcome
7.2	تطوير امتحانات بورد وطنية إجبارية لتسجيل/ترخيص مهن الرعاية الصحية	Not Urgent	Relevant	Feasible	Keep
8.3	تقييم ومراجعة قانون الشراكة بين القطاعين العام والخاص بحيث يشتمل أيضاً على الشراكة في المجال الصحي	Not Urgent	Not Relevant	Feasible	Remove
8.4	تقييم وتحديد المجالات المهمة التي بحاجة إلى شراكة بين القطاعين العام والخاص من أجل تعزيز الموارد البشرية (أي بناء القدرات والتمويل والتعاقد مع الموارد البشرية من القطاع الخاص)	Not Urgent	Not Relevant	Not Feasible	Remove
8.7	تأسيس شراكات بين مراكز التميز الطبية مع القطاعين العام والخاص	Not Urgent	Not Relevant	Feasible	Remove
9.1	دعم نظام معلومات ديوان الخدمة المدنية بحيث ينتج معلومات محدثة حول الطلب أولاً بأول	Not Urgent	Relevant	Feasible	Keep
10.4	تحديد التحديات المرتبطة بتشغيل الأردنيين الذين درسوا في الخارج وإيجاد خطة عمل لتخطي هذه العقبات	Not Urgent	Relevant	Feasible	Keep
10.5	تطوير اتفاقيات تعاون ثنائية للتعليم الطبي/التمريضي الدولي بما في ذلك التخصصات	Not Urgent	Relevant	Feasible	Keep
10.6	التعرف على فرص دولية لتحقيق فرص التطوير المهني المستمر	Not Urgent	Relevant	Feasible	Keep

Critical Success Factors for Strategic Pillar 1

1. Develop a single unit to support work on HRH
2. Unify the vision on HRH
3. Improve the governance on HRH
4. Revision of Laws of the Civil Service Bureau (CSB)
5. Effective coordination among the stakeholders in implementing the strategy

Strategic Pillar 2



Pending Issues discussed in the workshop on Strategic Pillar 2

	Intervention	Urgency	Relevance	Feasibility	
4.1	تقييم الموارد البشرية الصحية المتوفرة حالياً مقارنة بالبياانات الديموغرافية للسكان والتحول النمطي للأمراض	Urgent	Relevant	Not Feasible	Further discussion
7.2	تطوير معايير اختيار لكل مهنة طبية تشتمل على الجنس ومنطقة السكن والهدف المهني	Not Urgent	Not Relevant	Not Feasible	Further discussion
8.1	إنشاء تعاون ما بين المدارس الثانوية ومؤسسات التعليم الطبية من اجل اطلاع الطلاب على مهن الرعاية الصحية	Not Urgent	Not Relevant	Not Feasible	Further discussion
8.2	ضم معيار منطقة السكن (أي المناطق النائية والأقل حظاً) في عملية اختيار الطلاب في تخصصات الرعاية الصحية ذات الصلة	Not Urgent	Not Relevant	Not Feasible	Further discussion

Critical Success Factors for Strategic Pillar 2

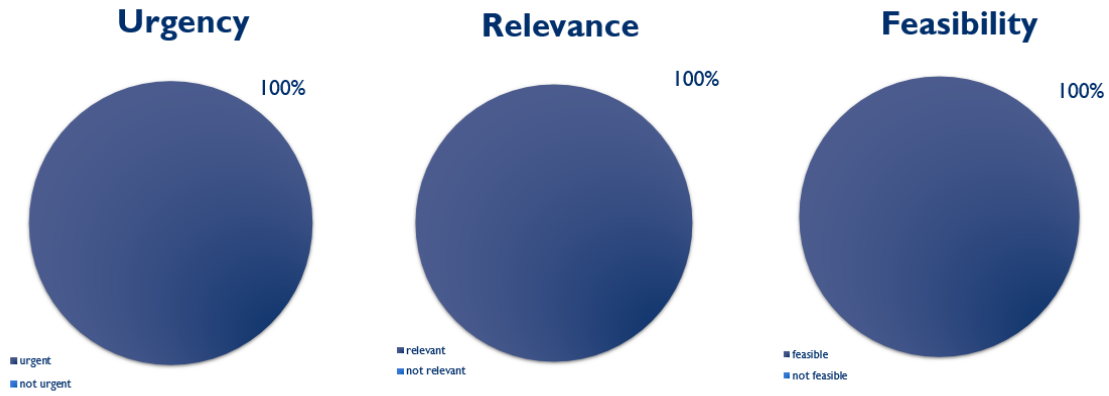
1. Identify and standardize key indicators on HRH
2. Unify the platform for data collection on HRH
3. Secure financial support
4. Effective collaboration among HRH stakeholders
5. Focus on implementing the HRH strategy

Strategic Pillar 3

Critical Success Factors for Strategic Pillar 3

1. Partnership and collaboration among governing bodies in the healthcare sector
2. Improving the competencies of HRH in collaboration with key stakeholders
3. Support policy makers in developing evidence-informed decisions
4. Ensure financial and political support
5. Retain HRH in the healthcare sector
6. Provide continuous training in the healthcare sector
7. Revise the educational curriculum
8. Implement job-person fit in the healthcare sector

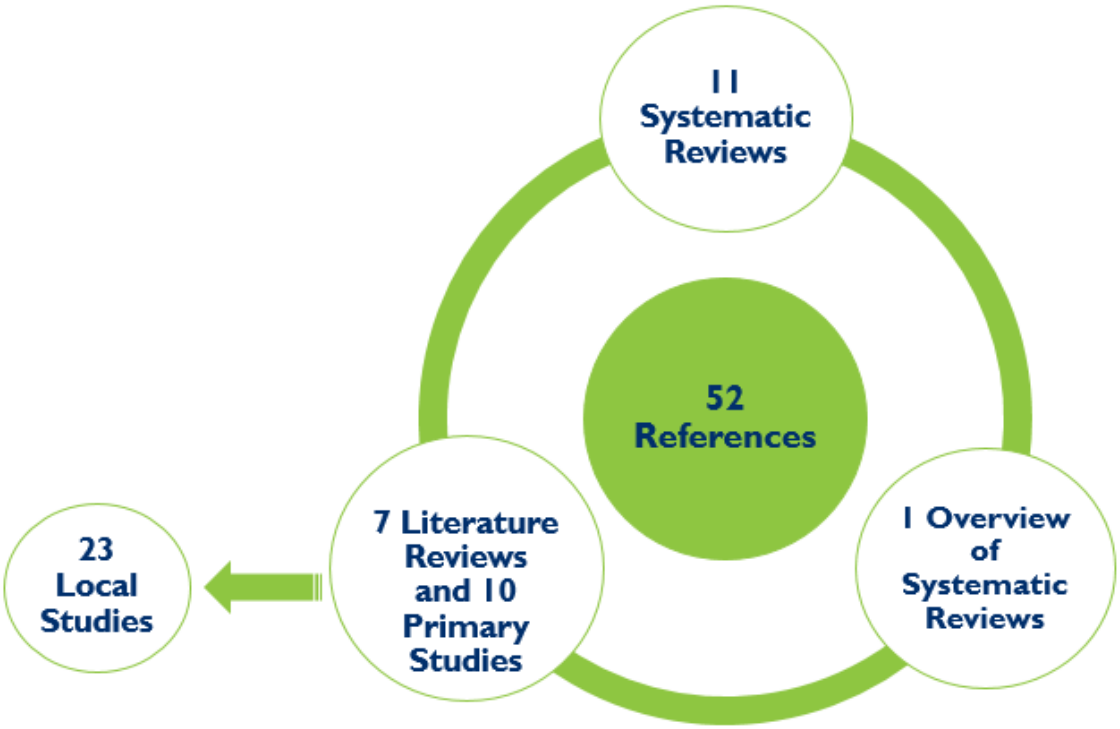
Strategic Pillar 4



Critical Success Factors for Strategic Pillar 4

1. Implement a performance-based incentive system
2. Develop and update job-based competencies
3. Strengthen the culture of HRH management and performance

Appendix 7 – Number and Classification of References used to support the development of the Briefing Note and Strategy



Appendix 8 - External Stakeholder Consultation Workshop

Tool 1 (activities & stakeholders)

Criteria	Area of Evaluation	Definitions	Scoring technique
Feasible	Activity	• Are the activities relevant, realistic, achievable and cost effective?	Please rate each by selecting Yes or No
Comprehensive	Stakeholders	• Does the list of stakeholders capture all stakeholders relevant to the activity?	Please rate each by selecting Yes or No
Appropriate	Stakeholder Responsible	• Is the identified stakeholder responsible the appropriate stakeholder to follow up on the implementation of the activity?	Please rate each by selecting Yes or No

Tool 2 (short term activities)

Criteria	Area of Evaluation	Definitions	Scoring technique
Priority (year)	**Intervention**	• How important is it to have intervention implemented within the first year or second year of the HRH strategy?	Please rate each by selecting Year 1 (Y1) OR Year 2 (Y2)

Tool 3 (indicators)

Criteria	Definitions	Scoring technique
Important	• The indicator can be used to direct / inform the implementation of the National HRH Strategy and can help inform achievements of goals, priorities and strategies on HRH	Please rate each indicator by selecting Yes or No
Attainable	• The extent to which the data for the measurement of the indicator is available	Please rate each indicator by selecting 1. Data is not available 2. Data is available but the cost for collecting it is high 3. Data is available
Drive for improvement	• The indicator can help in measuring the progress and support improvement	Please rate each indicator by selecting Yes or No
Priority	• The indicator is critical to be within the list of HRH indicators to be measured / benchmarked and provided/updated on a regular basis to stakeholders	Please rate each indicator by selecting High or Low

Appendix 9 – Advisory Committee Members for developing the National HRH Strategy for Jordan

No.	Name	Organization
1	Dr. Mohammad Rasool Tarawneh	Secretary General of the High Health Council – Committee Chair
2	Dr. Ghazi Sharkas	Ministry of Health
3	Mr. Ghaleb Al Qawasmi	
4	Eng. Yehya Qa'qa'	RMS
5	Mr. Samer Al Khafash	Private Hospital Association
6	Mr. Fahmi Osta	High Health Council
7	Mr. Mohammad Ali Taifour	Ministry of Higher Education and Scientific Research
8	Dr. Ibtesam Mahasneh	
9	Mrs. Nuha Hijazi	
10	Dr. Ghada Kayyali	WHO Jordan
11	Ms. Maysaa' Al Khateeb	USAID
12	Mr. Edward Chappy	USAID HRH2030
13	Dr. Raghad Al Hadidi	USAID HRH2030

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