الاستراتيجية الوطنية للصحة

National Health Strategy

2011-2016

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Preface

Qatar's Permanent Constitution embodies the principle that "the State shall foster public health; provide means of prevention from diseases and epidemics and their cure in accordance with the law".

Qatar National Vision 2030 (QNV 2030) commits to a healthy population, both physically and mentally, through the provision of "a comprehensive world-class healthcare system, whose services are accessible to the whole population, including:

- Effective and affordable services in accordance with the principle of partnership in bearing the costs of health care
- Coverage of preventative and curative health care, both physical and mental, taking into accounts the differing needs of men, women, and children
- High quality research directed at improving the effectiveness and quality of health care"

Building on the foundation of the QNV 2030, the Supreme Council of Health's Qatar National Health Vision – Caring for the Future: Establishing a Healthy and Vibrant Society – articulates promoting public health, encouraging healthy lifestyles, and providing quality community-based primary care as the basis of a successful integrated health care system.

We also aim to ensure that some of the world's most advanced and highest quality care is available in tertiary medical facilities. These tertiary facilities will also be expected to be research leaders at the frontiers of science.

The Supreme Council of Health, as the highest authority in healthcare in the State of Qatar, will guide reforms to ensure the highest international standards of healthcare, both preventive and curative.

This report on the National Health Strategy 2011-2016, contains a comprehensive program of reforms that are aligned to QNV 2030 and advance our Healthcare Vision. They have been developed as the health component of Qatar's National Development Strategy 2011-2016. I would like to express my appreciation to all those who were involved in its preparation.

Health and welfare contribute vitally to the quality of life of all, as well as to advancing the goal of sustainable human development.

I now ask that we all work together to ensure successful implementation of the National Health Strategy.

Her Highness Sheikha Mozah bint Nasser Al-Missned
Chairperson, Executive Committee, Supreme Council of Health
Vice Chairperson, Supreme Council of Health

Foreword

The launch of the Qatar National Vision 2030 (QNV 2030) in October 2008, and the subsequent ongoing preparations for Qatar's National Development Strategy, 2011–2016 (NDS) have provided the impetus and momentum for the formulation of Qatar's National Health Strategy, 2011–2016, one of 13 sector strategies that will be integrated into the NDS.

The QNV 2030 commits to maintaining harmony between economic growth, social development, and environmental management, as well as human development. QNV 2030's human development pillar has at its center the health of the people of Qatar. It articulates the determinants of the desired outcome for a healthy population, both physically and mentally.

Qatar's exceptionally rapid economic growth, which has contributed to impressive gains in social and human development, has stimulated numerous large-scale medical infrastructure and expansion projects. We are striving to provide health services that are patient-centerd to ensure that the health care needs of the country's diverse and rapidly growing population are met. Our integrated system of health is designed to meet the needs of existing and future generations adding years of healthy life.

The Supreme Council of Health (SCH) was established to be the highest authority in health care in the State of Qatar, and has the mission of carrying out QNV 2030's goals and outcomes. The SCH, which oversees national health policy and regulation, has embarked on an ambitious program to enhance the wellness of the people of Qatar so that a vibrant, healthy, and productive society can be established for today, and for the future.

The essence of that program is the National Health Vision "*Caring for the Future: Establishing a Healthy Vibrant Society".* *Caring for the Future* means promoting public health, encouraging healthy lifestyles, and ensuring a full continuum of care, with highest quality community-based primary care as the foundation, supporting advanced, best practice secondary, tertiary and continuing care services.

The National Health Strategy outlines the strategic directions and key initiatives that the health sector, under the leadership of the SCH, plans to undertake from 2011 to 2016. Successful implementation will require hard work and commitment from all stakeholders across the health sector, as well as intersectoral collaboration, to deliver positive outcomes for the health sector and the nation.

Qatar's National Health Strategy represents the culmination of six months of extensive stakeholder consultation and strategic planning. The level of collaboration reached was essential to ensure broad, national ownership.

We would like to extend our appreciation to all members of the Healthy Population Task Team, Sub-Task Teams, SCH Department of Planning and Assessment, SCH Secretariat and all stakeholders for their tremendous efforts, commitment, and professionalism in preparing this strategy. We would also like to thank the General Secretariat for Development Planning (GSDP) for its coordination support, guidance and active participation in the preparation of the Strategy.

Qatar has an exciting future as it progresses toward the nation's vision for 2030. The National Health Strategy is part of this future and requires strong backing and partnerships across government, the private sector, and civil society. Most important, we must create a health consciousness of our citizens and residents to support promotion and adoption of healthy lifestyles. We encourage and invite all to join in this journey toward a healthy future for all our people.

HE Dr. Mohammed Ghanem Al-Ali Al-Maadheed
Chair, Executive Group on Healthy Population

HE Abdullah Khalid Al Qahtani
Minister of Health

List of abbreviations

A&E	Accident and emergency
BF	Breast feeding
BMI	Body mass index
CON	Certificate of Need
CRC	Clinical research center
CSF	Clinical Service Framework
DALYs	Disability adjusted life years
DMP	Disease management program
ECN	Emergency Care Network
EMS	Emergency Medical Services
EU	European Union
FFS	Fee-for-service
FTE	Full-time equivalent
GCC	Gulf Cooperation Council
GP	General practitioner
GDP	Gross domestic product
GSDP	General Secretariat for Development Planning
HCHAPs	Hospital Consumer Assessment of Healthcare Providers and Systems
HGH	Hamad General Hospital
HMC	Hamad Medical Corporation
HPRG	Health Products Regulation Group
HR	Human resources
HSRC	Health Services Restructuring Commission (Canada)
IAMRA	International Association of Medical Regulatory Authorities
ICD	International classification of disease
IHI	Institute for Healthcare Improvement
IT	Information technology
IVF	In vitro fertilisation
JCI	Joint Commission International
KPI	Key performance indicator
KSA	Kingdom of Saudi Arabia
MRI	Magnetic resonance imaging
NDS	National Development Strategy
NHS	National Health Strategy
NICE	National Institute for Health and Clinical Excellence
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational health & safety
OSCHR	Office for Strategic Coordination of Health Research
PHC	Primary health care / centers
PMO	Program management office
PPP	Public-private partnership
QCHP	Qatar Council for Health Practitioners
QMRC	Qatar Medical Research Council
QNV	Qatar National Vision 2030

QP	Qatar Petroleum
QSTP	Qatar Science and Technology Park
RTA	Road traffic accident
SCFA	Supreme Council for Family Affairs
SCH	Supreme Council of Health
SEC	Supreme Education Council
SLA	Service-level agreement
SML	Single male labourer
STT	Sub-task team
TAC	Trauma and acute care
TB	Tuberculosis
USS	Ultrasound scan
WHO	World Health Organization

Executive summary

People are a country's most valuable asset. The Human Development pillar of the QNV 2030 revolves around investing in and developing all of Qatar's people, enabling them to participate fully in economic, social, and political life and contribute to sustaining a prosperous society. One key element of the Human Development pillar is health.

On an individual basis, healthcare is one of the most important parts of life, with a person's well-being affecting every aspect of their quality of life. For a society, healthcare significantly affects social productivity and economic competitiveness. A healthy people—whose wellness is enhanced through an accessible, effective, and safe healthcare system—is critical to the future success of Qatar.

The National Health Strategy 2011-2016 is intended to propel Qatar toward the health goals and objectives contained in the QNV 2030, and toward achieving the SCH's National Health Vision: Caring For The Future. It is one of 13 sector strategies that will be integrated into Qatar's first NDS.

The NHS proposes changes across the entire healthcare system, through a practical national strategy for health reform that will benefit all people living in Qatar, not only now but well into the future. It consolidates the findings and recommendations of three earlier reports, which have covered the situational analysis, strategic recommendations, and governance and implementation.

This report outlines in greater detail the vision for the future healthcare system outlined in QNV 2030 and supports recommendations with analyses, benchmarking, and stakeholder input. The aim of the NHS is to provide a practical, implementable strategy to be used by the health sector as a means for reform and improvement toward reaching the ultimate goal of a healthy population. The report provides a guiding work plan through 35 specific programs and associated implementation plans to achieve the goals of QNV 2030. It is not intended to provide a blueprint of the future in terms of facilities, number of beds, and services, but rather a strategy for reform with far-reaching and fundamental changes across the entire healthcare system.

The case for health reform is compelling, and the vision and commitment of Qatar's leadership, the availability of financial resources, and the size and manageability of the country, coupled with the reform efforts that have already begun, provide Qatar with a prime opportunity to create the health system that will provide the necessary effective and safe healthcare to its people.

However, this opportunity will not be fulfilled easily. Qatar's health sector faces many challenges, which must be overcome in order to develop the ideal health system:

- An imbalanced model of care, which must be shifted toward delivering a full continuum of care: enhancing primary healthcare and community-based services, while at the same time ensuring that acute care services meet the needs of the population
- Limited national integration, quality guidelines, planning and performance monitoring
- Changing current morbidity and mortality patterns, which reflect a high prevalence of non-communicable diseases, including chronic diseases and those linked to lifestyle and behavior, as well as a high rate of injuries, primarily from road traffic accidents (RTAs) and workplace-related incidents
- Rapidly increasing and fluctuating population, causing increasing demands on the healthcare system
- Shortages in a quality workforce, which span the entire sector, both within provision of services as well as regulation and administration of the health system. Recruitment and retention strategies are not adequate and do not succeed in filling these shortages
- An imperative need for strengthening the health sector's regulatory and policy framework which is necessary for an effective and efficient system

The NHS defines key outcomes and activities necessary to reach the ultimate goals for the health sector, as outlined in QNV 2030:

- A comprehensive world class healthcare system whose services are accessible to the whole population
- An integrated system of healthcare offering high-quality services
- Preventive healthcare, taking into account the differing needs of men, women, and children
- A skilled national workforce capable of providing high-quality health services
- A national health policy that sets and monitors standards
- Effective and affordable services
- High-caliber research directed at improving the effectiveness and quality of healthcare

Goal 1: A comprehensive world class healthcare system

Shifting the balance of care

To effectively deliver an integrated model of services for the country, Qatar's health sector must shift the balance of care toward a preventive and community-based model of care with the focus on the patient, ensuring access to the right care, at the right time, in the right setting, by the right team.

The future model will provide a full continuum of care anchored around capable and trusted primary care and a healthcare system delivering the highest quality through standardized diagnostics and treatment.

A patient's journey through the healthcare system will begin at primary care as its first point of contact to access care, will involve smooth transfer between different components of the healthcare system, and will entail significant provision of care in the community setting.

The current system is weighted more toward an acute, curative, hospital-based approach, and the current infrastructure is centerd on a hospital-focused model of care. The existing primary care system does not play a sufficiently strong role in preventing, monitoring, and treating diseases.

The shift will require enhancement of primary healthcare but must also ensure that acute care services meet evidence-based standards and adequately address the needs of the population.

The ideal model of care must be integrated, with different healthcare providers working cohesively to deliver an effective whole. This will require producing national programs and plans that deal with disease management and care pathways across the different entities and levels within the sector. In this section, the examples of Mental Health and Emergency Care services have been given, but it is assumed that over the next five years, these principles will be applied to developing National Plans for cancer, diabetes, cardiovascular disease, and women's health issues, for example.

The following are the identified projects for the NHS 2011–2016 required to achieve this balance:

Primary care as the foundation

- Enable a strengthened primary care system as the cornerstone for comprehensive care that emphasizes wellness, bringing together evidence-based health promotion, early detection and intervention, and quality treatment for acute and chronic conditions.
- This involves ensuring the quality and sufficient number of appropriately trained primary healthcare staff, clearly defining the scope of services for primary healthcare that meets the needs of the population, using evidence-based guidelines and standards for the provision of care, building public trust, and ensuring allocation of adequate budget to support the necessary changes.

Configuration of hospital services

- Define hospital designations by scope and governance, supporting a regionalised model and configure hospital services to meet future health sector needs.
- Appropriately reduce the length of hospital stays based on a model of care that provides the continuum of care.
- Enhance opportunities for in-and-out, same-day procedures as medical practice focuses on more minimally invasive technologies.
- Ensure the evidence-based provision of quality secondary and tertiary services.
- Avoid unnecessary duplication, specifically when related to procedures or services where critical mass is required for quality and safety.

Continuing care design

- Provide a clear framework for continuing care in Qatar, involving community and home-based programs, that addresses emerging challenges and connects and integrates services for the elderly and rehabilitation care services

Mental health design

- Implement the approved Model of Care for mental health services in Qatar, based on enhanced community-based services, integration, and decreased stigma.
- Ensure that the rights of people with mental health conditions are protected under a National Mental Health Act and that these people receive appropriate, high-quality care in a suitable setting.

Emergency care services

- Establish an integrated national framework for the provision of emergency services, to include delineation and scope of services for different providers and definition of national standards and operating protocols
- Ensure adequate geographic coverage based on utilization and on a hub-and-spoke model.

Community pharmacies

- Establish a community pharmacy network supported by appropriate policy and process, decreasing the reliance on hospitals for filling drug prescriptions, leading to increased efficiency and enhanced access.

Goal 2: An integrated system of healthcare

Connect and integrate healthcare to ensure quality of care—effective use of information, communication, and process improvement

The current healthcare system in Qatar has limited coordination and standardization, which can lead to fragmentation of care and system inefficiencies. Integration and quality must be enhanced by the effective use of data, information, communication, and quality improvement processes.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:

Quality improvement

- Establish a culture of continuous quality enhancement throughout the healthcare system, and a framework for clinical process improvement.
- Define and disseminate evidence-based national clinical guidelines, patient pathways, and standard procedures for referral and discharge.
- Establish performance agreements with healthcare providers that link outcomes to accountabilities.

Disease management programs

- Establish a system of coordinated healthcare interventions that address the full range of needs for individuals with priority chronic conditions such as diabetes or cardiovascular illnesses to improve health outcomes.
- Emphasize prevention of exacerbations and of co-morbidities and complications through the use of evidence-based practice guidelines, patient empowerment strategies, and regular monitoring of patients.

Healthcare data program

- Access to accurate information is vital for health sector planning, as well as for measuring and monitoring the quality, safety, and effectiveness of the healthcare system and population outcomes.
- There must be a program in place that defines data requirements, enables stakeholders to meet the requirements, and mandates reporting of these data.

E-health establishment

- Establish an effective and integrated national e-health system, with a clear governance framework to drive improvements in quality, safety, efficiency, and patients' experience of healthcare in Qatar, ensuring full compatibility across all levels of care.

Private sector involvement

- Healthy competition is likely to have a beneficial impact on the quality, choice, and efficiency of healthcare, and the private sector can play an important role in assuming appropriate regulation and quality assurance.
- A private sector engagement strategy will enable greater involvement by the private sector in providing healthcare services in Qatar.

Goal 3: Preventive healthcare

Embed prevention—focus on the high-risk priorities

Qatar's healthcare system must address the prevalence of chronic diseases and their underlying risk factors. Thus it needs to move beyond treating the acutely ill and address healthcare at the prevention stage. This requires a fundamental shift in mindset, accompanied by a reallocation of resources. The aim is to embed prevention and early intervention into every aspect of the health system and to empower the people of Qatar to be active participants in self-care, prevention, and maintaining wellness.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:

Public Health Governance

- Generate an enhanced prevention strategy enabled by a robust governance system for monitoring and evaluating the effectiveness of individual prevention initiatives.
- Engage a high-profile international expert as a prevention champion who can be a visible symbol of transformation and drive system change. The prevention champion should be supported by a national preventive health task force and the SCH Department of Public Health.

Chronic and Communicable Disease Prevention

- Execute a focused set of evidence-based programs to prevent chronic and communicable diseases within the following projects:
  - Nutrition and Physical Activity
  - Tobacco Cessation
  - Consanguinity Risk Reduction
  - Communicable Disease Prevention
  - National Screening Program for high-priority diseases (e.g., diabetes, cardiovascular illnesses, and breast cancer)

Occupational Health

- Qatar must improve health and safety conditions across all sectors, with particular focus on the population of male labourers, given that workplace injuries are the third highest cause of accidental deaths.
- National occupational health standards must be developed, and occupational health policies and regulations must be enforced.

Women and Child Health

- The health challenges that women face are different from those of men because of social and economic distinctions as well as dissimilarities in the prevalence of diseases and risk factors. Qatar needs a comprehensive women's health program that targets the health challenges unique to women.
- The program should identify priority areas for women's health. In the immediate future the program must address screening of women's specific diseases, as well as the particular issues such as postpartum depression, and the health impact of domestic violence.
- There must also be programs and strategies dedicated to child health. These should include promotion of exclusive breast-feeding (BF) and early nutrition guidance, enhanced prenatal care services, and continuing the successes of national childhood vaccination.

Additional public health programs: Road Safety, Food Safety, Emergency Preparedness, and Environmental Health

- In select public health areas, there are overlapping activities among multiple stakeholders, and coordination with other government bodies must be improved to avoid duplication and ensure there are no gaps in current services.

Goal 4: A skilled national workforce

Recruiting, retaining, and educating a high-quality workforce—a modern, learning, and supported workforce

All healthcare systems, however financed or organized, need adequate numbers of well-trained, high-quality staff to meet the needs of their population. Recruitment and retention of the appropriate healthcare workforce has become increasingly difficult for the system in Qatar. The shortage of quality human resources—physicians, nurses, therapists, and other health professionals—acts as a significant constraint. Without the appropriately skilled human resources, realising the goals of a world class healthcare system is not achievable.

A comprehensive healthcare workforce strategy is needed, with the main aim of building, strengthening and enhancing long-term national capacity to ensure sustainability. This will necessitate obtaining a high-caliber workforce—both Qatari and expatriate—that has the required skills, including leadership, to assure a high-quality healthcare system.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:

Workforce planning

- Given global shortages of healthcare professionals, Qatar's current recruitment and retention strategies and its medical education capacity are a potential constraint for future requirements.
- Both short- and long-term healthcare workforce planning will help ensure that Qatar's health sector has the adequate number of skilled personnel to sustain a quality health system into the future, as well as the right types of skills and professions within the service delivery team.
- This planning must focus on ensuring sustainability of the system through national capacity-building, while at the same time recognizing the value of the expatriate workforce

Recruitment and retention

- Reduce barriers to recruitment of a quality workforce, both Qatari and expatriate (e.g., human resources [HR] law), and increase retention through improvements in workers' morale and satisfaction and better incentives (e.g., making available training and professional development opportunities for all staff).
- Ensure appropriate Qatarization—with adequate support, mentorship, and training—so that both the individual and the organisation benefit.

Professional education

- A pragmatic approach to health professional education is needed to increase the number of Qataris and long-term residents in healthcare.
- This approach must be multifaceted to include reduced barriers to admission, enhanced sponsorship programs, awareness campaigns around health professions, and diversification in the number of institutions available to capable students, both locally and internationally.

Optimizing skill mix

- Effectively utilise the available healthcare workforce by appropriately optimizing the range of work that can be undertaken by different professionals.

- Recruit and develop new classes of healthcare workers (e.g., nurse practitioners) to meet Qatar's changing needs.
- Foster team-based collaborative models of service delivery.

Goal 5: A national health policy

Robust regulation and framework—strengthening SCH capacity and providing full coverage

An effective healthcare system needs a robust policy and regulatory framework to guide Qatar's health sector and ensure quality and accountability. The government regulatory authority has changed several times in recent years to the current authority, the SCH, and this has caused instability within the health sector. The SCH must not only overcome this instability but must take leadership in fulfilling its regulatory role in light of multiple challenges. The key challenge is recruitment and retention of highly skilled staff, both Qatari and expatriate, and currently there is a shortage of high-quality human resources.

Healthcare regulation in Qatar needs considerable strengthening. The SCH must fulfil its role and establish a clear and comprehensive regulatory framework that monitors the healthcare system, ensuring safety and quality, yet not impeding positive progress. This will require a considerable change in policies regarding workforce recruitment and retention. The aim should be to employ the best possible workforce, whether Qatari or expatriate. Qatarization should be supported appropriately, with Qataris receiving the required mentorship and support needed to fill their roles.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:

SCH capacity building

- Strengthen the SCH's ability to establish a strong national regulatory framework, based on evidence, quality and safety standards, and clear policies and procedures. This will enhance the efficiency and effectiveness of the healthcare sector and improve health outcomes for the population

Healthcare professionals

- Ensure comprehensive regulation of healthcare professionals across all sectors, public and private, to achieve high quality and safe care.
- Support the establishment of the council for health professionals.

Healthcare facilities

- Establish national standards and regulations for healthcare facilities across all sectors, public and private.

Healthcare products

- To protect the public's safety, ensure that healthcare products and medications are safe and of the required quality, and also that appropriate drugs are available when necessary.
- Increase the capacity and fortify the roles of SCH Pharmacy and Drug Control, and strengthen regulation.
- Implement a national formulary, and guarantee access to and timely availability of medications.
- Centralise the purchasing of drugs and medical supplies to enhance efficiency and help control costs.

Patient advocacy

- Establish a patient advocacy body as a neutral, confidential, and independent third party to support patient complaints and rights.

Goal: 6 Effective and affordable services with the principle of partnership in bearing healthcare costs

Coordinated planning and control in healthcare infrastructure and finance—affordable healthcare

Qatar needs mechanisms in place to guarantee that clinically appropriate and cost-effective services are provided through coordination, certificate of need (CON) and development of business cases for major healthcare projects, transparent accounting, and proper cost sharing. From a national perspective, there are two areas that need to be addressed: finance and infrastructure.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:
In finance:

Budgeting process

- Institute a comprehensive and accurate account of healthcare spending through a healthcare-specific budgeting process (activity based costing) and defined nomenclature.

More efficient and effective management of treatment abroad

- Examine treatment abroad and set clear criteria, standardise processes to Optimize expenditure and enhance quality of care.

Health insurance establishment

- Establish the prerequisites needed for national health insurance.
- Continue with the current work being done on the design and implementation of the future insurance scheme, ensuring that the scheme supports the model of care and appropriately incentivises cost-effective care and treatments.

In infrastructure:

Healthcare infrastructure master plan

- Provide a framework for infrastructure planning that is a long-term master plan for healthcare facilities and major equipment and yet is dynamic enough to cope with continually changing needs.
- The healthcare infrastructure master plan should be based on the model of care and services needed for the country as identified in the clinical service framework (CSF).

Capital expenditure committee

- Establish a committee to which all public providers and any private providers requesting government funds or reimbursements must present all new healthcare infrastructure project concepts for approval based on a CON and business case plan.

Goal 7: High-quality research directed at improving the effectiveness and quality of healthcare

Knowledge-led continuous improvement, innovation, and research—regulatory framework and coordination

Qatar has embarked on an ambitious research program. However, thus far there has been limited national coordination. Currently healthcare research activities in Qatar are almost exclusively focused on biomedical topics, with little attention on public health and policy projects. To meet the QNV goals on quality and effectiveness of research, there has to be national alignment on all research activities and appropriate utilization of resources.

To achieve a world class health system, research must focus on—and appropriate funding must be given to—all areas of healthcare, including public health, public policy, biomedicine, and clinical effectiveness.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:

Research governance

- The SCH should act as the national governance structure for research, through the establishment of the appropriate entity (committee or council) to do so, eg. Qatar Medical Research Council (QMRC), to provide a national regulatory framework, national strategic direction on research priorities, and coordination of publicly funded research.

Critical prerequisites for implementation success

Successful implementation depends on the following critical prerequisites:

- **Human resources** are the most critical prerequisite. The first step in implementation is identifying the human resources that will be responsible for the outcomes. The 35 recommended projects will result in a significant need for healthcare expertise and professional healthcare capacity. It is recommended that Qatar take aggressive steps to address this gap in healthcare expertise and capacity.

- **Strong leadership and a governance system** that ensures enforcement of the implementation plans. The SCH must take this leadership and authoritative role, either through the SCH Board or the Executive Committee, to provide governance for realising the 2011–2016 NDS NHS.

- **A dedicated program management office (PMO)** must be set up to support and enable the implementation of the NHS. The role of this office will be to track and monitor execution, proactively identify risks and concerns, develop mitigation strategies, provide implementation status reports to leadership, and furnish subject matter expert support to the project teams and departments identified to lead the various projects.

- Given the magnitude of the task involved in carrying out the 35 projects, the need for **sequencing and prioritisation** is paramount. Outputs have been prioritized to ensure that implementation efforts focus on those identified as having the highest impact and being the most feasible, concentrating the limited human resources on

these projects. The degree to which projects can be executed will be based not on budgetary constraints but rather on the availability of skilled and qualified human resources.

- **A sustained change management and communication effort.** This effort should include intensive and regular communication with all the stakeholders directly involved in administering the programs, broader outreach targeted at the healthcare community in Qatar, and a public relations and marketing campaign to engage the public. The well-established groups of task team, Sub-Task Teams (STTs), or both should be continued in some form as part of the communication and change management effort.

Embracing reform

This report is the culmination of six months of discussion, debate, consultation, research, and deliberation. The positive and unprecedented engagement from multiple healthcare and intersectoral stakeholders reflects an energised and genuine desire for reform throughout the country. Focusing on what is in the best interest of the country has become the center of discussions, ideas, and plans. The drive and energy generated from the strategy development phase, as well as the momentum used to support the ever-important implementation phase, must be captured.

The recommendations highlighted in the NHS are required as the fundamental building blocks of a modern healthcare system and must be given priority and full support. Not all of the objectives and activities emphasized in this report are new ideas. Some have been discussed or recommended in the past. However, it is implementation that is crucial, now more than ever. The time is right. The health sector and the country are ready. Implementation cannot be carried out in isolation, and in order to achieve success, the SCH will require partnerships and support across government, along with the private sector and civil society**.**

Qatar has an exciting future as it progresses toward the nation's vision for 2030. The NHS will support the realisation of this vision, as well as Qatar’s goals for healthcare and achieving a healthy population.

The following pages provide an overview matrix of the NDS for healthcare. The matrix includes preliminary targets, which will be revised and developed further with relevant stakeholders during implementation. The matrix links the recommended projects, outcomes and outputs to the QNV 2030 goals and ultimately to the vision for a sustainable, high-quality, responsive health system for the people of Qatar, now and well into the future.

National Health Strategy 2011–2016 Outcomes, Outputs, Baselines & 2016 Targets

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
1. Comprehensive world class healthcare system	**1.1** Primary care as the foundation	To develop a model of primary care with sufficient capacity, funding, and appropriate coverage of the entire population; providing high-quality services and enjoying public trust	1.1.1 Model of primary care and the configuration of services 1.1.2 Capacity built for primary care 1.1.3 Sufficient and effective funding for primary care 1.1.4 Appropriate coverage of primary care for entire population 1.1.5 Primary care forum to engage PHC and private practitioners 1.1.6 Communication campaign for PHC	% GPs / 1,000 Baseline: 0.193 / 1,000 Target: 0.555/1,000 (WHO-EMRO recommendation) % Secondary & tertiary patients seen through PHC referrals Baseline: Not available Target: 50% for outpatients (58% in UK), 40% for inpatients (48% in UK)
	1.2 Configuration of hospital services	To ensure role delineation of hospital services within a clinical services framework, utilizing best-practice methodologies in delivering acute care	1.2.1 Definition of acute hospital designation by scope and governance 1.2.2 Dedicated national centers of excellence without unnecessary duplication 1.2.3 Access to central facilities such as select high-tech laboratories and those for pathology 1.2.4 Directory of health service availabilities for residents, combining geography and function 1.2.5 Reduced length of stay due to full continuum of care and increased opportunities for in-and-out same-day procedures	Target: CSF completed (milestone) Target: National centers of excellence for 3 of the top 5 priority areas established by 2016 (milestone)
	1.3 Continuing care design	To develop a comprehensive model for continuing care that reflects the society's changing needs	1.3.1 Model of continuing care and needs assessment for configuration of services 1.3.2 Community-based-care activities support 1.3.3 Sufficient and effective funding for continuing care 1.3.4 Roles of community and family in providing continuing care strengthened	Continuing care beds/ 1,000 75+ years old Baseline: 0 Target: 8.23 / 1,000 (HSRC[1] Canada guideline—this is intended to incorporate the long-term care needs of the population ages 19–74 as well) Rehabilitation beds/100,000 Baseline: 61 (Rumaillah – however not all beds utilised for rehab) Target: 25/100,000 (HSRC guideline)
	1.4 Mental health design	To develop and implement comprehensive mental health services in Qatar with emphasis on	1.4.1 National model of care, interfaces, and processes 1.4.2 Mental health legislation 1.4.3 Needs assessment for infrastructure, staff, and equipment 1.4.4 Sufficient and effective funding for mental health	No. of psychiatric beds / 100,000 Baseline: 4.75 (Total 76 beds) Target: 12.5 / 100,000 (KSA used as a

[1] "Change and Transition: Planning Guidelines and Implementation Strategies for Home Care, Long Term Care, Mental Health, Rehabilitation, and Sub-acute Care." Health Services Restructuring Commission, Canada, April 1998.

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
		community-based care, and to increase public awareness and destigmatise perceptions of mental health	1.4.5 Community-based services support 1.4.6 Mental health surveillance and dedicated research 1.4.7 Public awareness campaigns 1.4.8 Mental health standards 1.4.9 Mental health screening	reference) Other references HSRC guideline 30 / 100,000 World avg. 16/100,000 National model of care for mental health implemented by 2016 (milestone)
	1.5 Emergency care services	To establish fully functioning and efficient emergency care services including trauma care services	1.5.1 National standards, and operating protocols for emergency and trauma care services 1.5.2 Needs assessment for emergency and trauma care staff and infrastructure 1.5.3 Sufficient and effective funding for emergency and trauma care	Emergency response time Targets: 75% of potentially life-threatened patients in urban areas who receive an EMS response within 10 minutes of the call for help 95% of potentially life-threatened patients in urban areas who receive an EMS response within 15 minutes of the call for help 75% of potentially life-threatened patients in rural areas who receive an EMS response within 15 minutes of the call for help 95 % of potentially life-threatened patients in urban areas who receive an EMS response within 20 minutes of the call for help Baseline: 41% urban ares in 10 minutes; 74% urban areas in 15 minutes; 62% rural areas in 15 minutes; 78% urban areas 20 minutes Deaths / 1,000 of acute myocardial infarction patients reporting to A&E indicator to demonstrate effectiveness of operating protocols Baseline: Not available Target: 77.5/1,000 (2005 figure for US)
	1.6 Community pharmacies	To increase the efficiency of and access to dispensing	1.6.1 Public needs assessment for community pharmacy network 1.6.2 Availability of all drugs at community pharmacies 1.6.3 Higher utilization of community pharmacies by providers	No. of community pharmacies / 1,000 Baseline: 0.1 (Total 156) Target: 0.17 (UK avg. for 2008) however no current pharmacy network % Dispensing through community pharmacies Baseline: Not available Target: 70% (89% dispensation rate in UK– 2005)

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
2. Integrated system of healthcare	**2.1** Quality improvement	To enhance quality of care through standardization, establishing processes for integration and a culture of continuous improvement.	2.1.1 National standards for referral and discharge procedures 2.1.2 Clinical guidelines for Qatar, based on international best practices 2.1.3 Concept of quality improvement for all providers 2.1.4 Continuity-of-care process and its requirements 2.1.5 Educated public informed by transparent publication of health service performance results 2.1.6 Performance agreements between SCH and all providers (public and private)	Compliance with best practice protocols for priority conditions (cardiac, asthma, diabetic emergencies): Baseline: Not applicable Targets: 100% Performance Agreements are in effect: Baseline: Not applicable Targets: 100% of hospitals 75% of PHC centers 25% of major polyclinics
	2.2 Disease management programs	To introduce disease management programs in Qatar for the priority chronic diseases	2.2.1 Disease management programs set up	For diabetes disease management program, % Enrolled diabetics with A1C < 9.0 Baseline: Not applicable Target: 75% ("Effectiveness of a Disease Management Program for Patients with Diabetes." Victor G. Villagra and Tamim Ahmed, Health Affairs 23:4, 2004.)
	2.3 Healthcare data program	To ensure availability of comprehensive and accurate healthcare data	2.3.1 National nomenclature, coding standard, and flow of information 2.3.2 National quality management process 2.3.3 Education and training programs 2.3.4 Data reporting requirements	% Providers that are data compliant Baseline: Not applicable Target: 80% Coding accuracy Baseline: Not available Target: 80% Target: Setup of disease registries for top 5 priority diseases (milestone)
	2.4 E-health establishment	To create an effective, integrated national e-health system that enables participation of all healthcare providers in Qatar and ensures national alignment for implementation	2.4.1 Potential participation of all health service providers in Qatar 2.4.2 Dedicated governance framework 2.4.3 National standards, nomenclature, and operating protocols 2.4.4 Patient data confidentiality and information security 2.4.5 Education and training programs	% Primary care practitioners accessing diabetes registry functionality online Baseline: 0 Target: 25% (reference Ontario e-health strategy[2] target) % Images taken at hospital that are digitally stored and shareable among physicians Baseline: 0 Target: 100% (reference Ontario e-health strategy target)

[2] "Ontario's E-health Strategy: 2009–2012." http://www.ehealthontario.on.ca/about/strategy.asp.

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
				% Community pharmacies submitting dispensing events to e-prescription system Baseline: 0 Target: 25% (reference Ontario e-health strategy target 65%)
	2.5 Private sector involvement	To develop a comprehensive strategy for private sector involvement while ensuring appropriate regulatory coverage and quality assurance	2.5.1 Private sector engagement strategy implementation	% Healthcare beds provided by private sector Baseline: 20% Target: 25% (Privatisation of providers in Germany led to increase in private sector share by 7% over 1991–1996)

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
3. Preventive healthcare	**3.1** Public health governance	To enable prevention strategies through robust governance	3.1.1 Prevention champion and cross-government task force 3.1.2 Public health evaluation system that can measure the overall status and effectiveness of individual initiatives.	Target: Monitoring and evaluation system established (milestone) Accountability for targets of outcomes 3.2, 3.3, 3.4, 3.5
	3.2 Nutrition and physical activity	To set up a comprehensive nutrition and physical activity program with initiatives targeted at various stakeholders and with impact on the prevalence of obesity	3.2.1 Health promotion in schools (link it to other projects like tobacco cessation) 3.2.2 Wellness promotion in the workplace, led by government offices with established health promotion programs 3.2.3 Media awareness campaigns for nutrition and physical activity 3.2.4 Prevention guidelines for healthcare services 3.2.5 Policies to reduce fast-food consumption 3.2.6 Government offices have established workplace health promotions 3.2.7 Promoting healthy food options (restaurants and key retail outlets)	Reduction in overweight and obesity Baseline: 32% obesity for all residents, 40% obesity for Qataris Target (1): Decreased prevalence of obesity by 3% Target (2): 10% weight loss reduction for individuals enrolled in dietary services program (Obesity Intervention Effectiveness Measure, National Institutes of Health[3])
	3.3 Tobacco cessation	To set up a comprehensive program to reduce tobacco consumption, including sheesha and smokeless products	3.3.1 Tobacco awareness and cessation support services that deal with smokeless products as well 3.3.2 Services linked to school health initiatives 3.3.3 Policies to reduce tobacco consumption	% Reduction in smokers Baseline: 32.1% among adult males Target: 3% reduction (average rate of reduction in smoking 0.5% / yr in 18 OECD countries over a 25-yr period, 1975-2000—periods vary by country based on data availability)
	3.4 Consanguinity risk reduction	To reduce congenital defects due to consanguinity, with interventions targeted at high-risk groups	3.4.1 Educational campaigns on consanguinity 3.4.2 Counseling to support mandatory premarital screening	% Reduction in consanguineous marriages between first cousins Baseline: 34%[4] marriages among first cousins Target: 28[5] (average rate of first cousin marriages in Arab world 27%, GCC average 28%)[6]
	3.5 Communicable	To implement targeted	3.5.1 Early-warning	Prevalence of TB

[3] Goldfarb, Neil, Yaskin, Joseph, and Toner, Richard. "The Evidence Base for Effectiveness of Obesity Management Programs: A Comprehensive Review of the Literature," Department of Health Policy, Jefferson Medical College Philadelphia, PA. *www.dmaa.org/theforum08/presentations/Goldfarb.pdf.*

[4] Al-Gazali, Lihadh, Hamamy, Hanan, and Al-Arrayad, Shaikha. October, 21, 2006. "Genetic Disorders in the Arab World." *British Medical Journal* 333:831–834.

[5] Simple average includes Lebanon, Palestine, Bahrain, KSA, Sudan, Algeria, Iraq and Arabs in Israel, Oman, UAE, Qatar, Jordan, Kuwait, Yemen, and Egypt.

[6] Hamamy, Hanan. "Consanguineous Marriages in the Middle East: Trends, Impact on Reproductive Health and Research Priorities." *www.gfmer.ch/...**research**/.../**Consanguineous_marriages**_Hamamy_2009.pdf* .

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
	disease prevention	initiatives that reduce the threat of communicable diseases	surveillance and tracking system 3.5.2 Process to update the existing vaccination program for children and adults 3.5.3 Communicable disease prevention efforts in high-risk areas (e.g., labour camps) 3.5.4 Follow-up screening of high-risk groups (e.g., high-contact job categories like nurses and barbers)	Baseline: 1.6 / 10,000 Target: 1.1 / 10,000 (prevalence rate in UAE with similar population structure) Early-warning surveillance system in place (milestone)
	3.6 National screening program	To develop a national screening program and infrastructure that enables early detection of priority chronic diseases	3.6.1 National screening program and infrastructure (facilities, IT, equipment, workforce) 3.6.2 Screening guidelines for providers (guidelines, KPIs, performance agreements)	% individuals within target groups covered by screening program Baseline: Not available Target: 50% for priority conditions
	3.7 Occupational health	To create improved workplace conditions across all sectors with a focus on health and safety through development and enforcement of standards	3.7.1 Occupational health committee and standards on occupational health 3.7.2 Training and education for general practitioners on occupational health 3.7.3 Training to employers on appropriate workplace conditions	Rate of injury over 3 days / 100,000 workers Baseline: Not available Target: 3,000 (EU average in 2006 3,013 / 100,000)
	3.8 Women and child health	To improve health of newborns, infants, children, and women, with focus on targeted areas of need	3.8.1 Exclusive BF and complementary feeding education 3.8.2 Enhancement of prenatal care services 3.8.3 Improved postpartum services 3.8.4 Childhood vaccination coverage 3.8.5 Domestic violence victim support services 3.8.6 Maternity leave policy 3.8.7 Women's health screening and IVF regulation	Exclusive BF rate (first 6 months) Baseline: 12% Target: 25% (WHO guideline based on ranking of countries on exclusive BF rates. 50% corresponds to third quintile) Compliance with National Children Immunization Schedule at 1yr old Baseline: 94% - 100% Target: % > 98% for all immunizations
	3.9 Additional public health services	To improve coordination among stakeholders in select public health areas and ensure there are no gaps in services	3.9.1 National emergency preparedness plan and the role of healthcare 3.9.2 Synchronisation among stakeholders and increased enforcement 3.9.3 Air quality monitoring in coordination with the Ministry of Environment 3.9.4 Food Safety Authority 3.9.5 Data on road safety and plan to enhance emergency services coverage 3.9.6 Medical assessments of high-risk driver groups (e.g., commercial vehicle drivers) 3.9.7 Process to conduct environmental health impact assessment of projects	Target: National emergency preparedness plan (milestone) Target Environmental Impact Health Assessment process initiated for all projects which could affect Public Health (milestone) Target Reduce the annual number of road accidents from 3,00 per 100,000 people to 2,500, and related fatalities from 14 per 100,000 people to 10. Target: Food Safety Authority established (milestone)

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
4. Skilled national workforce	**4.1** Workforce planning	To develop a national strategy on workforce planning and implement workforce related national policies and programs	4.1.1 Task force (key stakeholder) established to provide strategic direction for workforce planning 4.1.2 National workforce plan or framework consistent with clinical service plan	Target: National workforce plan developed (milestone)
	4.2 Recruitment and retention	To enhance recruitment, and retention of quality healthcare professionals	4.2.1 Competitive perfomance based remuneration package 4.2.2 Clearly defined career structures and promotions linked to performance 4.2.3 Improved employment conditions for expatriates 4.2.4 Initiating structured professional development programs 4.2.5 Establishing secondment agreements with international partners 4.2.6 Longer-term contractual arrangements 4.2.7 Flexible working arrangements (permitting part-time contracts)	Baseline: Not available Target: 8% (based on 10 hospitals featured in *Fortune* as best places to work for in 2008)
	4.3 Professional education	To ensure that education for health professions contributes significantly to Qatar's future healthcare needs	4.3.1 Evaluation of diversification of healthcare education institutes, both locally and internationally 4.3.2 Enhanced sponsorship opportunities 4.3.3 Reduction of barriers to education (e.g., tuition, availability of part-time education, provision of childcare programs) 4.3.4 Alignment with Supreme Education Council on initiatives to meet healthcare professional education requirements	Medical graduates / 100,000 Baseline: 1 / 100,000 Target: 3 / 100,000 (OECD 2007 average 9.9 / 100,000, GCC est. [excl. Qatar]—5.7 / 100,000)
	4.4 Optimizing skill mix	To enhance the healthcare skill mix to support a multidisciplinary team, holistic, patient-centerd approach that enhances quality of care	4.4.1 Adoption of multidisciplinary team approach to service delivery 4.4.2 Bridging courses to increase the scope of work for select professional categories 4.4.3 Job descriptions and licensing changes. 4.4.4 New roles introduced (e.g., nurse practitioners, operating department assistant, physician assistant) 4.4.5 Awareness campaigns for allied health professions	Number of allied health professionals / 1,000 (e.g., occupational therapist / 10,000) Baseline: 0.4 Target: 4 (based on average of Australia 4.15, New Zealand 4.4)

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
5. National health policy	**5.1** SCH capacity building	To strengthen the SCH's ability to establish a strong national regulatory framework through increase in SCH internal capacity (quality and quantity)	5.1.1 Recruitment of SCH staff 5.1.2 Repeal of / exemption from HR law for healthcare sector 5.1.3 Implementation of IT systems, including ERP 5.1.4 HR strategy and processes (e.g., performance evaluation and assessment framework)	% Vacancy in SCH Baseline: 30% Target: 70% Target: Key positions required for strategy implementation within 3 months (milestone)
	5.2 Healthcare professionals	To improve the quality of healthcare professionals and establish QCHP as the regulator for healthcare professionals in Qatar	5.2.1 Health practitioner registration and licensing system 5.2.2 Strategic international partnerships (e.g., IAMRA) 5.2.3 Licensing examinations for select practitioner groups 5.2.4 Objective primary source verification and credentialing	% Healthcare professionals licensed by SCH Baseline: Not available Target: 100%
	5.3 Healthcare facilities	To enhance the quality and safety of health facilities in Qatar	5.3.1 Facilities licensing standards based on objective international standards 5.3.2 National accreditation standards for facilities 5.3.3 Education programs for facilities on safety	% Healthcare facilities licensed by SCH Baseline: 60% Target: 100% by 2012
	5.4 Healthcare products	To ensure effective use, safety, and quality of healthcare products by enhancing healthcare products regulation	5.4.1 Expanded scope to include medical devices 5.4.2 Medical device registration unit 5.4.3 National formulary 5.4.4 Education program for health professionals on narcotics and generic use	Target: Establishment of national formulary (milestone) Target: Coverage of medical devices (milestone)
	5.5 Patient advocacy body	To set up a neutral, confidential, and independent third party to support patients and protect patient rights	5.5.1 Patient advocacy body	Target: Patient advocacy body set up (milestone) Patient satisfaction scores % Patients answering yes to "Will definitely recommend hospital" Baseline: Not available Target: 70% (based on score of the 50th percentile score for hospitals rated through HCHAPs patient satisfaction survey by Medicare—sample size for question: 1,937 hospitals in US)

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
6. Affordable services	**6.1** Budgeting process	To develop a transparent budgeting process that enables monitoring and control of cost	6.1.1 Budgeting process and a transition plan 6.1.2 Institutional requirements for implementing budgeting process 6.1.3 Multiyear budgeting program for public health sector spending	Target: Multiyear activity based budgeting system set up (milestone)
	6.2 Management of treatment abroad	To examine treatment abroad and standardise processes to Optimize expenditures and enhance quality of care	6.2.1 List of preferred providers based on quality, and volume contracts negotiated with these providers 6.2.2 Single source for travel arrangements and development of package solutions 6.2.3 Follow-up care to take place in Qatar as appropriate 6.2.4 Definition of indications that are eligible for treatment abroad, and transparent application and approval process	% Follow-up in Qatar Baseline: Not available Target: 50%
	6.3 Health insurance establishment	To introduce health insurance as a tool for the development of sustainable quality health system	6.3.1 Health insurance scheme in Qatar 6.3.2 Full billing capabilities 6.3.3 Preauthorisation standards 6.3.4 Education and training programs 6.3.5 Transparent communication campaign	% Population with insurance coverage Baseline: Not available Target: 50% (Abu Dhabi launched mandatory insurance and achieved near 100% coverage in 5 yrs)
	6.4 Healthcare Infrastructure master plan	To create an integrated and coordinated healthcare infrastructure based on clinical services framework and population needs	6.4.1 Comprehensive healthcare infrastructure master plan 6.4.2 Process to update the healthcare infrastructure master plan annually	Target: Formation and approval of healthcare infrastructure master plan (milestone)
	6.5 Capital expenditure committee	To ensure public spending on infrastructure is based on needs and aligned to the model of care	6.5.1 Establishment of the capital expenditure committee according to the terms of reference 6.5.2 Defining certificate-of need-process for Qatar	% Compliance of eligible facilities / equipment with certificate of need process Baseline: Not applicable Target: 100%

Goal	Projects	Outcomes/ Objectives	Outputs	Baseline and Targets to 2016
7. High-quality research	**7.1** Research governance	To ensure coordination and sufficient funding for different types of healthcare research and enable high-quality health research in Qatar	7.1.1 Governance structure and legal framework for safe and innovative research 7.1.2 National coordination of health research activity through a centralised body (QMRC) (including specialised equipment purchasing) 7.1.3 Guidance on performing research according to international standards 7.1.4 Funding support for all national healthcare research priorities 7.1.5 New research models 7.1.6 Cross-stakeholder exchange mechanisms 7.1.7 Patient consent forms at institutions that perform research	Target: Establishment of national research governance body (QMRC) (milestone) No. of high-quality research papers (based on citation rate or on publication journal) in priority areas / researcher: Baseline: Not available Target: 4 (Based on RAE[7] [UK] criteria) RAE: Research Assessment Exercise (UK government body to assess quality of research institutes)

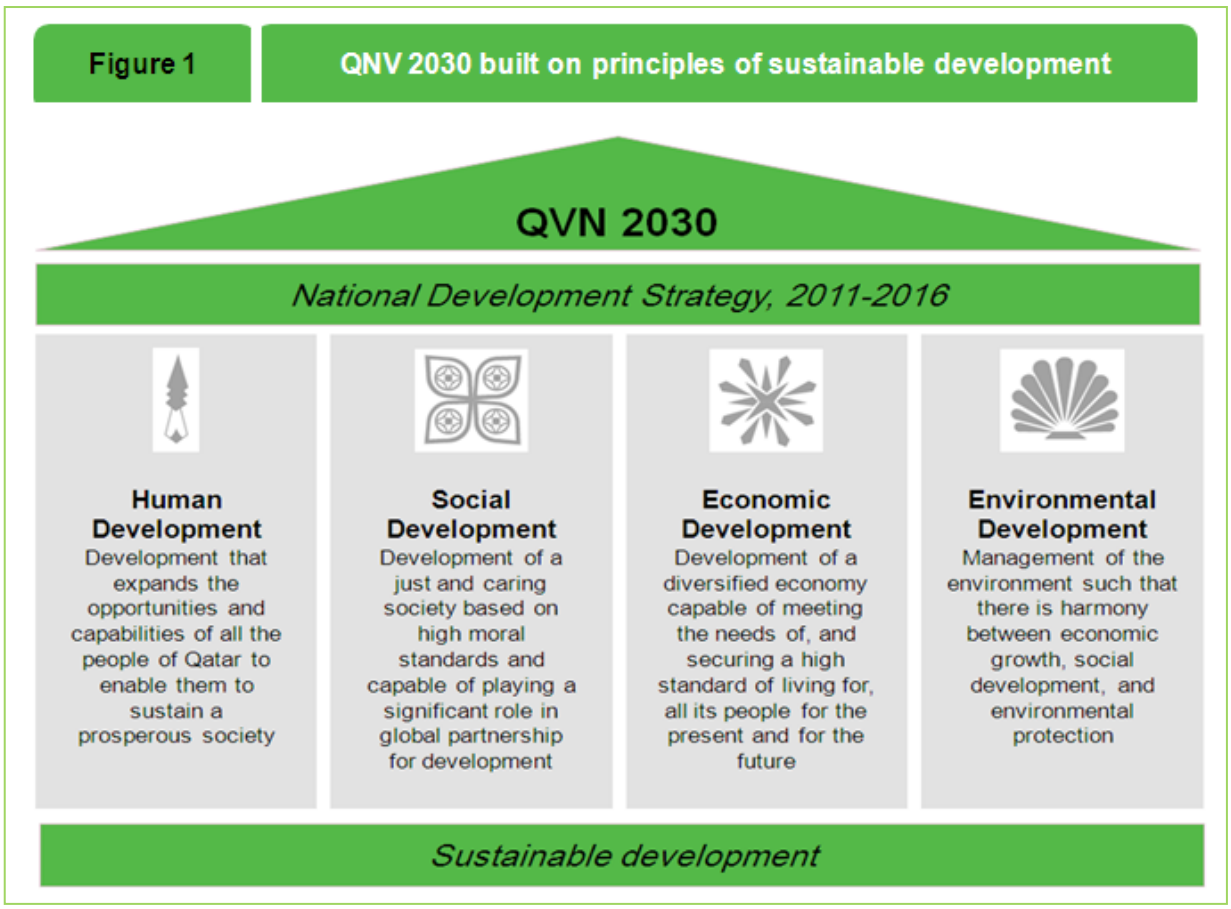
[7] "Research Assessment Exercise 2008: Panel Criteria and Working Methods. Panel A Covering Cardiovascular Medicine, Cancer Studies, Infection and Immunology, Other Hospital Based Clinical Subjects and Other Laboratory Based Clinical Subjects," January 2006.

Chapter 1 — Overview

Qatar National Vision 2030

"To improve the health of Qatar's population, Qatar aspires to develop an integrated system for healthcare, managed according to world-class standards. This system will meet the needs of existing and future generations and provide for an increasingly healthy and lengthy life for all citizens. All health services will be accessible to the entire population" (p. 14, QNV 2030)

Qatar's long-term development strategy, as articulated in the QNV 2030, is based on the guiding principles of Qatar's Permanent Constitution. It reflects the aspirations of the Qatari people and the resolve of their political leadership. The QNV 2030 rests on four pillars: human development, social development, economic development, and environmental development (Figure 1).



Source of data: QNV 2030, GSDP

The first pillar of the vision commits the government to continual human development through the establishment of advanced educational and health systems as well as increased and diversified participation of Qataris in the workforce and targeted participation of expatriate labour. Advancing healthcare is an integral part of realising the QNV 2030. On an individual basis, healthcare is one of the most important components in life, as diseases and illnesses affect the quality of life. On a

societal level, healthcare has a significant impact on both social and economic competitiveness. This is acknowledged in Qatar's Permanent Constitution, which states: *"The State shall foster public health; provide means of prevention from diseases and epidemics and their cure in accordance with the law."*

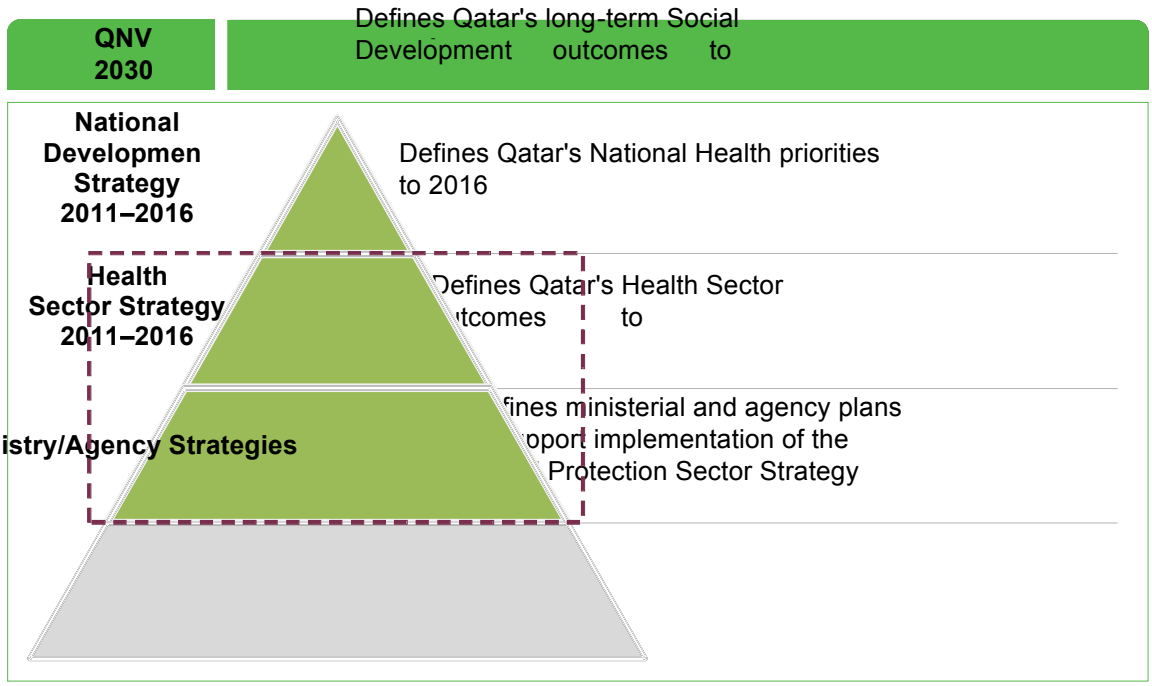
The QNV 2030 seeks to improve health outcomes by establishing a world class healthcare system whose services are accessible to the whole population, including:

- effective and affordable services in accordance with the principle and partnership in bearing the costs of healthcare;
- coverage of preventative and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children;
- high-caliber research directed at improving the effectiveness and quality of healthcare;
- an integrated system of healthcare offering high-quality services through public and private institutions operating under the direction of a national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare;
- a skilled national workforce capable of providing high-quality health services; and
- continued commitment by the state to provide sufficient funds for maintaining the health of Qatar's population in accordance with the principle of partnership in bearing the costs of healthcare.

National Development Strategy 2011–2016

To operationalize the core principles in the QNV 2030, Qatar's first NDS 2011–2016 will provide an integrated, medium-term framework for policy formulation, as well as determine regulatory and institutional framework changes and implementable projects linked to overall national and sectoral outcomes.

The Heath Sector Strategy described in this report will provide inputs into Qatar's NDS 2011–2016, which will ultimately be guided by the QNV 2030's desired goals and outcomes. It will also help define ministerial and agency plans, as illustrated in Figure 2.



Scope of report

The NHS 2011–2016 defines the health priorities that will be integrated into the NDS. It presents the key health outcomes that the country intends to achieve by 2016 based on a rigourous analysis of the current state of the health landscape and a careful consideration of emerging challenges. It also recommends a set of projects that should be implemented throughout its duration. The NHS outlines the requirements needed to effectively manage and implement the recommended set of programs, including coordination and enforcement; human resources; prioritisation; and monitoring and evaluation. These are critical elements in driving the implementation of the NHS.

The NHS is a summary of the situational analysis and the strategic recommendations and implementation reports. In the situational analysis report, the priority areas were identified through baseline and benchmark analyses of Qatar's current healthcare system as well as through a broad stakeholder input process. The strategic recommendations report built on the priority areas, using as a basis a significant stakeholder engagement process as well as continued benchmarking. Finally, in the implementation report, initiatives were outlined to support each recommendation, including core requirements, responsibilities, timelines, and key indicators.

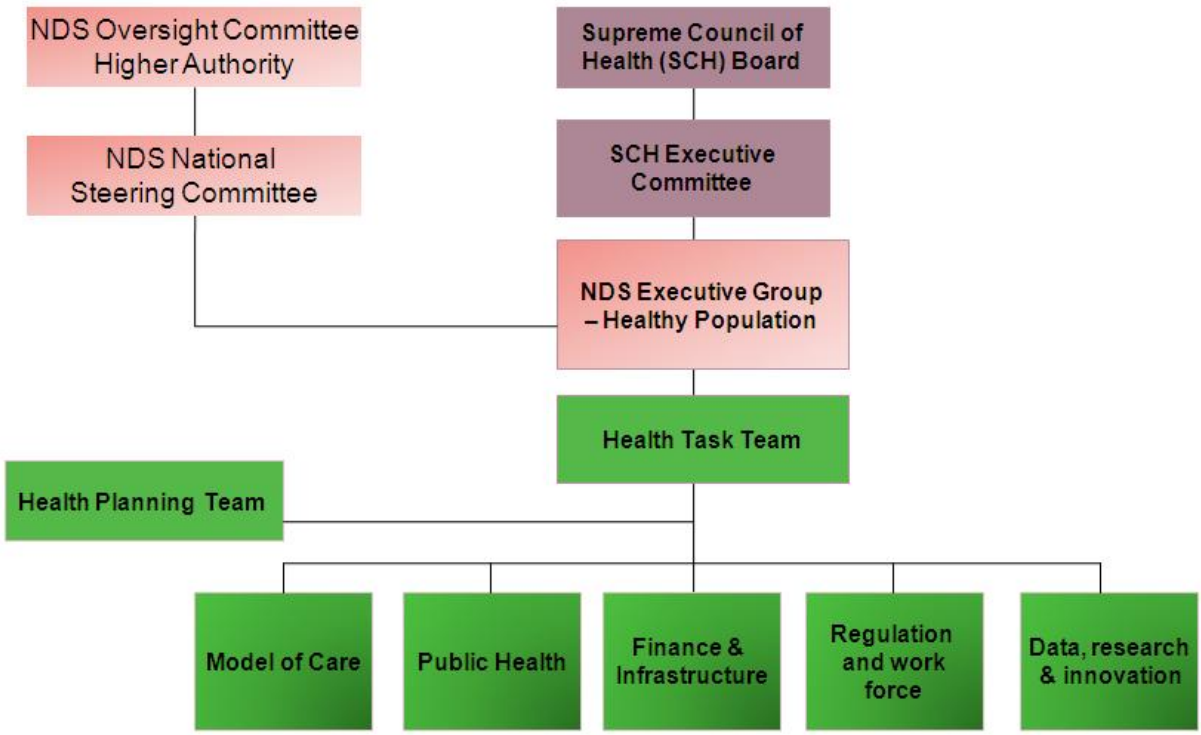
Methodology

The strategic interventions were formulated by using the priorities highlighted in the situational analysis as a basis; conducting multiple meetings with key stakeholders for each thematic area; carrying out stakeholder interviews with over 85 healthcare professionals; and benchmarking relevant healthcare systems.

The development of the strategy was led by the SCH with support from the GSDP. It was prepared through a full participatory process over a period of five months and was carried out in three phases that correspond to the three reports described earlier.

The process of developing the strategy involved the following groups (Figure 3):

Figure 3 Links between the National Development Strategy 2011-2016 and the Supreme Council of Health



1. National Healthcare Group
Source: Research Governance; a framework for human subjects research in NHG, Singapore National Healthcare Group, 2006; stakeholder interviews, BCG analysis.

The Executive Group served as overall oversight for the strategy's development.

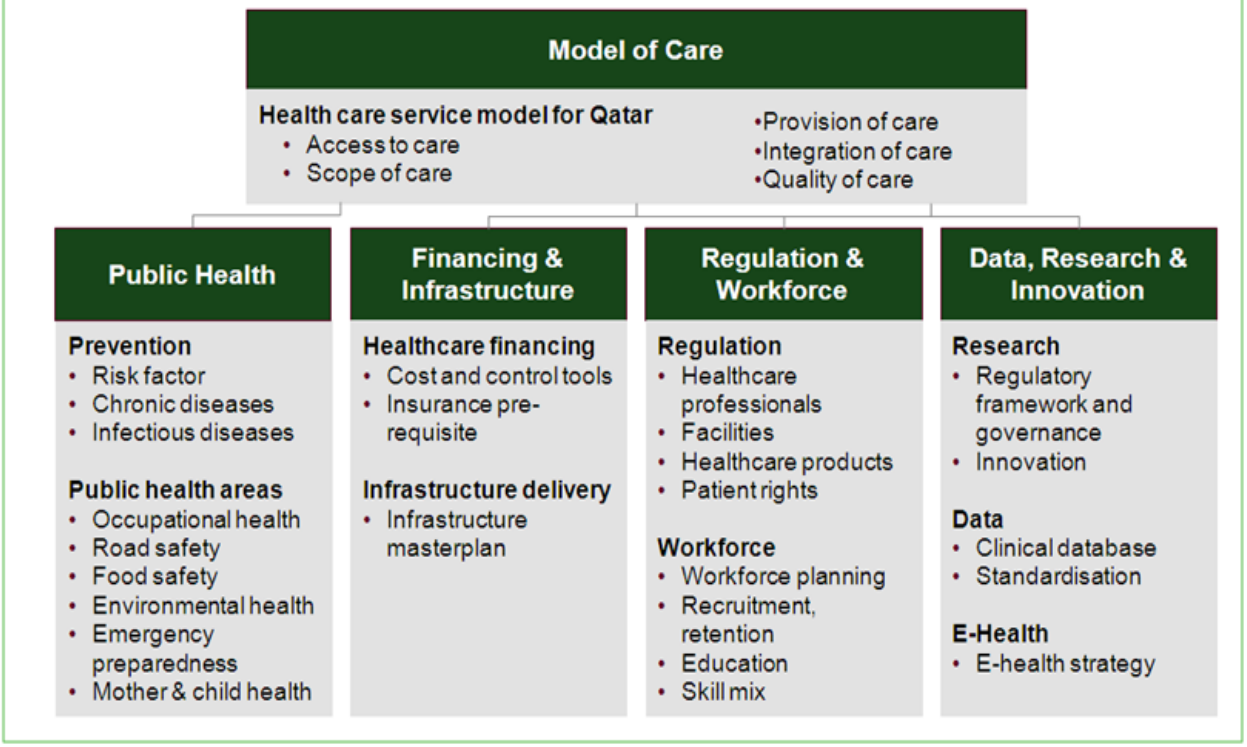
The Task Team reported to the Executive Group and consisted of leaders from major institutions within the health sector. It served as a decision-making body to validate findings and recommendations. See Annex B, Table 2.

The Planning Team met on a weekly basis to validate hypotheses regarding the situational analysis and to provide guidance on strategic recommendations and implementation plans. The Planning Team also facilitated meetings with key stakeholders. See Annex B, Table 1.

The Sub-Task Teams

A set of STTs grouped according to the major thematic areas of model of care, public health, financing and infrastructure, regulation and workforce and data, research, and innovation met regularly (see Figure 4). Over 30 meetings took place to establish priority issues, strategic recommendations were then made and validated through multiple iterative cycles, and an implementation plan was devised for each topic. Key cross-cutting concerns were also considered within the STTs.

Figure 4 Topics covered by each STT



Data was gathered through interviews with key stakeholders; the benchmarking of relevant healthcare systems and focus groups (hospital physicians, general practitioners and human resources). Multiple patient satisfaction and government public surveys were also reviewed to obtain public and patient opinion. Public and patient interaction will continue throughout implementation.

The inclusive approach adopted in developing the strategy is unprecedented in that never before has an intensive multisectoral engagement process taken place within the health sector. It has ensured that a broad spectrum of views was heard from key stakeholders. This approach will be continued to ensure ownership and buy-in as well as to facilitate implementation over the next five years. See Annex B – Tables 3 – 7.

Results

The NHS identified 35 projects for the health sector for the period 2011 to 2016, which are linked to QNV 2030 goals, supported by a series of outputs, and have baselines and targets to 2016. Implementation plans have been defined for each of the 35 projects, and organized into implementation templates, found in Annex A of this report. Each template describes key components of an implementation plan—namely activities, owners, deliverables, key performance indicators (KPIs) or milestones, interdependencies, risks, and mitigation measures. Activities may be added to each project as implementation progresses based on need. The number of projects is ambitious, given the time period for implementation. However, after extensive consultation with key stakeholders, these were the areas identified as necessary for improvement and development within the health sector for the nation. It was therefore important to incorporate all projects into the report, with resources to be focused on priority projects and activities.

Structure of report

As stated earlier, this report presents the why, the what, and the how for an NHS 2011–2016 for Qatar.

Chapter 1 presents an overview of the NHS, the methodology used, and the key stakeholder groups involved.

Chapter 2 presents the core of this report and the healthcare sector strategy. The chapter is segmented into seven sections, called sector goals, which follow the goals as outlined in QNV:

- Sector goal 1: Comprehensive world class healthcare system
- Sector goal 2: Integrated system of healthcare
- Sector goal 3: Preventive healthcare
- Sector goal 4: Skilled national workforce
- Sector goal 5: National health policy
- Sector goal 6: Affordable services
- Sector goal 7: High-quality research

Each sector goal consists of a description of the recommended projects, with outlined rationale based on the situational analysis and best practices, along with a reference to an implementation template in Annex A. Each implementation template provides a high-level overview of the implementation plan for the projects, including activities, timelines, risks, mitigating measures, and so forth.

Chapter 3 describes the level of institutional readiness of the health sector to achieve this transformation.

Chapter 4 presents indicative resource requirements for implementation, with estimates of the human and financial resources required to achieve each sector outcome in the NHS.

Chapter 5 describes the specific coordination, management, and key success factors that are needed to implement the NHS.

Chapter 6 explains the monitoring and evaluation processes for the projects.

Finally, **Chapter 7** presents the conclusion and its relation to cross-sectoral linkages.

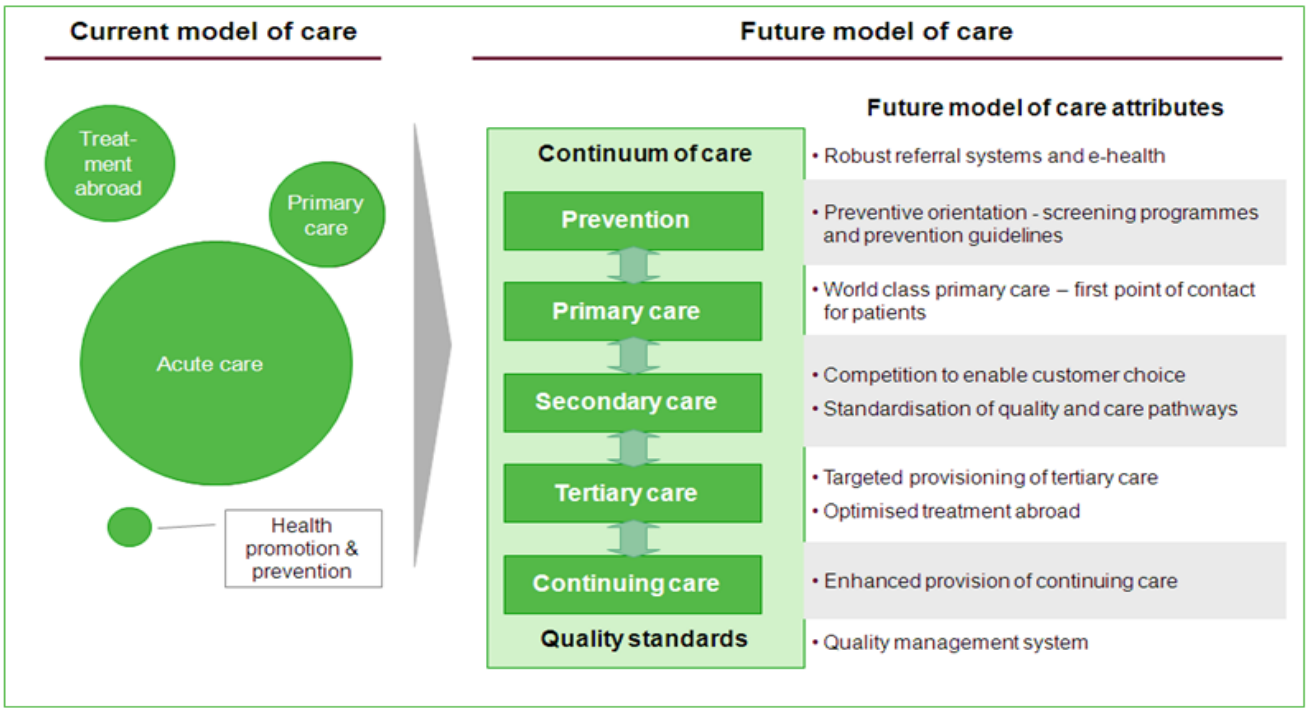
Chapter 2 — Sector Goals and Strategy

Sector goal 1—Comprehensive world class healthcare system

*"A **comprehensive world-class healthcare system** whose services are accessible to the whole population"* (QNV 2030)

The ambitions of a world class health system as laid out in the QNV 2030 will require Qatar to undergo significant redesign reform. As discussed further in this section, the current healthcare system in Qatar is fragmented and imbalanced. It is focused mainly on a curative approach through hospital services, with around 90 per cent of these services provided by Hamad Medical Corporation (HMC).[8] It is well recognized that Qatar needs to shift to a more preventive and community-based model, with better coordination and improved care quality at all levels.(Figure 5).

Figure 5 — **Future model of care**



The ideal future model of care must provide a full continuum of care, which relies on adequately balancing the levels of care—that is, primary, secondary, tertiary, and continuing care. Transitioning successfully from a highly hospital-centric model to a fully integrated system will require the implementation of the following identified projects for the NHS 2011–2016:

[8] Share estimate based on stakeholder interviews.

Primary care as the foundation

- Enable a strengthened primary care system as the cornerstone for comprehensive care that emphasizes wellness, bringing together health promotion, early detection and intervention, and evidence-based quality treatment for acute and chronic conditions.
- This involves ensuring the quality of appropriately trained primary healthcare staff, clearly defining the scope of services for primary healthcare that meets the needs of the population, utilising evidence-based guidelines and standards for the provision of care, building public trust, and ensuring allocation of an adequate budget to support the necessary changes.

Configuration of hospital services

- Define hospital designations by scope and governance, supporting a regionalised model and configure hospital services to meet future health sector needs.
- Base appropriate reductions in the length of hospital stay on a model of care that provides the continuum of care.
- Enhance opportunities for in-and-out, same-day procedures as medical practice focuses on more minimally invasive technologies.
- .Ensure the evidence-based provision of quality secondary and tertiary services.
- Avoid unnecessary duplication, specifically when related to procedures or services where critical mass is required for quality and safety.

Continuing care design

- Provide a clear framework for continuing care in Qatar, involving community and home-based programs that addresses emerging challenges and connects and integrates services for the elderly and rehabilitation care services.

Mental health design

- Implement the approved Model of Care for Mental Health services in Qatar, founded on enhanced community-based services, integration, and decreased stigma.
- Ensure that the rights of people with mental health conditions are protected under a National Mental Health Act and that they receive appropriate, high-quality care in the appropriate setting.

Emergency care services

- Enable the strengthening of evidence based emergency care service including trauma care

- Establish an integrated national framework for the provision of emergency services, to include delineation and scope of services for different providers and definition of national standards and operating protocols.
- Ensure adequate geographic coverage based on utilization and a hub-and-spoke model.

Community pharmacies

- Establish a community pharmacy network, supported by appropriate policy and process, decreasing the reliance on hospitals for filling drug prescriptions, leading to increased efficiency and enhanced access.

The ideal model of care must be integrated, with different healthcare providers working cohesively to deliver an effective whole. This will require producing national plans that deal with care pathways across an entire disease sector. In this section, the examples of Mental Health and Emergency Care services have been given, but it is envisaged that over the next five years, these principles will be applied to developing National Plans for cancer, diabetes, cardiovascular disease, and women's health, for example.

Project 1.1—Primary care as the foundation

Current status

The existing primary care system does not play a sufficiently strong role in preventing, monitoring, and treating diseases. Over the past decade the number of primary health centers (PHCs) has largely remained static, while the population has grown threefold.

Chronic diseases are the key healthcare issue that further accentuates the need for an integrated primary care system that meets these needs. Preventive measures and community-based care are far more effective and efficient ways to improve outcomes for a healthcare system.[9] Qatar's planned expansion of healthcare services has been focused mostly on secondary and tertiary care, with a lack of sufficient resources dedicated to primary healthcare improvement.

The Qatari public perceive hospital services as being of a higher quality and of a greater importance than primary care. A recent government survey that covered all public services highlighted primary healthcare as the number two area perceived to be in need of improvement.

[9] Center for Disease Control and Prevention. "Chronic Disease Overview: Costs of Chronic Disease." Atlanta: CDC, 2005.

The open access system for public service providers allows people, regardless of their healthcare needs, to choose whether to seek medical attention from primary or secondary care. Furthermore, primary care has limited integration with other components of the healthcare system. These factors have resulted in many patients presenting to hospitals for healthcare needs that would be more appropriately provided in the community.[10]

Qatar needs to address this situation by revitalising its primary care system, which:

- serves as both the entry point to the health system and the patients' advocate as they navigate that system (i.e., it should be fully integrated with other components of the healthcare system);
- is staffed with an adequate and high-quality workforce, including support staff that will enable a multidisciplinary approach:
  - Clinical care support (e.g. practice nurses, specialist nurses)
  - Administrative support (e.g., receptionists, practice managers)
  - Social services support (e.g., home meal delivery, home care, case management);
- delivers high-quality services driven by a governance framework (e.g., national standards of care, reporting of quality metrics, review and audit process); and
- enjoys significant public trust.

Primary care needs to become the foundation of the healthcare system in Qatar. The primary care system in the UK is exemplary of this setup.

Best practice—UK

Primary care is the cornerstone of the UK's National Health Service (NHS), which provides the following:

- A holistic approach that focuses on the person as a whole, improving the quality of clinical care for common conditions (e.g., lower mortality rates and better glycemic control than for diabetic patients treated by specialists)[11]
- An entry point for patients who require secondary or tertiary care and whose health problems can be managed before they are serious enough to require hospitalization (e.g., a 20 per cent increase in the number of GPs for every 10,000 people is associated with a

[10] Based on stakeholder interviews.

[11] Griffin, S., and Kinmonth, A.L. 1998. "Diabetes Care: The Effectiveness of Systems for Routine Surveillance for People with Diabetes." Cochrane Library.

decrease in hospital admission rates of about 14 per 100,000 for acute illnesses and about 11 per 100,000 for chronic illnesses)[12]

- Continuity and coordination of care through control of referrals and commissioning of services
- High-quality care through the department of health, which sets out in a framework the requirements needed by primary healthcare organisations. They are also independently reviewed by a quality commission. In addition, a percentage of payment received is dependent on meeting quality standards.
- Appropriate services in the primary healthcare setting range from core requirements (e.g., general physician and nursing support), to extensive coverage, (e.g., dental, psychology). Selection of services are made on the basis of:
  - Sufficient demand and requirement at the primary level
  - Cost-effective delivery at the primary level
  - Quality and safe delivery at the primary level
- Health promotion, prevention, and screening with real impact (e.g., a larger supply of primary care physicians is associated with earlier detection of breast cancer)[13]

Figure 6 highlights some actions that have been taken in the UK to make primary care the cornerstone of the healthcare system.

[12] Gulliford, M.C., Jack, R.H., Adams, G., and Ukoumunne, O.C. 2004. "Availability and Structure of Primary Medical Care Services and Population Health and Healthcare Indicators in England." BMC Health Services Research 4:12.

[13] Ferrante, J.M., Gonzalez, E.C., Pal, N., and Roetzheim, R.G. 2000. "Effects of Physician Supply on Early Detection of Breast Cancer." *Journal of the American Board of Family Practice* 13:408–414.

Actions		Examples
1.	Greater investment in primary care	• Higher level of investment in primary care than hospitals (90% of all contact with the NHS takes place outside hospital)
2.	Primary care given more opportunity to shape services that are provided in secondary care	• GPs directly managing local population healthcare budgets, to best deliver what local people want and need from secondary care
3.	Incentives and rules applied to providers in primary care to reduce inappropriate or ineffective care and to promote quality care	• Primary care payments linked to clinical outcomes, preventive treatments and screening.
4.	Shifting hospital services into primary care setting	• Minor procedures and diagnostics performed in the community, e.g. USS
5.	Case and disease management performed in primary care	• Diabetics educated and managed by nurse specialists in community, with appropriate referrals for check-ups

Source of data: GSDP work team analysis

New directions

The WHO recognizes and promotes health systems oriented towards primary health care as more likely to deliver better health outcomes and greater public satisfaction at lower costs (WHO, 2008a). Effective focus on primary prevention and health promotion can potentially prevent up to 70% of disease burden (WHO, 2008b).

Primary care should be the cornerstone of a future person-centred health system in Qatar. It should be the first medical point of contact and should assume the role of a trusted partner. Primary care should empower people to enhance and achieve wellness, prevent illness, and participate in self-care. However, when medical care is needed, primary care should provide appropriate quality services and act as the patients' advocate through their journey through the healthcare system.

In November 2008, Qatar hosted a Primary Health Care (PHC) conference in which the Qatar Declaration on Primary Health Care was signed by all 22 WHO-Eastern Mediterranean Region (EMR) member states. This Declaration reaffirmed the PHC approach as the main strategy to achieve better heath and well-being for people of the region.

Achieving this vision will require the following:

1. A clearly defined model of primary care—services to be provided and primary care network design (number of centers, locations)—in alignment with configuration of services
2. Significant investment in the existing primary care system to build a revitalised world class primary care system:
    - Capacity and skilled staff, including additional managerial leadership resources, must be in place. Capacity expansion should also include support staff—that is, clinical care support (nurses), administrative support and social care support.
    - Infrastructure and equipment requirements must be sufficiently funded.
3. Full integration with other elements of the healthcare system, with primary care acting as the hub of the integration, providing the first access point and coordinating care:
    - Patient care pathways supplying standardized evidence-based treatment as a patient journeys from primary to secondary or tertiary care
    - An integrated referral system between primary and secondary or tertiary care
    - An integrated information system
4. Clear structural affiliation, governance, and coordination between primary care and key stakeholders
5. A primary care forum to engage PHCs and private practitioners
6. A future health insurance design that appropriately incentivizes primary healthcare
7. Public awareness campaigns to create understanding, acceptance, and trust among the people of Qatar

Implementation template 1.1 in Annex A

Project 1.2—Configuration of hospital services

Current status

The major focus of healthcare services in Qatar has thus far been on hospital-based care. However, the future model of care foresees a shift toward more outpatient and community-based care. Advancements in medical practice—in particular, (1) significantly reduced lengths of stay due to improved technology and medication and (2) the increasing opportunities for outpatient procedures due to the availability of minimally invasive procedures—have triggered an international trend to adjust the configuration of hospital services accordingly. Finally, there are important services (e.g., mental health and continuing care, discussed in subsequent sections) that have previously received limited attention and need to be addressed now.

The future health service landscape should match the nation's healthcare needs. This transition requires strong national coordination, evidence-based planning, and governance. To ensure this, Qatar needs to determine the future configuration of services in a planned manner. A Clinical Services Framework (CSF) project that will help to achieve this goal is currently under way.

Best practice—Australia

The department of health[14] of the Government of Western Australia developed a CSF that sets out the planned structure of public health service provision in Western Australia over the next 10 years. It is an important tool for strategic state-wide planning and assists local health services in developing localised clinical service plans. It is a comprehensive framework and includes nonhospital services like ambulatory care, mental health care, primary care, dental care, and more. The framework is developed on the basis of:

- detailed modelling and role delineation of services currently provided;
- modelling not only for inpatient services, but also for no admitted and emergency department services;
- demographic information based on the results of the latest census data available (2006 Population Census); and
- progress on the development and implementation of models of care.

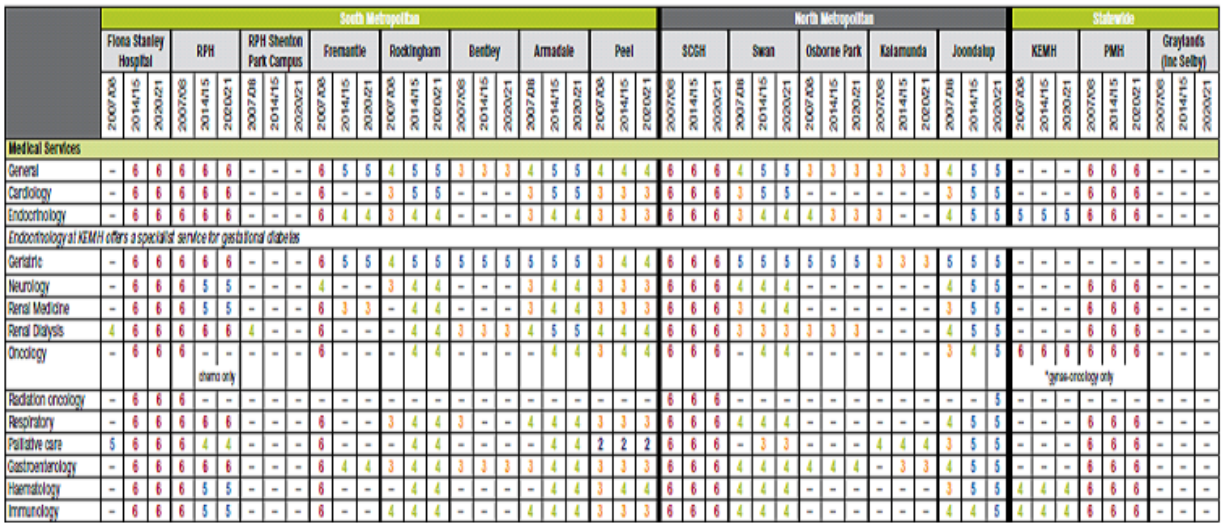
It also sets out the framework to assist local planning and infrastructure, information and communication technology, and workforce planning across the health system. (See Figure 7.)

[14] "WA Health Clinical Services Framework 2010–2020." Department of Health, Western Australia, 2009.

Figure 7 **Western Australia Clinical Services Framework showing planned configuration of services**

Partial view

METROPOLITAN HOSPITAL CLINICAL SERVICES FRAMEWORK



	South Metropolitan																									North Metropolitan															Statewide								
	Fiona Stanley Hospital			RPH			RPH Shenton Park Campus			Fremantle			Rockingham			Bentley			Armadale			Peel			SCGH			Swan			Osborne Park			Kalamunda			Joondalup			KEMH			PMH			Graylands (inc Selby)		
	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21	2007/08	2014/15	2020/21
Medical Services																																																
General	–	6	6	6	6	6	–	–	–	6	5	5	4	5	5	3	3	3	4	5	5	4	4	4	6	6	6	4	5	5	3	3	3	3	3	3	4	5	5	–	–	–	6	6	6	–	–	–
Cardiology	–	6	6	6	6	6	–	–	–	6	–	–	3	5	5	–	–	–	3	5	5	3	3	3	6	6	6	3	5	5	–	–	–	–	–	–	3	5	5	–	–	–	6	6	6	–	–	–
Endocrinology	–	6	6	6	6	6	–	–	–	6	4	4	3	4	4	–	–	–	3	4	4	3	3	3	6	6	6	3	4	4	4	3	3	3	–	–	4	5	5	5	5	5	6	6	6	–	–	–
Endocrinology at KEMH offers a specialist service for gestational diabetes																																															
Geriatric	–	6	6	6	6	6	–	–	–	6	5	5	4	5	5	5	5	5	5	5	5	3	4	4	6	6	6	5	5	5	5	5	5	3	3	3	5	5	5	–	–	–	–	–	–	–	–	–
Neurology	–	6	6	6	5	5	–	–	–	4	–	–	3	4	4	–	–	–	3	4	4	3	3	3	6	6	6	4	4	4	–	–	–	–	–	–	4	5	5	–	–	–	6	6	6	–	–	–
Renal Medicine	–	6	6	6	5	5	–	–	–	6	3	3	–	4	4	–	–	–	3	4	4	3	3	3	6	6	6	3	4	4	–	–	–	–	–	–	3	5	5	–	–	–	6	6	6	–	–	–
Renal Dialysis	4	6	6	6	6	6	4	–	–	6	–	–	–	4	4	3	3	3	4	5	5	4	4	4	6	6	6	3	3	3	3	3	3	–	–	–	4	5	5	–	–	–	6	6	6	–	–	–
Oncology	–	6	6	6	–	–	–	–	–	6	–	–	–	4	4	–	–	–	–	4	4	3	4	4	6	6	6	–	4	4	–	–	–	–	–	–	3	4	5	6	6	6	6	6	6	–	–	–
					pharma only																																				*gynae-oncology only								
Radiation oncology	–	6	6	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	6	6	–	–	–	–	–	–	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–
Respiratory	–	6	6	6	6	6	–	–	–	6	–	–	3	4	4	3	–	–	4	4	4	3	3	3	6	6	6	4	4	4	–	–	–	–	–	–	4	5	5	–	–	–	6	6	6	–	–	–
Palliative care	5	6	6	6	4	4	–	–	–	6	–	–	–	4	4	–	–	–	–	4	4	2	2	2	6	6	6	–	3	3	–	–	–	4	4	4	3	5	5	–	–	–	6	6	6	–	–	–
Gastroenterology	–	6	6	6	6	6	–	–	–	6	4	4	3	4	4	3	3	3	3	4	4	3	3	3	6	6	6	4	4	4	4	4	4	–	3	3	4	5	5	–	–	–	6	6	6	–	–	–
Haematology	–	6	6	6	5	5	–	–	–	6	–	–	–	4	4	–	–	–	–	4	4	3	4	4	6	6	6	4	4	4	–	–	–	–	–	–	3	5	5	4	4	4	6	6	6	–	–	–
Immunology	–	6	6	6	5	5	–	–	–	6	–	–	4	4	4	–	–	–	4	4	4	3	3	3	6	6	6	4	4	4	–	–	–	–	–	–	4	4	5	4	4	4	6	6	6	–	–	–

This planning of services is scheduled for updates at regular intervals to respond to emerging trends in demand, clinical practice, technology, and policy.

New directions

The starting point will be the CSF that will provide the evidence base to determine the future configuration of services. This will be a blueprint for providing safe, high-quality care in the most efficient and effective manner possible. Qatar needs to ensure that it gets the best outcomes, clinical and financial, from its hospital services.

1. Review the provision of hospital services to ensure that they are more closely designed around the needs of patients.
2. Define acute hospital designation by scope and governance, supporting regionalised provision of services where appropriate.
3. Establish dedicated national centers of excellence for priority areas, thereby avoiding unnecessary duplication of services, particularly for services where sufficient caseloads do not exist.
4. Ensure access for all providers to central resources, like laboratory and pathology facilities, whose capacity requirements should be modelled with the CSF in mind.
5. Provide residents with a directory of health services showing geography and function.

Implementation template 1.2 in Annex A

Project 1.3—Continuing care design

Current status

Continuing care comprises the areas of rehabilitation, subacute facilities, long-term-care facilities, nursing homes, and, of great importance, an empowered community-based support system. There is a definite need for enhancing continuing care services in Qatar, particularly in light of disability due to congenital diseases and RTAs. The need for continuing care is accentuated because of the high rates of chronic disease and because the population is aging. Qatar has no comprehensive and integrated system for providing these services yet. Rumailah Hospital is the only major rehabilitation center for physically and mentally challenged adult and paediatric patients, but this facility also provides a wide range of other services, from dental care to plastic surgery. Availability of community-based services and support is limited. Several initiatives are under way that need to be coordinated to form a national framework of services capable of addressing the priority needs for continuing care. It is also important to ensure that the design of these services is based on international best practice. Qatar needs a comprehensive continuing care strategy and action plan.

Best practice—Norway

Norway has the second-highest share of GDP spending on continuing care among all Organisation for Economic Co-operation and Development (OECD) countries for which data is available. Norway has a long established welfare-state tradition, and this is the underlying driver for providing comprehensive continuing care services targeted at the elderly, driven by a well-defined strategic plan. The key findings are these:

- A major national strategic initiative from 1998–2001, called the "Action Plan for the Elderly," focused on strengthening home-based care, expanding assisted living centers, and modernizing nursing homes. It included an Action Plan that was estimated to cost 30 billion Norwegian kroner (NOK) (about $4.8 billion) over the four-year period, laid out concrete action steps, and made earmarked funds available to local authorities to implement the plan. As a result, 25,000 adapted dwellings for older people were built.
- Enabling older people to live independent lives in their homes and communities as long as they wish is a national goal, and in-home services are a core component of Norway's long-term care system. According to the Norwegian Ministry of Health,[15] 15 per cent of people 65 or older receive home nursing or home help, a proportion that almost doubles (to 29 per cent) for people age 80 or older. Of people 67 or older, 6.6 per cent are in nursing homes, with about 95 per cent having private rooms.
- The service provision is driven by the public sector. Ninety per cent of the institutional service is public, provided mostly by large public providers, and 88 per cent of financing is through public sources.

[15] "European Experiences with Long-Term Care." AARP European Leadership Study, October 2006.

- Provision of services is largely decentralised and integrated at the level of the municipality, the lowest tier of government. (Norway has 431 municipalities, 50 per cent of which cover a population of less than 5,000). Municipalities set standards for quality of care and qualifications of personnel. The provisioning by the municipality also ensures integration with primary healthcare, since the municipality is also responsible for primary healthcare.
- Services provided are accessible. The nursing homes, for example, are affordable by any Norwegian with a minimum pension. People with higher wages pay $1,250 per month for food and rent while care services are funded by the municipality.
- Financial support is given to home care givers—a "care wage," which in 2002 was received by about 6,700 caregivers attending to people of all ages with a severe disability. The wage is not income-tested or taxable; the amount depends on need, with an average of about $740 per month.

As a result, home nursing has undergone considerable expansion in Norway since the early 1990s, and services are increasingly available around the clock. By 1998, over 80 per cent of municipalities could provide 24-hour home nursing services.

New directions

Qatar needs a comprehensive continuing care strategy that adequately addresses the needs of population. This will require:

1. assessing current and future needs of continuing care services;
2. developing the model of care and configuration of continuing care services in Qatar;
3. developing and implementing initiatives for support for community-based-care activities;
4. providing sufficient funding for continuing care; and
5. aligning with a mental health strategy.

This continuing care strategy will require involvement by both public and private stakeholders to succeed.

Implementation template 1.3 in Annex A

Project 1.4—Mental health design

Current status

Mental health is a broad topic that ranges from learning disabilities and attention deficits to mild depression and severe psychiatric and even forensic disorders. Despite the lack of data, it is safe to assume that mental health problems are much more common in Qatar than many people realize. Like elsewhere in the world there is a stigma associated with mental illness. Qatar needs to address the mental health needs of its population. The provision of mental health services

should be based on international best practices, with a strong role for community services. Mental health in Qatar historically has not received the required attention. However, there has recently been a major focus on mental health, with an approved model of care for mental health services that revolves around community-based care.

Best practice—Australia

Australia first developed its mental health strategy in 1992 as a framework to guide mental health reform. The national mental health strategy[16] aims to:

- promote the mental health of the Australian community;
- where possible, prevent the development of mental disorder;
- reduce the impact of mental disorders on individuals, families, and the community; and
- assure the rights of people with mental illness.

This strategy includes a national mental health policy, a national mental health plan, the Mental Health Statement of Rights and Responsibilities, and the Australian healthcare agreements (to ensure funding to local health authorities for mental health). The national mental health strategy has been revised and reaffirmed three times since it was first developed. It has emphasized community-based services, which have increased their share of government spending on mental health from 29 per cent between 1992 and 1993 to 53 per cent between 2006 and 2007. During the same period, the strategy has driven a growth in the mental health specialist workforce by 51 per cent, from 14,084 workers to 21,207 workers. The action plan includes a National Survey of Mental Health and Wellbeing. The survey provided evidence of the impact of these changes, finding that the percentage of those with a mental illness who saw a mental health professional in 2007 was almost double those who did so in 1997. The action plan included a national mental health literacy campaign called "beyondblue." Research has demonstrated an increase in awareness of depression and the issues associated with it. The action plan also acknowledges that several determinants of mental health and well-being are outside the domain of the health system and hence actively fosters cross-sectoral partnerships—for example, working with the housing sector to recognize the needs of those with mental illness when planning social housing initiatives. Another cross-sectoral example is the healthcare system working with the justice sector to develop diversionary programs for people with mental illness or substance dependency. These achievements have led to Australia being regarded as a world leader in mental health system reform.

New directions

Qatar needs to implement the approved model of care for mental health, providing a range of treatment and support services for people with mental illness, connected across the spectrum of care, particularly in the community. Qatar also needs to ensure adequate and effective coverage across all age groups and care locations (e.g., primary care, community mental health services,

[16] "Fourth National Mental Health Plan: An Agenda for Collaborative Government Action in Mental Health 2009–2014." Australian Health Ministers' Conference, 2009

and inpatient acute clinical care). This requires the development and implementation of a comprehensive mental health strategy that should support the model of care through:

1. needs assessment for mental health services;
2. mental health policy and legislation;
3. support for community-based services;
4. sufficient and effective funding for mental health;
5. dedicated mental health research;
6. a mental health surveillance system;
7. public awareness to reduce the stigma on mental health;
8. strong emphasis on screening, prevention, and health promotion in the community;
9. enhancing mental health services within primary care;
10. providing continuity of mental healthcare; and
11. mental health standards.

Implementation template 1.4 in Annex A

Project 1.5—Emergency care services

Current status

Currently the majority of emergency medicine services are provided by HMC. The major existing ambulance service provider, Emergency Medical Services (EMS), is operated by HMC. HMC has the only level 1 Accident and Emergency (A&E) department in Qatar. The continuing growth of Qatar's population poses two challenges for effective emergency medical services: (1) a need for qualified staff, and (2) expanding strategic geographic coverage and positioning to Optimize service quality (e.g., response times relating to outcomes).The growth in diversifying health service providers requires integration and standardization of emergency services to ensure adequate coordination and quality emergency care.

Best practice—UK

The UK has one of the best standards and achievements for emergency response times[17] in Europe—75 per cent of category A (life-threatening) emergencies have to be responded to within eight minutes, and 98 per cent of patients are satisfied with the service they receive. This is a result of a 10-year reform plan[18] that suggested a radical rethinking of emergency care services in 2000. The plan was launched in response to long delays in accessing emergency care services in

[17] "Ambulancecare in Europe," Ambulancezorg Netherlands, January 2010.

[18] "Emergency Care Ten Years On: Reforming Emergency Care," Professor Sir George Alberti, National Director for Emergency Access, 2007.

the mid-1990s. In 2001, a 10-year strategy, “Reforming Emergency Care,” was published to drive changes in emergency care. The overarching aim of the strategy was to think about services from the patient’s perspective and to offer high-quality timely care for all patients. The strategy was translated into a concrete National Service Improvement Program with funding from the Department of Health. The program has resulted in the:

- Establishment of emergency care networks (ECNs) to involve partners in emergency care such as ambulance services, primary care trusts, social services, and the volunteer sector. Over time, some of these developed into urgent care networks addressing the provision of care across the whole urgent and emergency care spectrum.
- Development of quality improvement tools for A&E departments. These included a diagnostic tool that helps in understanding areas that should be the focus of service improvement efforts, checklists making a number of practical recommendations that helped reduce delays, a comprehensive guide to delivering emergency care along the whole patient pathway, a consolidated guide for ambulance services, and an early warning tool to improve operational responses to markers of increased demand.
- Setting of standards for emergency care services. A key target was for no patient to spend more than four hours from arrival to admission, transfer, or discharge by the end of 2004.
- Development of NHS walk-in centers and minor injury units to help improve access to care.
- Increased investment in ambulance services. Based on 243 patients given prehospital thrombolysis, data for 2003 recorded that 92 per cent of patients with ST elevation myocardial infarction were treated within the 60-minute standard.

As a result of these initiatives, the NHS in England was able to deliver high-quality emergency services. By 2005–2006, for instance, 98 per cent of patients were seen, diagnosed, and treated within four hours of their arrival in A&E.

New directions

Qatar needs to establish fully functioning and efficient emergency care services that should include:

1. Establishment of a national ECN
2. Development of national standards and operating protocols for emergency care services
3. Assessment of needs for emergency services, emergency care staff, and infrastructure
4. Role and scope delineation for facilities that provide emergency care services

5. Implementation of other emergency services improvement initiatives (e.g., working with the Ministry of Interior to launch an information campaign on traffic rules for ambulance services or promoting first-aid courses for the general public)

Implementation template 1.5 in Annex A

Project 1.6—Community pharmacies

Current status

Currently in Qatar, there is unnecessary crowding at hospital pharmacies. This is due to (1) only public sector hospital pharmacies carrying the full spectrum of drugs, (2) availability of subsidised drugs at public sector pharmacies, and (3) providers prescribing insufficient refills. To access certain drugs only available at HMC, private providers need to refer patients to the public sector for care. This situation negatively impacts patients' satisfaction and system efficiency. Giving community pharmacies a stronger role could help to address these issues. Qatar can leverage the potential of community pharmacies to improve efficiency and access in the community.

Best practice—UK / Australia

Community pharmacies play a critical role in the dispensation of drugs in the UK: they handle 89 per cent (2005) of the prescriptions and are places of work for 73 per cent of active pharmacists. There are 10,475 community pharmacies in England; this amounts to approximately one for every 5,000 residents. The NHS has driven for increasing the importance of community pharmacies on two fronts: (1) expanding public access to medicines, and (2) enhancing the role of pharmacists to provide more care in community.

The NHS views community pharmacies as key to increasing the public's choice of when, where, and how to get medicines. To drive this agenda further, the NHS implemented an initiative to freeing up restrictions in England on locations of new pharmacies, easing bureaucracy around repeat prescriptions, and expanding the range of medicines that can be provided without prescription.

More recently the NHS has been pushing to change the role of the community pharmacist by increasing their contribution to primary healthcare.[19] To achieve this change, the NHS developed a new pharmacy contractual framework. This framework has three tiers of services: essential, advanced, and enhanced services. Essential services include the traditional dispensing role of

[19] "Changing Role of Pharmacies." Parliamentary Office of Science & Technology, July 2005.

pharmacies. Advanced and enhanced services are intended to change the role of the pharmacists. Under advanced services pharmacists can offer medicinal usage review, in which they undertake a review (of both prescribed and nonprescribed medicines) with patients receiving medicines for long-term conditions in order to establish a picture of their use of the medicines. This will help patients understand why the medicines are prescribed for them, and will identify side effects to which they may be exposed. Enhanced services aim to better use pharmacists' skills. Two examples are (1) a minor ailment scheme that includes treatment for conditions such as athlete's foot, earache, constipation, hay fever, and cystitis, and (2) a supplementary prescribing scheme, including repeat prescribing, where the idea is to reduce the general practitioner's (GP's) load (currently 75 per cent of GPs' prescriptions are for repeat medicine).

Similarly, in Australia, community pharmacies have been active in the field of health promotion. The Pharmacy Guild of Australia conducted a nationwide campaign on safe alcohol consumption in 2004. As of May 2005, more than 60 per cent of Australian community pharmacies were offering weight management services through the "Lifeweight" program. Research has also demonstrated the increased effectiveness of smoking cessation programs with the involvement of community pharmacies. Given the high proportion of the population that visits community pharmacies, they are viewed as a valuable health promotion setting.

New directions

Qatar should encourage a stronger role for community pharmacies. This will involve:

1. Assessing needs for, and developing a model of, a community pharmacy network
2. Enacting appropriate policy changes to support the implementation of the new model
3. Ensuring all drugs are available at community pharmacies
4. Increasing utilization of community pharmacies by providers

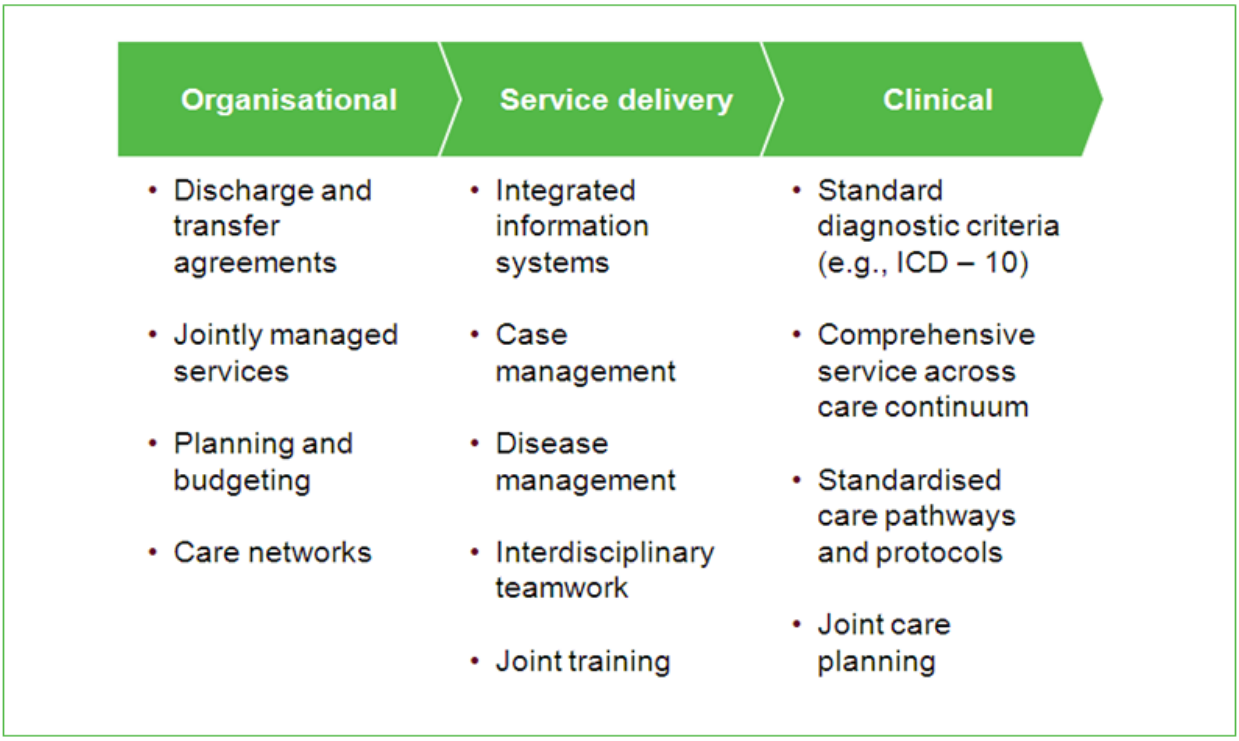
Implementation template 1.6 in Annex A

Sector goal 2—Integrated system of healthcare

*"An **integrated system** of healthcare offering high-quality services through **public and private** institutions"* (QNV 2030)

The future Qatar healthcare system must provide a full continuum of care whereby patients experience and benefit from the system's cohesiveness and connectedness. Integration is vital to achieving this outcome. Integration creates coherence and synergy among various parts of the healthcare system so that efficiency, quality of care, and patient experience are improved. Figure 8 highlights some of the methods and tools that can be utilised across the different levels.[20]

Figure 8 Example methods of integrating a healthcare system



Currently the healthcare system in Qatar has limited coordination and standardization, which can lead to fragmentation of care and inefficiencies. A concerted effort is needed to integrate Qatar's healthcare. This will involve some of the methods shown in Figure 6.

[20] Adapted into the diagram from Kodner, D.L., and Spreeuwenberg, C. 2002. "Integrated Care: Meaning, Logic, Applications and Implications—A Discussion Paper." *International Journal of Integrated Care* 2(3).

Quality improvement

- Establish a culture of continuous quality enhancement throughout the healthcare system, and a framework for clinical process improvement.
- Define and disseminate evidence-based national clinical guidelines, patient pathways, and standard procedures for referral and discharge.
- Establish performance agreements with healthcare providers, which link outcomes to accountabilities.

Disease management programs

- To improve health outcomes, establish a system of coordinated healthcare interventions that address the full range of needs for individuals with priority chronic conditions such as diabetes or cardiovascular illnesses.
- Emphasize prevention of exacerbations and prevention of co-morbidities and complications through the use of evidence-based practice guidelines, patient empowerment strategies, and regular monitoring of patients.

Healthcare data program

- Access to accurate information is vital for health sector planning, as well as for measuring and monitoring the quality, safety and effectiveness of the healthcare system and population outcomes.
- There must be a program in place that defines data requirements, enables stakeholders to meet the requirements, and mandates reporting of these data.

E-health establishment

- Establish an effective and integrated national e-health system, with a clear governance framework to drive improvements in quality, safety, efficiency, and patients' experience of healthcare in Qatar, ensuring full compatibility across all levels of care.

Private sector involvement

- Healthy competition is likely to have a beneficial impact on the quality, choice, and efficiency of healthcare, and the private sector can play an important role in assuming appropriate regulation and quality assurance.
- A private sector engagement strategy will enable greater involvement by the private sector in providing healthcare services in Qatar.

Project 2.1—Quality improvement

Quality improvement involves transforming healthcare for patients by developing a culture of continuous improvement and quality in all aspects of healthcare service delivery. This topic is broad and stretches from enhancing logistic processes to the use of best-practice clinical guidelines for clinical outcome improvements.

Current status

There is no national system for quality management (e.g., limited standardization, quality metrics, and reporting requirements). HMC has obtained JCI accreditation, and set up a center for continuous improvement and has already started to reap the rewards with positive changes in certain departments. However, there needs to be a national framework for both encouraging organisation-wide and nationwide improvements and integration. The SCH has a newly established department for quality, but this department needs strengthening and capacity building in order to fulfil this role.

The following are examples of problem areas:

- There is limited integration between providers in Qatar's current healthcare system. Primary care provides referrals to secondary services, but often without a standard referral letter and with limited flow of information back to the primary care system. Especially of concern is the fact that secondary services do not furnish a standard set of clinical information to primary care after a patient episode, thereby jeopardising the continuity-of-care process. Although there has been progress in standardising discharge summaries reaching primary care for follow-up, there is still considerable room for improvement.
- Stakeholder interviews have highlighted that even though some evidence-based medicine and clinical pathways have been implemented, their scope is narrow, their use is not widespread, and they do not encompass all providers.
- Comparison of quality standards either within Qatar, or with other nations, is almost impossible because of a lack of widely available quality indicator data.

Best practice—Denmark / UK / US

In 2007, the Danish government, regions, and municipalities committed to developing and implementing national care pathways for all types of cancer. The pathways were based on national clinical guidelines. The aim was to ensure that all cancer patients receive fast-tracked care through all stages of treatment. At the end of 2008, pathways for 34 cancer types had been finalized and put into effect, covering almost all cancer patients. A national agency monitors the pathways and the speed at which patients are diagnosed and treated.

In the UK, the National Institute for Health and Clinical Excellence (NICE) provides guidance, sets quality standards, and manages a national database to improve people's health. In particular, NICE gives guidance on public health, health technologies, and clinical practice. These are new directions, based on the best available evidence, on the appropriate treatment and care of people with specific diseases and conditions.

In the US, the Institute for Healthcare Improvement (IHI) works to accelerate improvement by building the will for change, cultivating promising concepts and best practices for boosting patient care and helping healthcare systems put those ideas into action.

New directions

Qatar's healthcare system should establish a strong focus on quality through standardization, establishing processes for integration, and a culture of continuous improvement. Innovation and use of best practices should be rewarded and recognized, and there should be mechanisms to share successful local innovations across the whole health system. To achieve this, the following are required:

1. **Standardization—**Standardization is an important tool to ensure a minimum-quality output. The SCH should provide guidance to all—but mandates to those providers who want reimbursement from public finances—on the use of clinical guidelines for disease-specific treatment, patient pathways, and continuity-of-care processes. These should be based on international best practice as refined for local needs.
2. **Process integration—**Refine referral and discharge procedures in order to better integrate across the healthcare continuum and between public and private organisations.
3. **Concept of quality improvement—**The SCH must enable all providers to establish a transparent and clearly defined quality management process. For example, the SCH must mandate that every health service provider collect quality metrics and perform internal audits.
4. **Health quality metrics—**Health service performance results should be published to allow the public to make informed choices based on quality parameters.
5. **Performance agreements—**Develop healthcare KPIs and incorporate mandated reporting to SCH through performance agreements with providers.

Implementation template 2.1 in Annex A

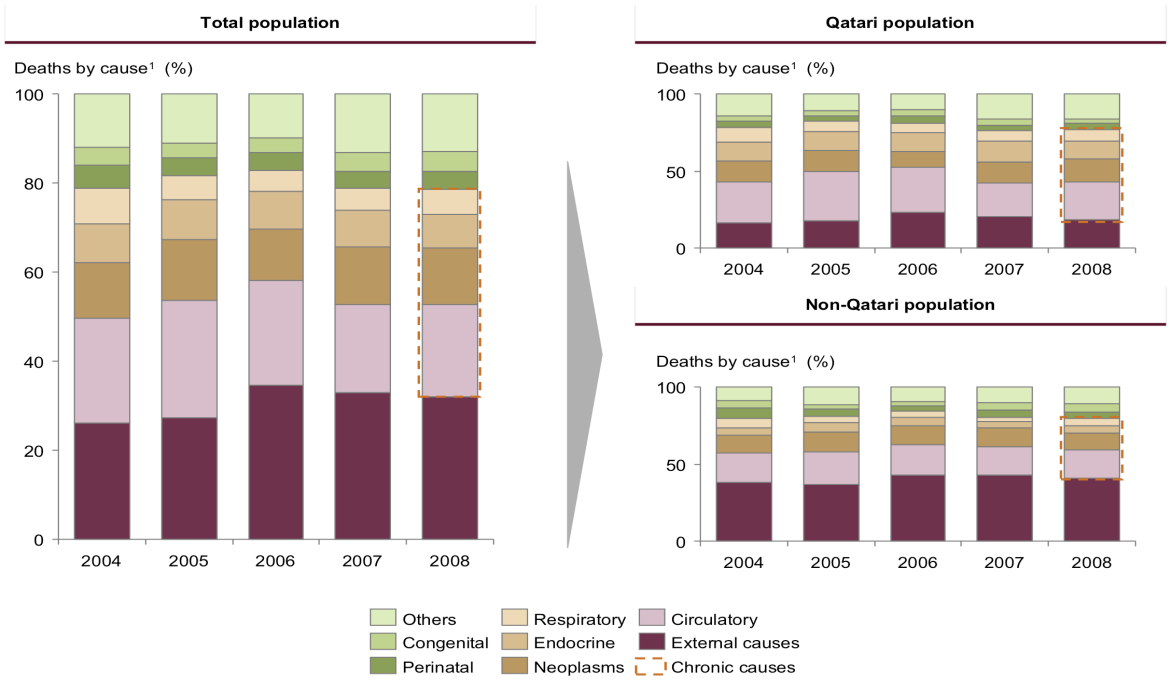
Project 2.2—Disease management programs

Current status

Chronic diseases are a major cause of mortality in Qatar, accounting for 47 per cent of classified deaths in 2008 (Figure 9). The main chronic diseases are cardiovascular illnesses, endocrine

conditions (mostly diabetes), cancer, and respiratory illnesses. Although prevalence data is limited, some studies have been conducted. For example, a study in the period between 2007 and 2008 reported the prevalence of diabetes as 16.7 per cent among the adult population. This figure far exceeds levels seen in most developed countries. Chronic diseases also have a significant impact on morbidity and health costs.

Figure 9 **Cause of death**



1. Excludes 'Unclassified' causes of death, which accounted for 20%, 22%, 25%, 25% and 30% of total deaths from 2004 – 2008.

Source of data: Annual Health Report 2008, SCH

Patients with chronic disease have multifaceted needs. They need to understand the various implications of the disease, advice on self-care, and assistance in coordinating the care they receive and in navigating the healthcare system. Additionally, they require help in adhering to the care regimen as well as in monitoring their key indicators.

Disease management programs consist of a set of coordinated healthcare interventions that address these needs, throughout all levels of care. They emphasize prevention of exacerbations, prevention of co-morbidities and complications through the use of evidence-based practice guidelines, patient empowerment strategies, and regular monitoring of patients. Across a range of conditions, disease management programs have demonstrated improved outcomes in patients. It is therefore recommended that Qatar consider introducing disease management programs for the

focus chronic diseases (type 2 diabetes, asthma, chronic obstructive pulmonary disease, congestive heart failure, and coronary artery disease).

Best practice—Canada[21]

The province of Alberta, Canada, has employed a proactive, population-based, multidisciplinary practice model of chronic disease management. The programs utilise clinical pathways and algorithms to ensure continuity of care across the continuum, reduce clinical variance, and improve process management. Critical to success has been the integration with primary care, which has strengthened team-based treatment and facilitated collaboration between providers.

The framework put in place has the following elements:

- Patients are involved and supported in disease management and are given ongoing follow-up and education.
- Services are provided in the community before chronic disease can have an impact on more complex acute care services.
- Services are organized effectively and are evidence-based to improve health outcomes.
- Care is integrated across organisation boundaries.
- Specialists act as advisors, mentors, and resources.
- A patient registry tracks outcome.

Alberta's key lessons learned have been to clearly identify program admission criteria and the roles and responsibilities of providers.

New directions

Qatar should introduce disease management programs for the priority chronic diseases (e.g., type 2 diabetes, asthma, chronic obstructive pulmonary disease, congestive heart failure, and coronary artery disease). The programs are designed with specific interventions targeted to the different conditions—for example, dietary guidelines for people with renal disease and diabetes, and controlling exposure to allergy triggers in the environment for people with respiratory diseases. Given that disease management is not a tried and tested concept in the Gulf Cooperation Council (GCC), it is recommended that Qatar work with an international partner to introduce disease management.

[21] Based on information at http://www.health.alberta.ca/newsroom/pub-disease-injury.html.

Implementation template 2.2 in Annex A

Project 2.3—Healthcare data program

Current status

Typically, accurate, comprehensive data across all categories of healthcare metrics are not available in Qatar. For instance:

- Causes of death are not recorded accurately on many occasions.
- A complete picture of national healthcare expenses is missing, and a breakdown to activity level is not available.
- Healthcare quality metrics like readmission rates, hospital infection rates, and rates of return to theatres are not tracked at the national level.

The underlying causes for limited data availability can be grouped into three categories:

1. **Institutional causes**—There is no national framework or necessary infrastructure for healthcare data collection in Qatar.
2. **Data-entry-related causes—**Healthcare data entry in Qatar suffers from several issues. At a process level, there is no standard healthcare nomenclature and coding system, and in many cases a defined methodology for entering healthcare data is lacking. At a workforce level, much data entry is done by those who do not have the appropriate skill set.
3. **Qatar-specific causes**—There are two such causes. The first consists of cultural sensitivities regarding select healthcare issues (e.g., HIV, suicides, mental health); these lead to underreporting. The second is the difficulty of collecting and compiling healthcare data because of the transient nature of the expatriate population.

Best practice—UK[22]

In the UK, the NHS has established an information center with the aim of driving the use of information to improve decision making and deliver better care. It has the following objectives:

- **Improving information quality and data standards—**ensuring the right quality information is provided, using clear governance and standards in data and data collections
- **Improving access to information—**improving access to and interpretation of information through better presentation and reporting and ensuring fair and equal access to the information
- **Providing relevant information services—**delivering the information frontline services need to meet their priorities, and being the source of data for official statistics

[22] Based on information at http://www.ic.nhs.uk/.

New directions

Access to accurate information is vital for health sector planning as well as for measuring and monitoring the quality, safety, and effectiveness of the healthcare system and population outcomes. There must be a program in place that defines data requirements, enables stakeholders to meet these requirements, and mandates the reporting of these data. The SCH should push through a comprehensive effort that includes doing the following:

1. Define a national nomenclature, the coding standard, and the flow of information. Nomenclature needs to be standardized nationally as an immediate first step to generating suitable and reliable data for comparative analysis on both a national and an international scale.
2. Define and implement minimum data reporting requirements. The SCH must provide clear and uniform guidance to all on data acquisition methodologies, frequency, and analysis.
3. Require the development of education and training programs to enable capabilities across all providers.
4. Establish a national quality management process. A comprehensive national database needs to be built as the foundation for standardized auditing processes.

E-health will act as a critical enabler of data availability and processing.

Implementation template 2.3 in Annex A

Project 2.4—E-health establishment

E-health is the use of information and communication technologies to enhance the efficient and effective delivery of healthcare services by connecting all stakeholders. This is achieved through the development and implementation of information technology (IT) standards and different IT systems that enable health data exchange among stakeholders. Typically, e-health consists of the following systems.

- electronic data acquisition and processing;
- electronic medical records;
- electronic prescriptions;
- point-of-care access to evidence-based clinical practice; and
- a health information data warehouse.

Current status

The implementation of e-health in Qatar has been negatively impacted because of the following:

- The change in ownership for a national e-health plan from ict-Qatar to the SCH

- Limited coordination between key stakeholders regarding e-health implementation, which could result in a situation where different healthcare IT systems are implemented in Qatar and lead to healthcare data interoperability issues

Best-practice learnings—worldwide, Denmark (e-health portal)

Globally, many large-scale nationwide and regional e-health implementations have had limited success. It is useful to reflect on the insight that can be gleaned from these implementations. Overall, e-health implementation failures are the result of poorly defined strategies and weak governance structures. The following are a set of guiding principles on what is needed for successful e-health implementation, based on what can be learned from these failures:

- A clear vision for e-health to align all stakeholders
- Well-defined and measurable health outcomes based on e-health implementation
- Standards followed across the health system
- A long-term e-health implementation plan with clearly delineated milestones
- Sustained investment to support multiyear implementation plans
- E-health accountability reflected in a clear governance structure
- Strong leadership and commitment, with e-health a key priority of the health sector

A successful example of e-health implementation is the citizen's health portal in Denmark.[23] Denmark's multifunctional portal allows patients, their families, and healthcare professionals to access information and communicate with one another. It can be found at http://www.sundhed.dk/wps/portal/_s.155/1836. Physicians began adopting computers voluntarily in Denmark before the government mandated their adoption. By 2000, nearly all Danish healthcare providers were storing and sharing patient information electronically with other stakeholders. As a result, Denmark quickly progressed to sharing health information electronically between healthcare professionals and patients. In 2003, after a national competitive procurement process, work began on developing a portal. Within nine months, the Danish eHealth Portal was launched. By early 2006, 650,000 digital signatures were issued to log into the portal. The information that is available to patients includes:

- e-services (e.g., scheduling, prescription renewals);
- information about prevention and treatment;
- wait list and mortality statistics from hospitals; and
- personal medical history (since 1977).

[23] "Ontario's e-health strategy 2009-2012." http://www.ehealthontario.on.ca/about/strategy.asp.

The information that is available to physicians includes:

- a patient appointment calendar;
- Web access to laboratory data (pilot);
- patient records (e.g., drug profiles and medical records); and
- secure e-mail communication.

The portal is widely used by the Danish populace and healthcare providers and receives about 175,000 unique patient visits each month.

New directions

It is important that e-health implementation in Qatar be supported by strong governance to ensure that it avoids the typical pitfalls. The SCH is already formulating a national e-health strategy with key stakeholders. To avoid duplication, this report will therefore not be recommending a detailed implementation plan. However, it is recommended that e-health strategy be underpinned by:

1. enabling potential participation of all health service providers in Qatar;
2. defining national standards, nomenclature, and operating protocols;
3. ensuring patient data confidentiality and information security;
4. a multiyear funding budget to sustain investment until critical mass is achieved;
5. requiring the development of education and training programs; and
6. establishing and empowering a dedicated governance framework.

Implementation template 2.4 in Annex A

Project 2.5—Private sector involvement

Current status

In Qatar, roughly 80 per cent of the acute care provisioning for healthcare services is in the public sector domain. Further, the existing provisioning is supplied largely by one provider—HMC. Healthy comtition is likely to have a beneficial impact on the quality, choice, and efficiency of healthcare. There is already high-level agreement on the idea that the private sector—at all levels of health service provisioning—must be encouraged to assume more responsibility in the future. Private providers in Qatar today face the following challenges:

- Lack of a clear vision by the SCH on the overall expected involvement of the private sector in delivering services
- Minimal integration of information (including access to patient data) between the public and private sectors
- Difficulty in the smooth transfer of patients between public and private sector when higher-level care is needed

- Difficulty accessing public sector services, such as specialised laboratory testing and pharmacy services, when needed (certain medications are otherwise not available)
- Lack of clarity on a future funding model (i.e., health insurance)

Best practice—Abu Dhabi

Abu Dhabi's healthcare sector was restructured in 2007 with the delineation of public provider and regulatory roles. This resulted in the formation of HAAD (Health Authority—Abu Dhabi) as the regulator and SEHA as the key public provider. One of the key strategic aims was to promote private sector investment in healthcare. HAAD developed a five-year health strategy for the health system that envisaged a transition from a public system to a private system. This was achieved through a two-pronged approach:

1. SEHA developed and implemented a three-phase privatisation strategy, starting with the first step of entering into management contracts with international groups and leading up to complete privatisation. In 2006, more than 75 per cent of all hospital beds were managed by HAAD. A target was set for 90 per cent of all beds to be managed by internationally experienced hospital groups. By 2009 SEHA had entered into management contracts for six of its seven hospital groups. Management partners included John Hopkins, Cleveland Clinic Foundation, New England Center for Children, Bumrungrad International, Vamed, and the University of Vienna.
2. HAAD launched a strategy to encourage private sector investment in healthcare. This involved defining a clear and robust regulatory and reimbursement framework. It also identified and promoted target areas for private sector involvement. This was communicated to potential investors through a HAAD-organized investor conference.

Overall in Abu Dhabi, SEHA as the key public provider is already on a path of privatisation, and HAAD's initiatives have led to several private sector investments in healthcare (e.g., a rehabilitation facility set up by TVM Capital, Ithmar's capital investing in Al Noor Medical Group, and establishment of Green Crescent Insurance Company).

New directions

As stated in the QNV 2030, integration of services across public and private organisations is needed. Additionally, there is high-level agreement that the private sector must be encouraged to assume more responsibility in the future, on all levels of health service provisioning. Healthy competition is likely to have a beneficial impact on the quality and efficiency of healthcare, assuming appropriate regulation and quality assurance. Qatar needs to establish and implement a private sector engagement strategy that addresses the challenges identified earlier and includes the following:

1. A transparent and timely regulation or licensing process
2. Meaningful integration and alignment of services
3. Access to public services and pharmaceuticals

Implementation template 2.5 in Annex A

Sector goal 3—Preventive healthcare

*"Coverage of **preventive** and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children"* (QNV 2030)

Qatar is faced with critical public health challenges in which over 70 per cent of deaths are caused by chronic diseases, injuries, and congenital diseases, driven by the many risk factors that are largely preventable. A shift in the current healthcare system's focus from management of acute illness to the more proactive prevention and early detection of ill health will be crucial to the success of this national healthcare strategy. It is well documented that such an approach will improve the effectiveness and efficiency of the healthcare system and the health of Qatar's people. According to the World Health Organization (WHO), 40 per cent of cancers and 80 per cent of cases of premature heart disease, stroke, and type 2 diabetes are preventable.[24] A fundamental shift in strategy as well as a reallocation of resources is needed, however.

This section outlines an approach that will facilitate this shift with a focus on the following priority areas:

Public Health Governance

- Generate an enhanced prevention strategy enabled by a robust governance system for monitoring and evaluating the effectiveness of individual prevention initiatives.
- Engage a high-profile international expert as a prevention champion who can be a visible symbol of transformation and drive system change. The prevention champion should be supported by a national preventive health task force and the SCH Department of Public Health.

Chronic and Communicable Disease Prevention

- Execute a focused set of evidence-based programs to prevent chronic and communicable diseases within the following projects:
  - Nutrition and Physical Activity
  - Tobacco Cessation
  - Consanguinity Risk Reduction
  - Communicable Disease Prevention
  - National Screening Program for high-priority diseases (e.g., diabetes, cardiovascular illnesses, and breast cancer).

Occupational Health

[24] WHO. Chronic disease report. http://www.who.int/chp/en/.

- Qatar must improve the health and safety conditions across all sectors, with particular focus on the population of male labourers, given that workplace injuries are the third highest cause of accidental deaths.
- National occupational health standards must be developed, and occupational health policies and regulations must be enforced.

Women and Child Health

- The health challenges that women face, including their reproductive health, require special focus. The health challenges confronting women differ from those of men because of biological, social and economic factors, as well as differences between women and men in the pattern of disease prevalence and associated risk factors. Qatar needs a comprehensive women's health program that targets the health challenges unique to women.
- The program should identify priority areas for women's health. In the immediate future, the program must address screening of women's specific diseases, as well as particular issues such as postpartum depression, and the health impact of domestic violence.
- There must also be programs and strategies dedicated to child health. These should include promotion of exclusive BF and early nutrition guidance, enhanced prenatal care services, and continuing the successes of national childhood vaccination.

Additional public health programs: Road Safety, Food Safety, Emergency Preparedness, and Environmental Health

- In select public health areas, there are overlapping activities among multiple stakeholders, and coordination with other government bodies must be improved to avoid duplication and ensure there are no gaps in current services.

Prevention must be integrated through all aspects of Qatar's society and must cover all age groups (Figure 10). Prevention efforts must ensure that all children get a healthy start in life. Acting early to keep children healthy is one of the most powerful investments a society can make.

Project 3.1—Public health governance

Current status

Transitioning to a culture of prevention will entail a significant change management effort. National prevention strategies also require multiple stakeholder engagement and effective intersectoral collaboration. In Qatar's context, the SCH needs significant cooperation from multiple stakeholders

across the government. The SCH faces significant challenges in effectively developing and implementing prevention strategies because of:

- lack of capacity in public health expertise;
- paucity of data, a lack of public health evidence to facilitate evaluation of interventions, and a subsequent deficiency in effective decision making and allocation of resources; and
- unclear channels for ongoing collaboration.

Best practice—Australia[25]

The state of Victoria, Australia established the Victorian Health Promotion Foundation (VicHealth), the world's first health promotion foundation, in 1987. This public health body works in partnership with organisations, communities, and individuals to make health a central part of daily life. Its focus is promoting good health and preventing ill health.

The main function of the organisation is to work with a wide range of partner associations to deliver new and innovative public health programs that will shape the health of the entire population. In the 2008–2009 period, VicHealth invested over $29 million (Aus) in 946 grants across Victoria. Approximately 40 per cent was invested in health promotion activities, 30 per cent in sporting bodies (such as clubs and associations), and 20 per cent in research and evaluation across chosen strategic priority areas.

VicHealth's command structure is that of an independent, statutory authority with a chair and a 14-member board of governance that is responsible to the Minister for Health. The board has a breadth of experience in health, sports, the arts, research, and communication. The organization contains 58 staff members working across a range of activities, including:

Promotion functions

- Physical activity
- Tobacco, alcohol, and exposure to sunlight
- Environment
- Social connection and economic participation

Internal functions

- Media
- Information and communications technology
- Knowledge management and workforce development
- Unit administration

New directions

Qatar needs to achieve the following in public health governance:

1. **Establish a cross-government task force led by a prevention champion as a visible symbol—**A cross-government task force is needed to facilitate integration of a prevention strategy across relevant sectors. This team should be led by a strong and highly visible leader who will serve as a conspicuous symbol of change, promote the prevention

[25] Based on information sourced from www.vichealth.vic.gov.au.

concept among all stakeholders, and drive sustainable system transformation. This effort will also require significant commitment and support from higher-level authorities.

2. **Prioritize and focus prevention efforts on the critical risk factors—**Qatar needs to focus its prevention efforts on critical risk factors and chronic conditions and select interventions on the basis of feasibility and impact.
3. **Implement quick wins to create momentum—**The quick wins should be highly visible projects that engage the public and generate awareness and public support for prevention efforts.
4. **Public health evaluation system—**Finally, it is imperative that Qatar's preventive strategy incorporate a strong monitoring and evaluation system to track the effectiveness of its initiatives. This will allow for informed decision making and help set the future public health agenda. To establish this system, the SCH will need to find ways to overcome the paucity of accurate healthcare data in Qatar,

It is vital that the capacity of the SCH's Public Health Department be enhanced so that it can play a broad strategic and tactical role, driving a fundamental paradigm shift in how the people of Qatar, and the health system, think and act about health. This means it must take on much more than "social marketing" or advertising and education campaigns. For example, it should drive cross-sectoral and programwide actions to support an environment and a society that promote health. It should have the major responsibility for commissioning, collecting, and disseminating evidence on what effective interventions are.

Implementation template 3.1 in Annex A

Project 3.2—Nutrition and physical activity

Current status

As stated earlier, chronic diseases are a major cause of death in Qatar, accounting for 47 per cent of classified deaths in 2008 (Figure 9). For example, the occurrence of diabetes among Qataris is 16.7 per cent, the fourth highest rate in the world. The global average is estimated at 6.4 per cent. The primary drivers for the chronic disease burden are lifestyle factors, such as change in dietary patterns (increased fast-food consumption) coupled with a sedentary lifestyle (over 50 per cent of the population do not engage in any regular physical activity).[26,27] Qatar has the second highest

[26] Regular activity is defined as 30 minutes of exercise at least three times a week.
[27] WHO Qatar World Health Survey, 2006.

prevalence of overweight and obesity in the GCC region—considerably higher than most OECD countries:

- Seventy-one per cent of all residents[28] are overweight (among Qataris, 75 per cent).
- Thirty-two per cent of all residents are obese or morbidly obese (among Qataris, 40 per cent).

The prevalence of childhood obesity is also high: 28 per cent of Qatari children are overweight.[29]

Best practice—US

Obesity is a global epidemic, and all data suggest that no healthcare system has been successful at addressing obesity at a national level. On the contrary, multifactorial future projections point toward a continued trend of increasing obesity in OECD countries.[30] Some potential best-practice knowledge can be gleaned from the US, where the NGA (National Governor's Association) Health Policies Studies Division has identified tools that are potentially effective, based on the experience of individual states:

- Implementing food and physical activity policies or standards in schools and public work sites
- Implementing healthy community design and smart growth strategies
- Raising public and policymaker awareness
- Increasing access to and availability of obesity treatment
- Targeting high-risk population groups
- Taxing junk foods and soda

It is to be noted that, given both the limited success healthcare systems have had in tackling obesity as well as Qatar's unique context, it is critical for Qatar to implement a public health evaluation system that determines the most effective set of interventions for the nation.

New directions

Qatar needs to set up a comprehensive and integrated nutrition and physical activity program with individual initiatives targeted at various stakeholders. The initiatives, to be implemented as part of the program, would consist of the following:

1. Health promotion in schools (linked to other projects like tobacco cessation) to educate students on nutrition and physical activity, aimed at establishing healthy habits through:

[28] WHO, Global Infobase BMI Estimates 2005–2015. Qatari data from WHO Qatar 2006 World Health Survey.

[29] DSD Health sector report, General Secretariat for Development Planning—Computed from WHO Qatar 2006 World Health Survey.

[30] Sassi, Franco, Devaux, Marion,, Cecchini, Michele, and Rusticelli, Elena. 2009. "The Obesity Epidemic: Analysis of Past and Projected Future Trends in Selected OECD Countries."

- health education that is delivered in an entertaining manner appropriate for the child's educational level and that includes guidelines for health information in an early-child-care setting;
- nutritious food in schools;
- greater awareness of the importance of spending more time on physical activity and engaging in less "screen time" (TV, computers, and so forth), based on internationally accepted guidelines (e.g., AAP [American Association of Pediatrics] guidelines);
- an increase in sports activities, and the use of incentives and penalties to improve compliance (e.g., mandating that physical activity or sports be treated as a subject that requires grade evaluation, the same as math or biology);
- opportunities for physical activity for students at increased risk for physical inactivity (e.g., students with chronic diseases, girls in general); and
- compulsory swimming education for all students.

2. Wellness promotion in the workplace, with government offices taking a lead in establishing workplace health promotions such as:
   - annual health checkups to identify high-risk employees;
   - support to employers in providing facilities (e.g., in-house gyms that are separate for men and women);
   - healthy food in workplace cafeterias; and
   - the leveraging of best practices from existing programs in Qatar (e.g., the Qatar Petroleum [QP] wellness program).
3. Media awareness campaigns for nutrition and physical activity. These campaigns should be continuous and leverage multiple media channels.
4. Implementation of prevention guidelines for healthcare services to identify at-risk patients, such as guidelines for physicians advising individuals with an elevated body mass index (BMI) on improved nutrition and increased physical activity. These guidelines can:
   - be supported by education and training programs meant to enable healthcare professionals to effectively prevent, diagnose, and treat obesity and overweight in adults and children;
   - increase accessibility to a nutritionist for all primary healthcare centers and secondary and tertiary healthcare facilities;
   - assist in gaining access to fitness services (e.g., subsidised volume contracts); and
   - furnish nutrition and physical activity counseling in secondary and tertiary care settings (e.g., on healthy eating and exercise to inpatients with cardiovascular disease).
5. Policy drafts aimed at reducing fast-food consumption.
6. Promotion of healthy food options (in restaurants and key retail outlets) by educating consumers on how to make sound food choices from menus and by providing sufficient product information to make healthy choices possible (e.g., through improved labelling).

Project 3.3—Tobacco cessation

Current status

Tobacco use is the leading cause of preventable death worldwide. According to WHO, if current trends of tobacco use persist, annual tobacco-related deaths will increase from 5 million worldwide today to about 10 million by the year 2020. Tobacco smoke is a major risk factor for chronic diseases, contributing to a number of cancers and strongly linked to cardiovascular diseases (e.g., heart attacks, strokes, and ischemic limbs). The prevalence of smoking among males in Qatar is 32.7[31] per cent. Anecdotal evidence suggests that sheesha consumption is rising among both sexes, as is the consumption of smokeless tobacco products, highlighting the need for a tobacco control strategy that addresses all kinds of tobacco use. Qatar has a tobacco law that was enacted in 2003. It prohibits smoking in non designated enclosed public places but is not uniformly enforced.

Best practice—UK

Most OECD countries have succeeded in reversing smoking trends over the last few decades. The UK, for example, has reduced the rate of smoking by an average of 0.625 per cent per year between 1976 and 2000. Underlying this is a comprehensive and integrated tobacco consumption reduction strategy that has three overarching objectives:

1. To decrease the number of young people recruited as new smokers
2. To motivate every smoker to quit—and provide assistance to do so
3. To protect families and communities from tobacco-related harm

The strategy has includes multiple initiatives. A sampling of the key ones is shown here:

- Make tobacco less affordable by increasing duty on it.
- Recommend that all health professionals assess the smoking status of patients at every opportunity; advise all smokers to stop; assist those interested in doing so; refer them to a specialist cessation service, if necessary; and propose nicotine replacement therapy, as well as provide accurate information and advice on it, to smokers who want to stop.
- Ensure that the advertising of tobacco accessories is not being used to encourage the use of tobacco products of any type.

[31] World Health Survey, WHO 2006

- Launch marketing campaigns to encourage more attempts at quitting, targeted particularly at smokers from more disadvantaged backgrounds.
- Promote “smokefree communities” through awareness campaigns and projects, focused on the most disadvantaged communities, highlighting the benefits of smokefree homes and cars.
- Make learning about smoking and smoking cessation part of the core curriculum and basic training of all health professionals.
- Enable smoking cessation specialists to provide intensive support for smoking cessation conducted in groups, include social support and training in coping skills, and offer five or so sessions of about one hour each over roughly one month, as well as follow-up.
- Make nicotine replacement therapy available to hospital patients who need it, in conjunction with professional advice and cessation support.

New directions

As with obesity, Qatar needs to set up a comprehensive and integrated tobacco cessation project. This should consist of awareness campaigns on the harmful effects of tobacco consumption and should inform people about cessation support services. Tobacco cessation services should include programs that address smokeless products. Anti tobacco messages should be conveyed to the younger population through school health initiatives. Finally, Qatar should implement and rigidly enforce policies to reduce tobacco consumption, such as:

1. making available venues that are 100 per cent smoke free;
2. adopting Framework Convention on Tobacco Control (FTCT) guidelines;
3. increasing taxation on tobacco products and using the funds to support health initiatives;
4. issuing pictorial health warnings on tobacco products;
5. imposing restrictions on sheesha consumption;
6. enacting and finalising tobacco laws (including those for smokeless products); and
7. enhancing enforcement of tobacco laws.

Project 3.4—Consanguinity risk reduction

Current status

The prevalence of consanguineous marriages is high in Qatar. The current rate of consanguinity is 54 per cent, the most common type being among first cousins (34.8 per cent). The consanguinity rate has increased from 41.8 per cent to 54.5 per cent in one generation. The population risk of having a child with a severe or lethal medical condition is around 2 per cent, but for a first-cousin couple the risk rises to around 5 per cent. Qatar already has a mandatory premarital screening program, but it needs to be supported with adequate counseling services.

Best practice learnings—Kingdom of Saudi Arabia (KSA)

Although there is limited evidence of a GCC nation having made significant headway against consanguinity, a few determinations can be made from the experience of KSA[32]:

- A lack of genetic counselors in KSA pose an immediate problem for effective implementation of preventative programs. In the long term there is no substitute for the training of a sufficient number of individuals to service this need. However, in the interim, short intensive training programs are proposed for graduates of medical or biological sciences in order to develop "genetic educators." It is envisaged that these individuals would work under the supervision of qualified professionals and provide basic counseling.
- Screening in the absence of counseling and monitoring of effectiveness is of questionable value.
- KSA has an active newborn screening (NBS) program addressing inherited metabolic diseases (IMDs). However, the program reaches only 10 to 20 per cent of newborns and is selective in that participation is by individual clinical centers or through referral of symptomatic patients.
- Selective screening of extended families (inductive screening) may be more practical. The effectiveness of this approach was demonstrated by a thalassaemia prevention program in Pakistan.[33] Fifteen large families with segregating thalassaemia genes were identified through a single proband.

New directions

Qatar needs to implement a comprehensive consanguinity risk reduction project. The focus of the project will be to make target groups aware of the health risks of consanguineous marriages. The project should be implemented in a culturally sensitive manner and should include:

1. educational campaigns on consanguinity risk and
2. counseling to support mandatory premarital screening.

Project 3.5—Communicable disease prevention

Current status

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[32] Meyera, B.F. "Strategies for the Prevention of Hereditary Diseases in a Highly Consanguineous Population." March–April 2005. Aragene Laboratory, Research Center, King Faisal Specialist Hospital and Research Center, Riyadh, KSA. Annals of Human Biology 32(2): 174–179.

[33] Ahmed, S., Saleem, S., Modell, B., and Petrou, M. 2002. "Screening Extended Families for Genetic Haemoglobin Disorders in Pakistan." *New England Journal of Medicine* 347:1162–1168.

While chronic diseases are the major health risk, Qatar also needs to address the communicable diseases that are inevitable with a fluctuant migrant population. Although the prevalence of communicable diseases in Qatar is low among Qataris, the threat of communicable illnesses (e.g., tuberculosis) is prominent. This is due to the large migrant male worker population as well as the living conditions associated with these workers. Qatar needs to be vigilant about this threat and implement a comprehensive communicable disease prevention project.

Best practice—Singapore[34] (STEP—tuberculosis control program)

Singapore, with its tropical climate and geographic location as a global transit hub, has an ever present threat of communicable diseases. Tuberculosis (TB) has been a key public health concern, with prevalence rates remaining static in the range of 49 to 56 cases per 100,000 people from 1987 to 1997. To address TB, Singapore launched a Singapore Tuberculosis Elimination Program (STEP). STEP involves the following key interventions:

- Directly observed therapy (DOT) in public primary healthcare clinics
- Monitoring of treatment progress and outcome for all cases by means of a National Treatment Surveillance Registry
- Preventive therapy for recently infected close contacts of infectious tuberculosis patients
- Revamping of the National Tuberculosis Notification Registry
- Tightening up of defaulter tracing
- Education of the medical community and the public

Future plans include an outreach program for specific groups of patients who are unable to attend their nearest public primary care clinics for DOT, the detention of infectious recalcitrant defaulters for treatment under the Infectious Diseases Act, the molecular fingerprinting of tuberculosis isolates, and targeted screening of high-risk groups.

As a result of this program the incidence of tuberculosis fell from 57 per 100,000 population in 1998 to 28 per 100,000 in 2005. This program was implemented by the Communicable Disease Division of the Ministry of Health. Singapore also has a robust surveillance system intended to respond to infectious disease outbreaks that the region regularly experiences. The surveillance system has external and internal components. External surveillance continuously scans foreign and international news, health websites, and information exchange networks on infectious diseases. Internal surveillance comprises continuous evaluation of atypical pneumonia cases,

[34] Chee, Cynthia B.E., and James, Lyn. 2003. "The Singapore Tuberculosis Elimination Program: The First Five Years." *Bulletin of the World Health Organization* 81 (3)

laboratory surveillance of influenza viruses, and—through the implementation of new IT systems—rapid capture, analysis, and monitoring of cases of infectious diseases of concern.

New directions

Qatar's comprehensive communicable disease prevention project should include:

1. an early-warning surveillance and tracking system;
2. a process to update the existing vaccination program for children and adults;
3. communicable disease prevention efforts in high-risk areas (e.g., labour camps); and
4. follow-up screening of high-risk groups (e.g., high-contact job categories like nurses and barbers).

Implementation templates 3.2, 3.3, 3.4, and 3.5 in Annex A

Project 3.6—National screening program

Current status

A sizable body of evidence shows that appropriate screening has a marked effect on clinical outcomes, as it allows for early detection of diseases and therefore the opportunity for more early treatment. The early treatment of diseases not only results in improved outcomes but also reduction in healthcare costs. Chronic diseases typically are characterized by a long preclinical phase as well as the potential for an improved outcome with early treatment. Hence it is recommended that Qatar put into effect a targeted screening process for the key chronic diseases.

Best practice—UK

The UK has a comprehensive national screening program that was established in 1996 through the formation of the UK National Screening Committee (NSC). One of the first tasks of the UK NSC was to develop a framework for screening that included the definition and classification of population screening programs and also the ethical and social issues involved. The "Handbook of Population Screening Programs" was published, setting the ground rules for the committee's work and for the expectations placed on future screening programs. Since then, the UK NSC has developed policies on screening for dozens of additional conditions, has overseen the successful introduction of a number of national screening programs in England, and has raised the profile of screening within the NHS and with the general public. The NSC's key responsibilities include:

- the case for implementing new population screening programs;
- screening technologies with proven effectiveness but which require a controlled and well-managed introduction; and

- the case for continuing, modifying, or withdrawing existing population screening programs (in particular, programs inadequately evaluated or of doubtful effectiveness, quality, or value).

Best practice—Abu Dhabi

The introduction of health insurance can provide a boost to screening programs in Qatar, as has been demonstrated by the example of Abu Dhabi. In Abu Dhabi all nationals, as part of an exercise to obtain or renew insurance cards, are required to have a physical checkup or medical exam. Using the results of this exam, high-risk individuals are identified. These individuals are then contacted by phone and encouraged to take steps to reduce their risks. Abu Dhabi required two years to complete the screening of approximately 450,000 citizens, and in this first instance is targeting individuals that have one or more cardiovascular-disease-related risk factors. It intends to perform a medical exam for all citizens once every three years. Abu Dhabi has a plan for establishing Health and Prevention Centers, facilities that can be the hub of community care activities and support screening. The first such facility was opened in 2010.

New directions

It is recommended that Qatar develop a targeted national screening program that:

1. aims at the priority risk factors and chronic diseases (e.g., diabetes, cardiovascular conditions, and breast cancer);
2. links with the nutrition and physical activity project and the tobacco cessation project;
3. uses evidence-based and ethical screening with age- and gender-specific guidelines;
4. establishes KPIs on screening practices to be reported through the performance agreements;
5. implements screening awareness programs;
6. provides adequate screening facilities (requiring the enhancement of the current screening infrastructure and necessitating consideration of additional dedicated and accredited screening units); and
7. starts with priority areas and expands as appropriate to include other diseases.

Implementation template 3.6 in Annex A

Project 3.7—Occupational health

Current status

Qatar's vast population of male labourers, primarily in the construction industry, has limited access to healthcare services and also operates in hazardous environments. Workplace injuries are the third highest cause of accidental deaths in Qatar. As yet, Qatar does not have national

occupational health standards or guidelines and there is limited data on workplace-related fatalities. However, expert opinion suggests a rate of about four to five fatalities per 100,000 workers,[35] approximately double the rate in the European Union (EU).[36] Although occupational health legislation exists in Qatar to safeguard the health of workers, many employers do not seem to be in full compliance with some of its provisions.[37] For example, article 104 of the 2004 Labour Law states that "if the number of workers exceeds 100, the employer shall appoint a fulltime male nurse in addition to providing the required number of first aid boxes. If the number of employees exceeds 500, the employer shall set up a clinic, manned by at least one medical practitioner and a male nurse." However, many companies choose to ignore this legislation, and some of those that try to abide by the regulation experience difficulty recruiting and retaining medical personnel.[38] It is estimated that 500 patients per day (about 30 per cent of the total seen daily at Hamad General Hospital) are workers who needlessly place significant demand on the Emergency Department but should have been seen in the ambulatory setting.[39] An additional challenge facing occupational health is the limited coordination between the two key stakeholders—the SCH and the Ministry of Labor—for enforcement of occupational health policy. The country also has a dearth of specialists trained in occupational health.

Best practice—Australia

Australia currently ranks in seventh[40] place among the best OHS (Occupational Health and Safety) performing countries in the world (in terms of fatality rates for work-related injuries). Of greater significance is that since 2001 Australia's work-related fatality rate generally has decreased at a faster rate than that of the best-performing countries in the world. This reduction was driven by the adoption and implementation of the National OHS Strategy 2002–2012. The strategy set out clear targets of cutting work-related fatalities and injuries by 20 per cent and 40 per cent, respectively, over the decade. To achieve these goals, five priority areas were identified:

1. Reducing high-incidence and high-severity risks:
   - The high-risk injuries targeted were musculoskeletal disorders, falls from heights, and hitting or being hit by objects.

[35] Estimate based on stakeholder interviews.
[36] Bener, A., Zirie, M., Janahi, I.M., Al-Hamaq, A.O., Musallam, M., and Wareham, N.J. 2005. "The Neglected Epidemic: Road Traffic Accidents in a Developing Country, State of Qatar." *International Journal of Injury Control and Safety Promotion* 12:45–47.
[37] Based on stakeholder interviews.
[38] Ibid.
[39] Ibid.
[40] "Performance Benchmarking of Australian Business Regulation: Occupational Health & Safety." Australia Productivity Commission Research Report, March 2010.

- The priority industry sectors identified were building and construction; transport and storage; manufacturing; health and community services; and agriculture, forestry, and fisheries.

2. Developing the capacity of business operators and workers to manage OHS effectively
3. Preventing occupational disease more effectively
4. Eliminating hazards at the design stage
5. Strengthening the capacity of government to influence OHS outcomes

A significant feature of Australia's strategy was the development and implementation of a robust, comprehensive, and practical regulatory framework, the key elements of which are the following:

- **The Occupational Health and Safety Act** is a comprehensive policy that covers approximately 40 to 70 (depending on the state) specific occupational health issues ranging from details on employers' obligations to the need for worker participation and consultation.
- Beyond the Occupational Health and Safety Act, there are three other regulatory tools that differ in their level of guidance to employers but that together provide a comprehensive framework and direction to employers on occupational health:
  - **National standards** set forth agreed-on principles, approaches, and requirements for various technical issues.
  - **Codes of practice** supply more thorough guidance on the principles and options for action under a standard.
  - **Guidance notes** give practical advice to employers, employees, and others on how to prevent risks to health and safety from specific hazards identified in the workplace.

Overall, Australia has been able to improve its performance on a variety of occupational health indicators. For example, in the first four years of the strategy's deployment (the year for which data are available), the injury claim rate per 1,000 employees went down by 16.9 per cent.

New directions

Qatar needs to also establish a robust regulatory framework for occupational health. This will entail:

1. setting up an occupational health committee to raise the profile of occupational health in the country and establish standards on occupational health for both blue-collar and white-collar workers;
2. enforcing the labour law through enhanced coordination of all relevant stakeholders;
3. providing training to employers on appropriate workplace conditions to enable them to meet the occupational health standards;
4. providing training and education for healthcare personnel involved in occupational health, including general practitioners:
5. creating capacity for occupational health initiatives: and
6. developing a workplace injury and accident registry to monitor occupational health status and identify areas of need.

Implementation template 3.7 in Annex A

Project 3.8—Women and child health

Current status

Between 1990 and 2008, child mortality rates in Qatar have improved from 12.9 to 8.1 deaths per 1,000 live births.[41] However, the current rate is still higher than that of the top eight OECD countries (3.6 deaths per 1,000 live births),[42] implying that more can be done. The improvements in mortality rates in Qatar reflect efforts toward more effective prenatal and postnatal care services. However, significant gaps remain in areas like nutrition and postpartum maternal care. Despite the numerous health benefits of breastfeeding (BF), including the decreased risk of chronic diseases in adulthood, the exclusive BF rate in Qatar is low: UNICEF data from 2005 reports it as being 12 per cent in the early months of infancy.

Both women's and children's health have recently received major attention in Qatar because of rising concerns about duplication of specialised services as well as the country's best interest. Scopes of service for major local organisations, including Sidra and HMC, have been redefined in relation to paediatric and obstetrics/gynaecology services on the basis of international best-practice and local needs. This recent work has also proposed national programs for both women's

[41] Qatar Statistics Authority (various years) and WHO World Health Statistics, 2009.
[42] "Human and Social Development: Situation and Prospects." GSDP, 2010.

and child health, revolving around a full model of services and enhanced primary healthcare. Recommendations have been made to form national councils for both women's and child health.

Best practice—Exclusive BF promotion in Madagascar

Exclusive BF for the first six months of life is one of the most critical interventions for child nutrition and survival. However, exclusive BF rates for six months typically are low in developed countries. The OECD average rate for exclusive BF for six months is 25 per cent,[43] with Hungary having the highest OECD rate—a little above 40 per cent but still below the WHO guideline of 50 per cent. Hence one must look for best-practice examples in the developing world. Exclusive BF promotion conducted by a program sponsored by the United States Agency for International Development, in select districts of Madagascar over a nine-year period, is one such example. The program achieved spectacular success, with exclusive BF rising from 42 per cent to 70 per cent in project districts. The program was envisaged to address a serious malnutrition challenge in Madagascar: malnutrition was seen as the underlying driver for 54 per cent of mortality under age 5.

The key elements of the program did the following:

- Used a multi-pronged approach based on several essential themes:
  - Integrated action across policy, facility, and community.
  - Integrated messages into all touch points in a woman's healthcare life cycle.
  - Integrated BF promotion into broader messages about nutrition.
  - Leveraged all existing channels, including healthcare workers, to reach mothers.
- Employed a cross-sector partnership that fostered action at national, provincial, and district levels.
- Employed a multifaceted behavior change strategy leveraging many existing channels.
- Invested greatly in monitoring and evaluation, frequently surveying and documenting progress and using an extensive monitoring and evaluation system to conduct ongoing impact tracking.

What was learned from this program is relevant for BF promotion in Qatar as well:

- Create simple, action-oriented messages tailored to the local context in order to facilitate behavioral change.
- Integrate BF and complementary feeding messages into all health and nutrition touchpoints.
- Create targeted messages that are action oriented and practical and that are based on formative research identifying barriers to change.

[43] "Breastfeeding Rates." OECD, Social Policy Division, Directorate of Employment, Labour and Social Affairs, 2005.

- Create consistent messages and materials.
- Saturate target audiences with messages by employing all the media currently used by those audiences (e.g., radio and community meetings).
- Develop simple training for healthcare workers and community volunteers to build capacity.
- Uphold peer groups and other existing community support mechanisms.

Best practice—Women's health in Australia

Australia first released a National Women's Health Policy[44] in 1989—a move emulated by many other developed and developing countries that followed Australia's lead to fashion their own women's health plans. The policy provided both a framework and an action plan to improve the health of women in Australia by the year 2000. Its focus was on those women considered most at risk, and to encourage the health system to be more responsive to the needs of women. There were five key action areas identified within the healthcare system to improve women's health:

1. Improvements in health services for women, based on a dual approach—that is, the provision of more women's health services, and complementary improvements to existing general health services
2. Provision of health information for women, in both the prevention and treatment of health problems
3. Research and data collection on women's health (which led to the establishment of the Longitudinal Women's Health Study)
4. Women's participation in decision making on health, at government and community levels and as consumers of health services
5. Training of healthcare providers, at both undergraduate and postgraduate levels, on women's healthcare needs

The development of this policy and action plan entailed a massive outreach effort that involved consultations with an estimated 1 million Australian women. The implementation of this program led to various Australian state governments developing their own women's health initiatives addressing issues specific to their state. In Victoria, for example, a Domestic Violence Strategy has been developed (domestic violence is the leading contributor to death, disability, and illness in Victorian women under age 45).

[44] "Women's Health: Australian Women's Health Network." Position paper, March 2008. http://www.awhn.org.au/.

Australia has continued to review women's health status and update its women's health policy and action plans. As a result, today Australian women enjoy the second-highest life expectancy in the world[45] as well as continually increasing life expectancy.

New direction

Develop an integrated national program for women's and child health involving the newly recommended national council of women's health and national council of child health. The national approach should include the following interventions:

1. Promote exclusive BF for the first six months of life.
2. Enhance prenatal care services, including provision of nutritional guidance and vitamin supplementation, as well as prenatal screening and testing.
3. Ensure that appropriate prenatal services are provided in the community for low-risk pregnancies and that appropriate referral for secondary care is given.
4. Facilitate effective utilization of secondary prenatal services, concentrating on higher-risk pregnancies.
5. Enhance postpartum care services, including evaluation and treatment for postpartum depression.
6. Develop nutritional guidelines for newborns, infants, and children.
7. Regularly update and implement childhood immunization programs.
8. Enhance screening for domestic violence
9. Mandatory reporting of child abuse.
10. Develop an appropriate policy to support maternal and child health initiatives.
11. Enhance screening programs for women for conditions such as osteoporosis, nutritional deficiencies, and cancer.
12. Review and update national school health program, supported by an operating model that engages the primary stakeholders, to ensure coverage of the following dimensions:
    - Physical education, Health Services, Nutrition Services, Counseling and Psychological Services, Health education, Healthy School Environment

Implementation template 3.8 in Annex A

[45] WHO 2007. WHO statistical information system. Life tables for WHO member states. Geneva: WHO.

Project 3.9—Additional public health services

Current status

In select public health areas where services are currently overlapping among multiple stakeholders, the SCH needs to work actively to improve coordination with other government bodies and ensure there are no gaps in current services. The following areas have been identified:

- Road safety
- Food safety
- Emergency preparedness
- Environmental health

Road safety

Death rates from RTAs are significantly higher than in other nations. RTAs are almost exclusively responsible for accidental deaths among Qataris and are also a major cause of injury-related death among non-Qataris. With 68 per cent of RTA deaths among Qataris occurring between the ages of 10 and 34 years, RTAs are a major cause of premature loss of life and have significant socioeconomic implications. Although morbidity data are unavailable, injury and disability due to RTAs are also significant, likely to be in the thousands in terms of health years lost.

Several stakeholders are involved in road safety today. The Traffic department of the Ministry of Interior is a key stakeholder, tracking the data on road safety, investigating accidents, and implementing traffic regulations. HMC is responsible for providing emergency medical services to RTA victims. Ashgal is responsible for ensuring that infrastructure and roads are constructed in a manner that promotes road safety. The SCH and the Supreme Council for Family Affairs (SCFA) are also stakeholders involved in road safety from public health and public safety perspectives, respectively.

New directions

A multiple-stakeholder body potentially led by the Ministry of Interior is required to mobilise and manage this program. Within this framework, the healthcare sector's focus must be primarily on ensuring the appropriate geographic coverage and timely provision of emergency medical services. Apart from this, the other areas of focus should be:

1. rehabilitation of accident victims;
2. medical assessments of at-risk groups (e.g., drivers of commercial vehicles); and
3. monitoring, evaluation, research, and policy advocacy by the Public Health Department.

Food safety

Qatar is similar to other countries in the region in that it relies on imported food items to satisfy the greater part of its requirements. Qatar needs to ensure that the food it imports from more than 60 nations is safe for consumption. The country has developed a framework of legislative standards, inspections, and laboratory analyses to ensure food safety. There are three key Ministries involved with food safety in Qatar: the Ministry of Municipality and Urban Planning, which covers domestic food production and processing; the SCH, which is responsible for inspecting imported food at border checkpoints, screening food handlers, and operating the central food laboratory; and the Qatar General Organization for Standards and Metrology, which develops national standards for labelling, among other things.

New directions

Qatar needs to develop a national coordinated approach for food safety that entails the following:

1. Clarifying roles and responsibilities among government agencies involved in food safety monitoring, and establishing and controlling a Food Safety Authority (FSA) to be the sole agency responsible for food safety
2. Comprehensive review of current food law and legislation and enactment of modifications required
3. Establishing appropriate specialised training for staff to support the activities of the FSA
4. Formalising national standards and strengthening procedures for notification of outbreaks of food-borne illness

Emergency preparedness

Given the potential threats in Qatar from natural and man-made disasters, a plan for national emergency preparedness is vital. Qatar does have emergency preparedness plans, the implementation of which is supported by committees at various levels of authority within the government (e.g., HMC has a Pandemic Committee). The Disaster Committee led by the Ministry of Interior coordinates all efforts countrywide. However, it is important to ensure the existence of an integrated national plan that adheres to international standards and coordinates the actions of all key stakeholders. The plan needs to be communicated appropriately to all stakeholders, including the public.

New directions

It is recommended that Qatar enhance coordination among stakeholders and ensure communication and awareness of emergency preparedness plans. It should also make certain that a consolidated national plan exists and that it includes the following components:

1. A clear disaster response framework
2. Appropriate scenario planning
3. Expanded healthcare capabilities
4. Cross-sector participation
5. A public warning system
6. Emergency shelters
7. Strategic stockpiles
8. Awareness of the plan's communication to all stakeholders, including the public

Environmental health

Currently, responsibilities for environmental health are split over three bodies: the Ministry of Environment, the SCH, and the municipalities. There is limited coordination among these three. Further, as Qatar is in a phase of rapid infrastructure development, it is important that the environmental health impact of the various projects be assessed.

New directions

It is recommended that Qatar carry out the following:

1. Implement the Environmental Impact Health Assessment for all projects that could affect public health.
2. Transition to a single authority to monitor air quality (e.g., Ministry of Environment) while ensuring that the needs of different government agencies are met.

Implementation template 3.9 in Annex A

Sector goal 4—Skilled national workforce

*"A **skilled national workforce** capable of providing high quality health services"* (QNV 2030)

Just as people are a country's most valuable asset, health human resources are a health sector's most valuable asset. The healthcare workforce is critical in the delivery of high-quality care that is expected throughout the healthcare sector in Qatar. The members of the healthcare workforce are key agents of change, reform, and innovation, driving continuous improvement in the delivery of health services, and therefore they must be adequately resourced, continuously developed, and respected.

All healthcare systems, however financed or organized, need adequate numbers of well-trained, high-quality staff to meet the needs of their population. Recruitment and retention of the appropriate healthcare workforce have become increasingly difficult for the system in Qatar. The shortage of human resources—physicians, nurses, therapists, and other health professionals—acts as a significant constraint to delivering high-quality, safe, and effective healthcare.

Without the appropriately skilled human resources, realising the goals of a world class healthcare system is not achievable.

A comprehensive healthcare workforce strategy is needed, with the main aim of building, strengthening and enhancing long-term national capacity to ensure sustainability. This will necessitate obtaining a high-caliber workforce—both Qatari and expatriate—that has the required skills, including leadership, to assure a high-quality healthcare system. The entire healthcare sector, including both private and public providers, as well as the regulator, the SCH, must be involved in this strategy. The plan of action for the future of Qatar's workforce needs to be tailored to the labour pool's unique composition: Qataris, long-term residents, and expatriates.

The healthcare workforce strategy should include the following:

Workforce planning

- Given global shortages of healthcare professionals, Qatar's current recruitment and retention strategies and its medical education capacity are a potential constraint for future requirements.
- Both short- and long-term healthcare workforce planning will help ensure that Qatar's health sector has the adequate number of skilled personnel to sustain a

quality health system into the future, as well as the right types of skills and professions within the service delivery team.

- This planning must focus on ensuring sustainability of the system through national capacity-building, while at the same time recognizing the value of the expatriate workforce

Recruitment and retention

- Barriers to recruitment of a quality workforce, both Qatari and expatriate, should be reduced (e.g., changes made to HR law) and retention increased through improvements in workers' morale and satisfaction as well as better incentives (e.g., making available training and professional development opportunities for all staff).
- Appropriate Qatarization must be ensured—with adequate support, mentorship, and training—so that both the individual and the organisation benefit.

Professional education

- A pragmatic approach to health professional education is needed to increase the number of Qataris and long-term residents in healthcare.
- This approach must be multifaceted to include reduced barriers to admission, enhanced sponsorship programs, awareness campaigns around health professions, and diversification in the number of institutions available to capable students, both locally and internationally.

Optimizing skill mix

- Effectively utilise the available healthcare workforce by appropriately optimizing the range of work that can be undertaken by different professionals.
- Recruit new classes of healthcare workers (e.g., nurse practitioners) to meet Qatar's changing needs.
- Foster team-based collaborative models of service delivery.

Project 4.1—Workforce planning

Current status

The current workforce does not match the current or future required model of care. For example, in primary care, which is the foundation of the ideal model of care, there are 1.9 physicians for every

10,000 people, whereas WHO's recommended level is 5.6 physicians for every 10,000.[46] These figures emphasize that the allocation of resources does not rise to the required model of care. Given global shortages of healthcare professionals, Qatar's current recruitment and retention strategies and its medical education capacity are a potential constraint for future requirements. Qatar relies heavily on an expatriate healthcare workforce, with only 5 to 10 per cent of the workforce being Qatari. This reflects the limited attractiveness and awareness of healthcare as a profession among the Qatari population. Qatar will likely continue to struggle in attracting the number of healthcare workers it needs, and hence workforce planning is a crucial component of future healthcare strategy.

Best practice—Australia[47]

In Australia, government-supported health workforce planning and research occur at both the national and state or territory levels. The country established a national healthcare workforce task force to undertake projects that inform the development of practical solutions on workforce innovation and reform. Specifically, the task force's job was to develop strategies to meet a national healthcare workforce strategic framework. The framework encompasses:

- ensuring and sustaining supply;
- workforce distribution that optimizes access to healthcare and meets health needs for all the population;
- making healthcare a field in which people want to work;
- ensuring that the health workforce is always skilled and competent;
- using skills optimally and promoting workforce adaptability;
- recognising that health workforce policy and planning must be informed by the best available evidence and linked to the broader health system; and
- involving all stakeholders to work collaboratively with a commitment to the vision, principles, and strategies outlined in the framework.

New directions

The following are recommended:

1. The SCH has already approved a workforce planning section. However, this section must be established, staffed and empowered.
2. A multiple-stakeholder task force in workforce planning should be set up to provide strategic direction to the workforce planning section in the SCH.

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[46] "National Strategy for Family Affairs in Qatar," 2008–2012. Prepared for the SCFA.

[47] http://www.ahwo.gov.au.

3. The workforce planning section, with the assistance of the task force, should take the lead on developing a long-term national health workforce plan and should implement select national policies and programs such as the following:
    - Mandate and support professional training requirements.
    - Enhance national capacity through awareness campaigns and the provision of educational opportunities within Qatar.
    - Improve transparency around compensation and promotion, and monitor workforce data nationally.
    - Drive changes to the HR laws for improved flexibility and competition.
    - Ensure a smooth interface between health providers and the immigration department.
    - Orchestrate a collaborative approach on internal issues like recruitment and retention.

Implementation template 4.1 in Annex A

Project 4.2—Recruitment and retention

Current status

Remuneration-related issues are key components of the recruitment and retention difficulties. Practicing medicine in Qatar, especially in the private sector, is not attractive financially for the majority of physicians. A GP in Qatar, for example, earns 0.85 times the GDP per capita.[48] In the UK and Germany, the figure is 4.9 and 3.6, respectively. Anecdotal evidence collected during stakeholder interviews suggests a similar disparity in the acute care setting. Healthcare salary caps due to the HR law, implemented in 2009, are an additional impediment. While remuneration may be one issue, there are other challenges to effective recruitment and retention—for example, policies that limit professional development opportunities for expatriates. Although appropriate Qatarization is a goal, Qatar will continue to rely on an expatriate workforce, and therefore this population must be treated in a way that enhances both recruitment and retention within the healthcare sector.

The following issues need to be dealt with:

- Healthcare professionals in Qatar are paid low wages in relation to other professions such as engineering and finance.
- HR laws pose a serious threat to the competitive workforce environment for healthcare.

[48] Based on a midsalary range across grades for physicians and executives (22,228 QAR per month). GDP per capita used: $93,000.

- Professional licensing and immigration processes are time-intensive and sometimes unclear.
- The short-term view of expatriate employment results in minimal career progression, benefits, training, and professional development.
- There is limited flexibility in contracts (e.g., for part-time workers).

Best practice—EU[49]

In the short term, a number of EU countries have strived to recruit more staff into their hospitals and other healthcare facilities by taking action to attract back people who are not currently working and by recruiting workers from other countries, both within and outside the EU. For instance, in England recruitment from abroad was improved through national initiatives, resulting in the hiring of 300 consultants and 170 GPs, together with 840 nurses from Spain, 431 from India, and 176 from the Philippines through Memorandums of Understanding and government-to-government agreements.

In addition, multiple retention strategies that overlap with recruitment strategies have been employed. These include:

- developing flexible, family-friendly, working patterns;
- providing childcare and other support such as subsidised housing in high-cost areas;
- adjusting workloads to retain older staff and allowing older staff to work fewer hours for the same pay;
- introducing greater flexibility over retirement ages and ending early-retirement initiatives;
- maintaining contact with staff during periods of maternity leave;
- improving maternity leave and pay and sick leave provisions; and
- providing staff with learning and development opportunities to enable them to advance their careers in ways that will benefit them and their employer.

New directions

Recruitment and retention must be the priority. Qatar needs to ensure that the healthcare sector is seen as an attractive option for Qataris as well as expatriates. Qatar also needs to put in place initiatives to increase retention of healthcare professionals once recruited. The following should be done:

1. Boost compensation levels to make healthcare more competitive—specifically, for Qataris, ensure competitiveness with other sectors in the country (e.g., financial services, energy).

[49]HOPE's Study Group on Workforce Issues. "The Healthcare Workforce in Europe: Problems and Solutions." Brussels, May 12, 2004.

2. Change HR laws to be more flexible, and simplify licensing procedures.
3. Develop clearly defined career structures and promotions linked to performance.
4. Furnish improved working environments, both aesthetically and in terms of staff services.
5. Ensure career progression opportunities for both Qataris and expatriate workers.
6. Initiate structured professional development programs for both Qataris and expatriate workers.
7. Shift the current short-term view of expatriate employment to a longer-term perspective, and provide benefits such as training and professional development,
8. Allow greater flexibility (e.g., permit part-time contracts).
9. Establish secondment agreements with local employers and international partners to gain highly skilled professionals (Qataris and expatriates).

Implementation template 4.2 in Annex A

Project 4.3—Professional education and training

Current status

In the long term, Qatar needs to increase the percentage of a "homegrown" workforce made up of Qataris and long-term residents. To develop that workforce, Qatar has begun investing in education related to healthcare. However, currently institutions for healthcare education are not able to attract, admit, and graduate sufficient numbers of candidates.

The main barriers to increasing these numbers include the following:

- Healthcare is not viewed as an appealing occupation.
- There are a limited number and levels of institutions and a minimal variety of healthcare courses offered in Qatar.
- Young Qataris are being drawn to jobs in finance, oil and gas, and other sectors because of greater support from these sectors during a shorter education period that results in higher starting salaries and benefits packages.
- Current tuition costs are deemed somewhat high, particularly by long-term residents, especially when one considers the extensive length of courses and the relatively low future wages.
- Many Qataris are unable to meet the required standards because of gaps in basic education.

Best practice—UK

The UK has increased healthcare training capacity significantly. For instance, medical school intakes rose by almost 45 per cent over five years. Increasing the ability to recruit sufficient students included initiatives such as:

- better career information for schoolchildren and those considering a change of career;
- building links between employers and students to encourage them to remain in the area after completing their studies; and
- providing improved training opportunities.

Best practice—Oman[50]

In 1985, Oman embarked on a multi-initiative strategy to address nursing shortages. As a result, Oman is now largely self-reliant in the nursing profession, with roughly 70 per cent of nurses being local in origin. The multi-initiative program resulted in the establishment of more than 20 nursing colleges. In comparison, Qatar has just one nursing college offering a full nursing degree.

New directions

The following are recommended:

1. Qatar needs to improve the attractiveness of advanced education in healthcare among Qataris while also enhancing ability to access that education. Additionally, long-term residents present a valuable resource that could form a significant portion of a future high-quality, stable workforce, and therefore should be supported to pursue healthcare education.
2. The appeal of the healthcare profession should be boosted through an awareness program.
3. Sponsorship opportunities for long-term residents should be improved.
4. More institutions, and a variety of levels therein, should be established to provide diversified routes to education for health professionals.
5. Basic education should be sharpened to ensure that prerequisites for undergraduate studies can be met. This should be done in collaboration with the Supreme Education Council (SEC).

[50] Ibid. Also, Ghosh, B. "Health Workforce Development Planning in the Sultanate of Oman: A Case Study," available at http://www.human-resources-health.com/content/7/1/47.

6. Arrangements should be made with medical schools to sponsor medical education for select numbers of international students, who would work in Qatar for a fixed period upon the completion of their education.

Implementation template 4.3 in Annex A

Project 4.4—Optimizing skill mix

Current status

The skill set of Qatar's healthcare workforce needs to change. As already stated, currently most care is provided by the hospital sector. The aim for the future is for primary care to be the cornerstone and leading service provider. Care ideally will be provided through a multidisciplinary team approach. Achieving this goal will require a far higher proportion of primary care providers—and, therefore, GPs, nurses, and allied healthcare professionals of sufficient quality—who have actually been trained in primary care. Qatar also needs experts and professionals in other health domains like public health, occupational health, psychology, nutrition, social work and case management, and health education.

Additionally, it has been highlighted that there is significant underutilization of the workforce's skill sets, with staff working at the low end of their skill set rather than the high end. For example, nursing staff perform work that in other countries could be carried out by a nurse's aide, and nurses are not utilised enough for important tasks such as triaging cases for acute and initial care needs. The trend in developed countries is to stress and enhance the roles of multidisciplinary team members, including allied health professionals and support staff. Qatar should adopt this trend, allowing for the opportunity to generate new roles—such as that of nurse practitioner or physician assistant—to take on work previously assumed by physician staff. There is considerable opportunity to expand the roles of many healthcare staff and increase the ability to meet Qatar's healthcare demands.

Best practice—EU[51]

A number of EU countries have considered changing the traditional skill mix to tackle shortages of professional staff, including:

- transferring work between different professional groups, such as physicians and nurses, to make the best use of their skills (e.g., nurse-led treatment in some Swedish GP centers);

[51] Ibid.

- developing new roles, such as those of assistant practitioner in the UK, to take on work previously assumed by professional staff;
- extending the range of work that can be undertaken by different professional groups (e.g., by allowing nurses to prescribe drugs rather than seeing this solely as a medical responsibility);
- encouraging staff to develop new skills outside their traditional competence to provide quicker and more holistic care for patients; and
- training and developing staff without professional qualifications to take on new responsibilities.

New directions

Qatar should develop and implement multiple initiatives to enhance the healthcare skill mix in Qatar:

1. Adopt a multidisciplinary team approach to service delivery.
2. Bridge courses to increase the scope of work for select professional categories.
3. Amend job descriptions and licensing procedures.
4. Introduce new roles (e.g., nurse practitioners, operating department assistant, physician assistant).
5. Launch awareness campaigns for allied health professions.

Implementation template 4.4 in Annex A

Sector goal 5—National health policy

*"Public and private institutions operating under the **direction of a national health policy that sets and monitors standards** for social, economic, administrative and technical aspects of healthcare"* (QNV 2030)

An effective healthcare system needs a robust policy and regulatory framework to act as a guide to ensure quality and accountability. The government regulatory authority has changed several times in recent years to the current authority, the SCH, and this has caused instability within the health sector. The SCH must not only overcome this instability but must take leadership in fulfilling its regulatory role in light of multiple challenges. The key challenge is recruitment and retention of highly skilled staff, both Qatari and expatriate. Currently there is a shortage of high-quality human resources.

Healthcare regulation in Qatar needs considerable strengthening. The SCH must fulfil its role and establish a clear and comprehensive regulatory framework that monitors the healthcare system, ensuring safety and quality and yet not impeding positive progress. This will require a considerable change in policies regarding workforce recruitment and retention. The aim should be to employ the best possible workforce, whether Qatari or expatriate. Qatarization should be supported, but appropriately, with Qataris receiving the required mentorship and support needed to fill their roles.

Regulation of health service provision in Qatar should (1) encompass the legislative framework within which the public and the private sectors operate and (2) govern the behavior of organisations within the healthcare system. In addition, regulation should cover individual professionals working in healthcare.

The following are the identified projects related to regulation

SCH capacity building

- Strengthen the SCH's ability to establish a strong national regulatory framework, based on evidence, quality and safety standards, and clear policies and procedures. This will enhance the efficiency and effectiveness of the healthcare sector and improve health outcomes for the population.

Healthcare professionals

- Ensure comprehensive regulation of healthcare professionals across all sectors, public and private, to achieve high quality and safe care.
- Support the establishment of a council for health professionals.

Healthcare facilities

- Establish national standards and regulations for healthcare facilities across all sectors, public and private.

Healthcare products

- To protect the public's safety, ensure that healthcare products and medications are safe and of the required quality, and also that appropriate drugs are available when necessary.
- Increase the capacity and fortify the roles of SCH Pharmacy and Drug Control, and strengthen regulation.
- Implement a national formulary, and guarantee access to and availability of medications.
- Centralise the purchasing of drugs and medical supplies to enhance efficiency and help control costs.

Patient advocacy

- Establish a patient advocacy body as a neutral, confidential, and independent third party to support patient complaints and rights.

Project 5.1—SCH capacity building

Current status

The SCH faces two major challenges in developing and implementing a regulatory framework: stability and capacity. These challenges have had a considerable impact on the enforcement of regulation. As a result, there is no unified national regulatory framework. The importance of these challenges must not be underestimated. The SCH faces the following capacity issues:

- The number of high-quality skilled staff is insufficient.
- Compensation packages that do not attract the necessary workforce, both Qatar and expatriate—coupled with limited flexibility, professional development, and career progression as well as changes to contracts, particularly for expatriates—pose challenges to recruiting and retention.
- SCH restrictions imposed by HR laws (such as inadequate salary scales) and prerequisites (such as administrative positions being for Qataris only) make obtaining a quality workforce extremely difficult.
- A significant portion of work continues to be performed manually because of insufficient resourcing of IT and limited IT training among the SCH workforce.

New directions

The SCH needs to attract a highly skilled workforce. Once on board, the SCH should ensure that high-quality staff are retained and contribute productively to the goals and achievements of the organisation. The goal should be to have a positive and collaborative work environment that supports both Qataris and expatriates as valuable team members. To achieve this, the following are recommended:

1. Increase human capacity by offering competitive compensation benefits and packages.
2. Consider adopting flexible working arrangements, including adjustable work hours and part-time work (with exemptions from the HR laws).
3. Invest in IT systems and required training.
4. Establish the necessary HR processes (e.g., performance evaluation and assessment framework) to support capacity buildup.

Implementation template 5.1 in Annex A

Project 5.2—Healthcare professionals

Current status

Qatar relies heavily on an expatriate healthcare workforce, with only 5 to 10 per cent being Qatari. The expatriate workforce brings experience from a range of countries. However, these countries have differing regulatory requirements as well as varying levels of health professional education standards. This results in disparate levels of quality within the workforce, a concern frequently highlighted in stakeholder interviews. Currently there is no centralised body to regulate and enforce all licensing and credentialing for healthcare workers in Qatar, resulting in the following:

- HMC has its own licensing and credentialing process, whereas SCH licenses primary healthcare and the private sector.
- Revalidation of the healthcare workforce (to ensure its continuous fitness to practise) and accreditation vary. The criteria for performing this function are not standardized and there is no external auditing.

Best practice—UK[52]

The system of professional regulation in the UK is designed to ensure that if a patient is seen by a healthcare professional, such as a doctor or a midwife, the patient can trust that the care received will meet certain minimum standards of safety and quality. The system is largely government sanctioned and self-regulatory. Professionals wishing to use titles such as "registered medical practitioner" or "physiotherapist" must be registered with the respective professional association (e.g., the General Medical Council). To be registered, professionals must meet certain standards that the councils set. The councils establish and police standards of practice for those in their respective profession, including expatriate professionals. Each council establishes standards for education and revalidation, and investigates and prosecutes practitioners who are found to fall short of those standards.

New directions

The challenge to achieve standardization of quality can be overcome in part by a centralised body, and the SCH needs to be the sole and independent regulator for licensing and credentialing all health professionals. The SCH is in the process of setting up the QCHP (Qatar Council for Health Practitioners) for this purpose.

1. The QCHP should be fully established in order to regulate professionals and provide processes that are user friendly and efficient, including:
   - **Registration and licensing—**There should be a standard centralised application and evaluation procedure to obtain a licence, furnishing a single point of licensing and providing access to comprehensive licensing data. This should also include a licensing exam for select practitioner groups and objective primary source verification and credentialing.
   - **Appraisal—**There should be a standard for appraisal to demonstrate continued fitness to practise.
   - **Disciplinary action—**A clear set of conditions should exist for revoking or suspending licences administered through a panel, using civil standards of proof (with public representation) to ensure fairness and openness in the handling of cases.
   - **Education**—There should be a standard centralised accreditation system with oversight of undergraduate education, postgraduate education, and continuing professional development, which will consider using international recognized standards.

[52] www.gmc-uk.org.

2. The QCHP's structure should be composed of lay and professional members. Operational roles should be filled by several subcommittees, each representing a healthcare profession.
3. The QCHP should also forge strategic international partnerships with bodies like IAMRA (International Association of Medical Regulatory Authorities).

Implementation template 5.2 in Annex A

Project 5.3—Healthcare facilities

Current status

Currently there is no national standardized system of regulation for healthcare facilities in Qatar. There is no enforced, single, centralised body that sets the minimum standards and assesses compliance for all health service facilities. Although the SCH should fill this role, it has a limited capacity to do so. HMC has followed the Joint Commission International (JCI) standards for becoming accredited. However other providers—i.e., private, semi-government, and primary healthcare—have not followed the same path.

Best practice—Singapore[53]

In Singapore, the government created a Health Regulation Division that has broad responsibilities for licensing and accreditation, legislative enforcement, surveillance, and a clinical audit and quality assurance program, including the implementation of clinical pathways and best practices in the management of diseases. Hospitals and medical clinics are required to have quality assurance and infection control measures in place. In addition, a system to detect and mitigate potential sources of medical errors has also been implemented.

To gain standardization and allow valid comparison, Singapore has mandated that all acute care hospitals—both government and private—measure fixed outcomes (e.g., inpatient and perioperative mortality, unscheduled returns to the operating theatre). This mandate has allowed regular and comparative feedback to hospitals in the form of quarterly reports and data analyses, enabling both the regulator and the hospitals to carry out more focused and targeted actions and requirements.

[53] Based on http://www.moh.gov.sg/mohcorp/about.aspx?id=526.

New directions

A Quality Department should be established to regulate healthcare facilities and provide:

1. **Licensing and standards—**standards for effective and safe patient healthcare, on which licensing can be based (the SCH could consider using already established standards like JCI)
2. **Assessment** in the form of monitoring, through a multitude of indicators that reflect the quality and safety of the clinical service provided
3. **Disciplinary action** and the communication of clear conditions for revoking or suspending licences, as with individuals
4. **Educational programs** and training on safety for facilities.

Implementation template 5.3 in Annex A

Project 5.4—Healthcare products

Current status

The Department of Pharmacy and Drug Control exists within the SCH. However, it needs to be supported with appropriate capacity and enhanced with additional functionality. Although the department's aim is to register all drugs, it faces challenges due in large part to a limited number of qualified and appropriately skilled staff. The registration of medications is a process that involves multiple steps, such as confirming the existence of all documents and studies supporting efficacy, safety, and quality. Furthermore, the registration of medical devices is yet to be established but likely will be in the near future, placing additional demand on capacity.

Major issues within the area of healthcare products include the following:

- The Pharmacy and Drug Control Department has limited capacity to fully regulate healthcare products, including medical devices.
- Usage of generic drugs is low because of cultural pressures felt by both clinicians and patients to use branded medication. This leads to additional healthcare costs.
- Usage of narcotics is low because of physicians' cultural resistance to prescribing opiate-containing drugs for patients to use at home. This may lead to (1) inadequate pain control for patients and (2) increased lengths of stay because pain control is almost always administered on an inpatient basis.
- There is no national centralised purchasing system for both medications and medical supplies.

Best practice—Singapore[54]/ UK

In Singapore, the Health Products Regulation Group (HPRG) safeguards public health by ensuring that medicinal and health-related products meet appropriate standards of safety, quality, and efficacy. This is an approach that Qatar's Pharmacy and Drug Control Department would like to emulate.

HPRG evaluates medicinal products before they are allowed to be marketed in Singapore. Products currently controlled by HPRG include Western medicinal goods, Chinese proprietary medicines, and cosmetics. HPRG is also responsible for regulating clinical trials in Singapore and providing unbiased drug information to health professionals and the public.

Postmarketing regulatory activities include surveillance programs for quality, routine inspections, and investigations into contraventions of legislation. When necessary, legal action is taken against the offenders by way of impounding or prosecution in court.

The spontaneous reporting of adverse drug reactions by doctors and other health professionals is one of the important tools HPRG uses to maintain vigilance on the safety of all drugs marketed in Singapore.

In addition, HPRG inspects and licenses pharmaceutical manufacturers, importers, and wholesale dealers in accordance with current international Good Manufacturing Practice and Good Distribution Practice standards. This ensures the production of good-quality medicines and the preservation of that quality down through the supply chain, from the manufacturers to the distributors and retailers.

In the UK, there is a concerted effort to enforce the use of generics, both in primary and secondary care. This has been done to curb the cost of the NHS drug bill, which topped £10 billion in 2007, 10 per cent of the overall budget. Already, around 83 per cent of drugs prescribed are off-patent, meaning they can be manufactured and sold at a cheaper rate. It is estimated that that figure could rise to 88 per cent of all drugs in the near future. There are various methods to enforce usage, from reimbursement of drugs in the accepted formulary to changes when dispensing at the pharmacy.

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[54] Ibid.

New directions

1. Fully establish the Pharmacy and Drug Control Department to rigorously cover healthcare products through capacity building in order to provide:
   - **Standards—**The development of national quality standards for healthcare products that prove their efficacy and safety
   - **Guidance and assessment—**The development and adoption of a framework for bioavailability studies based on WHO and GCC guidelines. It is necessary to define a general scientific framework, including basic methodology, ethical principles, and regulatory aspects for the conduct of bioavailability studies, so that optimal and relevant data are generated. The guidelines should assist in the laboratory evaluation to support the quality, efficacy, and safety of drugs as well as the evaluation of bioavailability or bioequivalence.
   - **Registration and licensing—**Carried out by a permanent committee set up to register companies and their products
   - **Disciplinary action—**A clear set of conditions for revoking and suspending licences
2. Expand scope to include medical devices, and establish a medical device registration unit to cover a wider spectrum of healthcare products.
3. Implement a national formulary with which providers must comply. This would ensure the use of evidence-based generic pharmaceuticals. The system would be enabled through IT and could contain all potential drug issues and interactions.
4. Ensure centralised purchasing of pharmaceuticals to reduce costs and eliminate potential inefficiencies.
5. Educate clinicians better in the use of both generics and narcotics. This would have a significant impact on clinical care and cost.

Implementation template 5.4 in Annex A

Project 5.5—Patient advocacy

Current status

The vision and goal of Qatar's healthcare system is to be centred on the patient. Part of realising this vision involves ensuring that patients are engaged as customers and their views are heard appropriately. A basic requirement is to have an adequate mechanism for patients to receive independent support on healthcare concerns and complaints. Currently the SCH Medical Licensing Department provides the only external route for patients to place complaints. It is critical that Qatar have an independent body to act as a patient advocate and support patients, ensuring that their

rights are maintained and their concerns are heard. Currently, there is no such independent mechanism.

Best practice—Australia[55]

In Victoria, Australia, the Office of the Health Services Commissioner acts as the ombudsman for healthcare. The office:

- helps people make their concerns known to healthcare providers;
- arbitrates, formally or informally, between consumers and service providers;
- assists in the resolution of complaints; and
- protects a patient's right of access to his or her health information.

New directions

To ensure that patients have access to an independent body to address their grievances, Qatar should:

1. Establish a fully independent patient advocacy body that supports patients and patients' rights. The entity must be an ombudsman who provides feedback and monitoring as required. It would function to:
   - reconcile differences between consumers and providers of services;
   - assist in the resolution of complaints;
   - protect patients' rights to receive safe and effective care;
   - protect patient information; and
   - develop and define a patients' bill of rights.
2. The entity needs to be composed of the appropriate mix of individuals, with sufficient medical-legal and, clinical knowledge, and representation of the consumers.

Implementation template 5.5 in Annex A

[55] http://www.health.vic.gov.au/hsc/.

Sector goal 6—Affordable services

*"Effective and **affordable services** in accordance with the **principle of partnership** in bearing the costs of healthcare"* (QNV 2030)

Coordinated planning and control in healthcare infrastructure and finance—affordable healthcare

Qatar needs mechanisms in place to guarantee that clinically appropriate and cost-effective services are provided through coordination, CON, and development of business cases for major healthcare projects, transparent accounting, and proper cost sharing. From a national perspective, there are two areas that need to be addressed: finance and infrastructure.

The following are the identified projects for the NHS 2011–2016 required to achieve this goal:
In finance:

Budgeting process

- Institute a comprehensive and accurate account of healthcare spending through a healthcare-specific budgeting process (activity based costing) and defined nomenclature.

More efficient and effective management of treatment abroad

- Examine treatment abroad and standardise processes to Optimize expenditures and enhance quality of care.

Health insurance establishment

- Establish the prerequisites needed for national health insurance.
- Continue with the current work being done on the design and implementation of the future insurance scheme, ensuring that the scheme supports the model of care and appropriately provides incentives for cost-effective care and treatments.

In infrastructure:

Healthcare infrastructure master plan

- Provide a framework for healthcare infrastructure planning that is a long-term master plan for healthcare facilities and major equipment and yet is dynamic enough to cope with continually changing needs.
- The master plan should be based on the model of care and services needed for the country as identified in the CSF.

Capital expenditure committee

- Establish a committee to which all public providers and any private providers requesting government funds or reimbursements must present all new healthcare infrastructure project concepts for approval based on a CON and a business case plan.

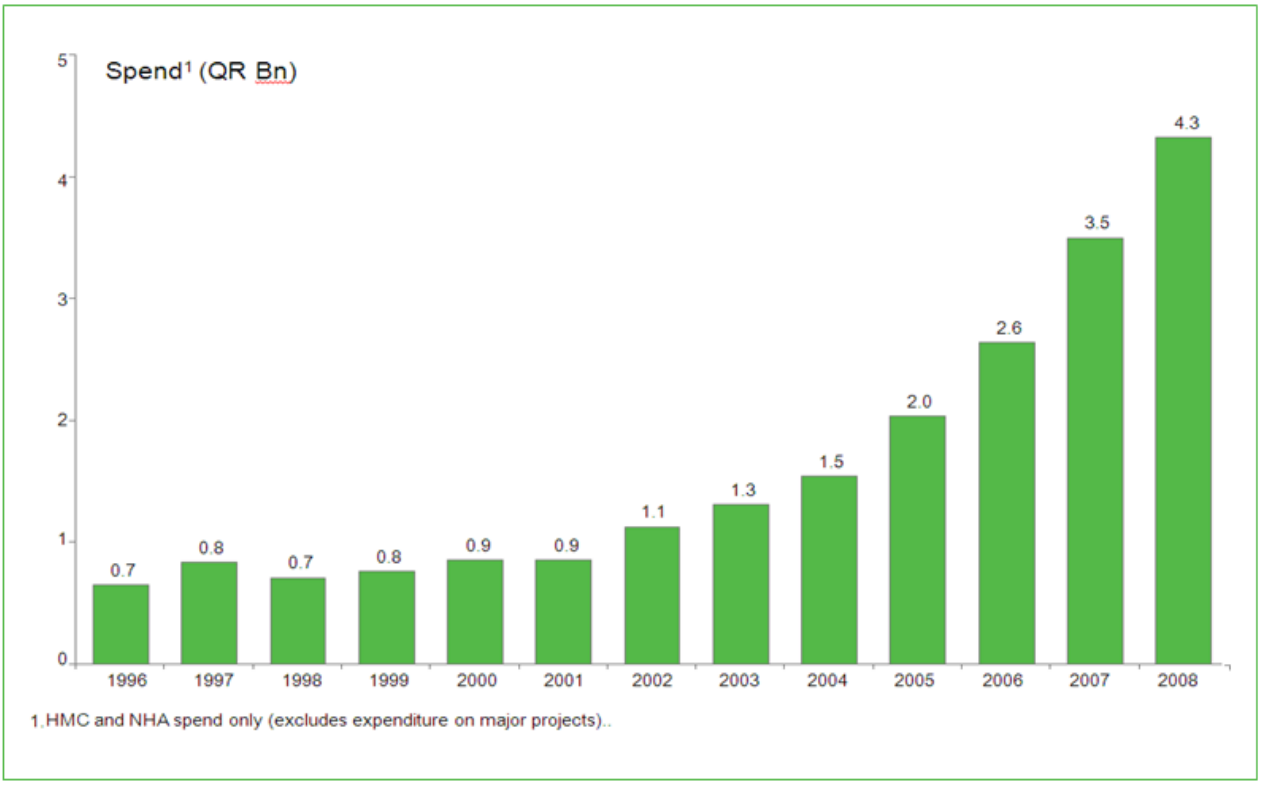
Project 6.1—Budgeting process

Current status

There is no single comprehensive source of nationwide healthcare expenses that includes public sector spending, private sector expenses, Qatar Foundation, and individual contributions. In this report, healthcare spending analysis was conducted on data that include spending on HMC, SCH, and PHCs. From 2001 to 2008, spending has risen fivefold to QR 4.33bn (Figure 11). This has resulted in healthcare spending going up from 6 per cent to 15 per cent of total government expenditures. The increase is due not only to servicing a larger population: spending per capita has also risen from QR 1,581 in 2001 to QR 4,383 in 2007 (Figure 12). It is likely much of the increase could be due to needed investment in infrastructure and workforce. It must also be noted that the per capita spending is markedly below the OECD average of QR 8,047.[56]

[56] The figure is based on the average OECD public healthcare expenditure in USD PPP (purchasing power parity) converted to QAR.

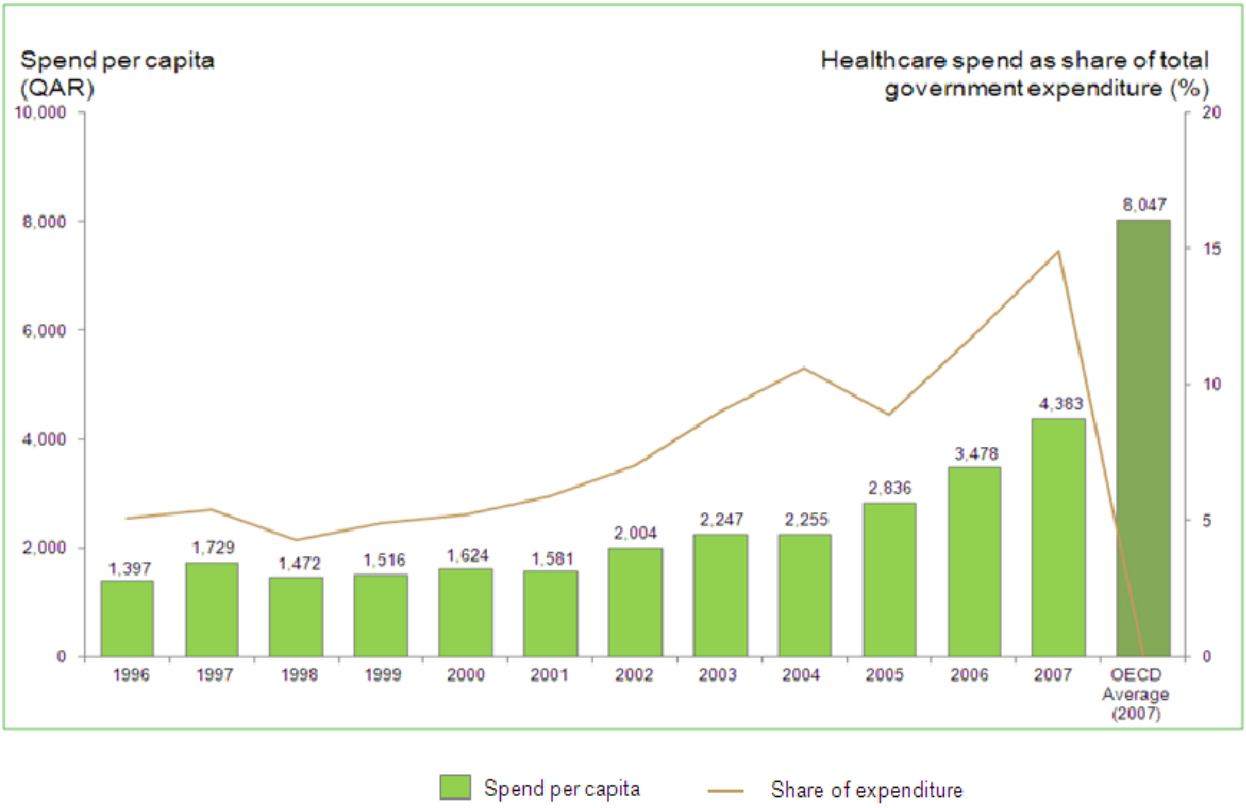
Figure 11 **Healthcare spend (HMC and NHA spend only excludes major projects)**



Source of data: Annual Health Report 2008, SCH

Traditionally, public health sector budgets have been developed using linear extrapolation based on historical spending. Standard budgeting practices like program-based budgeting, multiyear budgeting, and activity based budgeting are not followed. The lack of national health accounts and transparent performance or activity based budgeting has hampered efforts to monitor costs. Without these, it is not possible to compare costs between providers, establish cost drivers, or identify best practices. The SCH has commenced work on the development of the national health accounts system however it is yet to be implemented.

Figure 12 **Healthcare spend per capita and Healthcare as a share of govt. expenditure**



Source of data: Annual Health Report 2008, SCH

New directions

Qatar needs to ensure significantly enhanced monitoring and control of healthcare expenditures for public sector providers. The nation must shift from lump sum budgets to performance- or activity based budgeting, with mandatory requirements put in place for reporting cost data. An enhanced budgeting system will facilitate transparency in the use of resources and provide decision makers with greater ability to monitor and control finances. To achieve this, Qatar needs to:

1. develop a healthcare budgeting process that includes activity based costing and nomenclature based on international standards and a transition plan;
2. ensure institutional requirements for implementing a budgeting process; and
3. develop a multiyear budgeting program for public health sector spending.
4. continue with the current work being carried out on national health accounts and ensure consistency with national benchmarking

Implementation template 6.1 in Annex A

Project 6.2—Management of treatment abroad

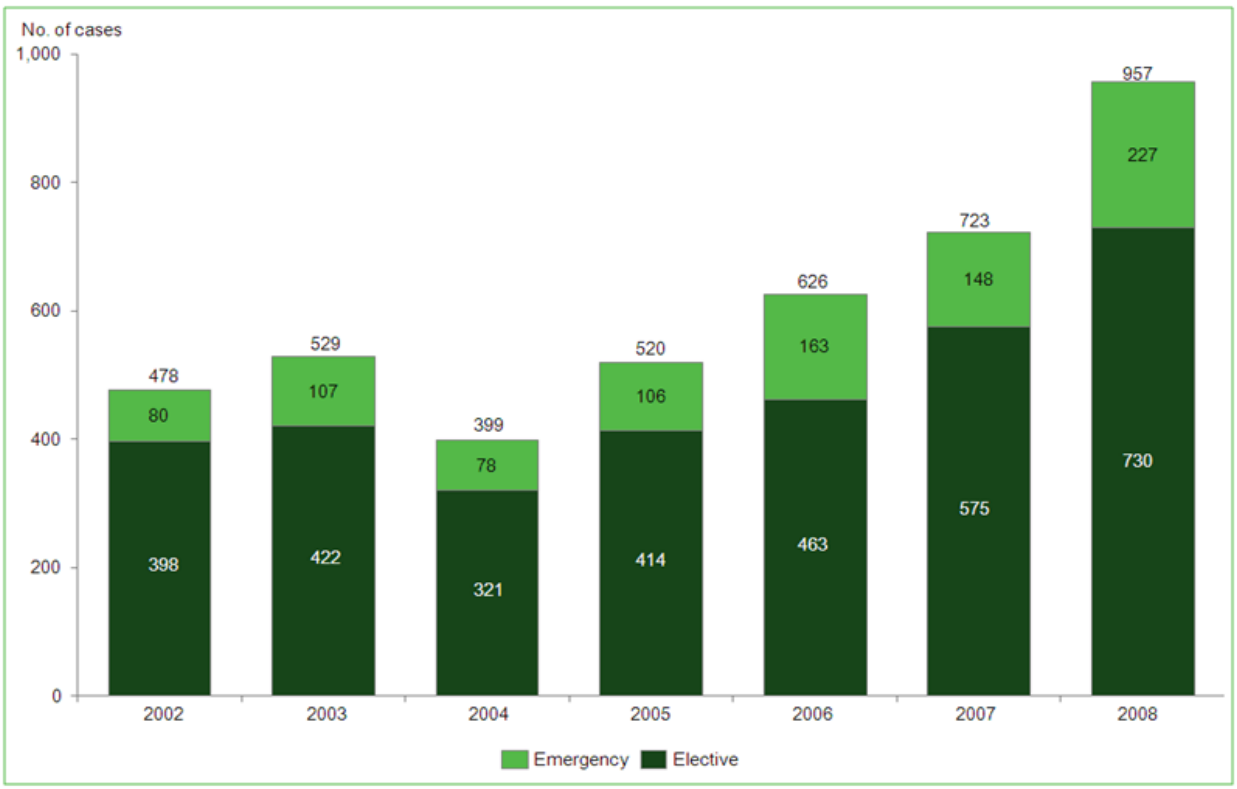
Current status

Because certain specialty services are unavailable in Qatar, some citizens are sent abroad for treatment. Every year, increasing sums are spent on treatment abroad. The current budget for treatment abroad for 2009 was in the range of 0.5 billion QAR for approximately 950 patients, and the cost per procedure was around 600,000 QAR. There is additional spending on treatment abroad beyond the SCH budget.

The treatment abroad process has room for improvement through cost efficiency and management. This can be done without limiting access to care. There is potential for enhancing quality through the standardization of processes.

Treatment abroad is a key element of the scope of care in Qatar today, and increasing numbers of patients are being referred outside the country (Figure 13).

Figure 13 **Number of cases referred for treatment abroad**



Source of data: Annual Health Report 2008, SCH

- Anecdotally, up to 70 per cent of costs are for nonmedical items such as flights and accommodation. This figure is fuelled by the fact that when the patient travels abroad, the whole family can travel along, often efforts to control costs are limited.
- No prior agreement is made with the provider of care regarding likely treatment costs.

- Many cases are supported by multiple alternate funding sources, resulting in limited control of treatment and a likely increase in expenses.

New direction

The treatment abroad process has room for improvement through cost efficiency and management, which can be attained without limiting access to care. There is also potential to enhance quality through the standardization of treatment methods. A review of the treatment abroad process, as well as of expenditures resulting in the following, is needed:

1. Establish a database containing selected preferred providers in order to ensure inclusion of the highest-quality centers.
2. Provide follow-up care in Qatar.
3. Negotiate volume contracts to control cost.
4. Make travel arrangements through a single source to realize better price points on airfares and hotels.
5. Define the indications for eligibility to treatment abroad and for a transparent application and approval process.

Implementation template 6.2 in Annex A

Project 6.3—Health insurance establishment

Current status

Many GCC nations have introduced health insurance over the past few years. Qatar has been working to implement a national health insurance scheme. The launch of health insurance will affect all elements of the healthcare system and allow Qatar to capture the following benefits:

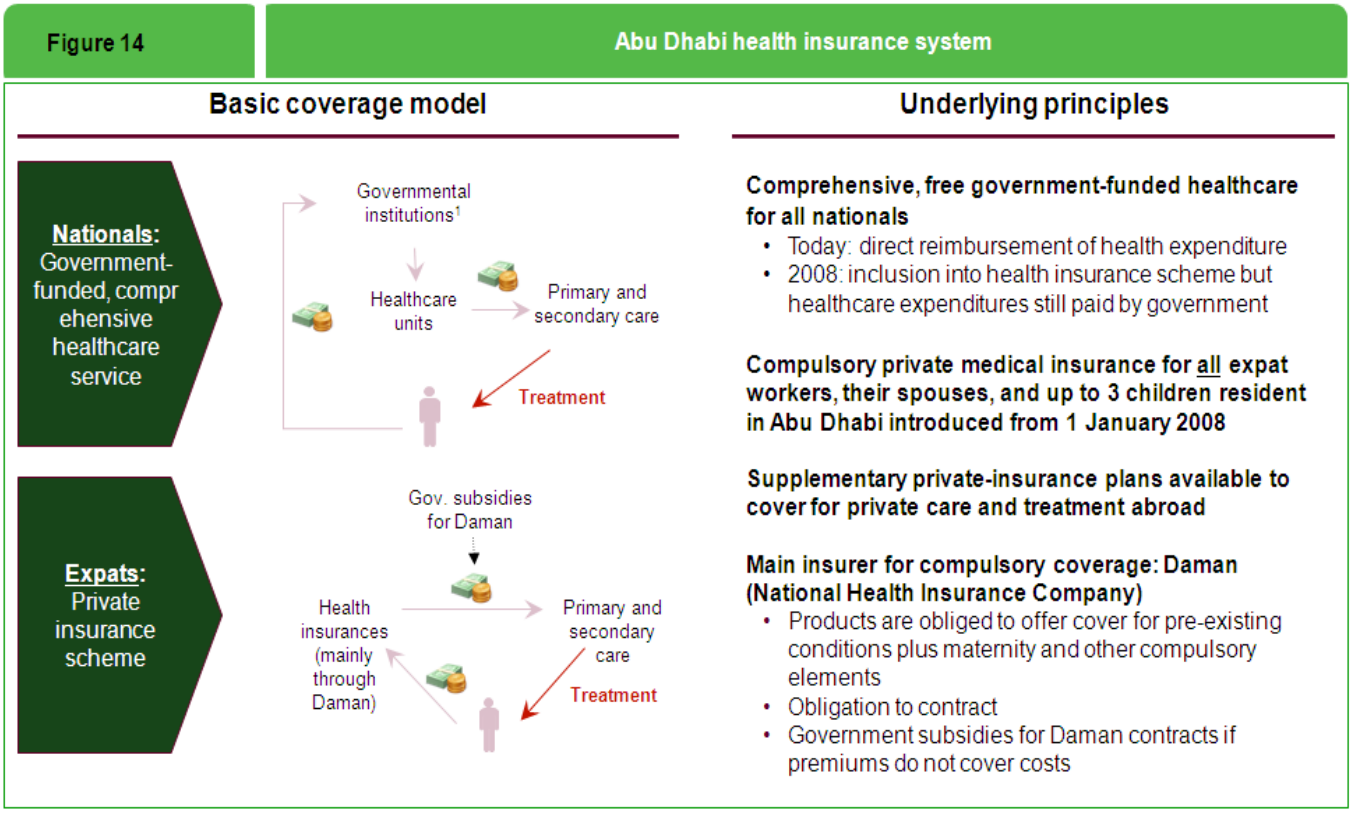
- Health insurance can help Qatar achieve the principle of cost partnership outlined in the QNV 2030—that is, employers and expatriates alike share in the costs.
- Health insurance can provide the right set of incentives across all healthcare stakeholders.
- Payment and reimbursement mechanisms put into place to support health insurance will promote clarity in healthcare expenditures in the system.
- Health insurance can be a source of data.

However, Qatar must ensure that all the prerequisites necessary for the launch of health insurance are in place. Qatar must focus on and implement these in an accelerated time frame in order not to jeopardise the entire integration of insurance as a key element of its health system.

Best practice—Abu Dhabi

Abu Dhabi initiated a healthcare reform process in 2006, one of the key tenets of which was to introduce private sector financing. In line with that, Abu Dhabi introduced a mandatory health insurance scheme for expatriates in January 2008. The health insurance scheme was introduced in a phased manner but eventually expanded to include all categories of residents (i.e., citizens, low-wage expatriates. and high-wage expatriates). The key elements of health insurance are shown in Figure 14.

Figure 14 — Abu Dhabi health insurance system



1. Ministry of Health; local governments; Ministry of Defense; oil companies; The Crown Prince Courts of Abu Dhabi and Dubai
Source: Regional health systems authority EMRO; Espicom 2007; Axco; HAAD; press search

Given the mandatory nature of health insurance, its uptake was rapid, and in a relatively short time (about two years) more than 90 per cent of the population had health insurance coverage. A key success factor for the introduction of health insurance in Abu Dhabi was the presence of key prerequisites for health insurance. Abu Dhabi also granted a monopoly for the basic product to Daman, a state-run provider that was set up in partnership with Munich Re and that brought in international expertise in health insurance and helped prepare for its introduction.

New directions

1. Qatar must meet the following prerequisites before it can launch the national health insurance scheme successfully:

- The introduction of individual patient billing systems, preferably electronic, which Qatar can initiate with a small set of coding requirements and gradually transition to a full-fledged coding system
- The building of an actuarial database or model for pricing
- A preauthorisation methodology for coverage of clinical services
- A workforce with the appropriate skills (e.g., claims processing and accurate coding) supported by training programs for the insurance workforce (e.g., claims handling)
- Appropriate regulatory policies and guidelines to support the insurance scheme, as a robust regulatory framework is important to ensure that—in the case of private sector involvement—the profit motive is appropriately balanced
- Communication to all key stakeholders

2. Insurance design must be aligned with the model of care and must provide appropriate incentives for behaviors that lead to improved health outcomes (e.g., using primary care as the entry point to the healthcare system, strengthening prevention efforts).
3. Insurance must be aligned with data, e-health, and provider working groups.
4. The reimbursement mechanism should not be based on the fee-for-service model, which can lead to over treatment and consequently to more health problems (especially in a hospital setting) as well as higher costs.

Implementation template 6.3 in Annex A

Project 6.4—Healthcare infrastructure master plan

Current status

On a national level, the infrastructure framework does not fully reflect the healthcare needs of the population. There continues to be an emphasis on increasing hospital capacity rather than on providing integrated primary care. Limited coordination can lead to overcapacity and inappropriate duplication, both of which can result in an ineffective use of resources. Similarly, needs are not always met on the facility level: designs may not fully reflect the requirements of the end user, in part because of limited consultation with the service providers during the planning period. There are often delays in the construction of healthcare infrastructure, leading to outdated facility plans. Underlying these issues are two key factors:

1. Limited coordination and planning

2. Focus on services being provided in an acute care facility rather than through primary care in the community setting

Best practice—France[57]

The French health system is financed mainly through a combination of social health insurance, contributions, and tax revenues. It provides comprehensive coverage for all residents. Healthcare is delivered through a mix of public and private providers. Responsibility for the planning of resources and capacity in the health system is shared by the central government, represented by the Ministry of Health, and the regional health authorities. The Ministry of Health has a guiding role: it generates a catalogue of health services that the regions have to incorporate in their plans. This catalogue is based on an assessment of needs at the national level and on national priorities. The actual implementation of the strategy takes place mainly through a regional strategic health plan. The plans focus on hospital planning and on the expensive treatment and technology provided in hospital settings. The details include the following:

- Overall strategic goals for healthcare delivery
- Defining of priorities
- Objectives and targets
- The distribution of healthcare facilities within a region, including determining capacity by specifying the number of facilities in each region and each area of care (covering general medicine, surgery, maternity care, emergency care, neonatal care, radiotherapy, and psychiatric care, as well as expensive technical equipment such as MRI scanners).

New directions

1. Establish a healthcare infrastructure master plan for Qatar, based on the CSF, to guide future health sector expansion. The master plan should be comprehensive and include facilities at all levels—primary, secondary, tertiary, continuing care, and large-scale technical equipment. This healthcare infrastructure master plan should be aligned with the future model of care and enable the efficient delivery of services with a focus on community-based care. It should also ensure an integrated and coordinated healthcare infrastructure founded on population needs.
2. A process should be established to update the healthcare master plan regularly.

Implementation template 6.4 in Annex A

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[57] European Observatory on Health Systems and Policies 2008. "Capacity Planning in Healthcare. A Review of the International Experience. *www.euro.who.int/__data/assets/pdf_file/0003/108966/E91193.pdf.*

Project 6.5—Capital expenditure committee

Current status

Once developed, a healthcare infrastructure master plan will need a mechanism to maintain proper oversight and stewardship over it, ensuring:

- infrastructure spending that is linked to needs and aligned to the model of care;
- consistent decision making; and
- integration among all key providers, including private providers.

Best practice—US[58]

In the US, the CON programs are aimed at restraining healthcare facility costs and allowing coordinated planning of new services and construction. The CON legislation reflects concerns about the rising cost of medical care and the existence of excess capacity within the healthcare system. The CON laws require agencies that regulate the healthcare providers within states to approve the investments over a certain dollar amount made toward the construction of new facilities and additional beds, investments in new services and equipment, and expenditures toward restoration and equipment to sustain existing services. Currently about 36 states retain some type of CON program, law, or agency.

The process of CON varies from state to state, but, for example, in Georgia the steps are as follows:

1. The CON process begins with the **submission** of an application that contains all relevant information prescribed.
2. The application is **evaluated** within 90 days. In circumstances where they think the application might be denied, staff will meet with applicants within the first two months of the application process in order to go over any problems in the application and give the applicant an opportunity to amend it.
3. Applications are **batched**—for example, projects that involve home health agencies or the development of new intermediate care or skilled nursing home beds are subject to the batching review process.
4. A **decision** is made—project applications are either approved or denied. If the application is approved, an official CON and project evaluation analysis is provided to the applicant.
5. Applicants have 12 months from the date of approval to **implement** the proposed project.
6. An **appeal** process may begin no later than 30 days after the original decision.

[58] Based on http://www.georgia.gov/00/channel_title/0,2094,31446711_32467034,00.html.

The CON in Georgia's Health Planning Statute covers almost all healthcare facilities and many healthcare services. The statute is written to have a general and overriding condition that a healthcare facility or service requires a CON before it can be developed or offered. It covers:

- all public and private hospitals, including general, acute care, and specialised hospitals;
- nursing homes;
- ambulatory surgical services or obstetric facilities;
- home health agencies;
- personal care homes (with 25 or more beds);
- inpatient rehabilitation facilities treating traumatic brain injury;
- diagnostic, treatment, and rehabilitation centers;
- major medical equipment purchases or leases (e.g., MRI, CT scanners) that exceed the equipment threshold (the 2006 equipment threshold is set at $8 million);
- major hospital renovations or other capital activities by any healthcare facility that exceeds the capital expenditure threshold (the 2006 capital expenditure threshold is set at $1.4 million); and
- addition of beds.

There is also a list of specific exemptions that include replacement of existing therapeutic or diagnostic equipment that received prior CON authorisation.

Figure 15 highlights some of the differing thresholds between some states in the US.

Figure 15 **Certificate of needs (CON) threshold by US states**

	Florida	Georgia	Iowa	Mass	Washington	West Virginia
Threshold	Any amount	Capital ▪ $1.4m Equip ▪ $0.8m Any bed increase	Any amount	Capital ▪ $12.5m Equip ▪ $1.3	Any amount	Capital ▪ $2m Equip ▪ $2m
New hospital	✓	✓	✓	✓	✓	✓
Existing hospitals / services	✓	✓	✓	✓	Tertiary services only	✓
Sale, transfer or lease	✗	If it creates a new service	✗	✗	✓	✓
Renovation	✗	✓	✗	✗	✗	✓
Replace or relocate	If more than 1 mile from current location	If more than 3 miles from current location	✗	✗	✗	✓
Beds	✗	✓	✓	✗	✓	✓
License / regulation	No licence to sites without CON	Review applicants' past licensure		Original licensure must obtain CON	State licenses	

Source of data: GSDP work team analysis

New directions

A capital expenditure committee led by the SCH should be established to make future decisions for expansion on the basis of a CON methodology similar to processes that are used internationally. The approval should be based on an understanding of Qatar's clinical needs and currently available infrastructure.

The committee's responsibilities will be to:

1. provide, through a healthcare infrastructure master plan and CON process, direction on infrastructure and strategies for new technology and capacity development;
2. provide governance oversight and monitoring of government-funded capital expenditures and capital investment plans for healthcare;
3. approve new project concepts and business plans intended for government funding and insurance reimbursement for the public and private sectors; and
4. monitor the status of all approved infrastructure projects to determine whether development is in line with the CON.

Implementation template 6.5 in Annex A

Sector goal 7—High-quality research

*"**High quality research** directed at improving the effectiveness and quality of healthcare"* (QNV 2030)

Research is critical for success in achieving the ambitions laid out in the QNV 2030. To achieve a world class health system, research must focus on—and appropriate funding must be given to—four areas:

1. Public health (e.g., epidemiology data)
2. Public policy (e.g., continuous monitoring, evaluation, learning, and improvement in this very dynamic sector where there are no two identical health systems globally)
3. Biomedicine (with all research components considered—basic, clinical, and translational)
4. Clinical effectiveness research

Research activities should be performed in compliance with international standards of ethics, such as those outlined by WHO, which provides guidelines on ethical standards and procedures for research with human beings. The guidelines define the role and constituents of an ethics committee and also detail the requirements for submitting an application for review. The review procedure and specifics of the decision-making process are given together with necessary follow-up and documentation procedures.

To ensure effective and quality research activities in Qatar, the following items need to be implemented:

- ***Research governance***—The SCH should act as the national governance structure for research, through the establishment of an entity (committee or council) eg. Qatar Medical Research Council (QMRC), to provide a national regulatory framework, national strategic direction on research priorities, and coordination of publicly funded research.
- ***Innovation—***In addition to establishing a governance structure, Qatar's research should be innovative in its approach in order to gain some degree of advantage. Qatar's wealth and comparatively small size create a unique situation and an opportunity for a country aspiring to international recognition as a top-notch research destination. To this effect, the established research governance structure in the SCH needs to promote the following, in collaboration with key stakeholders:
  - ***Open-source ideology—***This can still improve quality and accelerate output by the exchange of thoughts across research specialties. Various groups have access to the same data and trade ideas over diverse electronic channels—or even observe

experiments in real time. The Human Genome Project is one of the first prominent and successful examples of open-source ideology.

- ***Public-private partnerships—***Close cooperation of private companies' research activities and academia stimulates joint programs and better utilization of resources.
- ***Research support services—***Services like statistical analysis, protocol design, and research planning should be provided for health professionals in the private and public sectors who wish to undertake patient-oriented research and who require advice on protocol development.

Project 7.1—Research governance

Current status

Qatar has embarked on an ambitious research program, but thus far there has been limited national coordination. Healthcare research activities in Qatar are currently almost exclusively focused on biomedical topics, with limited attention paid to public health and policy projects. The list of organisations involved in biomedical and health research in Qatar has grown substantially. However, with the responsibility for science and research policy distributed across multiple institutions, the current structure (or the lack thereof) does not provide cohesive planning for biomedical and health research. Examples of issues due to limited coordination are highlighted here:

- ***Limited research conducted in the public health area—***There is only a limited amount of reliable knowledge about epidemiological circumstances in Qatar because of a lack of uniform and standardized data collection. This has an impact on prioritising research focus.
- ***Potential waste of resources—***Qatar continues accumulating technology that may result in unnecessary duplication for the needs of the country. In certain cases there is significant underutilization of highly technical and costly equipment.

Best example—UK[59]

Public funding for health research and development is channelled through a number of public funders of research across the UK, from the NHS to various research councils and education bodies. The UK established the Office for Strategic Coordination of Health Research (OSCHR) to develop a more coherent and effective strategic approach to health research in the UK, helping to deliver the following:

- Creating a clear and seamless funding landscape that facilitates and **accelerates the translation** of new discoveries for patient and economic benefit

[59] Based on www.nihr.ac.uk.

- Maintaining the UK's strong international position by developing a **strong skills base** with the capacity to meet the health research challenges of the twenty-first century
- Creating a vibrant research community in **public health** where partners are fully engaged and where a new cohort of investigators emerges to address health problems at the population level

The key functions of the OSCHR are as follows:

- Work with all key stakeholders, from research funds to the NHS, to set the UK government's health research strategy.
- Set the budget required to deliver this strategy.
- Communicate the UK's health research opportunities to major stakeholder groups.
- Monitor delivery of the strategy against objectives and report to Parliament on progress.
- Encourage a stronger partnership among government, health industries, and charities.

New directions

Establish a national governance structure (council or committee), led by the SCH, eg. Qatar Medical Research Council, the function of which will be to provide national-level leadership, strategic direction and coordination on scientific programs in all fields of health (eg. public health, primary health care, public policy, clinical effectiveness, quality improvement) and biomedical research. The proposed structure will integrate existing research activity to provide cohesion and national strength, which will:

1. increase high-quality research outcomes;
2. clear lines of responsibility;
3. maximise the benefits of the state's resources invested in health and biomedical science; and
4. prevent unnecessary duplication of effort.

The proposed functions for the research council include the following:

1. Governance structure and legal framework for safe and innovative research
2. National coordination of health research activity (including specialised equipment purchasing)
3. Guidance on performing research according to international standards
4. Funding support for all national healthcare research priorities
5. Experimentation with new research models
6. Development of cross-stakeholder exchange mechanisms
7. Deployment of patient consent forms at institutions that perform research

8. Ensuring a national strategy for research activity and specialised equipment purchasing, with a focus on a smaller number of proposed programs to achieve international recognition

Implementation template 7.1 in Annex A

Chapter 3 — Institutional Readiness

Introduction and framework for assessing institutional readiness

The recommendations in this report constitute an effort to fundamentally transform the health sector in Qatar. The SCH is at the forefront of this effort. This chapter will focus on the readiness of the SCH as an institution to drive this transformation effort. Its abilities will be assessed along the following dimensions that describe different aspects of institutional readiness:

- ***Planning***—Every organisation needs to define its institutional mandate as well as its vision, mission, and strategic goals. Once these elements are in place, the institution can start its strategic planning process, including the setting of targets and goals and an implementation plan on how to achieve them.
- ***Structure***—Every institution needs an appropriate structure, defined responsibilities, standards of operation, organic culture, and well-defined decision-making rights and processes.
- ***Human resources***—A plan is nothing without good people to make it happen and good employee management to allow them to succeed. The key questions here are about the availability of the key skill sets required to execute these projects in Qatar. The hiring process should be designed to attract the appropriate talent and the quality of career development and training offered to employees.
- ***Stakeholder coordination***—The interactions and coordination within and outside the sector, procedure workflows, and process definitions help define how people in this sector work together. Key goals are to reduce bottlenecks and Optimize processes through a lean organisation where processes center on client needs and priorities.
- ***Budget management***—Strategic or operational plans must be validated financially and planned for accordingly. Following the financial plan, the actual spending has to be managed (budget execution) and monitored both by the entities and by the Ministry of Economy and Finance.
- ***Information technology***—Each of these support functions helps the organisation operate smoothly and efficiently. Information technology enables the automation of workflows, the provision of government services online (e-government), and a higher degree of responsiveness and institutional collaboration.
- ***Performance management***—This closes the loop with Planning by monitoring progress toward set targets. It provides visibility into performance through a standardized system to track and report institutional effectiveness so that management can take corrective actions.

Institutional readiness assessment

This is a broad-brush assessment made along the following dimensions specified earlier.

Dimension	Assessment
Planning	▪ The SCH has defined a vision and a mission related to the QNV 2030, but a clear strategic plan for the SCH as yet does not exist. A strategic planning process linked to clear operational programs and goals does not exist yet, either. The NDS NHS project should help in defining strategic priorities and plans for the SCH. ▪ Although the SCH has dedicated strategic planning units, it is currently understaffed.
Structure	▪ The SCH has a clearly defined organisational structure with a detailed organisation chart. However, approximately 30 per cent of the positions are vacant and many departments are significantly understaffed. ▪ The SCH is a relatively new organisation that has emerged from a period of multiple changes and that is still in the process of defining standards of operation, processes, decision-making rights, and so forth.
Human Resources	▪ This is the dimension with the biggest gap. The implementation of the recommended projects will require subject matter experts who have practical experience in executing similar projects. However, at present the SCH has limited expertise in many areas required by the NHS. ▪ There is also a need for a well-established HR department and processes (including recruitment, talent management, career development, and training and development) to support SCH capacity buildup for executing the NHS. ▪ Finally, there are specific impediments—like the HR law—that make it difficult to address the gap in this dimension. These are discussed further in chapter 5, “Management Arrangements.”
Stakeholder Coordination	▪ Stakeholder coordination is an issue across the health sector. There are several instances of limited coordination among the health stakeholders, which is further accentuated by the changes in the regulatory landscape and results in a weak national planning and policy framework. ▪ Implementation of the recommended projects requires—and the SCH will need to see that governance mechanisms are in place to enable—significant stakeholder coordination.
Budget	▪ The SCH has a budget that meets the requirements of the Ministry of

Management	Economy and Finance. However, it is a one-year budget based on lump sum amounts and not a multiyear budget based on programs and operational plans.
Information Technology	▪ So far there is limited use of IT systems at the SCH and in the healthcare sector in general. ▪ There are plans to address this gap within the SCH through the purchase of an enterprise resource planning (ERP) system and across the sector through an e-health initiative. Implementation of the latter, however, has been delayed largely because of governance issues.
Performance Management	▪ The starting point for performance management is the presence of strategic and operational plans with clearly defined goals and KPIs, both of which are in large part lacking. ▪ Another issue that impedes performance management is the unavailability of accurate and comprehensive data to track performance.

Summary

In summary, there are critical gaps in Qatar today across all dimensions of institutional readiness. Human resources is a key gap—the implementation of the 2011–2016 NDS NHS requires dedicated, skilled, and experienced experts in several domains, and these experts are not present in Qatar today.

To ensure successful implementation, Qatar will need to attend to these gaps. The project on SCH capacity building outlined in chapter 5 addresses many of the gaps outlined, specifically those related to planning, SCH structure, human resources, and IT systems (for the SCH). Other projects like healthcare data, budgeting, and e-health will address the gaps identified here in performance management, budget management, and IT. Finally, chapter 5, “Management Arrangements,” outlines specific recommendations for stakeholder coordination and performance management.

Chapter 4 — Indicative Resource Requirements

The 35 projects outlined will entail significant commitment of financial resources. It is expected that after approval of the sector strategy, Qatar will earmark funds to ensure implementation of the recommended projects. The budgetary requirements for these projects are for three categories of expenses:

1. Human resources
2. Operational activities
3. Infrastructure

A table at the end of this chapter provides an estimate of the range of budgets needed for each project, along with the key components of the expenses required.

Human resources

The key resource requirement—and arguably the most important one—for implementing these projects will be the hiring of appropriate human resources. Carrying out these programs requires that Qatar recruit several domain experts in different areas of healthcare—occupational health, prevention, project management, healthcare master planning, health insurance, and so forth. It is important that Qatar hire experts who have knowledge of their individual areas of expertise. Most important, these experts also must have practical experience in implementing such programs. In most cases the projects will demand full-time specialists who are dedicated 100 per cent to the relevant projects.

Operational activities

The various projects recommended will require expenditure on operational activities. The key operational activities that are part of most projects are training and education as well as communication campaigns. Other one-off activities included in operational activities are screening tests, publications, conferences, and one-time consultations.

Infrastructure

Some of the recommended projects entail significant infrastructure investment. Key among them are the level-of-care projects, which will require at a subsequent stage significant investment in building primary care clinics, continuing care facilities, and so on. In other cases the recommended

projects will invest in equipment—for example, mobile screening units or air quality monitoring equipment. To estimate infrastructure costs, a detailed costing exercise is required and should be undertaken during the early stages of the project implementation. For example, in the case of primary care, it is vital to estimate the infrastructure cost of setting up a world class primary care network. A detailed costing exercise will have to be undertaken to estimate the number of clinics needed in Qatar, the cost of each primary care center, etc. Conducting this level of assessment will necessitate a more detailed planning exercise. At this stage, projects entailing large infrastructure investments have been identified.

Initial and ongoing phase

Further, all projects have two phases: initial and ongoing. The initial phase refers to the design period, which involves a detailed conception of the program, from initiation of implementation up to the stabilisation of operations. The ongoing phase is the operational stage that occurs after the programs have been implemented and are stabilised. This report attempts to estimate the resources required for the initial design and implementation phase and not the operational running costs.

Estimation of resource requirements

Table 4-1 below lists estimates of the resource requirements for the projects. It must be noted that these are preliminary estimates and as yet need validation and refinement. Further for all projects, a detailed costing exercise will be required. The FTE numbers refer to the design and initial implementation phase and not ongoing operations. The budget excludes infrastructure costs.

Table 4-1 Resource requirement estimates

Project	FTEs	Dura-tion	Operational activities	Infrastructure	Budget reqmt.	Comment
Primary care as a foundation	<10	5yr	Primary care awareness program Primary care forum	Primary care centers, IT systems	10M–-50M QAR	
Configuration of hospital services	<10	3yr	Consulting expense Directory of health service	Centers of excellence	10M–50M QAR	
Continuing care design	<10	3yr		Continuing care facilities	<10M QAR	
Emergency network establishment	<10	3yr		Mobile emergency centers	<10M QAR	
Mental health	<10	3yr	Training and education for community-based support	Mental health facilities	< 10M QAR	Excludes training and education costs
Community pharmacies	<10	3yr			<10M QAR	
Quality improvement	10–20	5yr	Communication campaigns for quality-of-care provision		10M–50M QAR	
Disease management	<10	3yr		Disease mgmt setup (e.g., call centers)	<10M QAR	
Healthcare data program	10-50	5yr	Training and education for data entry operators		10M–50M QAR	
E-health establishment	Ongoing project resource requirement not estimated					
Private sector involvement	<10	3yr	Private sector participation conference		<10M QAR	
Nutrition and physical activity	20+	5yr	Communication campaigns for risk factors, including school health promotion		50M+ QAR	
Tobacco cessation	10–20	5yr	Communication campaigns for tobacco cessation Tobacco cessation services		10M–50M QAR	
Consanguinity risk reduction	<10	3yr	Counselling for consanguinity Education campaigns		<10M QAR	
Communicable disease prevention	<10	2yr	Follow-up screening of high-risk groups Communication campaigns in high-risk areas		10M–50M QAR	Excludes cost of follow-up screening

Project	FTEs	Dura-tion	Operational activities	Infrastructure	Budget reqmt.	Comment
National screening program	<10	3yr	Communication campaigns for awareness of screening tests	Setup of screening centers	<10M QAR	
Occupational health	<10	5yr	Training and education for capacity buildup Support for workplace wellness promotions		10M–50M QAR	
Women and child health	<10	5yr	Communication campaigns to promote BF and awareness of women and child health issues		10M–50M QAR	
Additional public health areas	10–20	3yr	Screening for drivers in high-risk categories Training and education for environmental health	Air quality monitoring equipment	10M–50M QAR	
Workforce planning	<10	3yr			<10M QAR	
Recruitment and retention	<10	5yr	Awareness campaigns for Qataris		10M–50M QAR	
Professional education and training	<10	5yr	Training	Educational institutes	10M–50M QAR	
Optimizing skill mix	<10	5yr	Training		10M–50M QAR	
SCH capacity building	<10	2yr	Consulting expense	IT systems	<10M QAR	Excludes cost of hiring new recruits
Healthcare professional regulation	<10	5yr			10M–50M QAR	
Healthcare facilities regulation	<10	5yr			10M–50M QAR	
Healthcare products regulation	<10	5yr			10M–50M QAR	
Patient advocacy body	<10	3yr			<10M QAR	
Budgeting process	<10	5yr	Consulting expense		<10M QAR	
Treatment abroad management	<10	3yr			<10M QAR	
Healthcare infrastructure master plan	<10	3yr	Consulting expense		<10M QAR	
Capital expenditure committee	<10	5yr			<10M QAR	
Health insurance setup	Ongoing project resource requirement not estimated					
Research governance	10–20	5yr	Establishing science society		10M–50M QAR	

Chapter 5 — Management Arrangements

Appropriate human resource and budgetary requirements

The first step for implementation is assigning owners for the individual programs. This brings to the fore the human resources factor. Carrying out these programs successfully will require unprecedented levels of healthcare expertise. Qatar will need to attract public health experts, occupational health experts, experts in healthcare quality and healthcare information systems, and so forth. The projects will also demand significant numbers of healthcare professionals, including health educators. Currently the healthcare sector in Qatar is not an attractive employer for either Qataris or non-Qataris. This is, arguably, the most important factor that must be addressed to ensure effective implementation. Hence it is recommended that Qatar do the following:

- *Repeal the HR law or exempt the healthcare sector from it*. The HR law is a significant barrier to providing adequate compensation for healthcare professionals. For example, the SCH currently can offer only 12,500 QAR per month to university graduates. This is not a competitive package, and such levels of compensation will make it impossible to attract the requisite talent for implementation.
- *Provide an interface with immigration and other authorities to facilitate smooth recruitment.* Currently any candidate recruited after the offer stage needs to go through various stages of bureaucratic clearance. These include approval from the Criminal Investigation Department, the Medical Commission, the Council of Ministers, and the Ministry of Labor. The clearances add several weeks to the recruitment process and on occasion result in certain candidates being rejected without knowing why. Central Investigation Department (CID) and Medical Commission clearances are intended to make sure that potential recruits are healthy and have no criminal record. It is recommended that suitable interfaces be set up with these and the other authorising authorities to ensure that clearances can be conducted rapidly and transparently.
- *Provide a budget to offer competitive compensation.* Although repeal of or exemption from the HR law will result in the freedom to offer competitive compensation, it is imperative that adequate budgetary resources be made available to recruit the experts needed to actualise the projects.
- *Transfer high-quality workers from HMC, Sidra, and so forth.* Qatar should consider secondment of high-quality healthcare personnel already in Qatar and working in the healthcare domain with other healthcare stakeholders like HMC and Sidra.
- *Give expatriates access to training and professional development opportunities.* The lack of accessibility to training has been highlighted in the situational analysis and strategic recommendations report. It is important for Qatar to offer opportunities for training and professional development programs to the expatriate healthcare professionals recruited.

Such access is a significant factor in attracting and retaining a high-quality workforce. It is also critical to ensure that the skill sets of the individuals tasked with implementation are informed by the latest thinking in their respective fields so as not to adversely affect the projects' execution.

- *Promote Qatarization appropriately to guarantee the necessary levels of capability and experience.* Qatar needs to pursue its policy of Qatarization to increase and ensure its citizens' effective participation in the labour force. It is important that Qatar not compromise on expertise and experience levels when considering implementation of the recommended projects. Further, and more important, it is critical to make certain that the people assigned to implementation have significant experience in the design and actual execution of similar projects in healthcare systems elsewhere. In many cases, Qatar could consider tagging the local personnel with experienced expatriate personnel to balance the need for Qatarization as well as to build up the national capacity that is very much required in the healthcare sector.

It must be stressed that the availability of appropriate human resources is arguably the most important factor in ensuring successful implementation.

Governance structure

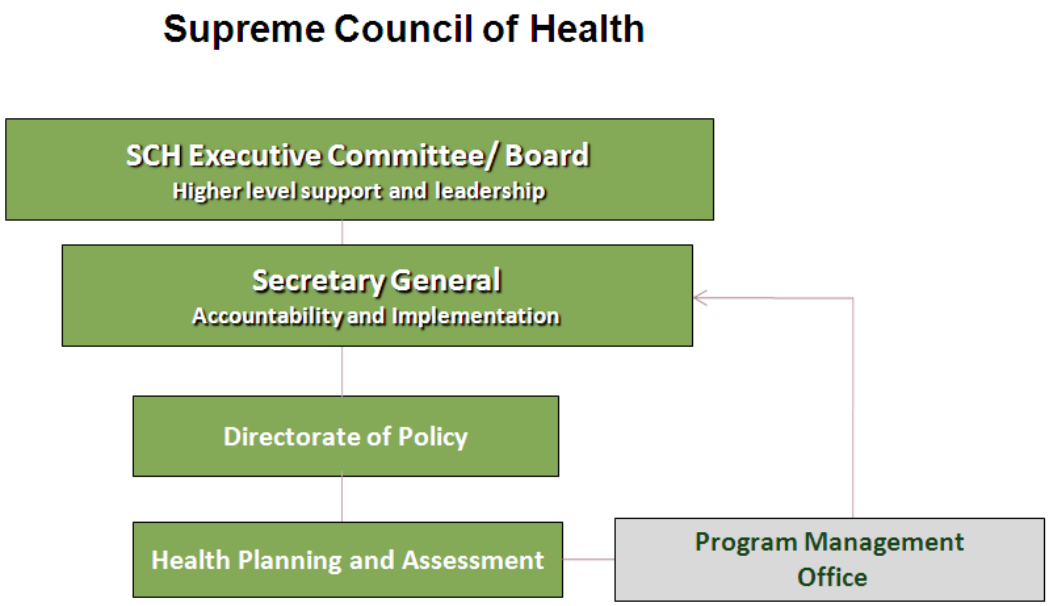
A robust governance structure is necessary to enforce the implementation of the recommended projects. Successful implementation will require:

- ownership and accountability by the project owners;
- extensive stakeholder cooperation within and outside the healthcare sector;
- assured access to funding and human resources; and
- proactive management of risks and challenges.

Thus far, governance in the healthcare sector has been relatively weak because of a lack of stability and coordination among the stakeholders. It is recommended that an important body within the SCH—either the SCH board or the SCH executive committee—provide ongoing governance for the implementation phase (Figure 16).

Figure 16

Figure 16	Governance Structure



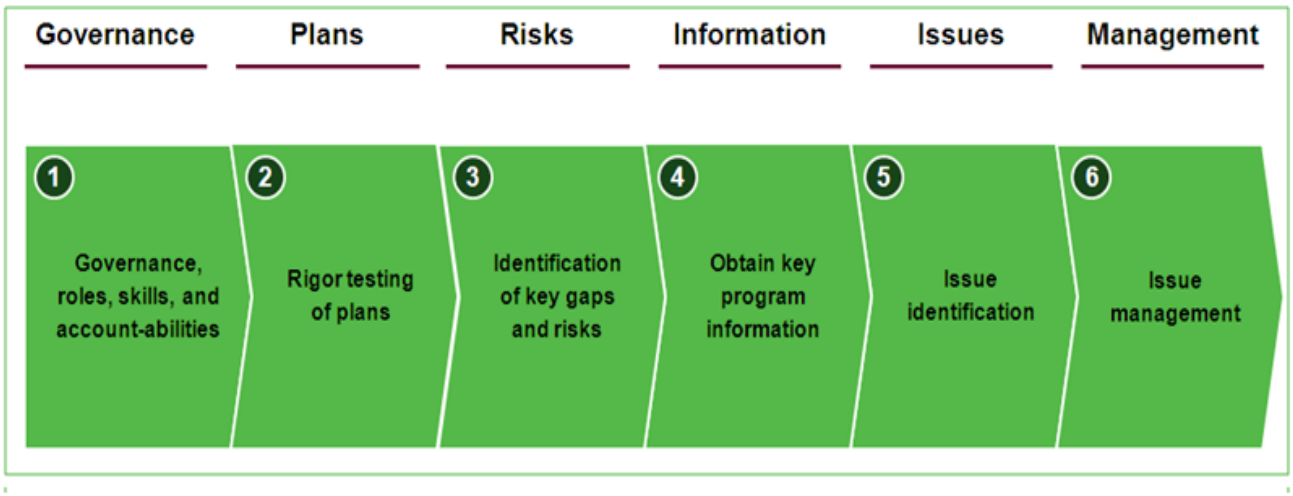
The governance structure's primary role will be to assign clear ownership and ensure accountability for the projects' execution.

Dedicated program management office

To reinforce the governance structure, a dedicated program management office (PMO) will be established. The role of the office will be to provide technical expertise for the governing body (Figure 17). This will include:

- ensuring appropriate structure, governance, and skills for the various projects;
- rigour testing of the implementation plans for the individual projects;
- identifying key gaps and risks in implementation;
- appropriate reporting to the governing body regarding the overall implementation; and
- proactively identifying and escalating issues to the governing body.

Figure 17 Program management – established 6 step process

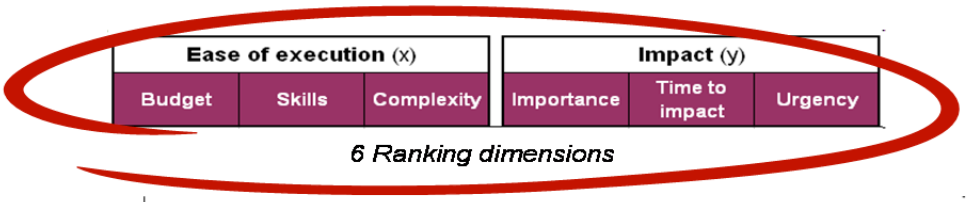


The PMO should leverage standard program management tools, such as a project implementation dashboard, to monitor the progress of implementation. It is also important for the program management tools not to overburden the project owners with administrative and reporting requirements.

Along with the SCH Executive Committee or SCH Board, the PMO will serve as the core of the governance structure. All project owners need to report the implementation status of their respective projects to the PMO. The PMO will need to analyse root causes, derive third-party statements on project status, and prepare decisions on interventions required for action for consideration by the SCH Executive Committee or SCH Board. The exact role and responsibilities may be modified on a case-by-case basis, depending on the project under consideration. The PMO will also need to take a portfolio view of all projects—this will imply responsibility for mmanagement of all interdependencies.

Prioritisation of initiatives and quick wins for trust creation

The resource constraints and the need to focus efforts make it paramount to prioritize the 101 recommended outputs. Therefore a methodology was developed to rank them (Figure 18).



HPO Sector - Prioritisation of initiatives
Vers. 14.06.2010

	Cluster	Program	Initiative	Ease of execution (x)			Impact (y)		
				Budget	Skills	Complexity	Importance	Time to impact	Urgency
1	Policy, regulation	SCH capacity building	SCH capacity building	Medium	Low	Medium	Low	Low	Low
2	System enabler	Research governance	Research governace	Medium	High	Medium	High	Medium	Medium
3	Policy, regulation	Patient rights advocate	Healthcare ombudsman	Low	Low	Low	Low	High	Low
4	System enabler	Workforce planning	Workforce planning body	Medium	Medium	High	High	High	High
5	System enabler	Workforce planning	HR law modification	Low	Low	Medium	High	High	High
6	System enabler	Workforce planning	Compensation changes	High	Low	Medium	High	High	High
7	System enabler	Workforce planning	Link with immigration services	Low	Medium	Medium	Medium	High	High
8	System enabler	Workforce planning	Working environment initiatives	Medium	Low	Low	Medium	High	Medium
9	System enabler	Workforce planning	Career progression strategy	Medium	Low	Low	Medium	Medium	Medium
10	System enabler	Workforce planning	Promote changed contract duration and part-time working ability	Low	Low	Medium	Medium	Low	Medium
11	System enabler	Workforce planning	Improve awareness amongst Qataris	Low	Low	Medium	High	High	High
12	System enabler	Workforce planning	Implement sponsorship programmes	High	Low	Medium	High	Medium	Medium
13	System enabler	Workforce planning	Reduce tuition cost	High	Low	Low	Medium	Medium	Medium

All the initiatives were assessed for impact and ease of execution.

To assess the impact, the initiatives were rated high, medium, or low on three factors:

1. the *importance* of the issue being addressed by the initiative;
2. the initiative's *time to impact*; and
3. the *urgency* of the issue addressed by the initiative.

To assess their ease of execution, the initiatives were rated on three factors:

1. the *budgetary range* required to implement the initiative;
2. the level of sophistication of *skills* needed; and
3. the initiative's *complexity* (e.g., involvement of multiple stakeholders, presence of structural barriers, newness to Qatar).

The results of a preliminary prioritisation for the outputs are shown in Figure 19.

The focus of the prioritisation should be in the top right-hand corner. The list of the high-impact, high-ease-of-execution outputs is listed in Table 5-1. Prioritising the initiatives will also help identify the quick wins. It is important for Qatar to implement two or three select and visible quick wins rapidly in order to generate momentum for the implementation effort. Doing so will send a clear signal to stakeholders regarding the many changes about to happen in the healthcare system as a result of the implementation. Further, it will differentiate the 2011–2016 strategy from past strategic exercises that received only limited implementation. Seven potential quick wins have been identified:

1. ***Pictorial warnings on cigarette packaging*—**Make sure that all cigarette packaging (and other tobacco products) carry photographs that display the harmful effects of smoking. This intervention has been widely used elsewhere and has a strong evidence base to support the hypothesis that it will be effective in Qatar. Research has shown that, for smokers, cigarette packaging is a key source of information on the adverse effects of their habit. However, as with other public health initiatives, its influence will need to be measured through an evaluation and monitoring system. As a quick win, it is especially valuable because of its visibility and evidence of effectiveness in other countries.
2. ***Calorie labelling in restaurant menus*—**Ensure that all menus, especially in fast-food restaurants, mention the number of calories in listed items. A similar regulation has been

implemented in New York, where researchers[60] found that people who said that they considered the new calorie information bought items with 106 fewer calories than those who did not. They also found that calorie consumption went down at nine of 13 restaurants surveyed after the regulations went into effect. Calorie labelling will have impact on the issue of fast-food consumption in Qatar. As with pictorial warnings on cigarette packs, its influence will need to be measured through an evaluation and monitoring system, but it is especially valuable because of its visibility.

3. ***Car seats for new mothers—***Car seats are not yet widely used in Qatar. In 2008, 9 per cent of Qatari road deaths were of children under the age of 9. Promoting the use of car seats is thus required. Providing mothers of newborns with car seats at the time of discharge from the hospital would support their use and potentially inculcate the habit at an early age. This would also be a high-visibility initiative and can be implemented relatively quickly.
4. ***Update vaccination programs for adults—***Although Qatar has a fairly robust vaccination program for children, there is no comprehensive program targeted at adults. Qatar should update its vaccination program for adults. Such an initiative would reduce the burden of vaccine-preventable diseases among adults. Qatar could consider the latest recommendations for vaccines that protect against influenza, pneumococcal infection, tetanus, diphtheria and pertussis, human papillomavirus, and herpes zoster. The program should also target high-risk groups like travellers to foreign countries.
5. ***Awareness campaigns to promote exclusive BF—***Exclusive BF for the first six months of life is one of the most critical interventions for child nutrition and survival.
    - It delivers the best nutrition and protection against many infectious diseases for infants and helps prevent chronic diseases later in life.
    - Failure to immediately and exclusively breast-feed until age 6 months annually leads to 1.4 million deaths (12 to 15 per cent of under-5 deaths) and 43.5 million disability-adjusted life-years (DALYs) (10 per cent of global under-5 DALYs and 3 per cent of total DALYs).

    In Qatar currently, the exclusive BF rate for the first six months is 12 per cent, which is below the 50 per cent threshold recommended by the United Nations. Launching an integrated awareness campaign to promote exclusive BF is thus very much required. Integrated awareness campaigns leverage mass media channels, public health facilities, and community settings. They also target multiple channels in the mother's health life cycle and deliver messages at every touch point. Behavior change requires such sustained effort

[60] Winerman, Lea. "With Menu Labeling Law, Diners Will Soon Know Calorie Counts." *New York Times*, March 25, 2010.

across multiple channels to generate impact. This would be another initiative that would generate significant visibility and have immediate impact.

6. ***Data reporting requirements—***Qatar does not have comprehensive and accurate data on healthcare. As a first step, it should establish and disseminate data reporting requirements for all healthcare providers. These could be based on best practices from healthcare systems worldwide and can leverage an existing project under way in the Health Information System department at the SCH. The requirements should be accompanied by regulatory or financial linkages to provide sufficient incentive for adoption. This quick win should cover all public and private sector providers and address the country's broader healthcare community.
7. ***Capital expenditure committee—***Set up a capital expenditure committee to coordinate the building up of healthcare infrastructure (facilities and high-ticket equipment). The lack of coordination on healthcare infrastructure expansion has already been highlighted in the situational analysis and strategy development. A task force comprising members of relevant stakeholders (e.g., a finance and infrastructure STT) can be set up to define and design the capital expenditure committee—that is, its terms of reference, responsibilities, composition, governance, and resources. This quick win can leverage the existing project on developing a CSF, using it as a frame of reference for the capital expenditure committee. This is a quick win that would facilitate coordination on the big healthcare infrastructure decisions and be a visible sign of change for decision makers.

Table 5-1—List of high-impact, high-ease-of-execution outputs

Output
1.1.3 Ensure sufficient and effective funding for primary care
1.1.5 Primary care forum to engage PHC and private practitioners
1.2.4 Develop directory of health service availabilities for residents, combining geography and function
2.1.1 Develop national standards for referral and discharge procedures
2.3.1 Define national nomenclature, coding standard, and flow of information
3.2.1 School health promotion (also include linkages to other projects like tobacco cessation)
3.2.5 Draft policies to curb fast food consumption
3.3.1 Tobacco awareness and cessation support services that deal with smokeless products as well
3.3.3 Policies to reduce tobacco consumption (e.g., 100 per cent smokefree)
3.4.1 Educational campaigns on consanguinity
3.4.2 Ensure adequate counseling to support mandatory premarital screening
3.5.2 Develop and implement process to update the existing vaccination program for children and adults
3.5.3 Preventive efforts to avoid communicable diseases in high-risk areas (e.g., labour camps)
3.9.6 Medical assessments of high-risk driver groups (e.g., commercial vehicle drivers)
5.1.1 Recruitment of SCH staff
5.1.2 Repeal of / exemption from HR law
5.2.4 Objective primary source verification and credentialing
5.4.1 Expanded scope to include medical devices
5.5.1 Establish patient advocacy body
6.2.1 Define list of preferred providers based on quality and negotiate volume contracts for treatment abroad
6.2.2 Single source for travel arrangements and development of package solutions for treatment abroad
6.2.4 Define indications with eligibility for treatment abroad and establish transparent application and approval process
6.5.1 Establish the capital expenditure committee according to the terms of reference
6.5.2 Define certification of needs process
7.1.2 National coordination of health research activity through a centralised body (QMRC) (including specialised equipment purchasing)

Change management with continuous engagement of stakeholders

Although the quick wins will constitute evident symbols of the transformation, a sustained change management effort is required as well because implementing these programs calls for a significant break from the past and from "business as usual." The change management effort will ensure continuity of the momentum generated by the 2011–2016 NDS healthcare sector strategy development exercise generated through the task team, the five STTs, and the multiple interviews. The change management should be implemented by the PMO described earlier. The change management and communication effort should encompass three stakeholder groups:

1. ***Reference group—***This includes the stakeholders directly involved in implementing the programs. It is recommended that this group engage the current structure of the STTs, albeit with a lower frequency and intensity of engagement than the 2011–2016 NDS healthcare sector strategy project. The reference group should be given targeted training on relevant topics like project management in order to ensure that efforts are coordinated and information exchanged. Finally, rewards and recognition for project managers who achieve key milestones and KPIs will provide incentive for engagement.
2. ***Healthcare community—***This includes the approximately 11,000 doctors, nurses, and other healthcare professionals employed in Qatar. For this group it is recommended that a newsletter reporting on program status and key achievements be launched. The newsletter can be complemented by a Web site that supplies up-to-date information on the status of 2011–2016 NDS healthcare sector strategy implementation. Finally, town hall meetings can be used to obtain feedback from and engage with the healthcare community.
3. ***Public—***This program ultimately is intended to benefit the broader citizenry and residents of Qatar. Marketing and public relations activities are key tools that should be used to promulgate the 2011–2016 NDS healthcare sector strategy among them. An effective and useful channel that can be leveraged in this way is the religious network of mosques and Islamic scholars who can serve as influencers in spreading the strategy's messages. Finally, public forums like the Green Tent can also be used to communicate the significance of implementing the 2011–2016 NDS healthcare sector strategy.

Summary

In summary, successful implementation of the recommended programs requires that Qatar certify that the critical prerequisites outlined in this chapter are fulfilled. These prerequisites are:

- strong governance to ensure enforcement of the implementation process;
- program management employing proven methodology;
- appropriate human resource and budgetary requirements; and

- prioritization of initiatives and quick wins to generate visibility and trust.

Chapter 6 — Monitoring and Evaluation

Introduction

The implementation of the projects outlined in this report will trigger a complex exercise of multiple projects and outputs. A monitoring and evaluation system is critical if the 2011–2016 NDS NHS is to be carried out successfully.

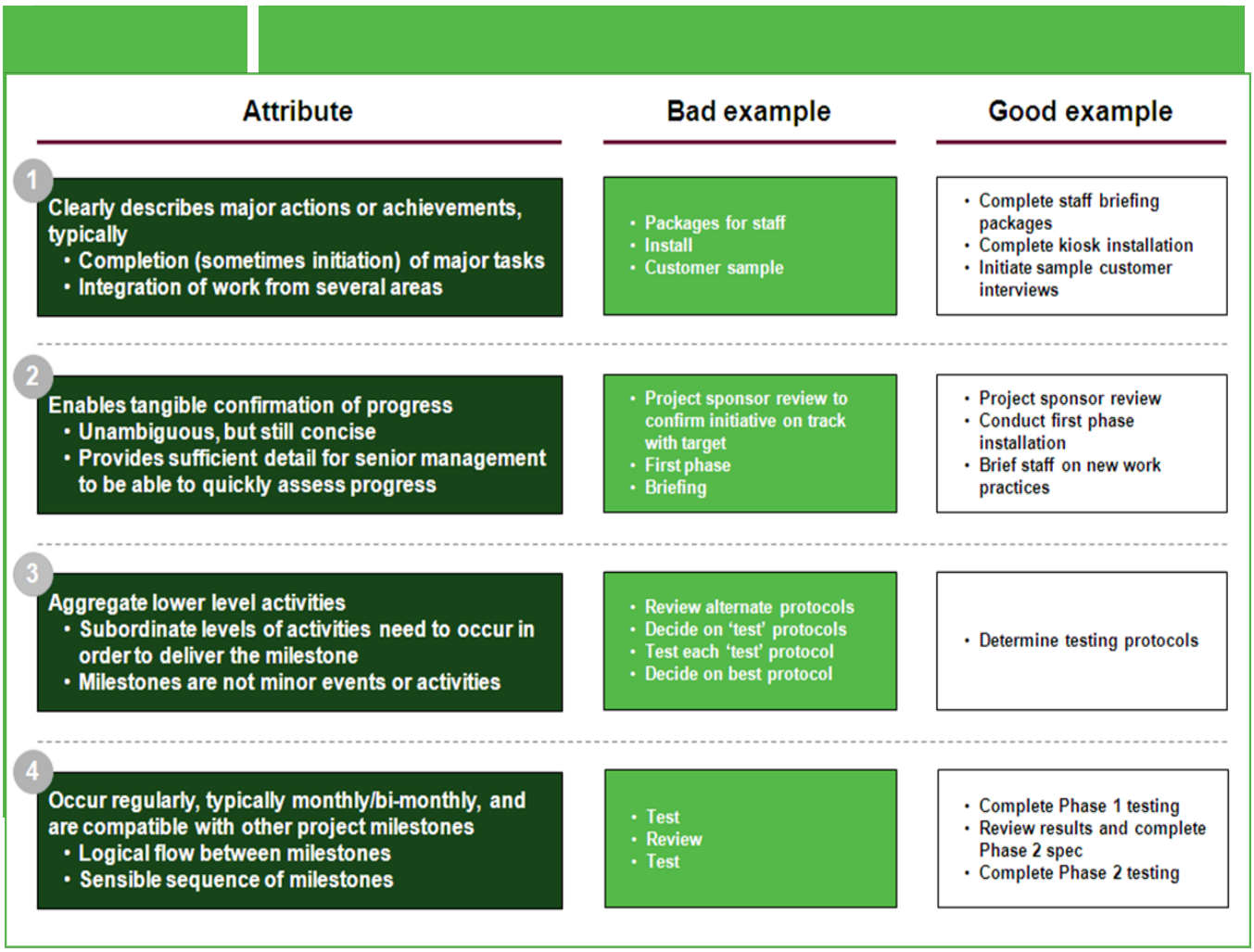
- Most important, a monitoring and evaluation system will enable decision makers to enforce ownership and accountability for the projects and to intervene appropriately.
- Given the multiple interdependencies among the projects, a monitoring and evaluation system would ensure that planning takes into account the actual implementation status of the projects at various stages.

This chapter outlines a suggested monitoring and evaluation framework that needs to be used in conjunction with the outcomes and targets. It is important, however, that after the validation and approval of the 2011–2016 NDS NHS a detailed planning exercise be conducted. This should involve charting project road maps and targets that can be "locked down" and used to track implementation progress. These lockdown roadmaps and outcomes should be used together with a monitoring and evaluation framework.

Objectives and outcomes

The first step in setting up a monitoring and evaluation framework is defining objectives against which the implementation of the projects is monitored and evaluated. There are two types of outcomes that have been defined: specific measurable targets and milestones.

- ***Targets—***For all projects, targets have been defined. In many projects the outcomes have been defined as quantifiable metrics based on international guidelines and on national and regional benchmarks. In some cases, paucity of accurate and comprehensive healthcare data makes it difficult to determine quantified baselines for these outcomes. These targets are not final but should initiate discussion so that consensus may be achieved on the precise measurable outcomes.
- ***Milestones—***Milestones are defined in the project templates to lie at set dates. However, these dates need to be validated before the projects start. Milestones denote the delivery of outputs and enable tangible confirmation of project process or facilitate the identification of issues. Figure 20 defines four attributes of effective milestones.



The templates in this report have defined objectives that have specific outcomes for each project. The outcomes, baselines, and targets are also listed in the 2011–2016 NHS matrix that follows the executive summary of this report. These are linked directly to the QNV 2030 goals.

Evaluation of projects

The PMO potentially situated in the SCH planning and assessment department will be responsible for monitoring and evaluating projects. The PMO should employ formal reporting means to track project implementation. The following is an example of a monitoring and evaluation template that should be used to audit the progress of all projects.

Monitoring and Evaluation Template

Project 1: (Name)				**Start Date:** **End Date:**
Activities	**Start date**	**End date**	**Date of assessment**	**Indicator of completion of activity**
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . Activity n:				

The reporting should occur at regular intervals: weekly for projects of short duration (less than three months) and at least once every two weeks for longer projects. The frequency of reporting depends on the project size and risk. The project owners along with the PMO should perform regular status checks on the feasibility of outstanding milestones. Changes to outcomes need to undergo a rigourous process. In case of delays, alterations to project scope should be avoided in favour of adjusting milestone dates or project resourcing. Overall, subsequent to the approval of the 2011–2016 NDS NHS, the PMO needs to develop:

- a monitoring and evaluation system that defines the template, reporting mechanism (frequency, responsibilities), overall project dashboard, and so on; and
- a detailed plan for each of the projects, with “lockdown” timelines and targets / milestones agreed on with the project owners.

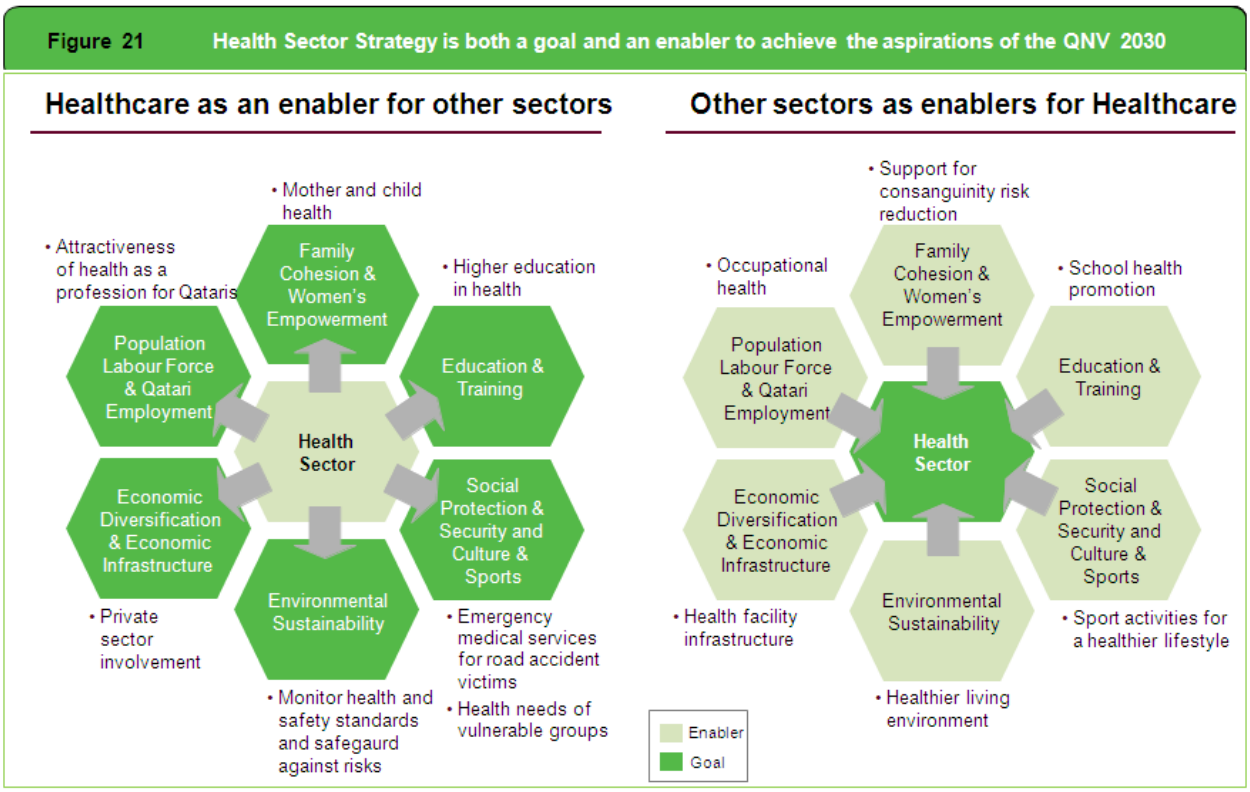
Chapter 7 — Conclusion and Cross-sectoral Linkages

In conclusion, the NHS outlined in this report brings to life the vision for the healthcare sector laid out in the QNV 2030. A world class integrated healthcare system is a critical component of the human development pillar of the QNV 2030. The 2011–2016 NDS NHS aims to move Qatar's health sector significantly in the direction of achieving this vision outlined in the QNV 2030. With that consideration, the 35 recommended projects are explicitly structured around the vision to ensure complete alignment with the QNV 2030.

However, the measure of this strategy's success will be determined by the degree of implementation. The strategy was developed from significant input from various stakeholders in the health sector and beyond. A critical attribute of the strategy development process was its inclusiveness, achieved through more than 100 individual consultations as well as approximately 35 workshops. It is expected that this degree of stakeholder buy-in will differentiate the 2011–2016 NDS NHS from past efforts, and this will be reflected in the level of implementation that this sector strategy achieves.

The success of this strategy is also dependent on the level of collaboration it receives from other sectors. Health is both a goal and an enabler to achieve the aspirations of the QNV 2030 aspirations.

Figure 21 Health Sector Strategy is both a goal and an enabler to achieve the aspirations of the QNV 2030



In this regard it is important to highlight the most critical area of cross-sectoral linkage—namely, public health. Governments across the world have recognized the fact that public health is not the responsibility of the healthcare sector alone but rather of the multiple stakeholders working in a coordinated fashion. In Qatar's context, this implies a preventive effort in which the SCH needs significant cooperation from multiple stakeholders across the government. It is also in the public sector where many of the critical initiatives (e.g., school health promotion, road safety, occupational health) that are recommended require significant collaboration from other stakeholders. As the NDS process moves into the next phase of validation and sector alignment, this cross-sectoral linkage needs to be reflected. The table (table 7-1) below lists the cross-sectoral linkages of the 2011–2016 NDS NHS.

Table 7-1-Cross sectoral linkages

Sector	*Linkage*	*Outcomes*
Environment	▪ Environmental health: Coordinate on air quality and water quality monitoring to avoid duplication ▪ Develop and implement environmental health impact assessment methodology for new projects ▪ Conduct studies to understand the impact of changes in environment on health of population	3.9
Education	▪ School health promotion: Jointly conduct health promotion with the SEC ▪ Ensure coverage of vaccination amongst school going children ▪ Promote health as a career option amongst school students ▪ Professional education: Ensure that education for health professions contributes to Qatar's future healthcare needs. ▪ Optimizing skill mix: Ensure and promote educational courses for allied health professions (e.g., public health, occupational health).	3.1 3.2 3.3 3.4 3.8 4.1 4.3 4.4
Labour	▪ Occupational health: Establish an occupational health committee. Set up and enforce occupational health standards for blue-collar and white-collar workers. ▪ Qatarization: Enhance attractiveness of healthcare as a profession for Qataris ▪ Workforce: Coordinate with Ministry of Labor and Ministry of Interior to simplify hiring process for expatriates. ▪ Workforce planning: Ensure coordination of healthcare workforce planning with overall Qatar human resource plan	3.7 4.1 4.2 4.4
Caring and Cohesive Society	▪ Continuing care services: Ensure rehabilitation services are available for road accident victims. ▪ Continuing care services: Ensure appropriate care facilities for vulnerable sections of Qatari society ▪ Mental health design: Implement a comprehensive strategy to address mental health issues. ▪ Nutrition and physical activity: Explore common promotion programs to encourage sports and reduce the level of physical inactivity - a key risk factor for chronic diseases. ▪ Consanguinity risk reduction: Coordinate implementation of consanguinity risk reduction program ▪ Emergency services: Ensure that emergency services are available	1.2 1.3 1.4 1.5 3.1 3.2 3.4 3.8 3.9

	for accident victims ▪ Emergency services: Ensure that emergency services can identify victims of domestic violence and make them aware of available counselling services ▪ Women and child health: Jointly promote mother and child health and welfare initiatives. ▪ Road safety: Conduct public health studies on road safety ▪ Emergency preparedness: Ensure coordination on emergency preparedness activities	
Economic diversification	▪ Private sector engagement: Enact policies to encourage participation of the private sector in healthcare provision. ▪ Food safety: Ensure appropriate labelling of food items	2.5 3.8
Economic infrastructure	▪ Healthcare infrastructure master plan: Develop a healthcare facilities master plan aligned to the broader master plan for Qatar	1.2 6.4 6.5

The immediate next step would be validation of the strategy by a national steering committee and the integration of the various sector strategies. At this point, some recommended projects from the healthcare sector may merge with recommendations of other sectors. The validation and integration phase would be followed by a planning phase, wherein individual Ministry plans are aligned with the sector strategies. The planning phase will involve the allocation of budgetary resources to implement these projects. It is expected that the National Steering Committee will allocate ring-fence budgetary resources for NDS implementation. After the planning phase, the implementation of the projects described in this report will begin.

As the various projects are implemented, this strategy will result in significant positive impact on the health sector in Qatar. This will also involve considerable change and transformation of the health sector in Qatar. The NDS will produce significant change at every level of Qatar's healthcare system. It is an ambitious undertaking that will take time to achieve fully but that offers a genuine opportunity to attain the healthcare goals of the QNV and provide verifiable improvements for the people of Qatar.

Annex A — Implementation Templates

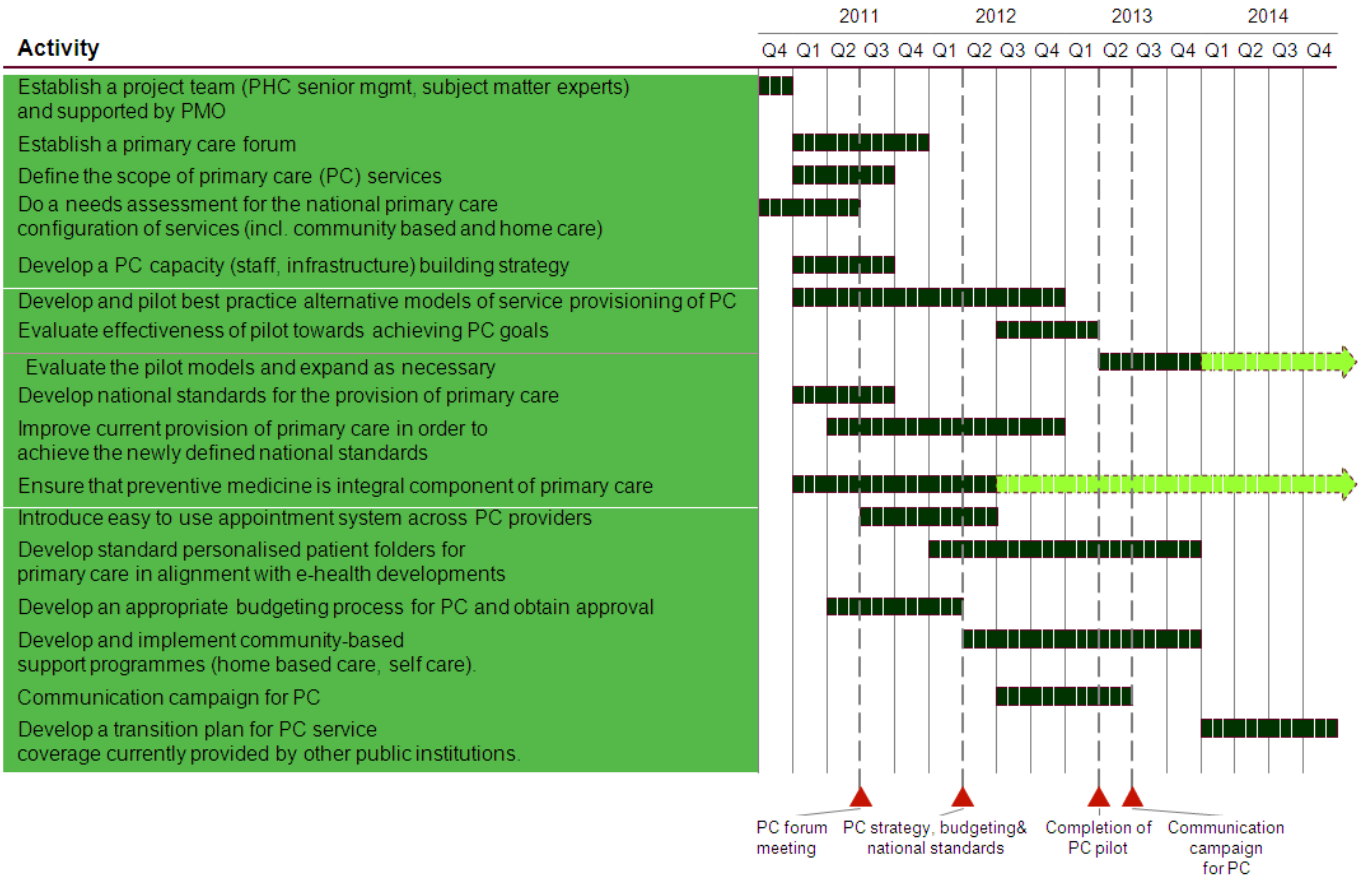
Project Name: 1.1 Primary care as the foundation	
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ Primary care has been recognized by the WHO as the most effective way to deliver healthcare. It has already been decided to shift the balance of care in Qatar to a primary-care-driven model. ▪ Given the high prevalence of chronic diseases in Qatar, the role of primary care in addressing this burden is critical. ▪ Complying with the QNV principles of comprehensive and world class healthcare requires that primary care be provided in the appropriate setting and that there be a full continuum of care. ▪ Research has shown 90 per cent of health interventions can be delivered in a primary care setting. This project aims to do just that for Qatar. It aims to transform Qatar's primary care system such that it can be a constant companion for the patient in his or her journey through the healthcare system.
Objectives/Benefits/ Outcomes	▪ A healthcare system based on strong primary healthcare as the entry point for health service provision will entail building up capacity to allow for effective and appropriate utilization of primary care. ▪ Community and home-based care are an important part of primary care and must be developed. ▪ Outcomes: – Enhanced primary care team development – Appropriate referral system upward from and returning to primary care – Set of clinical outcome indicators to be developed
Outputs	1.1.1 Model of primary care and the configuration of services 1.1.2 Capacity built for primary care 1.1.3 Sufficient and effective funding for primary care 1.1.4 Appropriate coverage of primary care for entire population 1.1.5 Primary care forum to engage PHC and private practitioners 1.1.6 Communication campaign for PHC

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team (PHC senior management, subject matter experts) supported by a PMO ▪ Establish a primary care forum ▪ Define the scope of primary care (PC) services ▪ Do a needs assessment for the national primary care configuration of services (including community-based and home care) ▪ Develop a PC capacity (staff, infrastructure) building strategy ▪ Develop and pilot best-practice alternative models of service provisioning of PC	▪ First primary care forum meeting in Q2 2011 ▪ PC strategy and pilot developed ▪	▪ PHC, SCH, public and private providers ▪ PHC and	▪ Need to increase capacity at the PHC level ▪ Need to improve the current PHC's "touch and feel" ▪ Need close collaboration with workforce team ▪ Need coordination with data, e-health, insurance, and clinical process improvement activities

▪	▪	▪	▪
▪ Evaluate effectiveness of pilot toward achieving PC goals ▪ Evaluate the pilot models and expand as necessary ▪ Develop national standards for the provision of primary care ▪ Improve the current provision of primary care in order to achieve the newly defined national standards ▪ Ensure that preventive medicine is an integral component of primary care ▪ Introduce an easy-to-use appointment system across PC providers ▪ Develop standard personalised patient folders for primary care in alignment with e-health developments ▪ Develop an appropriate budgeting process for PC and obtain approval ▪ Develop and implement community-based support programs (home-based care, self care) ▪ Launch a communication campaign for PC ▪ Develop a transition plan for PC service coverage currently provided by other public institutions	▪ National standards approved ▪ Community-based support programs ▪ Communication campaign ▪ Primary care budgeting process approved ▪ Plan for national coverage of primary care services developed	▪ SCH	▪

Key Stakeholders and Overall Management Structure	▪ PHC (lead) ▪ SCH ▪ Public and private provider of healthcare services	
Beneficiaries	▪ General population ▪ Public and private providers ▪ Ministry of Economy and Finance because of expense and health budgeting	
Cross-sectoral Linkages	▪ Ministry of Economy and Finance (healthcare budgeting) ▪ Ashghal (facilities planning)	
Estimated Cost	▪ Implementation costs 10M-50M QAR	
Estimated Duration	▪ Concept to be ready for pilot by Q2 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of coordination with stakeholders ▪ Dependency on outcomes from the CSF project ▪ Shortage of qualified staff	▪ Leverage the SCH executive committee's power to achieve stakeholder alignment ▪ Align with CSF ▪ Build up workforce capacity

Implementation Plan: Primary care as the foundation



Project: 1.1 Primary care as the foundation				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team (PHC senior management, subject matter experts) supported by PMO	Q4, 2010	Q4, 2010		Project team established
Establish a primary care forum	Q1, 2011	Q4, 2011		Primary care forum established
Define the scope of primary care (PC) services	Q1, 2011	Q3, 2011		Scope of services for primary care defined
Do a needs assessment for the national primary care configuration of services (including community-based and home care)	Q4, 2010	Q2, 2011		Needs assessment for primary care completed
Develop a PC capacity (staff, infrastructure) building strategy	Q1, 2011	Q3, 2011		Primary care capacity building strategy developed
Develop and pilot best-practice alternative models of service provisioning of PC	Q1, 2011	Q4, 2012		Alternative models of primary care piloted
Evaluate effectiveness of pilot toward achieving PC goals	Q3, 2012	Q1, 2013		Pilot evaluated
Evaluate the pilot models and expand as necessary	Q2, 2013 Q1, 2014	Q4, 2013 Ongoing		Primary care expansion
Develop national standards for the provision of primary care	Q1, 2011	Q3, 2011		National standards developed
Improve current provision of primary care in order to achieve the newly defined national standards	Q2, 2011	Q4, 2012		Primary care standards met
Ensure that preventive medicine is an integral component of primary care	Q1, 2011 Q3, 2012	Q2, 2012 Ongoing		Preventive medicine integrated into primary care
Introduce an easy-to-use appointment system across PC providers	Q3, 2011	Q2, 2012		Appointment system launched
Develop standard personalised patient folders for primary care in alignment with e-health developments	Q1, 2011	Q4, 2013		Patient folder developed
Develop an appropriate budgeting process for PC and obtain approval	Q2, 2011	Q1, 2012		Budgetary approval for primary care approved

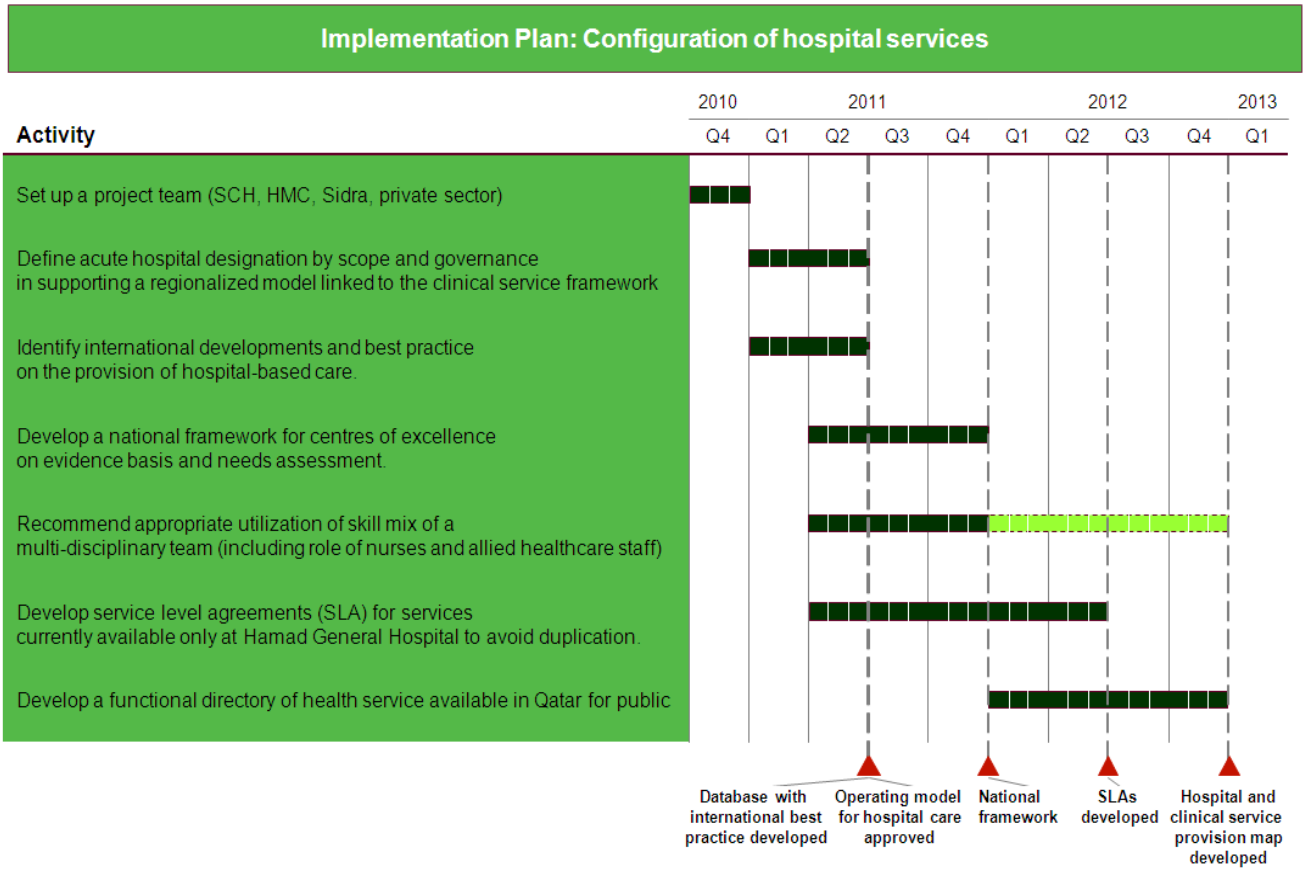
Develop and implement community-based support programs (home-based care, self care)	Q2, 2012	Q4, 2013		Community-based support programs developed
Launch a communication campaign for PC	Q3, 2012	Q2, 2013		Primary care communication campaign launched
Develop a transition plan for PC service coverage currently provided by other public institutions	Q1, 2014	Q4, 2014		Transition plan for PC from other public institutions developed
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	1.2 Configuration of hospital services
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ Inpatient hospital-based care has been at the core of health service provisioning in Qatar. However, the revised national model of care foresees a shift toward more outpatient and community-based care. ▪ Advancements in medical practice, in particular, significantly reduced lengths of stay through improved technology and medication, and the increasing opportunities for outpatient procedures due to the availability of minimally invasive procedures have triggered an international trend to adjust the configuration of hospital services accordingly. ▪ Achieving the QNV goals requires strong national coordination and guidance for hospital service providers, given that in the past some hospital projects were approved with limited fit to the future healthcare needs of Qatar.
Objectives/Benefits/ Outcomes	▪ Avoid unnecessary duplication of services (based on best practice and needs assessment for quality services), but ensure full coverage of levels of hospital-based care as needed, according to CSF results. ▪ Outcomes: – Coordinated hospital care development – Provision of high-quality acute care services enabled by integrated research – Appropriate reductions in the length of hospital stay based on a full continuum of care
Outputs	1.2.1 Definition of acute hospital designation by scope and governance. 1.2.2 Dedicated national centers of excellence without duplication. 1.2.3 Access to central facilities such as select high tech laboratories and those for pathology 1.2.4 Directory of health service availabilities for residents, combining geography and function 1.2.5 Reduced length of stay due to full continuum of care and increased opportunities for in-and-out same day procedures

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Set up a project team (SCH, HMC, Sidra, private sector) ▪ Define acute hospital designation by scope and governance in supporting a regionalised model linked to the CSF ▪ Identify international developments and best practice on the provision of hospital-based care, including methods to reduce length and stay and enhance same-day procedures ▪ Develop a national framework for centers of excellence on evidence basis and needs assessment ▪ Recommend appropriate utilization of skill mix of a multidisciplinary team	▪ Operating model for hospital care approved ▪ Database with international best practice developed ▪ Framework designed	▪ SCH, public and private providers	▪ Need capacity and expertise in providing clinical care ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness ▪ Need alignment with data, e-health, insurance, and clinical process work streams

(including role of nurses and allied healthcare staff) ▪ To avoid duplication, develop service level agreements (SLA) for services currently available only at Hamad General Hospital ▪ Develop a functional directory of health service available in Qatar for the public	▪ SLAs developed ▪ Hospital and clinical service provision map developed		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Public and private providers of hospital-based health services (e.g., HMC, PHC, Sidra, Al Ahli, Al Emadi) ▪ Ministry of Economy and Finance ▪ Ministry of Municipality and Urban Planning	
Beneficiaries	▪ The general population ▪ The healthcare system in Qatar	
Cross-sectoral Linkages	▪ Ministry of Economy and Finance ▪ Ashghal	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ Configuration of hospital services to be completed in Q4 2010	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from other key healthcare stakeholders ▪ Dependency on results from the CSF project ▪ Availability of sufficiently trained staff	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Align with CSF ▪ Other measures addressed in the workforce planning program



Project: 1.2 Configuration of hospital services				**Start Date: Q4, 2010** **End Date: Q4, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Set up a project team (SCH, HMC, Sidra, private sector)	Q4, 2010	Q4, 2010		Project team set up
Define acute hospital designation by scope and governance in supporting a regionalised model linked to the clinical service framework	Q1, 2011	Q2, 2011		Acute hospital scope defined
Identify international developments and best practice on the provision of hospital-based care, including methods to reduce length and stay and enhance same day procedures	Q1, 2011	Q2, 2011		Best practice on hospital provision defined
Develop a national framework for centers of excellence on evidence basis and needs assessment	Q2, 2011	Q4, 2011		Centers of excellence framework developed
Recommend appropriate utilization of skill mix of a multi-disciplinary team (including role of nurses and allied healthcare	Q2, 2011 Q1, 2012	Q4, 2011 Q4, 2012		Multidisciplinary team role defined

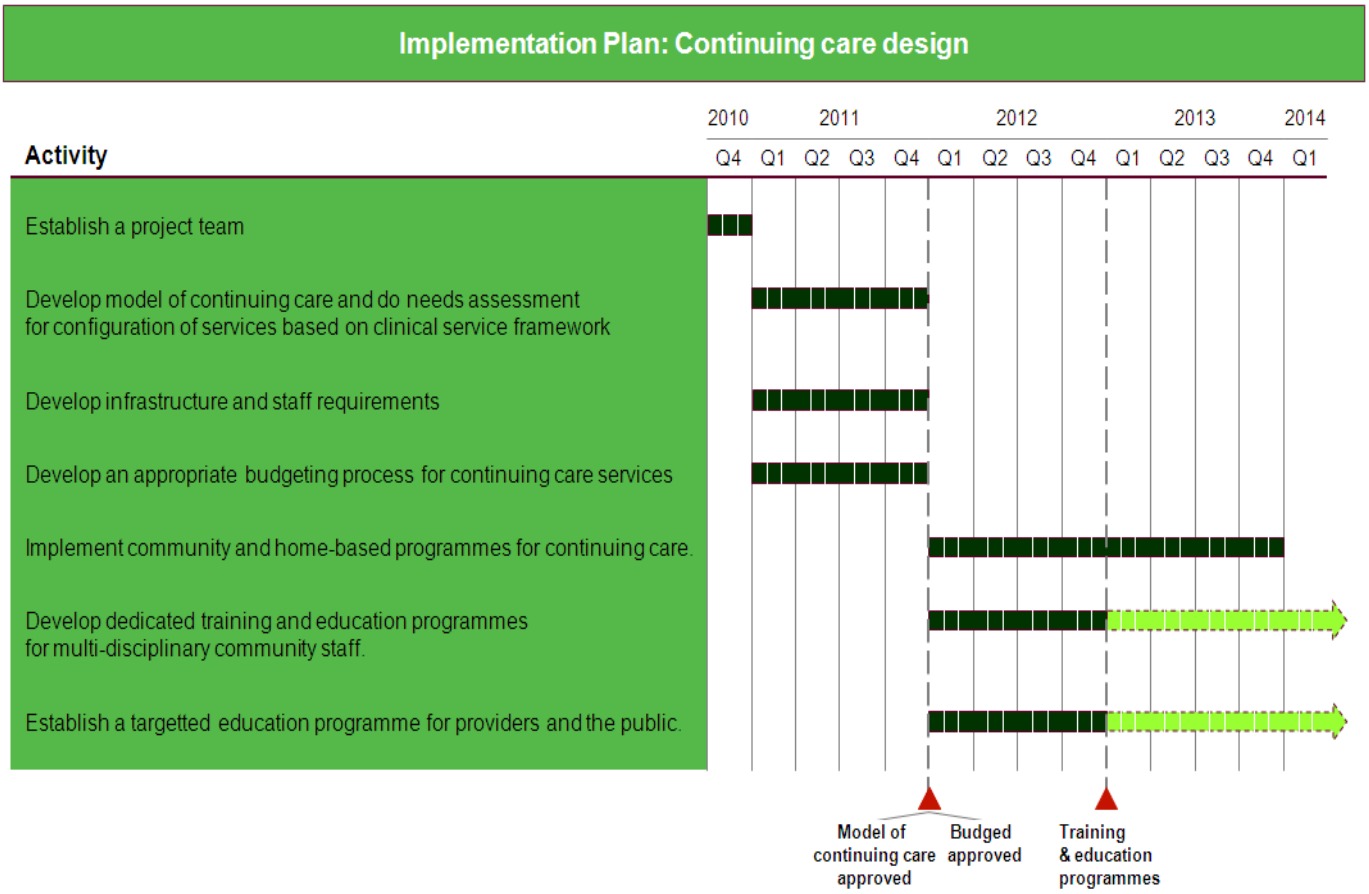
staff)				
Develop service level agreements (SLA) for services currently available only at Hamad General Hospital to avoid duplication.	Q2, 2011	Q2, 2012		SLAs for services at HGH developed
Develop a functional directory of health service available in Qatar for public	Q1, 2012	Q4, 2012		Directory of health services in Qatar developed
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	**1.3 Continuing care design**
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ Continuing care services like rehabilitation, nursing homes, and long-term community-based care (including home care) are becoming worldwide and an integral part of healthcare provisioning. ▪ The design of continuing care services in Qatar should be based on international best practice and must reflect the changes in care provisioning due to medical advancements. ▪ Qatar's demographics and the ongoing surge of chronic diseases trigger the need for strong continuing care operations to achieve the QNV goals.
Objectives/Benefits/ Outcomes	▪ Develop a comprehensive model for continuing care that reflects the society's changing needs. ▪ Outcomes : – Development of adequate continuing care services
Outputs	1.3.1 Model of continuing care and needs assessment for configuration of services 1.3.2 Community-based-care activities support 1.3.3 Sufficient and effective funding for continuing care 1.3.4 Roles of community and family in providing continuing care strengthened

Activities	**Indicators**	**Responsible Parties**	**Institutional Readiness and Capacities**
▪ Establish a project team ▪ Develop a model of continuing care and do needs assessment for the configuration of services based on the CSF ▪ Develop infrastructure and staff requirements ▪ Develop an appropriate budgeting process for continuing care services ▪ Implement community and home-based programs for continuing care ▪ Develop dedicated training and education programs for multidisciplinary community staff ▪ Establish a targeted education program for providers and the public	▪ Model of continuing care approved ▪ Needs assessments performed ▪ Budget approved	▪ SCH, public and private providers ▪ Working group ▪ SCH, Ministry of Economy and Finance ▪ Working group ▪ SCH	▪ Need capacity and expertise in healthcare planning ▪ Need alignment with providers and clinical process improvement working teams

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Public and private providers ▪ Ministry of Economy and Finance	
Beneficiaries	▪ General public ▪ Public and private providers ▪ Ministry of Economy and Finance	
Cross-sectoral Linkages	Ministry of Municipality and Urban Planning	
Estimated Cost	▪ Less than 10M QAR, excluding the cost of setting up continuing care facilities	
Estimated Duration	▪ Model of care and needs assessment ready in Q2 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from	▪ Leverage the SCH executive committee's

	healthcare stakeholders (public and private) and Ministry of Economy and Finance ▪ Dependency on results from the CSF ▪ Shortage of skills and staff	power to ensure collaboration ▪ Align with CSF ▪ Build up workforce capacity



Project: 1.3 Continuing care design				**Start Date: Q4, 2010 End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team	Q4, 2010	Q4, 2010		Project team established
Develop a model of continuing care and do needs assessment for the configuration of services based on the CSF	Q1, 2011	Q4, 2011		Continuing care model and needs assessment completed
Develop infrastructure and staff requirements	Q1, 2011	Q4, 2011		Infrastructure and staff requirements defined
Develop an appropriate budgeting process for continuing care services	Q1, 2011	Q4, 2011		Budgeting process for continuing care defined
Implement community and	Q1,	Q4,		Community and home-

home-based programs for continuing care	2012	2013		based programs for continuing care defined
Develop dedicated training and education programs for multidisciplinary community staff	Q1, 2012 Q1, 2013	Q4, 2012 Ongoing		Training and education for community staff developed
Establish a targeted education program for providers and the public	Q1, 2012 Q1, 2013	Q4, 2012 Ongoing		Continuing care education program launched
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

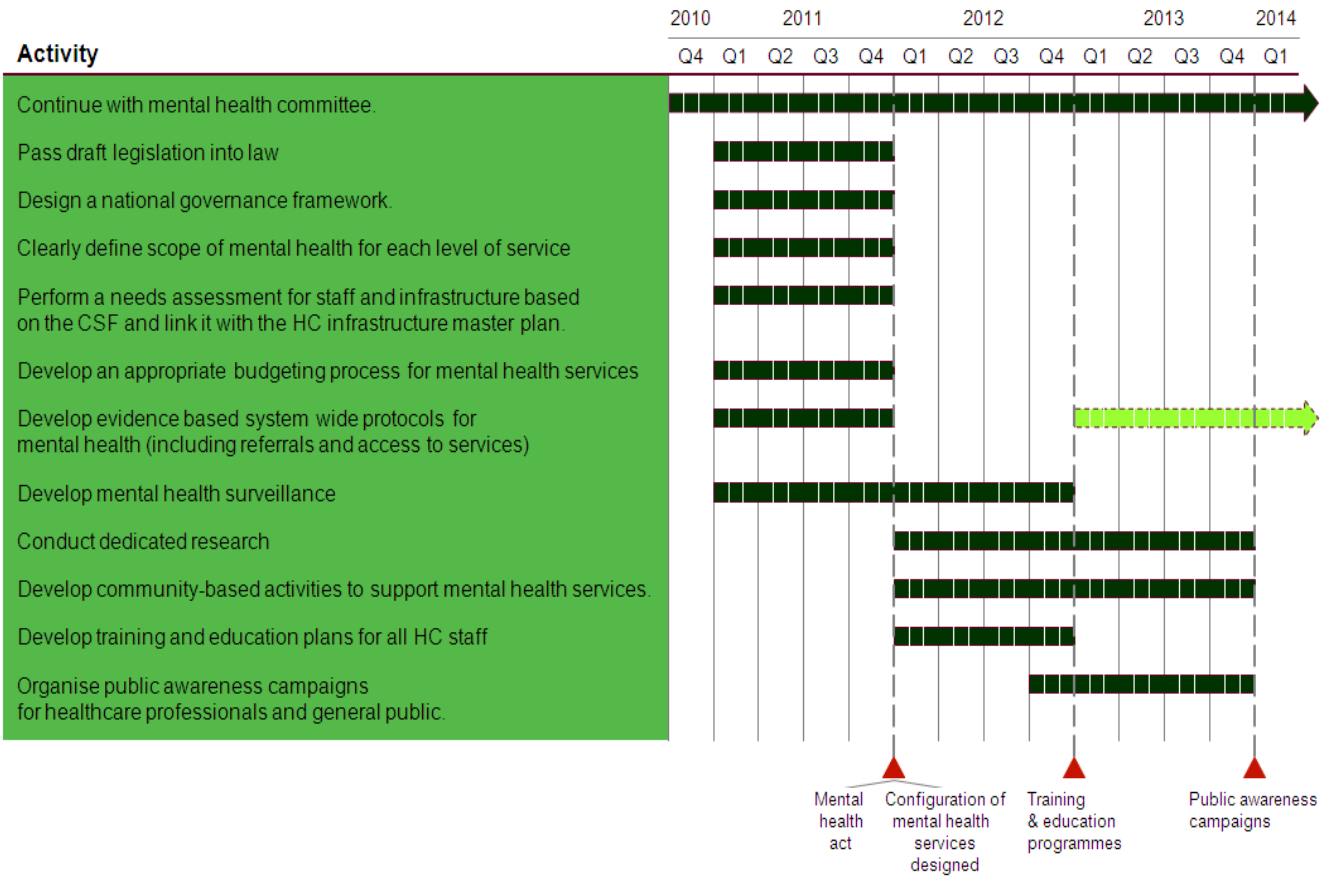
Project Name:	1.4 Mental health design
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ Acknowledgment of mental health conditions faces universal degrees of stigmatization worldwide. ▪ The provision of mental health services should be based on international best practice, which includes a strong role for community services. ▪ Previously, dedicated mental health services in Qatar consisted almost exclusively of inpatient psychiatric services. ▪ Achieving the QNV goals in the mental health context requires focus, engagement, and stakeholder alignment. ▪ A national model of care for mental health services has been recently approved by SCH but needs to be implemented
Objectives/Benefits/ Outcomes	▪ Develop and implement comprehensive mental health services in Qatar with a focus on community-based services. ▪ Increase public awareness and destigmatise perceptions of mental health. ▪ Encourage behavioral change toward actively seeking support on mental health issues. ▪ Outcomes: – Implementation of operating model for mental health care – Improved public perception and understanding of mental health
Outputs	1.4.1 National model of care, interfaces, and processes 1.4.2 Mental health legislation 1.4.3 Needs assessment for infrastructure, staff, and equipment 1.4.4 Sufficient and effective funding for mental health 1.4.5 Community-based services support 1.4.6 Mental health surveillance and dedicated research 1.4.7 Public awareness campaigns 1.4.8 Mental health standards 1.4.9 Mental health screening

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Continue with mental health committee ▪ Pass draft legislation into law ▪ Design a national governance framework ▪ Clearly define scope of mental health for each level of service, based on SCH approved model of care for mental health ▪ Perform a needs assessment for staff and infrastructure based on the CSF and link it with the HC infrastructure master plan ▪ Develop an appropriate budgeting process for mental health services ▪ Develop evidence-based systemwide protocols for mental health (including	▪ Mental health act ▪ Configuration of mental health services designed ▪ Budget approved	▪ Task force	▪ Need capacity and expertise in providing clinical care ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness

referrals and access to services) ▪ Develop mental health surveillance ▪ Conduct dedicated research ▪ Develop community-based activities to support mental health services ▪ Develop training and education plans for all HC staff ▪ Organise public awareness campaigns for healthcare professionals and the general public		▪ SCH	

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Public and private providers of healthcare services ▪ Ministry of Economy and Finance ▪ Ashghal	
Beneficiaries	▪ General public ▪ Public and private providers ▪ Ministry of Economy and Finance	
Cross-sectoral Linkages		
Estimated Cost	▪ Less than 10M QAR, excluding the cost of setting up mental health facilities	
Estimated Duration	▪ Concept to be ready for implementation by Q4 2010	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of coordination with stakeholders ▪ Dependency on outcomes from the CSF project ▪ Shortage of qualified staff	▪ Leverage the SCH executive committee's power to achieve stakeholder alignment ▪ Align with CSF ▪ Build up workforce capacity

Implementation Plan: Mental Health design



Project: 1.4 Mental health design				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Continue with mental health committee	Q4, 2010	Ongoing		Mental health committee reactivated
Pass draft legislation into law	Q1, 2011	Q4, 2011		Enactment of mental health law
Design a national governance framework	Q1, 2011	Q4, 2011		Mental health governance framework
Clearly define scope of mental health for each level of service	Q1, 2011	Q4, 2011		Mental health scope of services
Perform a needs assessment for staff and infrastructure based on the CSF and link it with the HC infrastructure master plan	Q1, 2011	Q4, 2011		Mental health needs assessment
Develop an appropriate budgeting process for mental health services	Q1, 2011	Q4, 2011		Budgeting process for mental health
Develop evidence-based systemwide protocols for mental health (including referrals and access to services)	Q1, 2011 Q1, 2013	Q4, 2011 Ongoing		Mental health protocols
Develop mental health surveillance	Q1, 2011	Q4, 2012		Mental health surveillance
Conduct dedicated research	Q1, 2012	Q4, 2013		Mental health research
Develop community-based activities to support mental health services	Q1, 2012	Q4, 2013		Community-based activities for mental health
Develop training and education plans for all HC staff	Q1, 2012	Q4, 2012		Training and education for HC staff on mental health
Organise public awareness campaigns for healthcare professionals and	Q4, 2012	Q4, 2013		Mental health public awareness campaigns

general public				

Project Achievements

(What did each project activity achieve? List of achievements)

Activity 1:

Activity 2:

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Activity n:

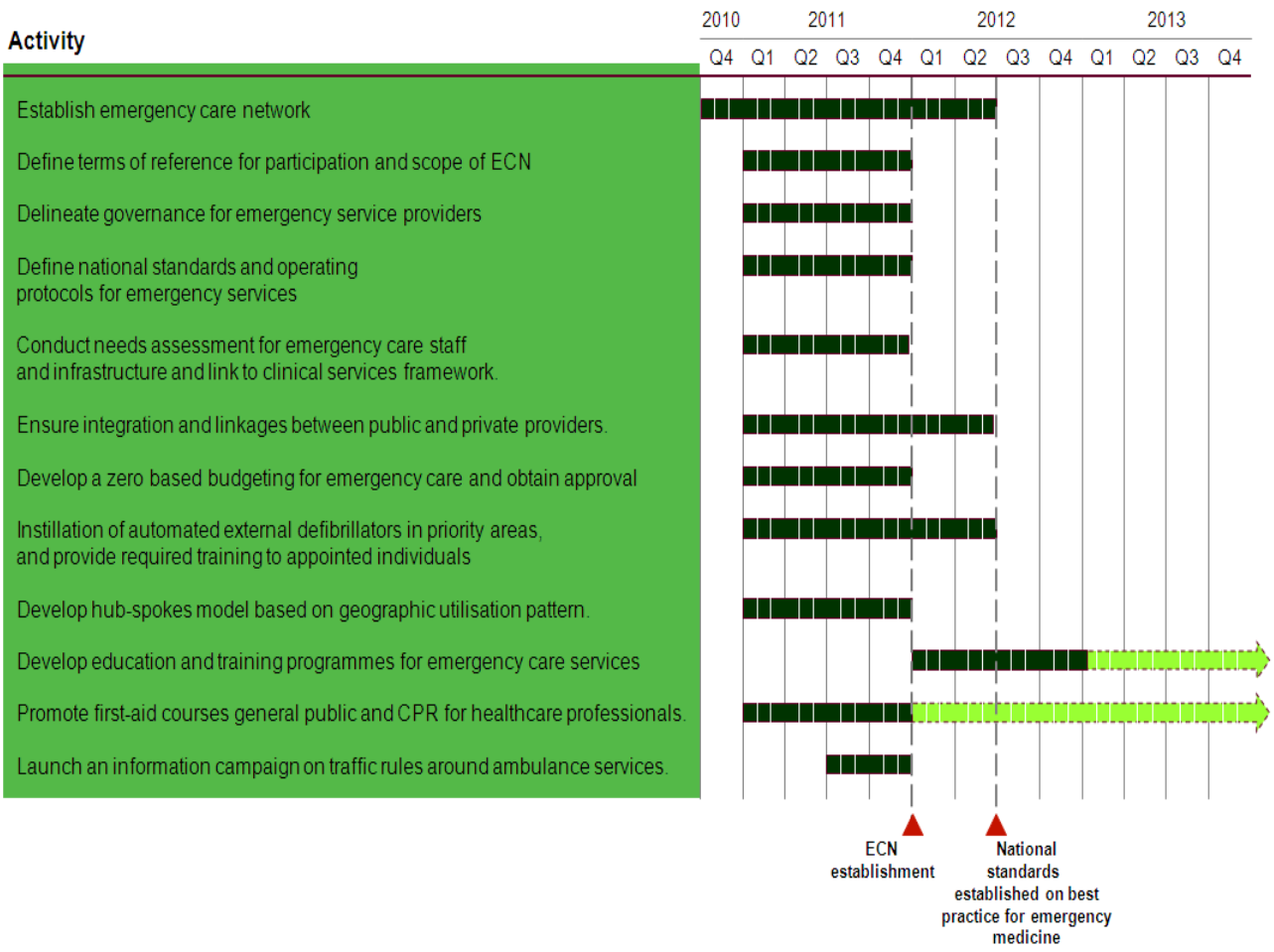
Project Name:	1.5 Emergency care services
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ The majority of emergency and traiuma care is provided through HMC. However, the growth in diversifying service providers requires integration of all emergency services to ensure adequate coordination of all public and private providers at all levels as well as quality emergency care ▪ The continuing growth of Qatar's population poses two challenges for augmenting alignment in emergency care services: (1) an increase in qualified staff is needed, and (2) the strategic geographic coverage and positioning become crucial to optimizing service quality (e.g., response times relating to outcomes). ▪ Currently, HGH is the only level 3 facility in the country, and it was designed for a much smaller population. The QNV goals of providing safe and world class healthcare require adjustments to this setup.
Objectives/Benefits/ Outcomes	▪ Establish fully functioning and efficient emergency care services ▪ Outcome: – Improved access and quality of emergency care services – Integrated national framework for provision of emergency care services – Decrease in mortality rates related to emergency care – Increase in percentage of compliance with emergency protocols
Outputs	1.5.1 National standards, and operating protocols for emergency and trauma care services 1.5.2 Needs assessment for emergency and trauma care staff and infrastructure 1.5.3 Sufficient and effective funding for emergency and trauma care

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish an emergency care network ▪ Define the terms of reference for the ECN's participation and scope ▪ Delineate governance for emergency and trauma care service providers ▪ Define national standards and operating protocols for the emergency services ▪ Conduct needs assessment for emergency care staff and infrastructure and link to CSF ▪ Ensure integration and linkages between public and private providers ▪ Develop a zero-based budgeting for emergency care and obtain approval ▪ Install automated external defibrillators in priority areas, and provide required training to appointed individuals ▪ Develop hub-and-spokes model based on geographic utilization pattern	▪ National standards established based on best practice for emergency medicine ▪ ECN establishment	▪ SCH, public and private providers ▪ SCH, Ministry of Interior	▪ Need capacity and expertise in healthcare planning ▪ Need healthcare data availability ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness

▪ Develop education and training programs for emergency care services ▪ Promote first-aid courses for the general public and CPR for healthcare professionals ▪ Launch an information campaign on traffic rules around ambulance services			

Key Stakeholders and Overall Management Structure	▪ SCH, HMC ▪ Public and private provider (e.g. PHC, Sidra, Al Ahli, Al Emadi) ▪ Ashghal, Ministry of Economy and Finance, Ministry of Interior	
Beneficiaries	▪ General population ▪ Public and private providers	
Cross-sectoral Linkages		
Estimated Cost	▪ Less than 10M QAR, excluding the cost of setting up an emergency care infrastructure	
Estimated Duration	▪ ECN implementation to start in Q2 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from other Ministries and key healthcare stakeholders ▪ Alignment of public and private providers ▪ Capacity and skills of staff	▪ Leverage the SCH executive committee's power to obtain cross-sector collaboration ▪ Ensure a continuous communication plan ▪ Other measures addressed in the workforce planning program

Implementation Plan: Emergency care services



Project: 1.5 Emergency care services				**Start Date: Q4, 2010** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish an emergency care network	Q4, 2010	Q2, 2012		Emergency care network
Define the terms of reference for the ECN's participation and scope	Q1, 2011	Q4, 2011		Terms of reference for ECN participation
Delineate governance for emergency service providers	Q1, 2011	Q4, 2011		Governance for emergency service providers
Define national standards and operating protocols for the emergency services	Q1, 2011	Q4, 2011		Standards and protocols for emergency services
Conduct needs assessment for emergency care staff and infrastructure and link to clinical services framework	Q1, 2011	Q4, 2011		Needs assessment for emergency care staff and infrastructure
Ensure integration and linkages between public and private providers	Q1, 2011	Q2, 2012		Linkages between public and private providers regarding emergency care
Develop zero-based budgeting for emergency care and obtain approval	Q1, 2011	Q4, 2011		Zero-based budget for emergency care developed and approved
Install automated external defibrillators in priority areas, and provide required training to appointed individuals	Q1, 2011	Q2, 2012		Automated external defibrillators installed in priority areas
Develop hub-and-spokes model based on geographic utilization pattern	Q1, 2011	Q4, 2011		Emergency care hub-and-spokes model developed
Develop education and training programs for emergency care services	Q1, 2012 Q1, 2013	Q4, 2012 Ongoing		Education and training for emergency care
Promote first-aid courses for the general public and CPR for healthcare professionals	Q1, 2011 Q1, 2012	Q4, 2011 Ongoing		First-aid course promotion
Launch an information campaign on traffic rules around ambulance services	Q3, 2011	Q4, 2011		Public information campaign on traffic rules for ambulance services
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . .				

Activity n:

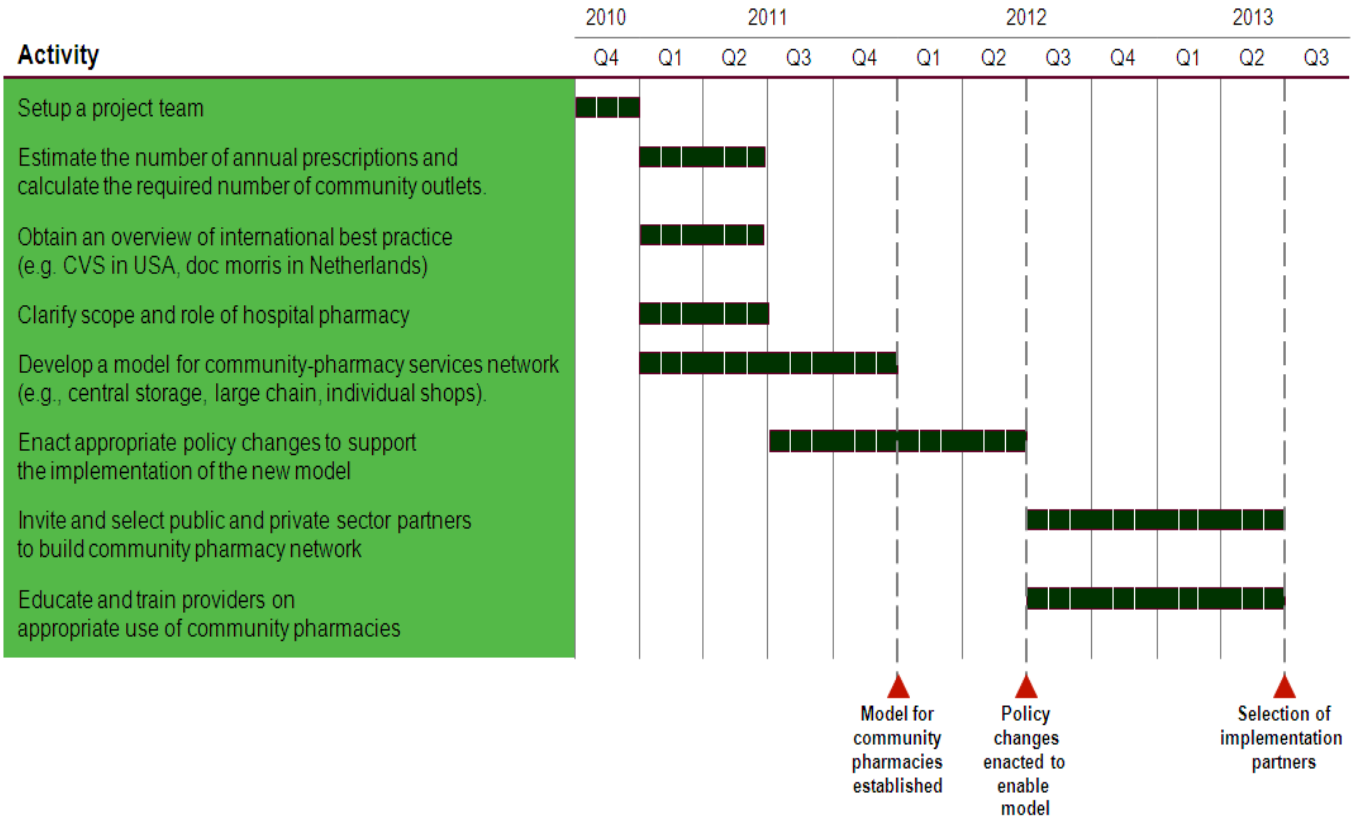
Project Name:	1.6 Community pharmacies
Related QNV 2030 Goal: A comprehensive world class healthcare system whose services are accessible to the whole population	
Background and Justification	▪ Currently the majority of prescriptions are filled in hospital pharmacies and HGH is the only location that carries the full spectrum of drugs. ▪ The concept of community pharmacies has an enormous potential to increase the efficiency of the healthcare system and improve access to healthcare. Both issues relate directly to the QNV goals on healthcare.
Objectives/Benefits/ Outcomes	▪ Increased efficiency and access to dispensing ▪ Outcomes: – Decreased access barriers for compliance of drug regimens (i.e., travel to HGH) – Greatly improved quality of care and perception of services if patients are shifted to community pharmacies – A rise in the percentage of prescriptions filled outside hospital pharmacies
Outputs	1.6.1 Public needs assessment for community pharmacy network 1.6.2 All drugs available at community pharmacies 1.6.3 Higher utilization of community pharmacies by providers

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Set up a project team ▪ Estimate the number of annual prescriptions and calculate the required number of community outlets ▪ Obtain an overview of international best practices (e.g., CVS in the United States, DocMorris in the Netherlands) ▪ Clarify the scope and role of the hospital and the community pharmacy ▪ Develop a model for community-pharmacy services network (e.g., central storage, large chain, individual shops) ▪ Enact appropriate policy changes to support the implementation of the new model ▪ Invite and select public and private sector partners to implement the proposed model of community pharmacy services network ▪ Educate and train providers on appropriate use of community pharmacies	▪ Model for community pharmacies established ▪ Policy changes enacted to enable model ▪ Selection of implementation partners	▪ SCH, public and private providers ▪ SCH	▪ Need to build up a community pharmacy network ▪ Need to make all drugs available at community outlets ▪ Need to change physicians' prescribing behavior ▪ Need to alignment with data, e-health, licensing, and insurance work streams

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Public and private healthcare providers ▪ Public and private pharmacies ▪ Ministry of Business and Trade
Beneficiaries	▪ General population

	▪ Public and private providers	
Cross-sectoral Linkages		
Estimated Cost	▪ Less than 10M QAR, excluding the cost of setting up community pharmacies	
Estimated Duration	▪ Concept to be ready for implementation by Q2 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of coordination with stakeholders ▪ Dependency on healthcare data ▪ Shortage of skilled staff	▪ Leverage the SCH executive committee's power to achieve stakeholder alignment

Implementation Plan: Community pharmacies



Project: 1.6 Community pharmacies				**Start Date: Q4, 2010** **End Date: Q2, 2013**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Set up a project team	Q4, 2010	Q4, 2010		Project team established
Estimate the number of annual prescriptions and calculate the required number of community pharmacy outlets	Q1, 2011	Q2, 2011		Number of community pharmacy outlets estimated
Obtain an overview of international best practices (e.g., CVS in the United States, DocMorris in the Netherlands).	Q1, 2011	Q2, 2011		International best practices on community pharmacies determined
Clarify the scope and role of the hospital and the community pharmacy	Q1, 2011	Q2, 2011		Scope and role of hospital and community pharmacy defined
Develop a model for a community-pharmacy services network (e.g., central storage, large chain, individual shops)	Q1, 2011	Q4, 2011		Model for community pharmacy network determined
Enact appropriate policy changes to support the implementation of the new model	Q3, 2011	Q4, 2012		Policy changes to support implementation of community pharmacies enacted
Invite and select public and private sector partners to implement the proposed model of community-pharmacy services network	Q3, 2012	Q2, 2013		Public and private partners for community pharmacies selected
Educate and train providers on appropriate use of community pharmacies	Q3, 2012	Q2, 2013		Education and training programs for providers launched
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

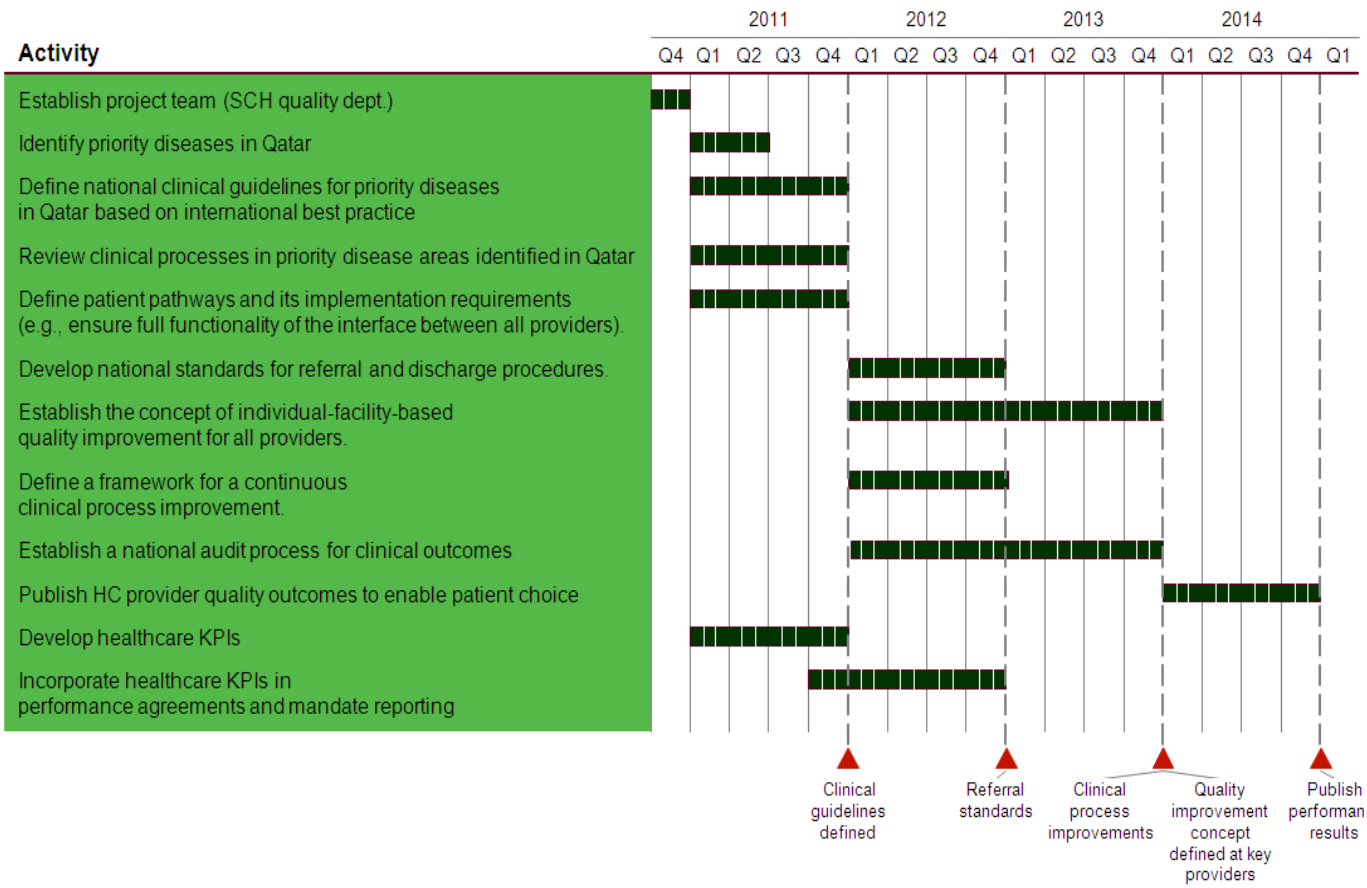
Project Name:	2.1 Quality improvement
Related QNV 2030 Goal: An integrated system of healthcare offering high-quality services through public and private institutions	
Background and Justification	▪ Quality improvement involves transforming healthcare for patients by developing and spreading new ways of working, new technology, and leadership. ▪ International best practice involves providing guidance, setting quality standards, and facilitating clinical improvement collaboratives. The recommendations should be based on the best available evidence and on the appropriate treatment and care of people with specific diseases and conditions. ▪ To comply with the QNV 2030 goal of providing effective and affordable services, Qatar should embrace a culture of mutual learning based on national experiences and international examples in order to improve quality wherever possible.
Objectives/Benefits/ Outcomes	▪ Review clinical processes in priority disease areas identified in Qatar and improve them where it is possible and meaningful. ▪ Obtain an overview of international best practices on clinical processes and adapt them for a Qatari context. ▪ Define and implement effective patient pathways, from access to care through the treatment stages required and the discharge for a given event. ▪ Educate the public so that they can make informed decisions based on quality healthcare provisioning (e.g. publication of performance metrics). ▪ Outcomes: – Increase in the percentage of compliance with the use of clinical guidelines – Decrease in mortality rates for areas cover by clinical guidelines – Performance agreements (i.e., performance standards, mandated reporting, regulatory and finance linkages) in place for all providers
Outputs	2.1.1 National standards for referral and discharge procedures 2.1.2 Clinical guidelines for Qatar, based on international best practices 2.1.3 Concept of quality improvement for all providers 2.1.4 Continuity-of-care process and its requirements 2.1.5 Educated public informed by transparent publication of health service performance results 2.1.6 Performance agreements between SCH and all providers (public and private)

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team (SCH quality department.) ▪ Identify priority diseases in Qatar ▪ Define national clinical guidelines for priority disease in Qatar based on international best practice ▪ Review clinical processes in priority disease areas identified in Qatar ▪ Define patient pathways and their implementation requirements (e.g., ensure full functionality of the interface between all providers) ▪ Develop national standards for	▪ Clinical guidelines defined ▪ Referral standards	▪ SCH, public and private providers	▪ Need capacity and expertise in international benchmarking ▪ Need capacity and expertise in providing clinical care at various levels ▪ Need data on healthcare quality ▪ Align with healthcare data project

referral and discharge procedures ▪ Establish the concept of individual-facility-based quality improvement for all providers ▪ Define a framework for a continuous clinical process improvement ▪ Establish a national audit process for clinical outcomes ▪ Publish HC provider quality outcomes to enable patient choice ▪ Develop healthcare KPIs ▪ Incorporate healthcare KPIs in performance agreements and mandate reporting	▪ Quality improvement concept established at key providers ▪ Clinical process improvements (e.g., waiting times) ▪ Publish performance results		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Public and private healthcare providers (e.g., HMC, PHC, Sidra, Al Ahli, Al Emadi) ▪ Ministry of Business and Trade (learning analogy from business process improvements) ▪ Qatar Foundation (for whom it would be a potential research field)	
Beneficiaries	▪ General population ▪ Public and private providers	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ National standards and clinical guidelines implementation to start in Q3 2011 ▪ Public awareness campaign to start in Q4 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from key healthcare stakeholders ▪ Capacity and skill restrictions	▪ Leverage the SCH executive committee's power to obtain stakeholder collaboration ▪ Other measures addressed in the workforce capacity development program

Implementation Plan: Quality improvement



Project: 2.1 Quality improvement				**Start Date: Q4, 2010** **End Date: Q4, 2014**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish project team (SCH quality department)	Q4, 2010	Q4, 2010		Project team established
Identify priority diseases in Qatar	Q1, 2011	Q2, 2011		Priority disease identified
Define national clinical guidelines for priority disease in Qatar based on international best practice	Q1, 2011	Q4, 2011		Clinical guidelines for priority diseases established
Review clinical processes in priority disease areas identified in Qatar	Q1, 2011	Q4, 2011		Clinical processes in priority diseases identified
Define patient pathways and their implementation requirements (e.g., ensure full functionality of the interface between all providers)	Q1, 2011	Q4, 2011		Patient pathways and implementation requirements defined
Develop national standards for referral and discharge procedures	Q1, 2012	Q4, 2012		National standards for referral and discharge developed
Establish the concept of individual-facility-based quality improvement for all providers	Q1, 2012	Q4, 2013		Concept of individual-facility-based quality improvement established at all providers
Define a framework for a continuous clinical process improvement.	Q1, 2012	Q4, 2012		Framework for continuous clinical process improvement defined
Establish a national audit process for clinical outcomes	Q1, 2012	Q4, 2013		National audit process for clinical outcomes established
Publish HC provider quality outcomes to enable patient choice	Q1, 2014	Q4, 2014		HC provider quality outcomes published
Develop healthcare KPIs	Q1, 2011	Q4, 2011		Health KPIs developed
Incorporate healthcare KPIs in performance agreements and mandate reporting	Q4, 2011	Q4, 2012		KPIs incorporated in performance agreements
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: …Activity n:				

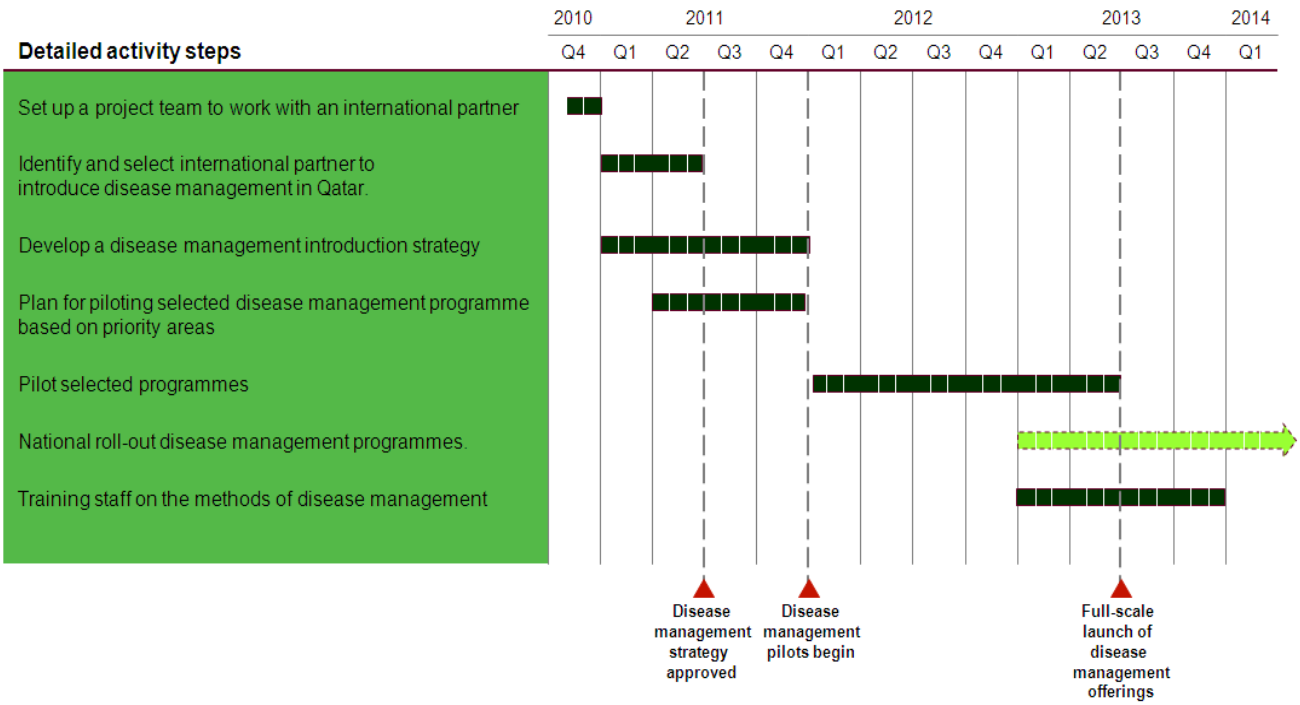
Project Name:	2.2 Disease management programs
Related QNV 2030 Goal: An integrated system of healthcare offering high-quality services through public and private institutions	
Background and Justification	▪ Chronic conditions like diabetes, cardiovascular diseases, and respiratory illnesses are the heaviest burden on Qatar's healthcare system today. Patients with chronic disease have multifaceted needs. They need to understand the various implications of the disease, advice on self-care, and assistance in coordinating the care they receive and in navigating the healthcare system. Additionally, they require help in adhering to the care regimen as well as in monitoring their key indicators. ▪ Disease management programs consist of a set of coordinated healthcare interventions that address these needs. They emphasize prevention of exacerbations, prevention of co-morbidities and complications through the use of evidence-based practice guidelines, patient empowerment strategies, and regular monitoring of patients. Across a range of conditions, disease management programs have demonstrated improved outcomes in patients. It is therefore recommended that Qatar consider introducing disease management programs for the focus chronic diseases (type 2 diabetes, asthma, chronic obstructive pulmonary disease, congestive heart failure, and coronary artery disease).
Objectives/Benefits/ Outcomes	▪ Introduce disease management programs in Qatar for the focus chronic diseases. ▪ Outcomes will differ based on the specific disease: – reduction in complications (retinopathy, neuropathy, nephropathy) for diabetics; – improved blood glucose control haemoglobin A1c < 7 per cent; – reduction in emergency hospitalizations among asthma patients; – lowering of cholesterol levels for patients in cardiovascular programs and diabetes management programs; – blood pressure improvement (e.g., reduction of hypertension by 5 per cent); – increase in self-sufficient diabetes control and insulin application; and – increased use of long-term asthma medication.
Outputs	2.2.1 Disease management programs set up

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Set up a project team to work with an international partner ▪ Identify and select an international partner to introduce disease management in Qatar ▪ Develop a disease management introduction strategy ▪ Devise a plan for piloting a selected disease management program based on priority areas ▪ Pilot selected programs ▪ Roll out disease management programs nationally	▪ Disease management strategy approved ▪ Disease management pilots begin	▪ SCH	▪ Need greater expertise and understanding of disease management in Qatar

▪ Train staff on the methods of disease management	▪ Full–scale launch of disease management		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ HMC and PHC	
Beneficiaries	▪ SCH, healthcare providers, policy makers, and general population	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ Duration: 36 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Disease management is not a tried and tested concept in the GCC	▪ Engage an international partner or service provider to introduce disease management into Qatar ▪ Pilot initially will help identify risks before scale up

Implementation Plan: Disease management project



Project: 2.2 Disease management programs				**Start Date: Nov, 2010 End Date: ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Set up a project team to work with an international partner	Nov, 2010	Q4, 2010		Project team set up
Identify and select an international partner to introduce disease management in Qatar	Q1, 2011	Q2, 2011		International disease management partner selected
Develop a disease management introduction strategy	Q1, 2011	Q4, 2011		Disease management introduction strategy developed
Devise a plan for piloting a selected disease management program based on priority areas	Q2, 2011	Q4, 2011		Pilot plan for disease management programs developed
Pilot selected programs	Q1, 2012	Q2, 2013		Piloting of select disease management programs
Roll out disease management programs nationally	Q1, 2013	Ongoing		National rollout of disease management programs
Train staff on the methods of disease management	Q1, 2013	Q4, 2013		Training for disease management for staff
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	2.3 Healthcare data project
Related QNV 2030 Goal: An integrated system of healthcare offering high-quality services through public and private institutions	
Background and Justification	▪ Availability of comprehensive and accurate data across all healthcare parameters in Qatar is limited. In contrast, international best practice involves using healthcare data to make informed decisions. ▪ A comprehensive effort that includes institutional-level and data-entry-level initiatives by all health service providers is required. The SCH must provide clear and uniform guidance to all on data acquisition methodologies, frequency, and analysis. Effective enforcement of data reporting through performance agreements is linked to licensing and finance.
Objectives/Benefits/ Outcomes	▪ Ensure availability of comprehensive and quality healthcare data ▪ Outcomes: – Availability of a minimum healthcare data set – Data warehouse established – Single official source for healthcare data – Disease registries for priority diseases set up
Outputs	2.3.1 National nomenclature, coding standard, and flow of information 2.3.2 National quality management process 2.3.3 Education and training programs 2.3.4 Data reporting requirements

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Set up a task force consisting of SCH, HMC, and other providers ▪ Align key stakeholders on national data requirements ▪ Consider using WHO-Health Metric Network Framework (HMN) to facilitate health information system development ▪ Provide baseline for existing data availability and accuracy ▪ Align with e-health project and other stakeholders (e.g., Qatar Statistics Authority, or QSA)		▪ SCH, HMC and other providers ▪ SCH ▪ SCH ▪ SCH ▪ SCH	▪ Currently the HIS department at SCH has only 12 people and needs to enhance its capacity in terms of numbers and expertise
▪ Define a healthcare dataset based on international best practice	▪ Data requirements announced		
▪ Define and disseminate data reporting requirements for providers—including regulatory and financial linkages	▪ National nomenclature		
▪ Define a national nomenclature, coding standard, and flow of information			
▪ Ensure HC providers set up adequate training for data entry and	▪ Training programs setup by providers		

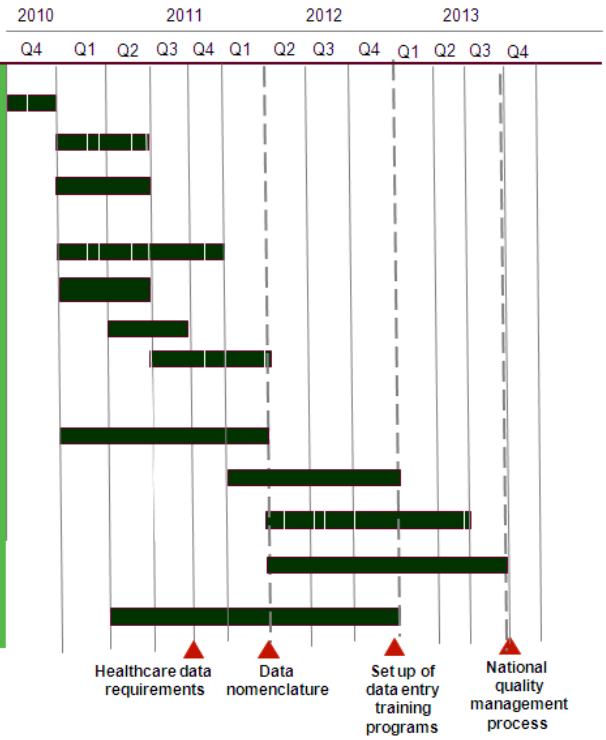
coding ▪ Establish a national quality management process for data accuracy that includes auditing ▪ Develop and implement a healthcare information privacy policy ▪ Set up disease registries for identified priority diseases	▪ National quality management process		

Key Stakeholders and Overall Management Structure	▪ SCH, HMC, and broader provider network ▪ A joint task force to implement the project	
Beneficiaries	▪ SCH, healthcare providers, policy makers, and general population	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 24 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Availability of capacity and expertise at SCH to implement the project ▪ Compliance from healthcare providers to obtain data	▪ SCH board or executive committee to ensure that project has adequate human resources ▪ Leverage SCH authority as per emiri decree to obtain data ▪ Enforce linkages to licensing and financial incentives to ensure compliance for both public and private sector providers

Implementation Plan: healthcare data project

Detailed activity steps

- Set-up a taskforce consisting of SCH,HMC and other providers
- Align key stakeholders on national data requirements
- Consider using WHO-Health Metric Network Framework (HMN) to facilitate health information system development
- Baseline existing data availability and accuracy
- Align with e-health project and other stakeholders e.g., QSA
- Define a healthcare dataset based on international best practice
- Define and disseminate data reporting requirements for providers – including regulatory and financial linkages
- Define a national nomenclature, coding standard and flow of information.
- Ensure HC providers set up adequate training for data entry and coding
- Establish national quality process for data accuracy including auditing initiatives to existing private sector players and potential investors.
- Develop and implement healthcare information privacy policy .
- Set up disease registries for identified priority diseases .



Project: 2.3 Healthcare data project				**Start Date: Q4, 2010 End Date: Q3, 2013**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Set up a task force consisting of SCH, HMC, and other providers	Q4, 2010	Q4, 2010		Task force set up
Align key stakeholders on national data requirements	Q1, 2011	Q2, 2011		National data requirements determined with alignment among key stakeholders
Consider using WHO-Health Metric Network Framework (HMN) to facilitate health information system development	Q1, 2011	Q2, 2011		WHO-Health Metric Network Framework considered for use
Provide a baseline for existing data availability and accuracy	Q1, 2011	Q4, 2011		Existing data availability and quality baselined
Align with e-health project and other stakeholders (e.g., QSA)	Q1, 2011	Q2, 2011		Alignment with other stakeholders
Define a healthcare dataset based on international best practice	Q2, 2011	Q3, 2011		Healthcare dataset defined
Define and disseminate data reporting requirements for providers—including regulatory and financial linkages	Q3, 2011	Q1, 2012		Data reporting requirements disseminated
Define a national nomenclature, coding standard, and flow of information	Q1, 2011	Q1, 2012		National coding nomenclature and information flow defined
Ensure HC providers set up adequate training for data entry and coding	Q4, 2011	Q4, 2012		Training for data entry and coding set up
Establish a national quality management process for data accuracy that includes auditing	Q1, 2012	Q2, 2013		National quality management process for data accuracy established
Develop and implement healthcare information privacy policy	Q1, 2012	Q3, 2013		Healthcare information privacy policy implemented
Set up disease registries for identified priority diseases	Q2, 2011	Q4, 2012		Disease registries for priority diseases set up
Project Achievements (What did each project activity achieve? List of achievements)				

Activity 1: Activity 2: . . . Activity n:

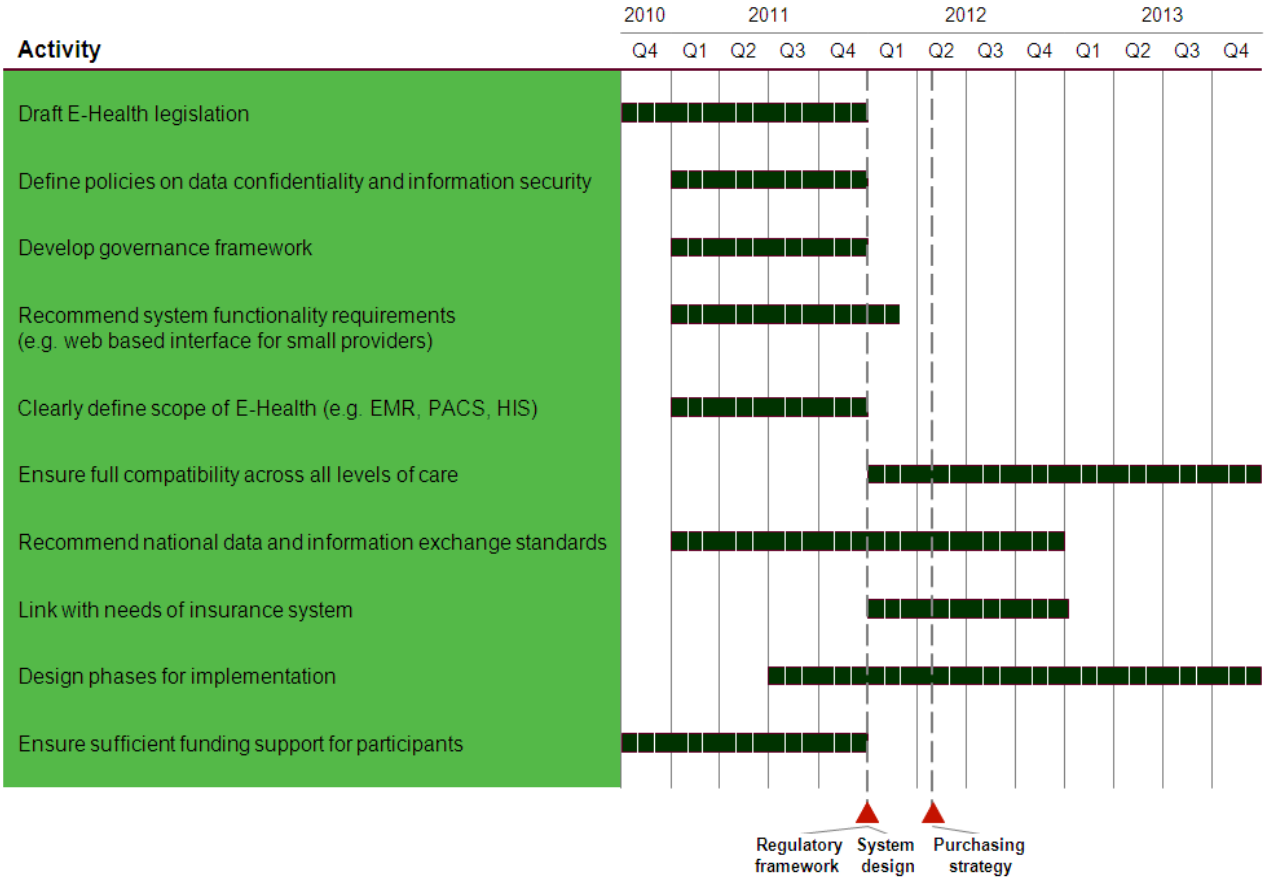
Project Name:	2.4 E-health establishment
Related QNV 2030 Goal: An integrated system of healthcare offering high-quality services through public and private institutions	
Background and Justification	▪ E-health is a critical success factor of a future healthcare system, driving quality and efficiency. ▪ E-health covers: – electronic data acquisition and processing; – electronic medical records; – electronic prescriptions; and – a health information data warehouse. ▪ Qatar has been working on e-health for the last few years. However, frequent changes in the national healthcare governance structure have led to repetitive changes and jeopardized the implementation.
Objectives/Benefits/ Outcomes	▪ Effective, integrated national e-health system ▪ Participation of all healthcare providers in Qatar ▪ National alignment for implementation
Outputs	2.4.1 Potential participation of all health service providers in Qatar 2.4.2 Dedicated governance framework 2.4.3 National standards, nomenclature, and operating protocols 2.4.4 Patient data confidentiality and information security 2.4.5 Education and training programs

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Draft e-health legislation ▪ Define policies on data confidentiality and information security ▪ Develop governance framework ▪ Recommend system functionality requirements (e.g., Web based interface for small providers) ▪ Clearly define scope of e-health (e.g., EMR, PACS, HIS) ▪ Recommend national data and information exchange standards ▪ Ensure full compatibility across all levels of care ▪ Link with needs of insurance system ▪ Design phases for implementation ▪ Ensure sufficient funding support for participants	▪ Regulatory framework ▪ System design ▪ Purchasing strategy	▪ E-health committee ▪ SCH	▪ Need capacity and technical expertise ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness ▪ Needs alignment with data, research, budgeting and insurance working groups

Key Stakeholders and Overall Management Structure	▪ SCH ▪ ICT-Qatar ▪ HMC, Sidra, PHC, and private provider
Beneficiaries	▪ Greater efficiency and effectiveness of healthcare expense in Qatar ▪ Clinical benefits to the general population through better allocation of funds
Cross-sectoral Linkages	▪ Ministry of Economy and Finance ▪ ICT-Qatar

	▪ Insurance companies	
Estimated Cost	▪ Ongoing project resource requirement not estimated	
Estimated Duration	▪ Committee recommendations ready by Q4 2010	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from other Ministries and key healthcare stakeholders ▪ Staffing capacity ▪ Missing information exchange standards ▪ Not doing it correctly form the start will cause massive additional expenditures	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Other measures addressed in the workforce capacity development program

Implementation Plan: E-health establishment



Project: 2.4 E-health establishment				**Start Date: Q4, 2010 End Date: Q4, 2013**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Draft E-health legislation	Q4, 2010	Q4, 2011		E-health legislation drafted
Define policies on data confidentiality and information security	Q1, 2011	Q4, 2011		Data confidentiality and information security policies defined
Develop governance framework	Q1, 2011	Q4, 2011		E-health governance framework developed
Recommend system functionality requirements (e.g., Web-based interface for small providers)	Q1, 2011	Feb, 2012		System functionality requirements recommended
Clearly define scope of e-health (e.g., EMR, PACS, HIS)	Q1, 2011	Q4, 2011		Scope of e-health defined
Ensure full compatibility across all levels of care through data interchange processes	Q1, 2012	Q4, 2013		Compatibility across levels of care defined
Recommend national data and information exchange standards	Q1, 2011	Q4, 2012		Data information exchange standards defined
Link with needs of insurance system	Q1, 2012	Q4, 2012		Linkages with health insurance established
Design phases for implementation	Q3, 2011	Q4, 2013		Implementation phases designed
Ensure sufficient multiyear funding support for participants	Q4, 2010	Q4, 2011		Funding for e-health implementation earmarked
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	2.5 Private sector involvement

Related QNV 2030 Goal: An integrated system of healthcare offering high-quality services through public and private institutions

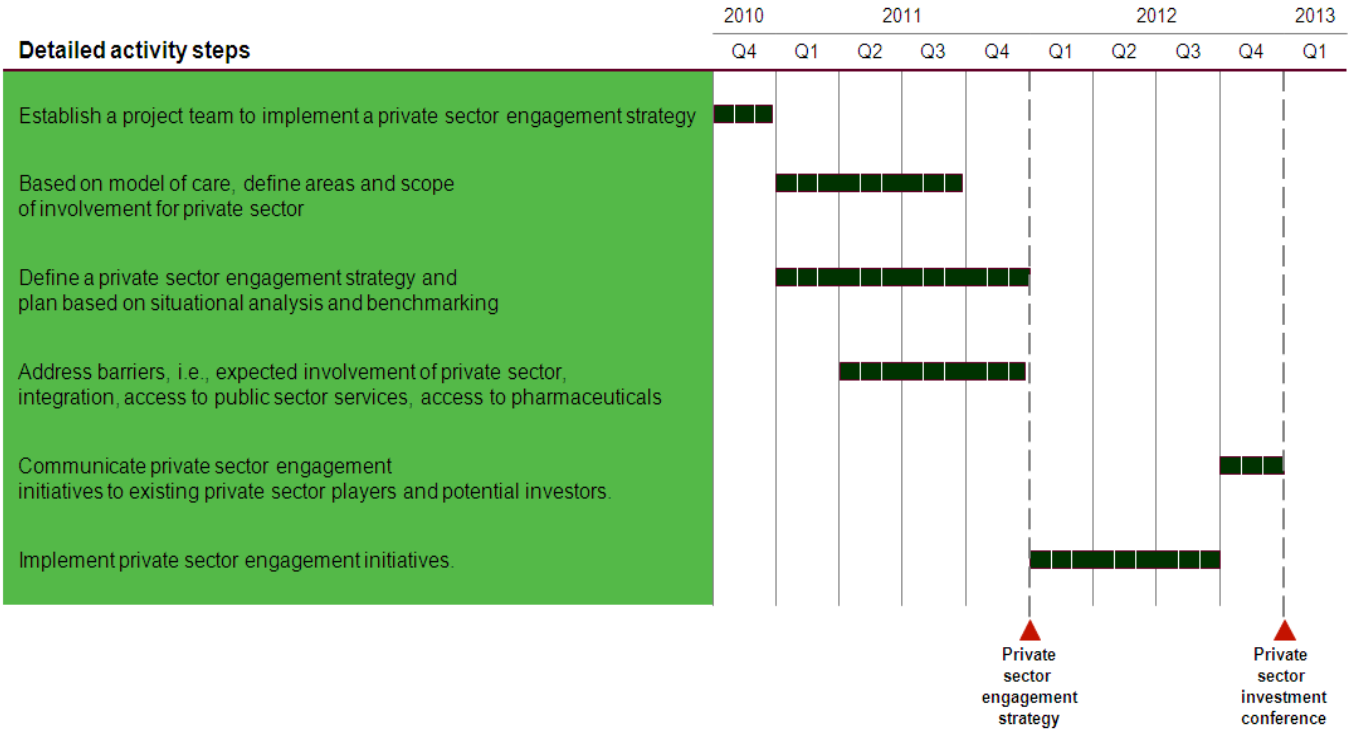
Background and Justification	▪ In Qatar, roughly 80 per cent of the acute care provisioning for healthcare services is in the public sector domain. Further, the existing provisioning is supplied largely by one provider—HMC. Healthy competition is likely to have a beneficial impact on the quality, choice, and efficiency of healthcare. There is already high-level agreement on the idea that the private sector—at all levels of health service provisioning—must be encouraged to assume more responsibility in the future. ▪ However, existing private sector providers face barriers: – Lack of a clear vision on the overall expected involvement of the private sector in delivering services – Minimal integration of information (including access to patient data) between the public and private sectors – Difficulty accessing the use of services in the public sector – No partnership in providing services between public and private organisations – Lack of clarity on a future funding model (i.e., health insurance) ▪ Qatar needs to implement a project to address these barriers and enhance the quality and level of private sector involvement.
Objectives/Benefits/ Outcomes	▪ Comprehensive strategy for private sector involvement , so that: – The quality of private sector providers is enhanced. – The private sector share of service coverage increases.
Outputs	2.5.1 Private sector engagement strategy implementation

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team to implement a private sector engagement strategy ▪ Based on the model of care, define areas and the scope of involvement for the private sector ▪ Define a private sector engagement strategy and plan based on situational analysis and benchmarking ▪ Address barriers (i.e., expected involvement of the private sector, integration, access to public sector services, access to pharmaceuticals) ▪ Communicate private sector engagement initiatives to existing private sector players and potential investors ▪ Implement private sector engagement initiatives	▪ Private sector engagement strategy ▪ Private sector investment conference	▪ SCH	▪ Need dedicated resources to work on private sector engagement

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Ministry of Economy and Finance ▪ Ministry of Business and Trade

	▪ Dedicated task force for implementation	
Beneficiaries	▪ SCH, healthcare providers, policy makers, and the general population	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ 24 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Possible lack of capacity and expertise at the SCH to implement the project	▪ Leverage the power of the SCH board or executive committee to ensure that the project has adequate human resources

Implementation Plan: Private sector involvement



Project: 2.5 Private sector involvement				**Start Date: Q4, 2010 End Date: Q4, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team to implement a private sector engagement strategy	Q4, 2010	Q4, 2011		Project team established
Based on the model of care, define areas and the scope of involvement for the private sector	Q1, 2011	Q3, 2011		Priority areas for private sector involvement defined
Develop a private sector engagement strategy and plan based on situational analysis and benchmarking	Q1, 2011	Q4, 2011		Private sector engagement strategy developed
Address barriers (i.e., expected involvement of the private sector, integration, access to public sector services, access to pharmaceuticals)	Q2, 2011	Q4, 2011		Barriers to private sector involvement addressed
Communicate private sector engagement initiatives to existing private sector players and potential investors	Q4, 2012	Q4, 2012		Private sector engagement communication campaign launched
Implement private sector engagement initiatives	Q1, 2012	Q3, 2012		Private sector engagement initiatives implemented
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

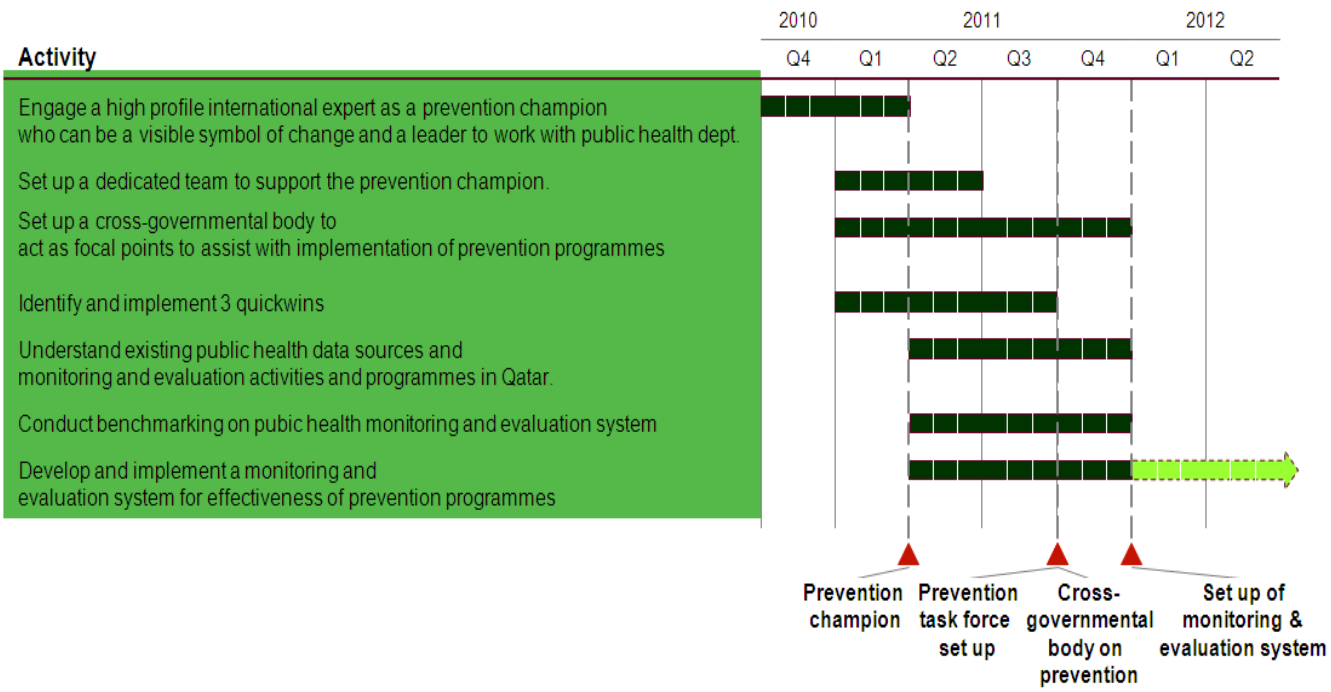
Project Name:	3.1 Public health governance
Related QNV 2030 Goal: Coverage of preventive and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Qatar's prevention efforts need to address four key strategic imperatives: – The existing curative orientation—Qatar's healthcare system is characterised by a curative approach. Transitioning to a preventive mindset will entail a significant change management effort. – Multiple-stakeholder efforts—Preventive efforts will require significant cooperation from multiple stakeholders across the government and elsewhere. – Numerous initiatives that are required—Chronic diseases are a multifactorial phenomenon, and a myriad of interventions is possible and could be considered. – Integrated priority risk reduction programs that include behavior change promotions, policy initiatives, and so forth. ▪ Additionally effectiveness of most interventions in Qatar is not known. Interventions that have been effective in other parts of the world may not result in comparable success in Qatar, given the country's unique culture and institutional context. ▪ To address these strategic imperatives, a robust public health governance system, working with the public health department in the SCH, is required.
Objectives/Benefits/ Outcomes	▪ Enhanced prevention strategy enabled by a robust governance system ▪ Outcomes: – Implementation of NDS-recommended public health programs on time – Reduction in prevalence of key risk factors
Outputs	3.1.1 Prevention champion and cross-government task force. 3.1.2 Public health evaluation system that can measure the overall status and effectiveness of individual initiatives.

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Engage a high-profile international expert as a prevention champion who can be a visible symbol of change and a leader to work with the public health department. ▪ Set up a dedicated team to support the prevention champion. ▪ Set up a cross-government body to act as focal points to assist with implementation of prevention programs ▪ Implement three quick wins (five potential examples given here): – Pictorial warnings on cigarette packs – Calorie labelling on restaurant menus – Car seats for new mothers – Updated vaccination programs for adults	▪ Prevention champion on the ground ▪ Prevention task force ▪ Cross-government body of key decision makers	▪ SCH	▪ Need public health and prevention experts ▪ Need healthcare data to be available to monitor and track effectiveness of public health initiatives

– Awareness campaigns to promote exclusive BF ▪ Understand existing public health data sources and monitoring and evaluation activities and programs in Qatar ▪ Conduct benchmarking on a public health monitoring and evaluation system ▪ Develop and implement a system to monitor and evaluate the effectiveness of the prevention programs	▪ Monitoring and evaluation system		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Include support for key stakeholder for prevention (i.e., HMC, PHC, SEC, Ministry of Interior, QP, Weill Cornell Medical College in Qatar [WCMC-Q])	
Beneficiaries	▪ General population ▪ Healthcare stakeholders	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M–20M QAR	
Estimated Duration	▪ 12 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from various healthcare stakeholders ▪ Insufficient capacity to implement public health and prevention initiatives	▪ Leverage the SCH executive committee's power to obtain collaboration from healthcare stakeholders ▪ Leverage educational institutes like WCMC-Q to provide training programs on public health (e.g., occupational health initiatives)

Implementation Plan: Public health governance



Project: 3.1 Public health governance				**Start Date: Q4, 2010** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Engage a high-profile international expert as a prevention champion who can be a visible symbol of change and a leader to work with the public health department.	Q4, 2010	Q1, 2011		High-profile international expert recruited as prevention champion
Set up a dedicated team to support the prevention champion	Q1, 2011	Q2, 2011		Team to support prevention champion in place
Set up a cross-governmental body to act as focal points to assist with implementation of prevention programs	Q1, 2011	Q4, 2011		Cross-governmental body to act as focal points established
Identify and implement 3 quick wins	Q1, 2011	Q3, 2011		Three quick wins implemented
Understand existing public health data sources and monitoring and evaluation activities and programs in Qatar	Q2, 2011	Q4, 2011		Existing health data sources and monitoring and evaluation activities mapped
Conduct benchmarking on a public health monitoring and evaluation system	Q2, 2011	Q4, 2011		Benchmarking on public health monitoring and evaluation completed
Develop and implement a system to monitor and evaluate the effectiveness of the prevention programs	Q2, 2011 Q1, 2012	Q4, 2011 Ongoing		Monitoring and evaluation system implemented
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	3.2 Nutrition and physical activity
Related QNV 2030 Goal: Coverage of preventive healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Qatar has the highest prevalence of overweight and obesity in the GCC region—considerably higher than most OECD countries. This trend toward obesity is observed in childhood. – 71 per cent of all residents are overweight (among Qataris, 75 per cent) – 32 per cent of all residents are obese or morbidly obese (among Qataris, 40 per cent) ▪ 50 per cent of Qatari males and 60 per cent of Qatari females do not undertake regular physical activity. ▪ This is a key project that targets the most prevalent risk factors in the country. ▪ It is also recommended that when implementing awareness campaigns Qatar invest resources in creating high-impact campaigns that include expensive media options like TV, internet, billboard, and print. These campaigns should be part of a continuous nutrition and physical activity program. ▪ The objective of this program is to induce behavior change, which will typically have a significant lag period before effects are observed.
Objectives/Benefits/ Outcomes	▪ Set up a comprehensive nutrition and physical activity scheme with initiatives targeted at various stakeholders and with an impact on the rate of obesity: – Reduction in prevalence of obesity and overweight – Increase in the rate of physical activity – Enhanced nutritional status, which can be measured using a composite score like the FCS (Food Consumption Score) developed by the World Food Program
Outputs	3.2.1 Health promotion in schools (link it to other projects like tobacco cessation) 3.2.2 Wellness promotion in the workplace, led by government offices with established health promotion programs 3.2.3 Media awareness campaigns for nutrition and physical activity 3.2.4 Prevention guidelines for healthcare services 3.2.5 Policies to reduce fast-food consumption 3.2.6 Government offices have established workplace health promotions 3.2.7 Promoting healthy food options (restaurants and key retail outlets)

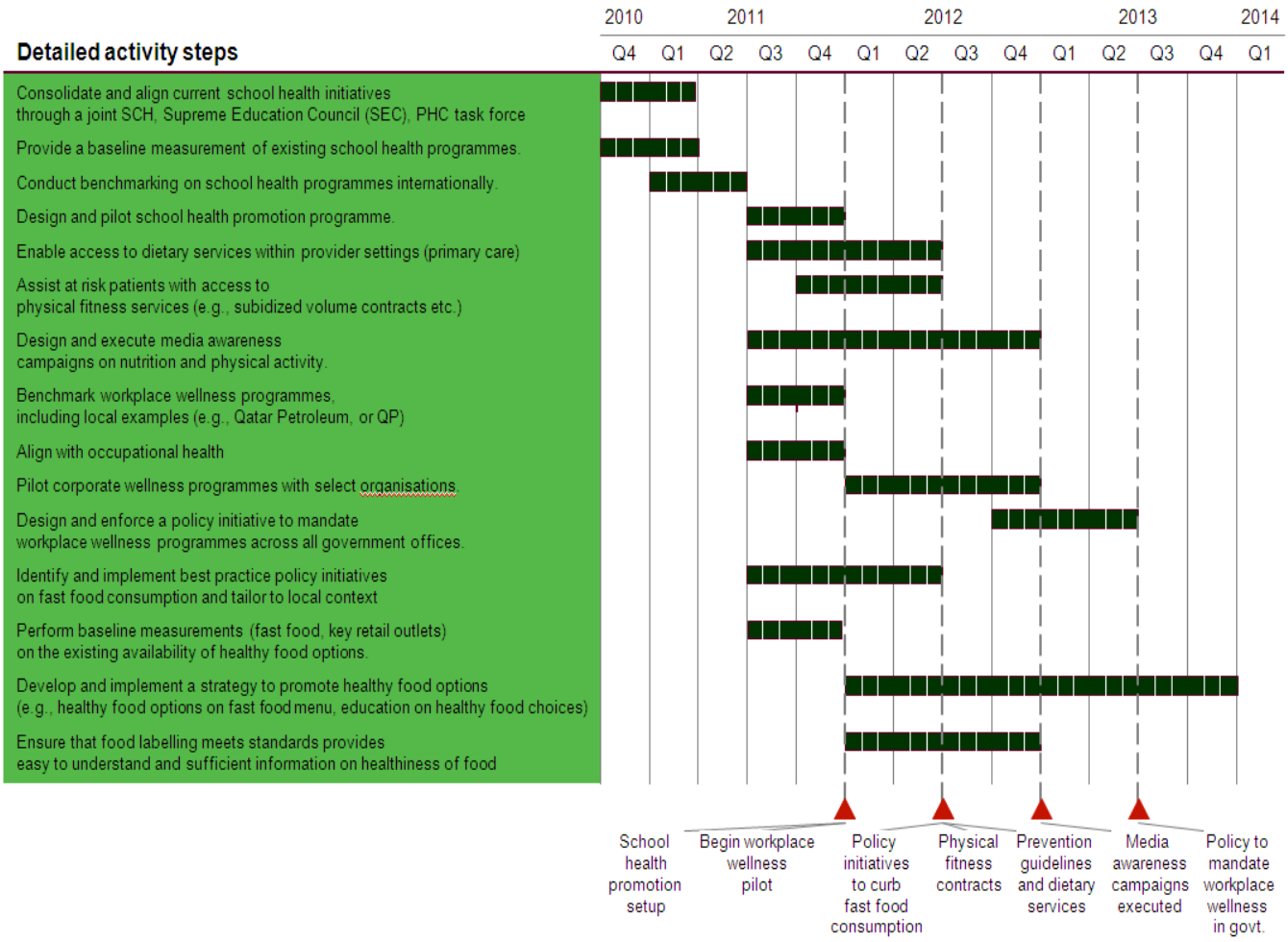
Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Consolidate and align current school health initiatives through a joint SCH, SEC, and PHC task force ▪ Provide a baseline measurement of existing school health programs ▪ Conduct benchmarking on school health programs internationally ▪ Design and pilot a school health promotion program ▪ Enable access to dietary services	▪ School health promotion set up	▪ SCH, SEC, SCFA	▪ Need public health professionals, dieticians, and nutritionists ▪ Need expertise in design and execution of public health communication campaigns

within provider settings (primary care) ▪ Assist at-risk patients with access to physical fitness services (e.g., through subsidised volume contracts) ▪ Design and execute media awareness campaigns on nutrition and physical activity ▪ Benchmark workplace wellness programs, including local examples (e.g., QP) ▪ Align with occupational health ▪ Pilot corporate wellness programs with select organisations ▪ Design and enforce a policy initiative to mandate workplace wellness programs across all government offices ▪ Identify and implement best-practice policy initiatives on fast-food consumption and tailor them to the local context ▪ Perform baseline measurements (fast food, key retail outlets) on the existing availability of healthy food options ▪ Develop and implement a strategy to promote healthy food options (e.g., healthy food options on fast-food menu, education on healthy food choices) ▪ Ensure that food labelling meets standards, are easy to understand, and provide sufficient information on the healthiness of food	▪ Prevention guidelines and dietary services ▪ Physical fitness contracts ▪ Media awareness campaigns ▪ Workplace wellness ▪ Policy to mandate workplace wellness in government. offices ▪ Policy initiatives to curb fast-food consumption	▪ SCH, PHC, HMC ▪ SCH ▪ SCH, Ministry of Labor ▪ SCH and Ministry of Municipality and Agriculture; SCH and Ministry of Business and Trade	▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness

Key Stakeholders and Overall Management Structure	▪ SCH ▪ SEC for school health promotion, with support from SCFA ▪ HMC, PHC, and other key providers to implement prevention guidelines ▪ Ministry of Labor and Occupational Health for workplace wellness promotions ▪ Ministry of Municipality and Agriculture and Ministry of Business and Trade for help with policies on fast-food consumption and access to healthy food	
Beneficiaries	▪ General population, public sector, private sector organisations, and health providers	
Cross-sectoral Linkages	▪ Education and labour	
Estimated Cost	▪ 50M+ QAR	
Estimated Duration	▪ 5 years to ensure all outputs are developed	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from other Ministries	▪ Leverage the SCH executive committee's power to obtain cross-sectoral

	and key healthcare stakeholders ▪ Lack of availability of public health expertise	collaboration ▪ Other measures addressed in the SCH capacity development program

Implementation Plan: Nutrition and physical activity project



Project: 3.2 Nutrition and physical activity				Start Date: Q4, 2010 End Date: Q4, 2013
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Consolidate and align current school health initiatives through a joint SCH, SEC, PHC task force	Q4, 2010	Q1, 2011		School health initiatives aligned
Provide a baseline measurement of existing school health programs.	Q4, 2010	Q1, 2011		Baseline of existing school health programs developed
Conduct benchmarking on school health programs internationally	Q1, 2011	Q2, 2011		Benchmarking of school health programs completed
Design and pilot a school health promotion program	Q3, 2011	Q4, 2011		School health program piloted
Enable access to dietary services within provider settings (primary care)	Q3, 2011	Q2, 2012		Dietary services within primary care established
Assist at-risk patients with access to physical fitness services (e.g., through subsidised volume contracts)	Q4, 2011	Q2, 2012		Access to physical fitness services for at-risk patients established
Design and execute media awareness campaigns on nutrition and physical activity	Q3, 2011	Q4, 2012		Media awareness campaigns on nutrition and physical activity conducted
Benchmark workplace wellness programs, including local examples (e.g., QP)	Q3, 2011	Q4, 2011		Workplace wellness programs benchmarked
Align with occupational health	Q3, 2011	Q4, 2011		Alignment with occupational health completed
Pilot corporate wellness programs with select organisations	Q1, 2011	Q4, 2012		Corporate wellness programs piloted
Design and enforce a policy initiative to mandate workplace wellness programs across all government offices	Q4, 2012	Q2, 2013		Policy to mandate workplace wellness program at all government offices enacted
Identify and implement best-practice policy initiatives on fast-food consumption and tailor them to the local context	Q3, 2011	Q2, 2012		Policies enacted to curb fast-food consumption
Perform baseline measurements (fast food, key retail outlets) on the existing availability of healthy food options	Q3, 2011	Q4, 2011		Baseline measurements of availability healthy food options conducted
Develop and implement a	Q1,	Q4,		Strategy to promote healthy

strategy to promote healthy food options (e.g., healthy food options on fast-food menu, education on healthy food choices)	2012	2013		food options implemented
Ensure that food labelling meets standards, are easy to understand, and provide sufficient information on the healthiness of food	Q1, 2012	Q4, 2012		Food labelling meets standards
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	3.3 Tobacco cessation
Related QNV 2030 Goal: Coverage of preventive healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Smoking has significant detrimental effects on society. Every year hundreds of thousands of people around the world die from diseases caused by smoking cigarettes. One in two lifetime smokers will die from the habit. Half of these deaths will occur in middle age. Tobacco smoke also contributes to a number of cancers, and is strongly linked to causing cardiovascular diseases (e.g., heart attacks, strokes, and ischemic limbs). ▪ The rate of smoking among males in Qatar is 32.7 per cent. Anecdotal evidence suggests there is increasing consumption of sheesha among both sexes.
Objectives/Benefits/ Outcomes	▪ Set up a comprehensive project to reduce tobacco consumption, including sheesha and smokeless products. ▪ Outcomes: – Reduced tobacco consumption
Outputs	3.3.1 Tobacco awareness and cessation support services that deal with smokeless products as well. 3.3.2 Services linked to school health initiatives. 3.3.3 Policies to reduce tobacco consumption: – 100 per cent smokefree venues – Adoption of Framework Convention on Tobacco Control (FTCT) guidelines – Increase in taxation on tobacco products and use funds to support health initiatives – Pictorial warnings – Restrictions on sheesha consumption – Enactment and finalisation of tobacco law (including smokeless products) – Enhanced enforcement of tobacco laws

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Develop an integrated and continuous communication plan for tobacco consumption reduction ▪ Conduct benchmarking on best practices in tobacco cessation strategies ▪ Ensure linkage with the school health initiative	▪ Integrated smoking cessation campaign	▪ SCH	▪ Need public health professionals ▪ Need expertise in antitobacco policy making ▪ Need expertise in public health communication campaign design and execution ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness ▪ Need to establish
▪ Benchmark and develop screening guidelines for healthcare providers ▪ Enable access to smoking cessation services linked to health providers (i.e., counseling and classes, medication, nicotine substitutes) ▪ Design and implement policy initiatives to reduce tobacco consumption	▪ Screening guidelines ▪ Smoking cessation services	▪ SCH, PHC, and HMC	

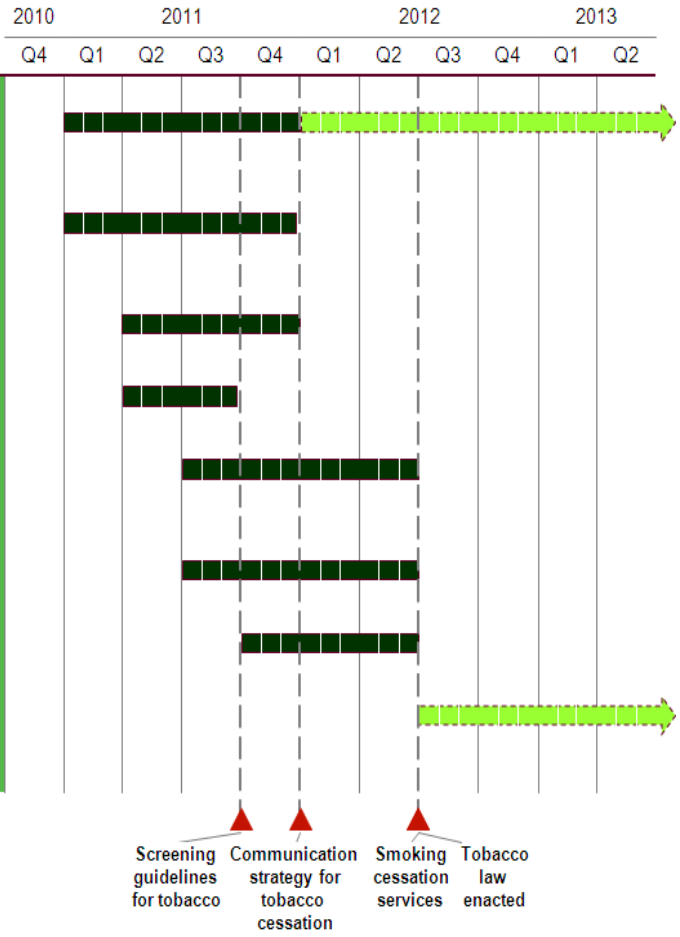
– 100 per cent smokefree venues – Adoption of FTCT guidelines – Increase in taxation on tobacco products, using funds to support health initiatives – Pictorial warnings – Restrictions on sheesha consumption ▪ Finalize and enact tobacco law ▪ Enhance enforcement of tobacco law (e.g., increase inspectors, higher penalties, loss of license)	▪ Tobacco law	▪ SCH, Ministry of Interior, Police Dept.	cross-government partnerships with various implementation partners ▪ Leverage mosques and Islamic scholars as channels ▪ Leverage PHC to provide counseling on tobacco services

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Working with HMC, PHCs and other key providers to implement screening guidelines and access to tobacco cessation services ▪ Working with the Ministry of Interior to implement policy initiatives ▪ Ministry of Business Trade ▪ Ministry of Ports and Custom Control ▪ Supreme Council of Education ▪ Dept. of Standards of Metrology ▪ Ministry of Municipality and Urban Planning	
Beneficiaries	▪ General population, smokers and consumers of tobacco, public sector and private sector organisations, health providers	
Cross-sectoral Linkages	▪ Labour	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 18 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from the Ministry of Interior to enforce the policy initiatives ▪ Insufficient availability of public health expertise	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Other measures addressed in the SCH capacity development program

Implementation Plan: Tobacco cessation

Detailed activity steps

- Develop an integrated communication strategy for tobacco cessation
- Conduct benchmarking on best practices in tobacco cessation strategies
- Ensure linkages with school health initiative
- Benchmark and develop screening guidelines for providers
- Enable access to smoking cessation services linked to health providers (i.e., counseling and classes, medication, nicotine substitutes)
- Design and implement policy initiatives to reduce tobacco consumption
- Finalise and enact tobacco law.
- Enhance enforcement of tobacco law (increase inspectors, higher penalities, loss of license etc.)



Project: 3.3 Tobacco cessation				**Start Date: Q1, 2011** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Develop an integrated and continuous communication plan for tobacco consumption reduction	Q1, 2011 Q1, 2012	Q4, 2011 Ongoing		Communication plan for tobacco consumption reduction implemented
Conduct benchmarking on best practices in tobacco cessation strategies	Q1, 2011	Q4, 2011		Benchmarking on best practices in tobacco cessation completed
Ensure linkage with the school health initiative	Q2, 2011	Q4, 2011		Linkage with school health initiative established
Benchmark and develop screening guidelines for healthcare providers	Q2, 2011	Q3, 2011		Screening guidelines for healthcare providers developed
Enable access to smoking cessation services linked to health providers (i.e., counseling and classes, medication, nicotine substitutes)	Q3, 2011	Q2, 2012		Access to smoking cessation services established
Design and implement policy initiatives to reduce tobacco consumption	Q3, 2011	Q2, 2012		Policy initiatives to reduce tobacco consumption established
Finalize and enact tobacco law	Q4, 2011	Q2, 2011		Tobacco law enacted
Enhance enforcement of tobacco law (e.g., increase inspectors, higher penalties, loss of licence)	Q3, 2012	Ongoing		Enforcement of tobacco law enhanced
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	3.4 Consanguinity risk reduction
Related QNV 2030 Goal: Coverage of preventive healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Prevalence of consanguineous marriages is high in Qatar. The current rate of consanguinity[61] is 54 per cent, the most common type being among first cousins (34.8 per cent). The consanguinity rate has increased from 41.8 per cent to 54.5 per cent in one generation. ▪ The focus of consanguinity risk reduction programs will be to make target groups aware of the health risks of consanguineous marriages. ▪ The programs and communication campaigns should be conducted in a culturally sensitive manner.
Objectives/Benefits/ Outcomes	▪ Fewer congenital defects due to consanguinity, through a comprehensive consanguinity risk reduction project, with interventions targeted at high-risk groups ▪ Outcomes: – Reduction in congenital defects due to consanguinity – Complete coverage of premarital screening for all Qatari couples by 2016
Outputs	3.4.1 Educational campaigns on consanguinity 3.4.2 Counseling to support mandatory premarital screening

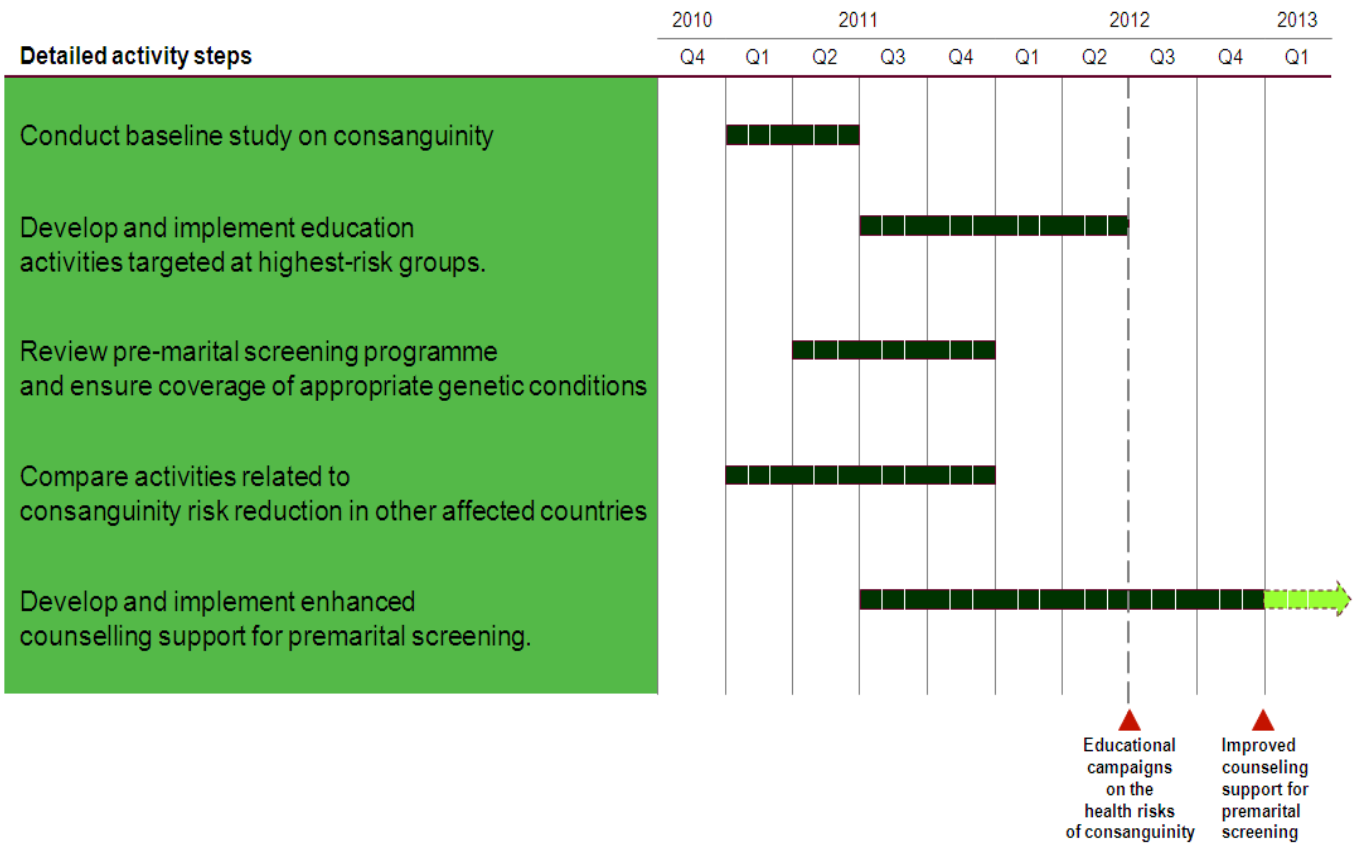
Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Conduct baseline study on consanguinity ▪ Develop and implement education activities targeted at highest-risk groups. ▪ Review premarital screening program and ensure coverage of appropriate genetic conditions ▪ Compare activities related to consanguinity risk reduction in other affected countries ▪ Develop and implement enhanced counseling support for premarital screening.	▪ Educational campaigns on the health risks of consanguinity ▪ Improved counseling support for premarital screening	▪ SCH ▪ SCH and Ministry of Interior	▪ Need expertise in public health communication campaign design and execution ▪ Need expertise in implementing the monitoring and evaluation system to track the project's effectiveness

Key Stakeholders and Overall Management Structure	▪ SCH, PHC
Beneficiaries	▪ General population, health providers
Cross-sectoral Linkages	▪ Caring and Cohesive Society
Estimated Cost	▪ <10M QAR
Estimated Duration	▪ 15 months—programs running by Q1 2011

[61] Bener, Abdulbari, and Alali, Khalid A. "Consanguineous Marriage in a Newly Developed Country: The Qatari Population."

Risk and Mitigation Measures	Risks	Mitigation Measures
	▪ Lack of cooperation from Ministry of Interior to enforce mandatory premarital screening	▪ Leverage the SCH executive committee's power to obtain collaboration from the Ministry of Interior

Implementation Plan: Consanguinity risk reduction project



Project: 3.4 Consanguinity risk reduction				**Start Date: Q1, 2011** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Conduct baseline study on consanguinity	Q1, 2011	Q2, 2011		Study on consanguinity conducted
Develop and implement education activities targeted at highest-risk groups	Q3, 2011	Q2, 2012		Education activities targeted at high-risk groups implemented
Review premarital screening program and ensure coverage of appropriate genetic conditions	Q2, 2011	Q4, 2011		Premarital screening program reviewed and updated as appropriate
Compare activities related to consanguinity risk reduction in other affected countries	Q1, 2011	Q4, 2011		Comparison of consanguinity risk reduction activities in other countries completed
Develop and implement enhanced counseling support for premarital screening	Q3, 2011 Q1, 2013	Q4, 2012 Ongoing		Enhanced counseling support for premarital screening in place
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . .Activity n:				

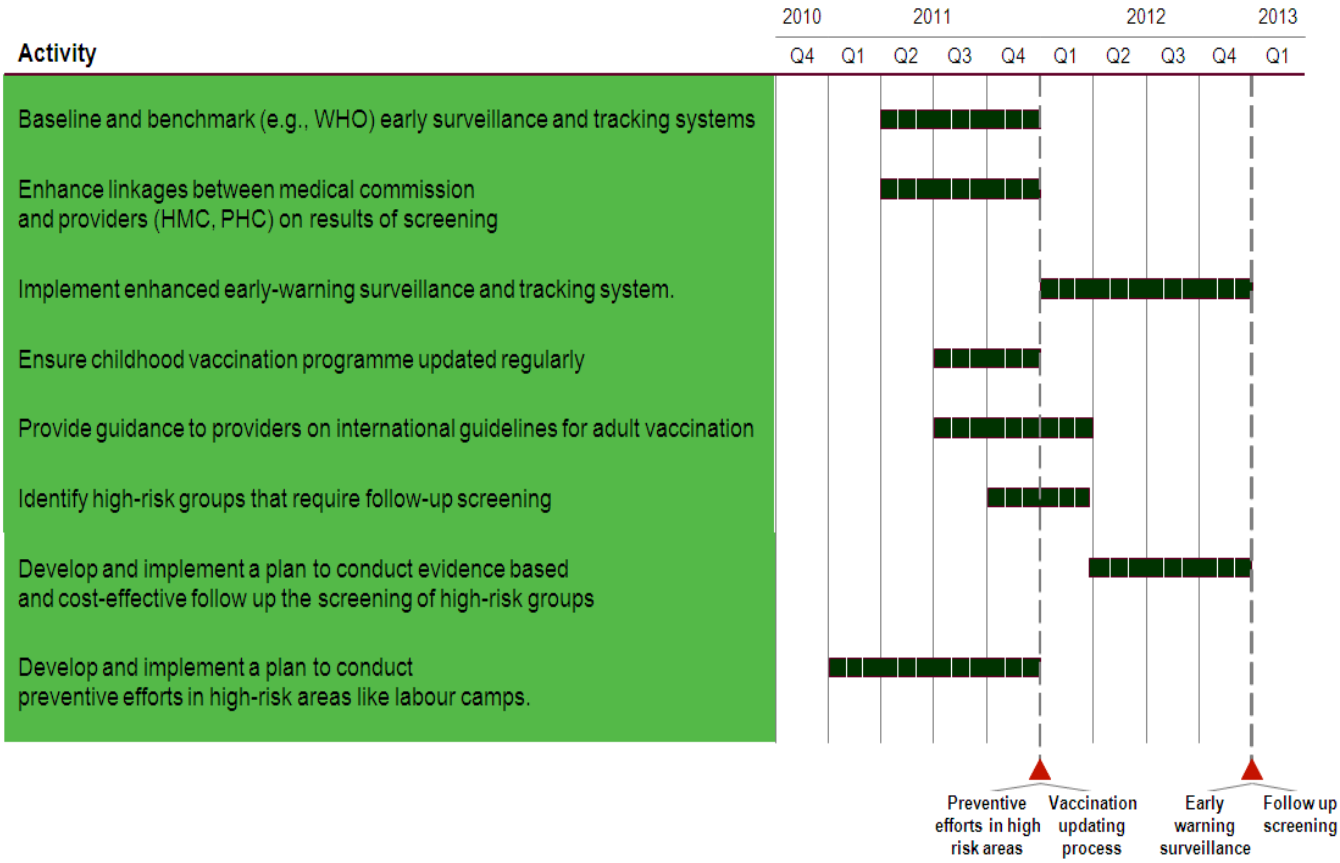
Project Name:	3.5 Communicable disease prevention
Related QNV 2030 Goal: Coverage of preventive healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Although the prevalence of communicable diseases in Qatar is low among Qataris, the threat of communicable illnesses (e.g., TB) is prominent. This is due to the large migrant male worker population as well as their associated living conditions. Qatar's existing process of screening all incoming workers for communicable diseases helps prevent outbreaks. However, Qatar needs to be vigilant about this threat and implement a comprehensive communicable disease prevention project.
Objectives/Benefits/ Outcomes	▪ Decreased rate of communicable diseases ▪ A comprehensive communicable disease prevention program ▪ Outcomes: – Reduced prevalence of communicable diseases
Outputs	3.5.1 Early-warning surveillance and tracking system 3.5.2 Process to update the existing vaccination program for children and adults 3.5.3 Communicable disease prevention efforts in high-risk areas (e.g., labour camps) 3.5.4 Follow-up screening of high-risk groups (e.g., high-contact job categories like nurses and barbers).

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Provide baseline and benchmark (e.g., WHO) for early surveillance and tracking systems ▪ Enhance linkages between medical commission and providers (HMC, PHC) on the results of screening ▪ Implement an enhanced early-warning surveillance and tracking system ▪ Ensure that the childhood vaccination program is updated regularly	▪ Early warning surveillance and tracking systems for high-priority diseases	▪ SCH, HMC, PHC, Ministry of Labor, medical commis-sion	▪ Need expertise in communicable disease prevention ▪ Need the capacity to conduct preventive efforts in Qatar's large labour population
▪ Give guidance to providers regarding international guidelines for adult vaccination ▪ Identify high-risk groups that require follow-up screening ▪ Develop and implement a plan to conduct evidence-based and cost-effective follow-up screening of high-risk groups ▪ Develop and implement a plan to conduct preventive efforts in high-risk areas like labour camps	▪ Process to update vaccination program ▪ Follow-up screening of high-risk groups ▪ Preventive efforts in high-risk areas	▪ SCH, PHC, HMC SCH and Medical Commis-sion ▪ SCH, PHC, Ministry of Labor	

Key Stakeholders and	▪ SCH, PHC, HMC, Department of Labor, Medical Commission

Overall Management Structure		
Beneficiaries	▪ General population, health providers	
Cross-sectoral Linkages	▪ Labour	
Estimated Cost	▪ 10M-50M QAR	
Estimated Duration	▪ Duration: 12 months ▪ Program operational by Q4 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation between Ministry of Labor and the SCH	▪ Leverage the SCH executive committee's power to obtain collaboration from the Ministry of Labor

Implementation Plan: Communicable disease prevention project



Project: 3.5 Communicable disease prevention				Start Date: Q1, 2011 End Date: Q4, 2012
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Provide baseline and benchmark (e.g., WHO) for early surveillance and tracking systems	Q2, 2011	Q4, 2011		Early surveillance and tracking systems baselined and benchmarked
Enhance linkages between medical commission and providers (HMC, PHC) on results of screening	Q2, 2011	Q4, 2012		Linkages between medical commission and PHC and HMC strengthened
Implement an enhanced early-warning surveillance and tracking system	Q1, 2012	Q4, 2013		Enhanced early-warning surveillance and tracking system implemented
Ensure that the childhood vaccination program is updated regularly	Q3, 2011	Q4, 2011		Process to review and update childhood vaccination program implemented
Give guidance to providers on international guidelines for adult vaccination	Q3, 2011	Q1, 2012		Guidance on adult vaccination issued
Identify high-risk groups that require follow-up screening	Q4, 2011	Q1, 2012		High-risk groups identified for follow-up screening
Develop and implement a plan to conduct evidence-based and cost-effective follow-up screening of high-risk groups	Q2, 2012	Q4, 2012		Plan for follow-up screening developed
Develop and implement a plan to conduct	Q1, 2011	Q4, 2011		Preventive efforts in high-risk areas like labour camps conducted

preventive efforts in high-risk areas like labour camps.				
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

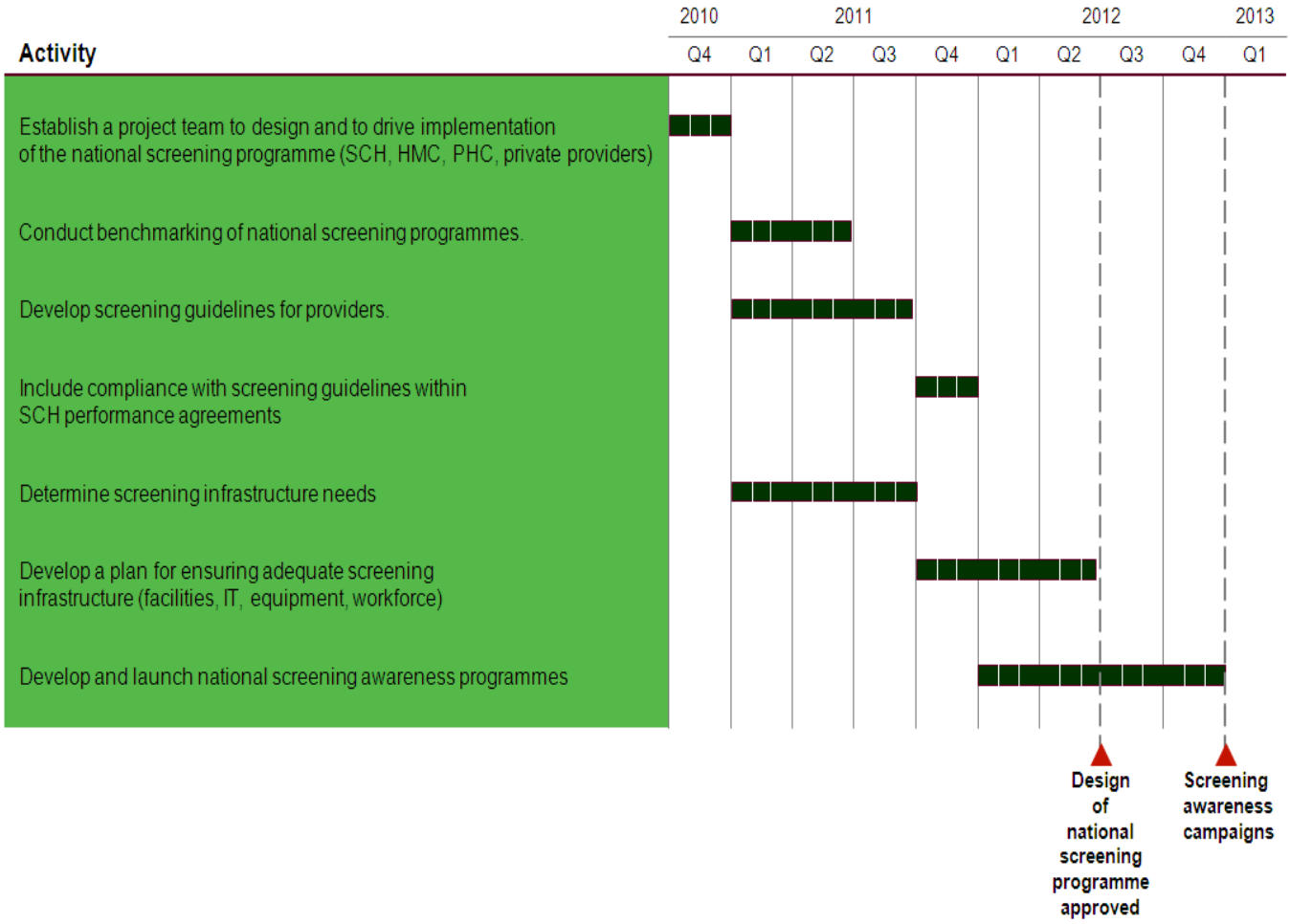
Project Name:	3.6 National screening program
Related QNV 2030 Goal: Coverage of preventive healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ A sizable body of evidence shows that appropriate screening has a marked effect on clinical outcomes, as it allows for early detection of diseases and therefore the opportunity of early treatment. ▪ Chronic diseases typically are characterised by a long preclinical phase as well as the potential for an improved outcome with early treatment. The early treatment of diseases results not only in improved outcomes but also in lower healthcare costs. To that end it is recommended that Qatar put into effect a targeted screening process for the key chronic diseases. ▪ The most important components of the screening program would be: – screening tests chosen through evidence-based practice guidelines; – the targeting of risk groups for different classes of diseases; – dissemination of screening guidelines (e.g., the Royal Australian College of General Practitioners' "Green Book," *Putting Prevention into Practice: Guidelines for the Implementation of Prevention in the General Practice Setting*); – ensuring an adequate number of screening facilities through a network of dedicated, accredited screening and assessment units; – ensuring that screening is conducted in an ethical manner; and – linking with a health insurance system through appropriate checks and balances (i.e., restricting the practice of "cherry picking"), while making certain that incentives exist for preventive visits and tests and that these are covered by health insurance.
Objectives/Benefits/ Outcomes	▪ Develop a national screening program: – Target the priority risk factors and chronic diseases (diabetes, cardiovascular illnesses, breast cancer) – Link with the nutrition and physical activity project and the tobacco cessation project – Use evidence-based and ethical screening with age- and gender-specific guidelines – Establish KPIs on screening practices to be reported through the performance agreements – Implement screening awareness programs – Provide adequate screening facilities (enhance the current screening infrastructure and consider adding dedicated and accredited screening units) – Start with priority areas and expand as appropriate to include other diseases ▪ Outcomes: – Higher percentage of people in target groups screened – Increased early detection (e.g., for stage 1 breast cancer)
Outputs	3.6.1 National screening program and infrastructure (facilities, IT, equipment, workforce) 3.6.2 Screening guidelines for providers (guidelines, KPIs, performance agreements)

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team to design		▪ SCH,	▪ Need expertise

and drive implementation of the national screening program (SCH, HMC, PHC, private providers) ▪ Conduct benchmarking of national screening programs ▪ Develop screening guidelines for providers ▪ Include compliance with screening guidelines within SCH performance agreements ▪ Determine screening infrastructure needs ▪ Develop a plan for ensuring adequate screening infrastructure (facilities, IT, equipment, workforce) – Consider telescreening, mobile units, standalone screening centers ▪ Develop and launch national screening awareness programs	▪ National screening program launched	HMC, PHC	in designing a screening program ▪ Need the capacity to conduct screenings at the national level

Key Stakeholders and Overall Management Structure	▪ SCH, PHC, HMC	
Beneficiaries	▪ General population, health providers	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ Duration: 2–3 years ▪ Operational by Q4 2012	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Inability to obtain resources to implement national screening program	▪ Leverage the SCH executive committee's power to allocate appropriate resources

Implementation Plan: National screening programme



Project: 3.6 National screening program				**Start Date: Q4, 2010** **End Date: Q4, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team to design and drive implementation of the national screening program (SCH, HMC, PHC, private providers)	Q4, 2010	Q1, 2011		Project team established
Conduct benchmarking of national screening programs	Q1, 2011	Q2, 2011		National screening programs benchmarked
Develop screening guidelines for providers	Q1, 2011	Q3, 2011		Screening guidelines for providers developed
Include compliance with screening guidelines within SCH performance agreements	Q4, 2011	Q4, 2011		Compliance with screening guidelines incorporated in performance agreements
Determine screening infrastructure needs	Q1, 2011	Q3, 2011		Screening infrastructure needs determined
Develop a plan for ensuring adequate screening infrastructure (facilities, IT, equipment, workforce)	Q4, 2011	Q2, 2012		Plan for adequate screening infrastructure developed
Develop and launch national screening awareness programs	Q1, 2012	Q4, 2012		National screening awareness program launched
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . Activity n:				

Project Name:	3.7 Occupational health

Related QNV 2030 Goal: Coverage of preventive and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children

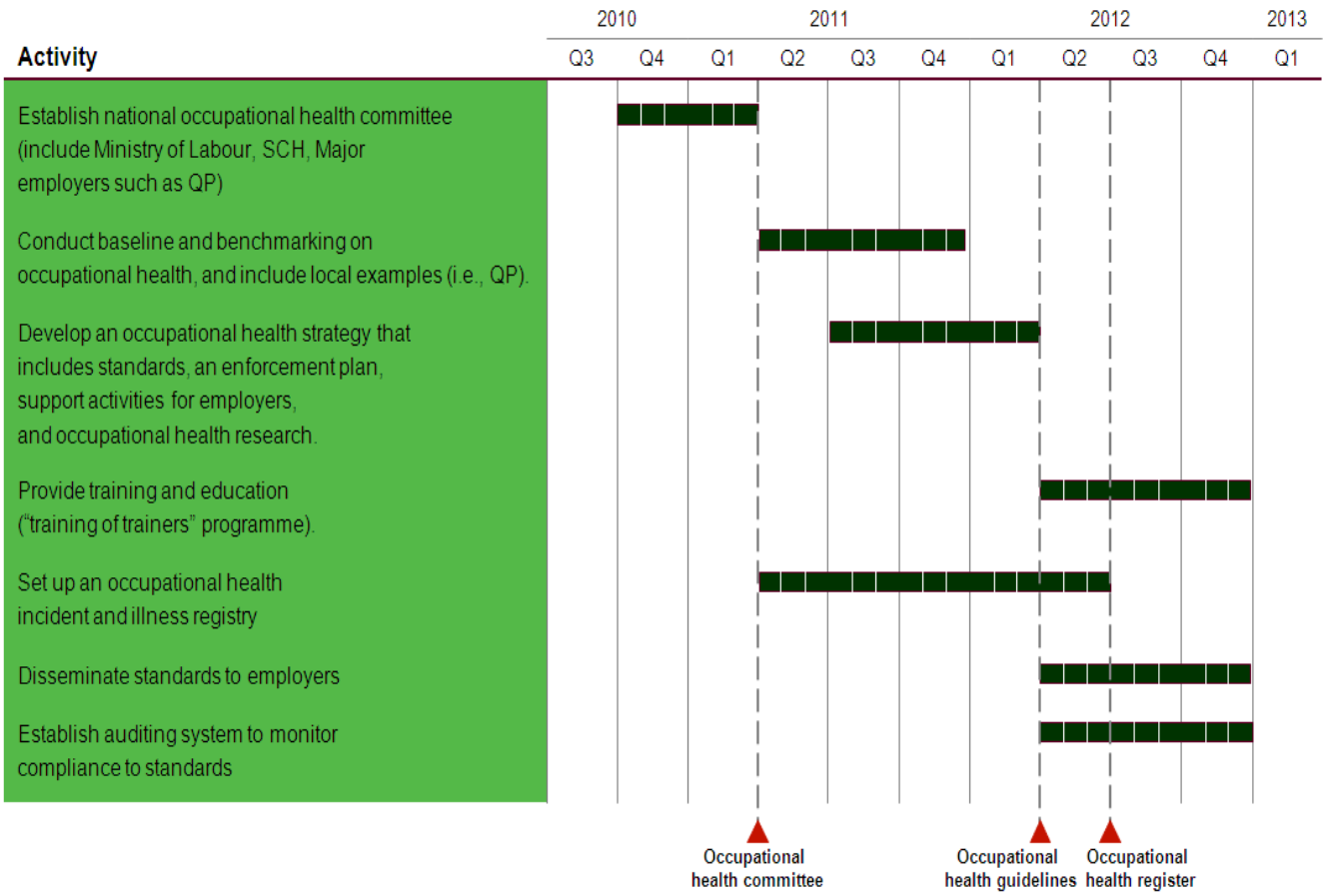
Background and Justification	▪ Qatar faces occupational health challenges on two fronts: 1. Qatar's vast population of male labourers, primarily in the construction industry, have limited access to healthcare services and also operate in hazardous environments. Workplace injuries are the third-highest cause of accidental deaths in Qatar. 2. Providing adequate occupational health standards for all working environments (e.g., offices, retail, oil and gas). ▪ As yet, Qatar does not have national occupational health standards or guidelines. ▪ The SCH should raise the profile of occupational health (e.g., consider making occupational health a separate department) given the importance of the issue.
Objectives/Benefits/ Outcomes	▪ Improve workplace conditions across all sectors with a focus on health and safety. ▪ Set up an occupational health committee that develops, implements, and enforces occupational health standards. ▪ Outcomes: – A reduction in workplace injuries – Increased adherence to occupational health laws and standards, including those mandating access to healthcare services – Increased capacity for occupational health
Outputs	3.7.1 Occupational health committee and standards on occupational health 3.7.2 Training and education for general practitioners on occupational health 3.7.3 Training to employers on appropriate workplace conditions

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a national occupational health committee (include Ministry of Labor, SCH, major employers such as QP) ▪ Conduct baseline and benchmarking on occupational health, and include local examples (i.e., QP) ▪ Develop an occupational health strategy that includes standards, an enforcement plan, support activities for employers, and occupational health research ▪ Provide training and education (a "training of trainers" program) ▪ Set up an occupational health incident and illness registry ▪ Disseminate standards to employers ▪ Establish an auditing system to monitor compliance to standards	▪ Occupational health committee ▪ Occupational health guidelines ▪ Occupational health register	▪ SCH, Ministry of Labor, QP	▪ Need occupational health experts ▪ Need capacity to enforce and monitor guidelines ▪ PHC general practitioners and nurses need to be educated in occupational medicine to deal with occupational health issues

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Ministry of Labor

Beneficiaries	▪ Public sector and private sector organisations, SCH, and general population	
Cross-sectoral Linkages	▪ Labour	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 36 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of capacity to enforce standards (both at Ministry of Labor and the SCH)	▪ Leverage the SCH executive committee's power to obtain collaboration from the Ministry of Labor

Implementation Plan: Occupational health



Project: 3.7 Occupational health				**Start Date: Q4, 2010 End Date: Q4, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish national occupational health committee (include Ministry of Labor, SCH, major employers such as QP)	Q4, 2010	Q1, 2011		National occupation health committee established
Conduct baseline and benchmarking on occupational health, and include local examples (i.e., QP)	Q2, 2011	Q4, 2011		Baseline and benchmarking on occupational health conducted
Develop an occupational health strategy that includes standards, an enforcement plan, support activities for employers, and occupational health research	Q3, 2011	Q1, 2012		Occupational health strategy developed
Provide training and education (a “training of trainers” program)	Q2, 2012	Q4, 2012		Training for “trainers” on occupational health launched
Set up an occupational health incident and illness registry	Q2, 2011	Q2, 2012		Occupational health incident and registry set up
Disseminate standards to employers	Q2, 2012	Q4, 2012		Occupational health standards disseminated to employers
Establish an auditing system to monitor compliance to standards	Q2, 2012	Q4, 2012		Auditing system for occupational health established
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . Activity n:				

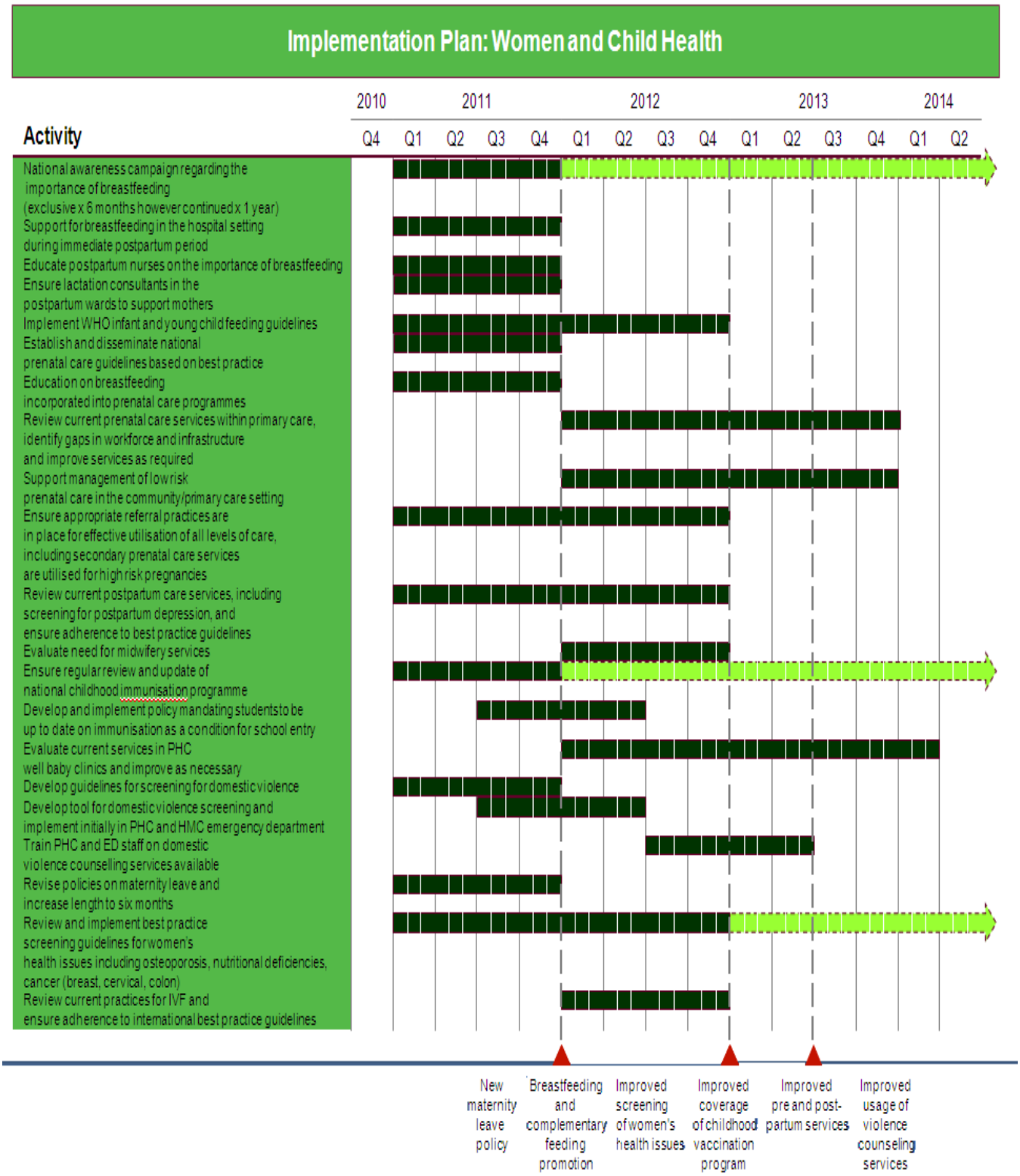
Project Name:	3.8 Women and child health
Related QNV 2030 Goal: Coverage of preventive and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ Gender-related differences in health concern not only reproductive health but also many other differences related differences in social and economic context, as well as differences in prevalence of diseases and risk factors. The world's advanced healthcare systems have recognized the specific needs of women's health and have developed holistic women's health programs. In Qatar, however, there is no comprehensive study on the status of women's health. Qatar needs a program to determine priority areas in women's health (e.g., postpartum depression, screening for gender-specific diseases, health issues due to domestic violence)—issues that are often highlighted by WHO globally and in the region. ▪ Qatar also needs to promote exclusive BF, enhance prenatal care services, and improve childhood vaccination to continue to make progress on child health indicators. ▪ Exclusive BF for the first six months of life is one of the most critical interventions for child nutrition and survival: – It delivers the best nutrition and protection against many infectious diseases for infants and helps prevent chronic diseases later in life. – Failure to breast-feed immediately and exclusively until age 6 months leads annually to 1.4 million deaths (12 per cent to 15 per cent of under-5 deaths) and 43.5 million DALYs (10 per cent of global under-5 DALYs and 3 per cent of total DALYs). – Children in disease-ridden and unhygienic environments who are not breast-fed are six to 25 times more likely to die of diarrhea and four times more likely to die of pneumonia than those who are breast-fed. ▪ Proper complementary feeding from age 6 to 24 months is an equally critical element of infant and child feeding: – It is a critical driver of proper physical and cognitive development. – It prevents stunting in the first two years of life, thereby avoiding irreversible, lifelong damage. – It merits as much attention—often at the same time—as BF.
Objectives/ Benefits/ Outcomes	▪ Improved health of newborn, infants, and children ▪ Improved health of women, with a focus on targeted areas of need ▪ Outcomes – A higher percentage of infants exclusively breast-fed for the first six months – An enhanced prenatal care system focusing on appropriate prenatal care and guidance: – Nutrition training and vitamin supplementation – Prenatal screening and testing – Suitable prenatal services provided in the community for low-risk pregnancies, with appropriate referral to secondary care – Increased effective utilization of secondary prenatal services, concentrating on higher-risk pregnancies – Enhanced postpartum care services, including evaluation and treatment for postpartum depression – Nutrition guidelines for newborns, infants, and children – A regularly updated and implemented childhood immunization program – Enhanced screening for domestic violence

	– Appropriate policy to support maternal and child health initiatives – Enhanced screening programs for women
Outputs	3.8.1 Exclusive BF and complementary feeding education program 3.8.2 Enhancement of prenatal care services 3.8.3 Improved postpartum services 3.8.4 Maintained childhood vaccination coverage 3.8.5 Domestic violence victim support services available 3.8.6 Maternity leave policy reviewed and revised 3.8.7 Women's health screening program

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Launch a national awareness campaign regarding the importance of BF (exclusive BF for six months, but continued for one year) ▪ Support BF in the hospital setting during the immediate postpartum period ▪ Educate postpartum nurses on the importance of BF ▪ Ensure the presence of lactation consultants in the postpartum wards to support mothers ▪ Implement WHO infant and young child feeding guidelines ▪ Establish and disseminate national prenatal care guidelines based on best practice ▪ Incorporate education on BF into prenatal care programs ▪ Review current prenatal care services within primary care, identify gaps in workforce and infrastructure, and improve services as required ▪ Support management of low-risk prenatal care in the community or primary care setting ▪ Certify that appropriate referral practices are in place for effective utilization of all levels of care, including secondary prenatal care services being used for high-risk pregnancies ▪ Review current postpartum care services, including screening for postpartum depression, and ensure adherence to best practice guidelines ▪ Evaluate the need for midwifery services ▪ Ensure regular review and update of the national childhood immunization program ▪ Develop and implement a policy mandating that students be up-to-date on	▪ BF and complemen-tary feeding promotion ▪ Improved prenatal and postpartu m services ▪ Improved coverage of childhood vaccination program (number of children	▪ SCH ▪ HMC and private hospitals ▪ SCH	

immunization as a condition for school entry ▪ Evaluate current services in PHC well-baby clinics and improve as necessary ▪ Develop guidelines for screening for domestic violence ▪ Develop a tool for domestic violence screening and implement it initially in PHCs and the HMC emergency department ▪ Train PHC and emergency department staff on domestic violence counseling services available ▪ Revise policies on maternity leave and increase its length to six months ▪ Review and implement best-practice screening guidelines for women's health issues, including osteoporosis, nutritional deficiencies, cancer (breast, cervical, colon) ▪ Review current practices for IVF and ensure adherence to international best-practice guidelines	and types of vaccines) ▪ Increased utilization of domestic violence counseling services ▪ New maternity leave policy ▪ Improved screening of women's health issues		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ PHC ▪ HMC ▪ SCFA ▪ Ministry of Interior (domestic violence) ▪	
Beneficiaries	▪ General population	
Cross-sectoral Linkages	▪ Caring and Cohesive Society	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 36 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from various government stakeholders	▪ Leverage the SCH executive committee's power to obtain collaboration


Implementation Plan: Women and Child Health
2010
2011
2012
2013
2014
Activity
Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2
National awareness campaign regarding the importance of breastfeeding (exclusive x 6 months however continued x 1 year)
Support for breastfeeding in the hospital setting during immediate postpartum period
Educate postpartum nurses on the importance of breastfeeding
Ensure lactation consultants in the postpartum wards to support mothers
Implement WHO infant and young child feeding guidelines
Establish and disseminate national prenatal care guidelines based on best practice
Education on breastfeeding incorporated into prenatal care programmes
Review current prenatal care services within primary care, identify gaps in workforce and infrastructure and improve services as required
Support management of low risk prenatal care in the community/primary care setting
Ensure appropriate referral practices are in place for effective utilisation of all levels of care, including secondary prenatal care services are utilised for high risk pregnancies
Review current postpartum care services, including screening for postpartum depression, and ensure adherence to best practice guidelines
Evaluate need for midwifery services
Ensure regular review and update of national childhood immunisation programme
Develop and implement policy mandating students to be up to date on immunisation as a condition for school entry
Evaluate current services in PHC well baby clinics and improve as necessary
Develop guidelines for screening for domestic violence
Develop tool for domestic violence screening and implement initially in PHC and HMC emergency department
Train PHC and ED staff on domestic violence counselling services available
Revise policies on maternity leave and increase length to six months
Review and implement best practice screening guidelines for women's health issues including osteoporosis, nutritional deficiencies, cancer (breast, cervical, colon)
Review current practices for IVF and ensure adherence to international best practice guidelines
New maternity leave policy
Breastfeeding and complementary feeding promotion
Improved screening of women's health issues
Improved coverage of childhood vaccination program
Improved pre and post-partum services
Improved usage of violence counseling services

Project: 3.8 Women and child health				Start Date: Q1, 2011 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Launch national awareness campaign regarding the importance of BF (exclusive BF for six months, but continued for one year)	Q1, 2011 Q1, 2012	Q4, 2011 Ongoing		BF promotion campaign launched
Support for BF in the hospital setting during the immediate postpartum period	Q1, 2011	Q4, 2011		BF promotion in hospital settings established
Educate postpartum nurses on the importance of BF	Q1, 2011	Q4, 2011		Postpartum nurses trained on the importance of BF
Ensure the presence of lactation consultants in the postpartum wards to support mothers	Q1, 2011	Q4, 2011		Lactation consultants in postpartum wards available
Implement WHO infant and young child feeding guidelines	Q1, 2011	Q4, 2012		WHO infant and young child feeding guidelines implemented
Establish and disseminate national prenatal care guidelines based on best practice	Q1, 2011	Q4, 2011		National prenatal care guidelines based on best practice established
Incorporate education on BF into prenatal care programs	Q1, 2011	Q4, 2011		BF education incorporated into prenatal programs
Review current prenatal care services within primary care, identify gaps in workforce and infrastructure, and improve services as required	Q1, 2012	Q4, 2013		Current primary care prenatal care services reviewed and gaps identified
Support management of low-risk prenatal care in	Q1, 2012	Q4, 2013		Low-risk prenatal care provided in community and primary care setting

the community or primary care setting				
Certify that appropriate referral practices are in place for effective utilization of all levels of care, including secondary prenatal care services being used for high-risk pregnancies	Q1, 2011	Q4, 2012		Referral practices to ensure appropriate care for prenatal care services established
Review current postpartum care services, including screening for postpartum depression, and ensure adherence to best-practice guidelines	Q1, 2011	Q4, 2012		Current postpartum care services established
Evaluate need for midwifery services	Q1, 2012	Q4, 2012		Need for midwifery services evaluated
Ensure regular review and update of national childhood immunization program	Q1, 2011 Q1, 2012	Q4, 2011 Ongoing		Process for review and update of national childhood immunization program implemented
Develop and implement a policy mandating that students be up-to-date on immunization as a condition for school entry	Q3, 2011	Q2, 2012		Policy to mandate students to be up-to-data on immunization implemented
Evaluate current services in PHC well- baby clinics and improve as necessary	Q1, 2012	Q1, 2014		Current services in PHC well-baby clinics evaluated and improved
Develop guidelines for screening for domestic violence	Q1, 2011	Q4, 2011		Guidelines to screen for domestic violence developed
Develop a tool for domestic violence screening and implement it initially	Q3, 2011	Q2, 2012		Tool for screening for domestic violence implemented at PHC and HMC emergency

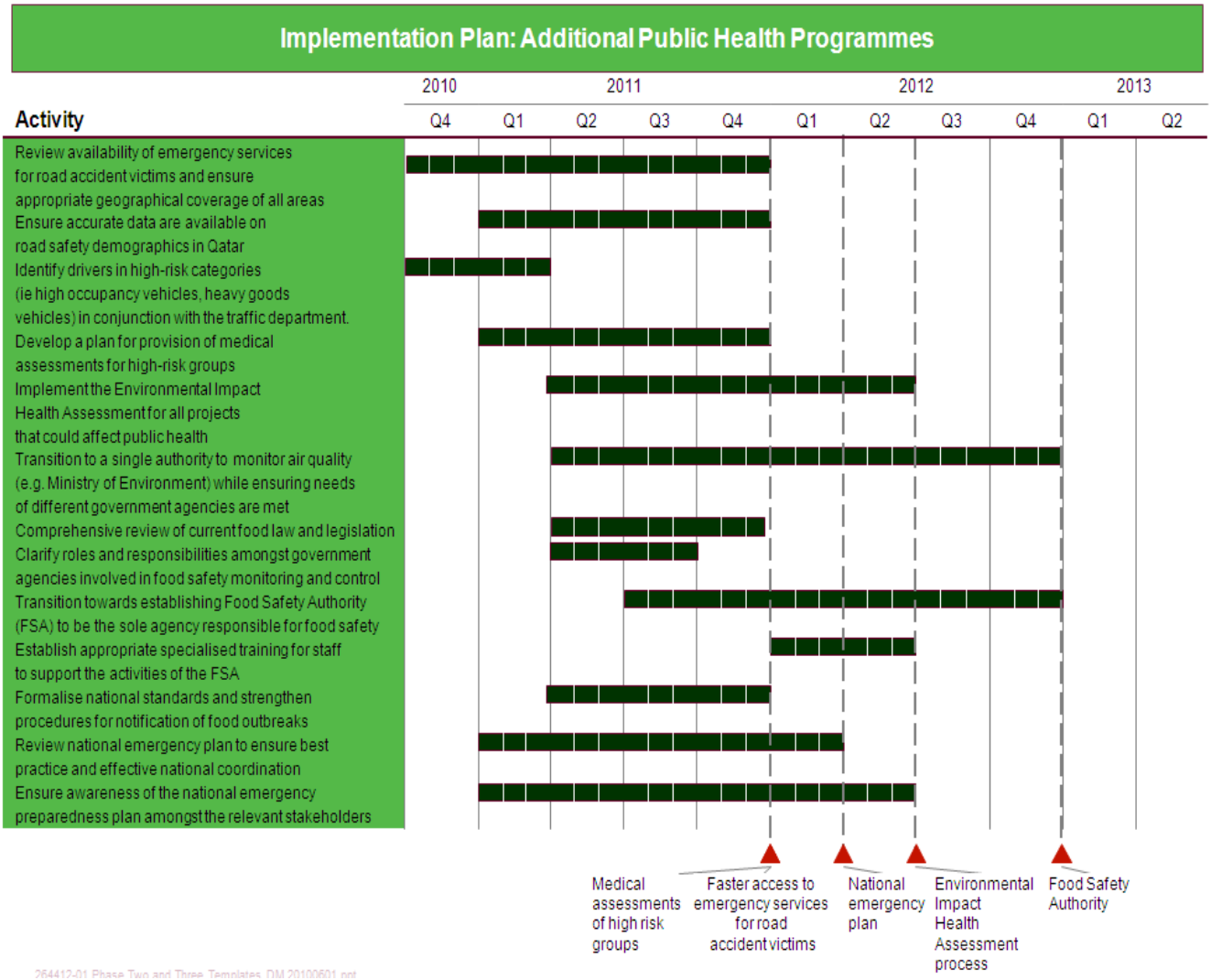
in PHCs and the HMC emergency department				department
Train PHC and emergency department staff on the domestic violence counseling services available	Q3, 2012	Q2, 2013		PHC and emergency department staff trained on domestic violence counseling services available
Revise policies on maternity leave and increase its length to six months	Q1, 2011	Q4, 2011		Policies on maternity leave reviewed and length of maternity leave extended to six months
Review and implement best-practice screening guidelines for women's health issues, including osteoporosis, nutritional deficiencies, cancer (breast, cervical, colon)	Q1, 2011 Q1, 2013	Q4, 2012 Ongoing		Best-practice screening guidelines for women's health implemented
Review current practices for IVF and ensure adherence to international best-practice guidelines	Q1, 2012	Q4, 2012		Current practices for IVF reviewed
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	3.9 Additional public health programs
Related QNV 2030 Goal: Coverage of preventive and curative healthcare, both physical and mental, taking into account the differing needs of men, women, and children	
Background and Justification	▪ In select public health areas where services are currently overlapping among multiple stakeholders, the SCH needs to work actively to improve coordination with other government bodies and ensure there are no gaps in services.
Objectives/ Benefits/ Outcomes	▪ Road safety – Ensure appropriate access to emergency medical services – Require certification of medical fitness for commercial drivers ▪ Food safety – Transition to a single agency for food safety (FSA) ▪ Emergency preparedness – Enhance coordination among stakeholders and ensure communication and awareness of emergency preparedness plans. Ensure that a consolidated national plan exists and includes the following components: – Clear disaster response framework – Appropriate scenario planning – Expanded healthcare capabilities – Cross-sector participation – Public warning system – Emergency shelters – Strategic stockpiles ▪ Environmental health – Improve monitoring of environmental health indicators and impact assessment ▪ Outcomes: – Faster access to emergency services during accidents – Greater food safety – Clear and coordinated national emergency preparedness plan – Data on environmental health available for planning
• **Outputs**	3.9.1 National emergency preparedness plan and the role of healthcare 3.9.2 Synchronisation among stakeholders and increased enforcement 3.9.3 Air quality monitoring in coordination with the Ministry of Environment 3.9.4 Food Safety Authority 3.9.5 Data on road safety and plan to enhance emergency services coverage 3.9.6 Medical assessments of high-risk driver groups (e.g., commercial vehicle drivers) 3.8.7 Process to conduct environmental health impact assessment of projects

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Review availability of emergency services for road accident victims and ensure appropriate geographic	▪ Faster access to emergency services for road accident victims	▪ SCH, HMC, Traffic Dept.	▪ Expertise in food safety, environmental health, road safety, and emergency

coverage of all areas ▪ Ensure that accurate data are available on road safety demographics in Qatar. ▪ Identify drivers in high-risk categories (i.e., high occupancy vehicles, heavy goods vehicles) in conjunction with the traffic department ▪ Develop a plan to provide medical assessments for high-risk groups ▪ Implement the Environmental Impact Health Assessment for all projects that could affect public health ▪ Transition to a single authority to monitor air quality (e.g., Ministry of Environment) while making certain the needs of different government agencies are met ▪ Carry out a comprehensive review of current food law and legislation ▪ Clarify roles and responsibilities among government agencies involved in food safety monitoring and control ▪ Transition toward establishing an FSA to be the sole agency responsible for food safety ▪ Establish appropriate specialised training for staff to support the activities of the FSA ▪ Formalise national standards and strengthen procedures for notification of food-borne illness outbreaks ▪ Review the national emergency plan to guarantee best practice and effective national coordination ▪ Ensure awareness of the national emergency preparedness plan among the relevant stakeholders	▪ Medical assessments ▪ Environmental Impact Health Assessment process ▪ FSA ▪ National emergency plan	▪ SCH, HMC, Traffic Dept. ▪ SCH, HMC, Traffic Dept. ▪ SCH and Ministry of Environ-ment ▪ SCH, Ministry of Environ-ment, Ministry of Urban Planning ▪ SCH, Ministry of Municipality and Agriculture, Ministry of Business and Trade, Ministry of Interior, HMC, SCH	preparedness required
Key Stakeholders	▪ SCH to lead ▪ HMC, Traffic department for Road safety		

and Overall Management Structure	▪ Ministry of Environment and Ministry of Urban Planning for environmental health ▪ Ministry of Municipality and Agriculture and Ministry of Business and Trade for food safety ▪ Ministry of Interior, HMC for emergency preparedness	
Beneficiaries	▪ General population, government stakeholders,	
Cross-sectoral Linkages	▪ Caring and Cohesive Society, labour, environment	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 36 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from various government stakeholders	▪ Leverage the SCH executive committee's power to obtain collaboration



Project: 3.9 Additional Public Health Programs				Start Date: Q4, 2010 End Date: Q4, 2012
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Review availability of emergency services for road accident victims and ensure appropriate geographic coverage of all areas	Q4, 2010	Q4, 2011		Availability of emergency services for geographic areas reviewed and enhanced
Ensure that accurate data are available on road safety demographics in Qatar	Q1, 2011	Q4, 2011		Accurate data availability for road safety demographics established
Identify drivers in high-risk categories (i.e., high occupancy vehicles, heavy goods vehicles) in conjunction with the traffic department	Q4, 2010	Q1, 2011		High-risk categories of drivers identified
Develop a plan to provide medical assessments for high-risk groups	Q1, 2011	Q4, 2011		Plan for medical assessments of high-risk group developed
Implement the Environmental Impact Health Assessment for all projects that could affect public health	Q2, 2011	Q2, 2012		Environmental impact health assessment for all projects implemented
Transition to a single authority to monitor air quality (e.g. Ministry of Environment) while making certain the needs of different government agencies are met	Q2, 2011	Q4, 2012		A single authority to monitor air quality established
Carry out a comprehensive review of current food law and legislation	Q2, 2011	Q4, 2011		Review of current food law and legislation completed
Clarify roles and responsibilities	Q2, 2011	Q3, 2011		Roles and responsibilities of government agencies in

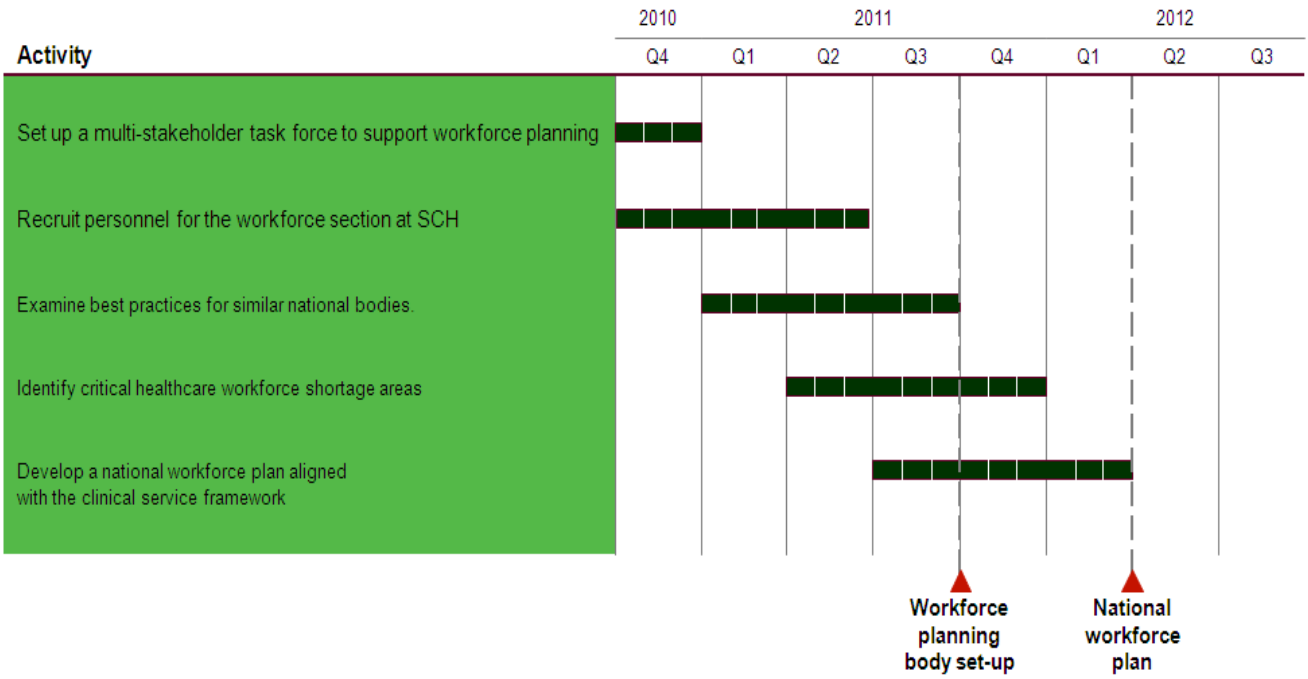
among government agencies involved in food safety monitoring and control				food safety clarified
Transition toward establishing an FSA to be the sole agency responsible for food safety	Q3, 2011	Q4, 2012		FSA established
Establish appropriate specialised training for staff to support the activities of the FSA	Q1, 2012	Q2, 2012		Training for FSA staff established
Formalise national standards and strengthen procedures for notification of food-borne illness outbreaks	Q2, 2011	Q4, 2011		National standards and procedures for food-borne illness outbreaks developed and implemented
Review the national emergency plan to guarantee best practice and effective national coordination	Q1, 2011	Q1, 2012		National emergency plan reviewed and initiatives to ensure best practice levels implemented
Ensure awareness of the national emergency preparedness plan among the relevant stakeholders	Q1, 2011	Q2, 2012		Activities to ensure awareness of emergency preparedness plans among key stakeholders in place
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	4.1 Workforce planning		
Related QNV 2030 Goal: A skilled national workforce capable of providing high-quality health services			
Background and Justification	▪ To ensure sustainability of the healthcare system, Qatar must focus on enhancing national capacity, while at the same time recognizing the value of the expatriate healthcare workforce with a wide variation in skill sets and competencies, which will continue to be a major component of the overall healthcare workforce. Given global shortages of healthcare professionals, Qatar's current recruitment and retention strategies and its medical education capacity are a potential constraint for future requirements. With global competition to attract healthcare professionals likely to intensify further and a relative lack of attractiveness of the healthcare professions among Qataris, workforce strategy must be a key component of future healthcare strategy. ▪ The SCH has a recently outlined workforce planning section, the capacity of which must be built up for it to become functional. ▪ There should be a multiple-stakeholder advisory committee on matters related to national strategy. ▪ The SCH needs to support the establishment of a multiple-stakeholder group for workforce planning to take the lead on national workforce matters, and must implement select national policies and programs such as these: – Mandate professional training requirements. – Support professional training for Qataris and non-Qataris. – Enhance national capacity and Qatarization through awareness campaigns, provision of educational opportunities within Qatar, and competitive compensation. – Improve transparency and guidance on compensation levels and promotion; monitor workforce data nationally. – Drive changes to the HR laws for improved flexibility. – Ensure a smooth interface between health providers and the immigration department. – Orchestrate a collaborative approach on internal issues like recruitment and retention.		
Objectives/Benefits/ Outcomes	▪ Develop a national strategy on workforce planning and implement workforce-related national policies and programs. ▪ Outcomes: – National workforce plan and strategy – Implementation of initiatives outlined in 4.2 (Recruitment and retention), 4.3 (Professional education and training), and 4.4 (Optimizing skill mix)		
Outputs	4.1.1 Task force (key stakeholder) established to provide strategic direction for workforce planning 4.1.2 National workforce plan or framework consistent with clinical service plan.		
Activities	**Indicators**	**Responsible Parties**	**Institutional Readiness and Capacities**

▪ Set up a multiple-stakeholder task force to support workforce planning ▪ Recruit personnel for the workforce section at the SCH ▪ Examine best practices for similar national bodies ▪ Identify critical healthcare workforce shortage areas ▪ Develop a national workforce plan aligned with the CSF	▪ Workforce planning body set up ▪ National workforce plan	▪ SCH and HMC	▪ Requires roughly 5–10 full-time healthcare workforce experts

Key Stakeholders and Overall Management Structure	▪ SCH	
Beneficiaries	▪ Healthcare stakeholders	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ 12 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ No collaboration by key stakeholders ▪ Insufficient resourcing and legislation power ▪ Require legislative powers	▪ Leverage the SCH executive committee's power to obtain collaboration from healthcare stakeholders

Implementation Plan: Workforce planning body



Project: 4.1 Workforce planning				**Start Date: Q4, 2010** **End Date: Q1, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Set up a multiple-stakeholder task force to support workforce planning	Q4, 2010	Q4, 2010		Multiple-stakeholder task force to support workforce planning set
Recruit personnel for the workforce section at the SCH	Q4, 2010	Q2, 2011		Personnel for workforce section at SCH recruited
Examine best practices for similar national bodies	Q1, 2011	Q3, 2011		Best practices for similar national bodies established
Identify critical healthcare workforce shortage areas	Q2, 2011	Q4, 2011		Critical healthcare workforce shortages identified
Develop a national workforce plan aligned with the CSF	Q3, 2011	Q1, 2012		National workforce plan aligned with clinical service framework developed
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	4.2 Recruitment and retention

Related QNV 2030 Goal: A skilled national workforce capable of providing high-quality health services

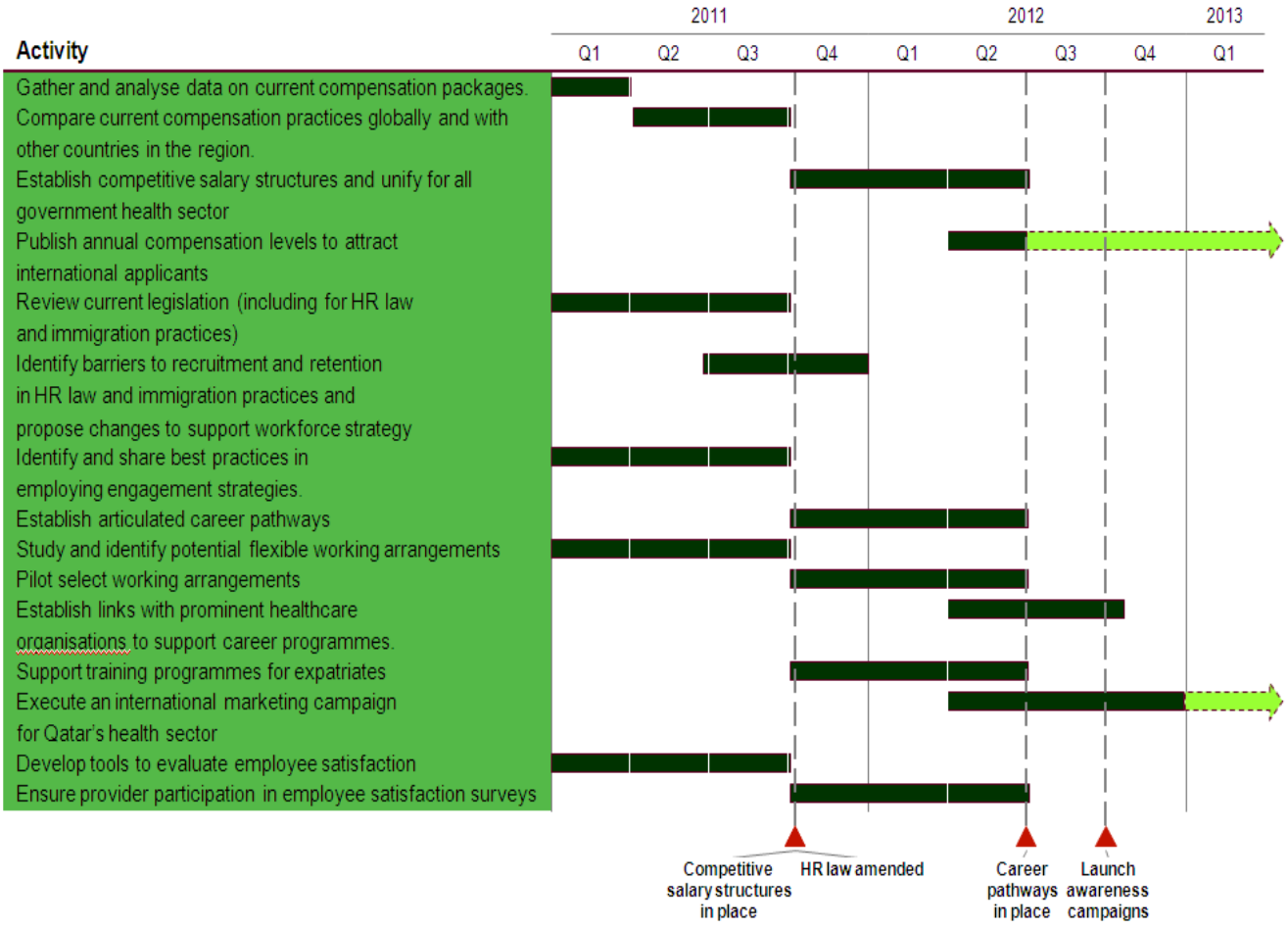
Background and Justification	▪ Qatar needs to enhance recruitment and retention of both Qataris and non-Qataris for its healthcare workforce: – Qataris find working in the healthcare sector of limited appeal. – The healthcare field offers low levels of compensation in comparison to other sectors (e.g., finance, oil and gas). ▪ Issues related to the working environment pose additional challenges (e.g., for expatriates, minimal career progression, benefits despite required training)
Objectives/Benefits/ Outcomes	▪ Enhance recruitment and retention to ensure: – sufficient size of workforce; – appropriate (best-skilled) people for the job; and – retention of quality staff. ▪ Outcomes: – Recruitment – Higher number of applications per vacant post – Lower vacancy rate – Retention – Increased staff satisfaction – A reduced turnover rate
Outputs	4.2.1 Competitive remuneration package 4.2.2 Clearly defined career structures and promotions linked to performance 4.2.3 Improved employment conditions for expatriates 4.2.4 Initiating structured professional development programs 4.2.5 Establishing secondment agreements with international partners 4.2.6 Longer-term contractual arrangements 4.2.7 Flexible working arrangements (permitting part-time contracts)

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Gather and analyse data on current compensation packages ▪ Compare current compensation practices globally and with other countries in the region ▪ Establish competitive salary structures and unify them for all government health sectors ▪ Publish annual compensation levels to attract international applicants ▪ Review current legislation (including for HR law and immigration practices) ▪ Identify barriers to recruitment and retention in HR law and immigration practices and propose changes to support workforce strategy ▪ Identify and share best practices in employing engagement strategies ▪ Establish articulated career pathways	▪ Competitive salary structures in place ▪ HR law amended ▪ Career pathways established	▪ Workforce planning body	▪ Require roughly 5–10 full-time healthcare workforce experts

▪ Study and identify potential flexible working arrangements ▪ Pilot select working arrangements ▪ Establish links with prominent healthcare organisations to support career programs ▪ Support training programs for expatriates ▪ Execute an international marketing campaign for Qatar's health sector ▪ Develop tools to evaluate employee satisfaction ▪ Ensure provider participation in employee satisfaction surveys			

Key Stakeholders and Overall Management Structure	▪ SCH-led, and supported by leading public and private providers ▪ SEC	
Beneficiaries	▪ Healthcare stakeholders ▪ Healthcare staff	
Cross-sectoral Linkages	▪ Labor	
Estimated Cost	▪ 10M-50M QAR, excluding increased compensation	
Estimated Duration	▪ 18 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ No collaboration by key stakeholders ▪ Insufficient resourcing and legislation power	▪ Leverage the SCH executive committee's power to obtain collaboration from healthcare stakeholders

Implementation Plan: Recruitment and retention



Project: 4.2 Recruitment and retention				Start Date: Q1, 2011 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Gather and analyse data on current compensation packages	Q1, 2011	Q1, 2011		Data on current compensation packages collected and analysed
Compare current compensation practices globally and with other countries in the region	Q2, 2011	Q3, 2011		Current compensation compared with global practice
Establish competitive salary structures and unify them for all government health sectors	Q4, 2012	Q2, 2012		Competitive salary structures for all government health sector established
Publish annual compensation levels to attract international applicants	Q2, 2012 Q3, 2013	Q2, 2012 Ongoing		Annual compensation levels published
Review current legislation (including for HR law and immigration practices)	Q1, 2011	Q3, 2011		Current legislation on recruiting including HR law and immigration reviewed
Identify barriers to recruitment and retention in HR law and immigration practices and propose changes to support workforce strategy	Q3, 2011	Q4, 2012		Barriers to recruitment and retention in HR law and immigration identified
Identify and share best practices in employing engagement strategies	Q1, 2011	Q3, 2011		Best practices in employee engagement strategies shared among providers
Establish articulated career pathways	Q4, 2011	Q2, 2012		Career pathways established
Study and identify potential flexible working arrangements	Q1, 2011	Q3, 2011		Flexible working arrangements identified
Pilot select working	Q4, 2011	Q2, 2012		Flexible working

arrangements				arrangement piloted
Establish links with prominent healthcare organisations to support career programs	Q2, 2012	Q3, 2012		Linkages with prominent healthcare organisations established
Support training programs for expatriates	Q4, 2011	Q2, 2012		Training programs for expatriates established
Execute an international marketing campaign for Qatar's health sector	Q2, 2012 Q1, 2013	Q4, 2012 Ongoing		International marketing campaign on Qatar's health sector executed
Develop tools to evaluate employee satisfaction	Q1, 2011	Q3, 2011		Tools to evaluate employee satisfaction in place
Ensure provider participation in employee satisfaction surveys	Q4, 2011	Q2, 2012		Employee satisfaction surveys with provider participation launched
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

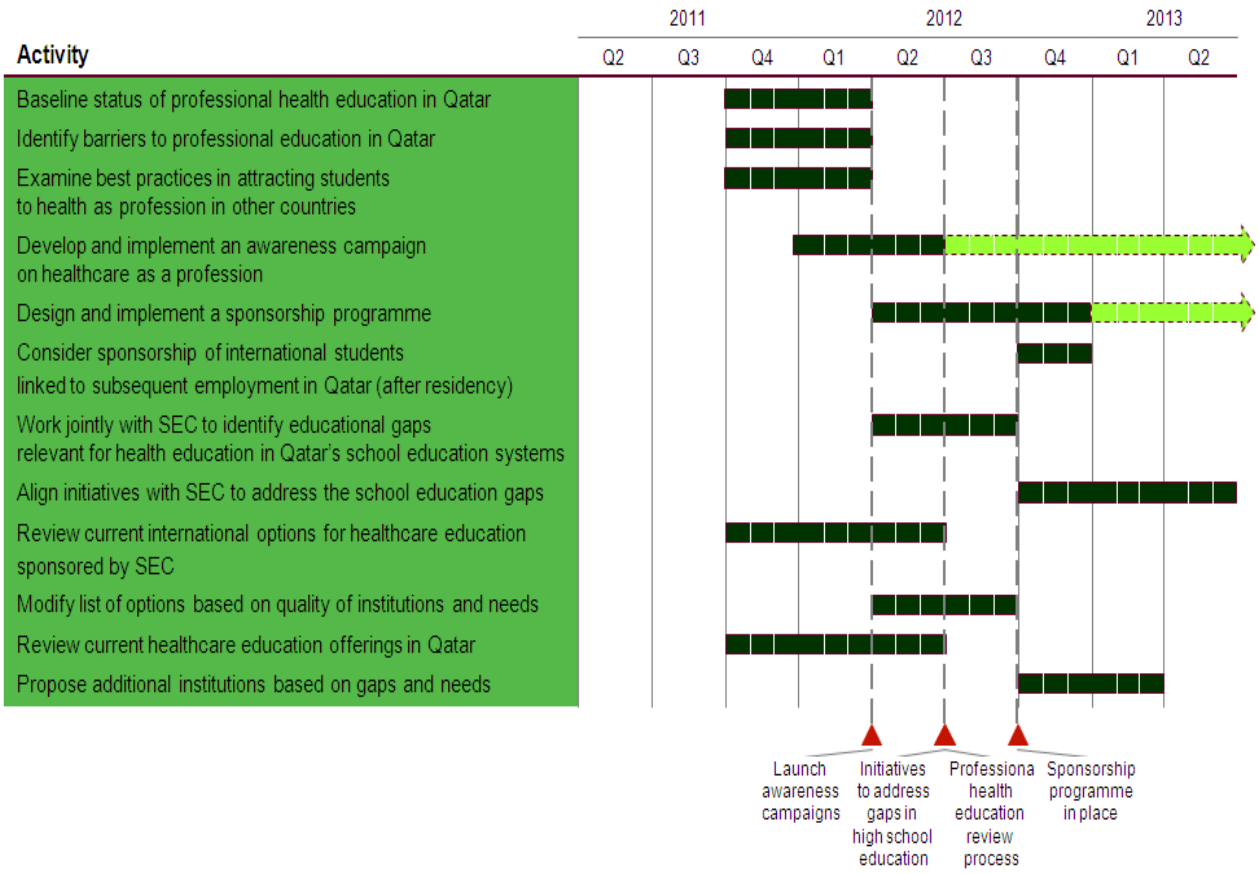
Project Name:	4.3 Professional education and training
Related QNV 2030 Goal: A skilled national workforce capable of providing high-quality health services	
Background and Justification	▪ Qatar has begun investing in education related to healthcare. Only in the long run, however, will local healthcare education institutes contribute significantly to the healthcare workforce. ▪ Current healthcare education institutes are not able to attract, admit, and graduate sufficient numbers of candidates: – Healthcare is not viewed as an attractive profession by Qataris. – Primary and secondary education and language standards do not meet the requirements for preparing candidates for the world class healthcare institutes. ▪ Hence Qatar needs to create awareness of the profession and refinement of educational opportunities (e.g., diversification of institutions, a greater variety of courses). ▪ Long-term residents are a valuable resource that could form a significant portion of a future high-quality, stable workforce, and therefore should be supported in pursuing healthcare education.
Objectives/Benefits/ Outcomes	▪ Ensure that education for health professions contributes to Qatar's future healthcare needs. ▪ Outcomes: – A higher number of people entering professional healthcare education in Qatar – A higher number of healthcare professional graduates – A higher number of Qataris, specifically, opting for healthcare education
Outputs	4.3.1 Evaluation of diversification of healthcare education institutes, both locally and internationally 4.3.2 Enhanced sponsorship opportunities 4.3.3 Reduction of barriers to education (e.g., tuition, availability of part-time education, provision of childcare programs) 4.3.4 Alignment with Supreme Council Education on initiatives to meet healthcare professional education requirements

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Provide a baseline status of professional health education in Qatar. ▪ Identify barriers to professional education in Qatar ▪ Examine best practices in attracting students to health as a profession in other countries ▪ Develop and implement an awareness campaign on healthcare as a profession ▪ Design and implement a sponsorship program for residents and nationals ▪ Consider sponsorship of international students linked to subsequent employment in Qatar (after residency)	▪ Awareness campaigns ▪ Sponsorship program	▪ Workforce planning body with coopera-tion from SEC	▪ Require experts in health education

▪ Work jointly with SEC to identify educational gaps relevant for health education in Qatar's school education systems ▪ Align initiatives with SEC to address the school education gaps ▪ Review current international options for healthcare education sponsored by SEC ▪ Modify a list of options based on the quality of institutions and needs ▪ Review current healthcare education offerings in Qatar ▪ Propose additional institutions based on gaps and needs	▪ High school education initiatives ▪ International sponsorship ▪ Professional health education review process		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Healthcare education institutes (e.g., WCMC-Q, CNAQ, Calgary) ▪ SEC	
Beneficiaries	▪ General population, healthcare stakeholders, students	
Cross-sectoral Linkages	▪ Education	
Estimated Cost	▪ 10M-50M QAR, excluding the cost of setting up professional education institutes	
Estimated Duration	▪ 5 years	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ No collaboration by key stakeholders ▪ Insufficient resourcing and legislation power	▪ Leverage the SCH executive committee's power to obtain collaboration from the SEC

Implementation Plan: Professional education and training



Project: 4.3 Professional education and training				Start Date: Q4, 2012 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Provide baseline status of professional health education in Qatar	Q4, 2011	Q1, 2012		Professional health education in Qatar baselined
Identify barriers to professional education in Qatar	Q4, 2011	Q1, 2012		Barriers to professional education in Qatar identified
Examine best practices in attracting students to health as a profession in other countries	Q4, 2011	Q1, 2012		Best practices in attracting students to health as a profession identified
Develop and implement an awareness campaign on healthcare as a profession	Q1, 2012 Q3, 2012	Q2, 2012 Ongoing		Awareness campaign to market health as a career option launched
Design and implement a sponsorship program for residents and nationals	Q2, 2012 Q1, 2013	Q4, 2012 Ongoing		Sponsorship program for residents and nationals implemented
Consider sponsorship of international students linked to subsequent employment in Qatar (after residency)	Q4, 2012	Q4, 2012		Sponsorship of international students evaluated
Work jointly with SEC to identify educational gaps relevant for health education in Qatar's school education systems	Q2, 2012	Q3, 2012		Educational gaps in school education relevant for health education identified
Align initiatives with SEC to address the school education gaps	Q4, 2012	Q2, 2013		Initiatives to address gaps identified and aligned with SEC
Review current international options for healthcare	Q4, 2011	Q2, 2012		Current international options for healthcare education sponsored by SEC reviewed

education sponsored by SEC				
Modify a list of options based on the quality of institutions and needs	Q2, 2012	Q3, 2012		List of international options modified on the basis of quality and needs
Review current healthcare education offerings in Qatar	Q4, 2011	Q2, 2012		Current healthcare education offerings in Qatar reviewed
Propose additional institutions based on gaps and needs	Q4, 2012	Q1, 2013		Additional institutions for healthcare education proposed
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

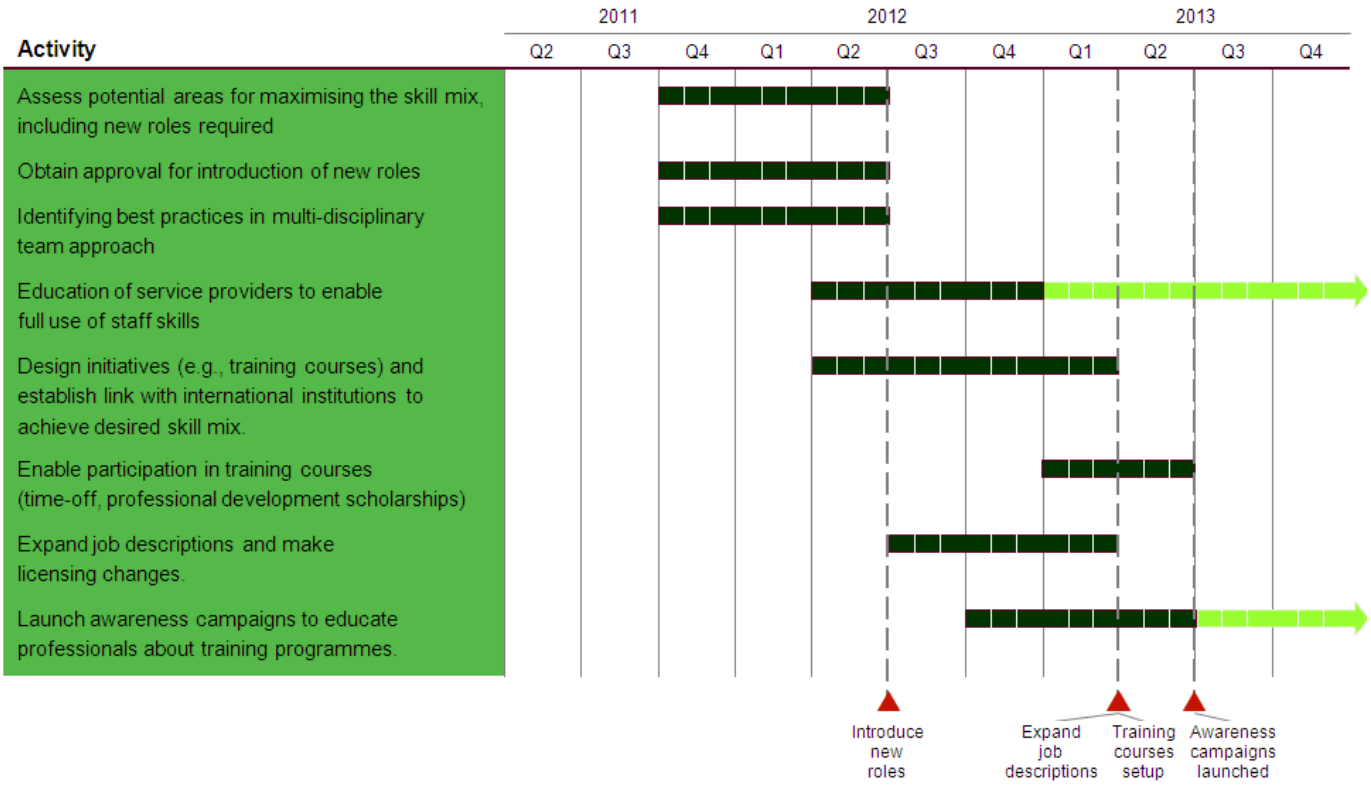
Project Name:	4.4 Optimizing skill mix
Related QNV 2030 Goal: A skilled national workforce capable of providing high-quality health services	
Background and Justification	▪ To improve the performance of its health system and the cost effectiveness of services, Qatar must consider changing the traditional skill mix in tackling shortages of categories of healthcare workers. It can extend the range of work that can be undertaken by different professional groups and see to it that all individuals are working at the higher end of their skills. ▪ Qatar needs experts and professionals in allied health areas like public health, occupational health, nutrition, health education, and so forth. ▪ The trend in developed countries is to stress and enhance the roles of multidisciplinary team members, including allied health professionals and support staff. Qatar should adopt this trend and allow for the opportunity to generate new roles—such as that of nurse practitioner or physician assistant—to take on work previously assumed by physician staff.
Objectives/Benefits/ Outcomes	▪ Enhanced healthcare skill mix in Qatar ▪ Outcomes: – Implementation of the multidisciplinary team approach and ensuring that appropriately skilled members are available – Effective use of skills within members of the service provision team – Increase in the number of individual with mixed skills – Increase in the number of professional bridging courses
Outputs	4.4.1 Adoption of multi-disciplinary team approach to service delivery 4.4.2 Bridging courses to increase the scope of work for select professional categories 4.4.3 Job descriptions and licensing changes 4.4.4 New roles introduced (e.g., nurse practitioners, operating department assistant, physician assistant) 4.4.5 Awareness campaigns for allied health professions

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Assess potential areas for maximising the skill mix, including new roles required		▪ SCH	▪ Requires experts in health education
▪ Obtain approval for introduction of new roles	▪ Introduce new roles		
▪ Identify best practices in multidisciplinary team approach			
▪ Educate service providers to enable full use of staff skills			
▪ Design initiatives (e.g., training courses) and establish link with international institutions to achieve the desired skill mix	▪ Training courses		
▪ Enable participation in training courses (time off, professional development scholarships)			
▪ Expand job descriptions and make licensing changes	▪ Expanded job descriptions		
▪ Launch awareness campaigns to educate professionals about training	▪ Awareness		

programs.	campaigns		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Healthcare education institutes (e.g., WCMC-Q, CNAQ, Calgary)	
Beneficiaries	▪ General population, healthcare professionals, providers	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M-50M QAR	
Estimated Duration	▪ 5 years	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ No collaboration by key stakeholders ▪ Insufficient resourcing and legislation power	▪ Leverage the SCH executive committee's power to obtain collaboration from the SEC

Implementation Plan: Optimising skill mix



Project: 4.4 Optimizing skill mix				Start Date: Q4, 2012 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Assess potential areas for maximising the skill mix, including new roles required	Q4, 2012	Q2, 2012		Potential areas for maximising skill mix assessed
Obtain approval for introduction of new roles	Q4, 2012	Q2, 2012		Approval for introduction of new roles obtained
Identifying best practices in multidisciplinary team approach	Q4, 2012	Q2, 2012		Best practices in multidisciplinary team approach identified
Educate service providers to enable full use of staff skills	Q2, 2012 Q1, 2013	Q4, 2012 Ongoing		Service providers education programs on full use of staff skills launched
Design initiatives (e.g., training courses) and establish link with international institutions to achieve desired skill mix	Q2, 2012	Q1, 2013		Initiatives and linkages with international institutions to achieve a design for the desired skill mix
Enable participation in training courses (time off, professional development scholarships)	Q1, 2013	Q2, 2013		Participation in training courses for staff for professional development
Expand job descriptions and make licensing changes	Q3, 2012	Q1, 2012		Job descriptions expanded, with associated licensing changes
Launch awareness campaigns to educate professionals about training programs	Q4, 2012 Q3, 2013	Q2, 2013 Ongoing		Awareness campaigns to educate professionals about training programs
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

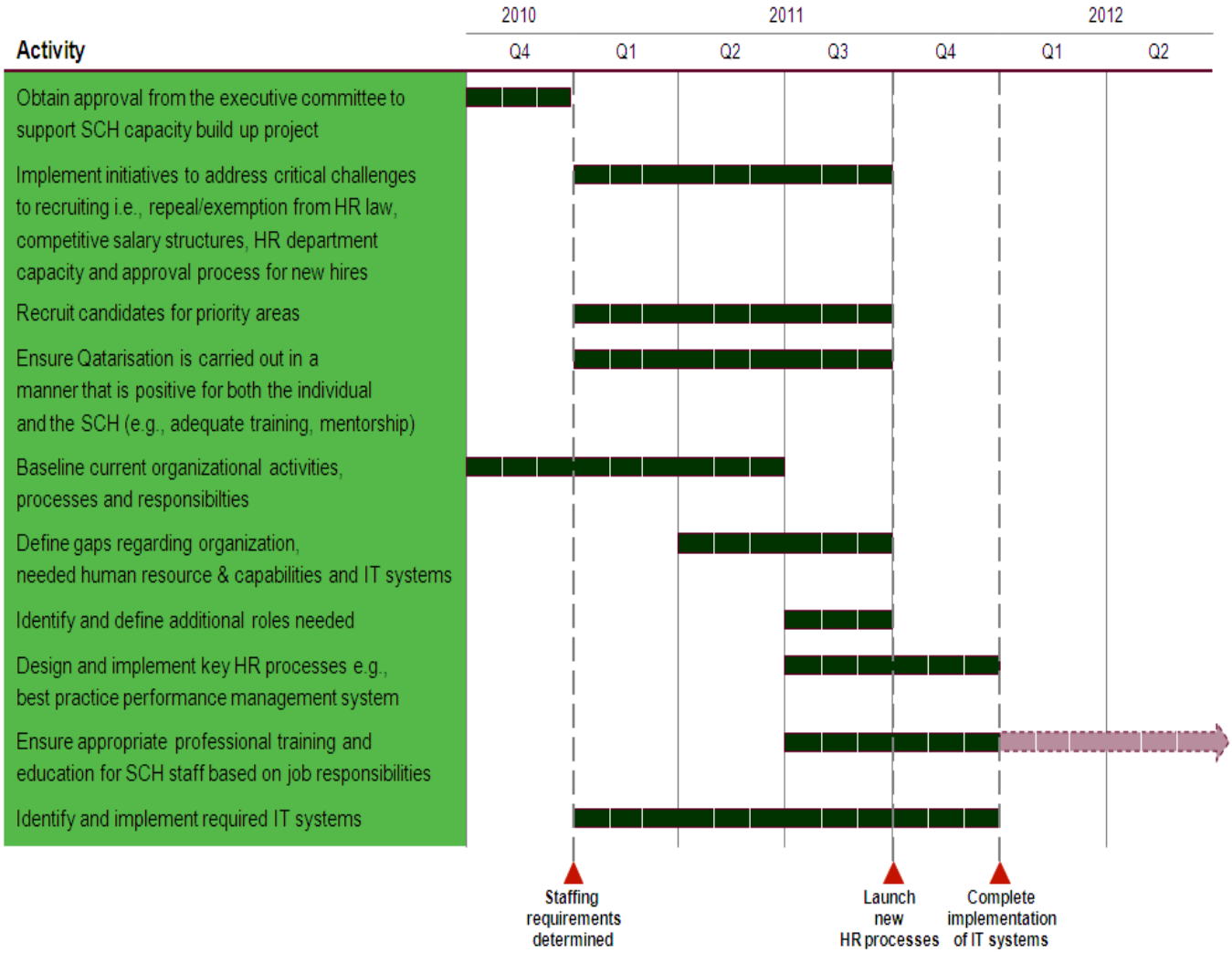
Project Name:	5.1 SCH capacity buildup
Related QNV 2030 Goal: A national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare	
Background and Justification	▪ The SCH's limited capacity, highlighted in the situational analysis, must be resolved in order to ensure a robust regulatory system. Currently about 30 per cent of the positions are vacant, including several in critical departments like HR, quality, and planning. Additionally, most work at the SCH is done manually, with limited use of IT systems. ▪ The foremost challenges to recruiting are: – a non-competitive compensation and salary structure; – limited capacity in HR department at SCH; – HR law; and – lengthy and unclear approval process for new hires.
Objectives/Benefits/ Outcomes	▪ Increase SCH internal capacity (quality and quantity) ▪ Outcomes: – Recruitment—reduced percentage of vacant positions at the SCH – Retention—less staff turnover at the SCH – Increased utilization of IT systems
Outputs	5.1.1 Recruitment of SCH staff 5.1.2 Repeal of / exemption from HR law for healthcare sector 5.1.3 Implementation of IT systems, including ERP 5.1.4 HR strategy and processes (e.g., performance evaluation and assessment framework)

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Obtain approval from the executive committee to support a project to build up SCH capacity ▪ Implement initiatives to address critical challenges to recruiting (i.e., repeal of or exemption from HR law, competitive salary structures, HR department capacity and approval process for new hires) ▪ Recruit candidates for priority areas ▪ Ensure Qatarization is carried out in a manner that is positive for both the individual and the SCH (e.g., adequate training, mentorship) ▪ Provide a baseline for current organisational activities, processes, and responsibilities ▪ Define gaps regarding organisation, needed human resources and capabilities, and IT systems ▪ Identify and define additional roles needed ▪ Design and implement key HR processes (e.g., best-practice performance management system)	▪ Staffing requirements ▪ HR initiatives determined ▪ Training and	SCH	▪ Require experts in healthcare regulation

▪ Ensure appropriate professional training and education for SCH staff, based on job responsibilities ▪ Identify and implement required IT systems	education ▪ IT systems for SCH		

Key Stakeholders and Overall Management Structure	▪ SCH ▪ Ministry of Interior ▪ Ministry of Labor	
Beneficiaries	▪ SCH and SCH employees ▪ Health providers	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR, excludes cost of hiring new recruits	
Estimated Duration	▪ 18 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ SCH focus and prioritisation	▪ Leverage the SCH executive committee's power to ensure this project receives appropriate focus and necessary resources ▪ Consider external consultant support to accelerate strategy development

Implementation Plan: SCH capacity build up



Project: 5.1 SCH capacity buildup				**Start Date: Q4, 2010 End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Obtain approval from the executive committee to support a project to build up SCH capacity	Q4, 2010	Q4, 2010		Executive committee approves efforts to build SCH capacity
Implement initiatives to address critical challenges to recruiting (i.e., repeal of or exemption from HR law, competitive salary structures, HR department capacity and approval process for new hires)	Q1, 2011	Q3, 2011		Initiatives to address critical challenges in recruiting implemented
Recruit candidates for priority areas	Q1, 2011	Q3, 2011		Candidates for priority areas recruited
Ensure Qatarization is carried out in a manner that is positive for both the individual and the SCH (e.g., adequate training, mentorship)	Q1, 2011	Q3, 2011		Qatarization support initiatives launched
Provide a baseline of current organisational activities, processes, and responsibilities	Q4, 2010	Q2, 2011		SCH current organisation activities, processes, and responsibilities baselined
Define gaps regarding organisation, needed human resources and capabilities, and IT systems	Q2, 2011	Q3, 2011		Organization gaps (HR, IT, and so on) identified
Identify and define additional roles needed	Q3, 2011	Q3, 2011		Additional roles required identified
Design and implement key HR processes (e.g., best-practice performance management system)	Q3, 2011	Q4, 2011		Key HR processes implemented
Ensure appropriate professional training and education for SCH staff, based on job responsibilities	Q3, 2011 Q1, 2012	Q4, 2011 On-going		Professional training for SCH staff established
Identify and implement required IT systems	Q1, 2011	Q4, 2011		IT systems at SCH implemented
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: Activity n:				

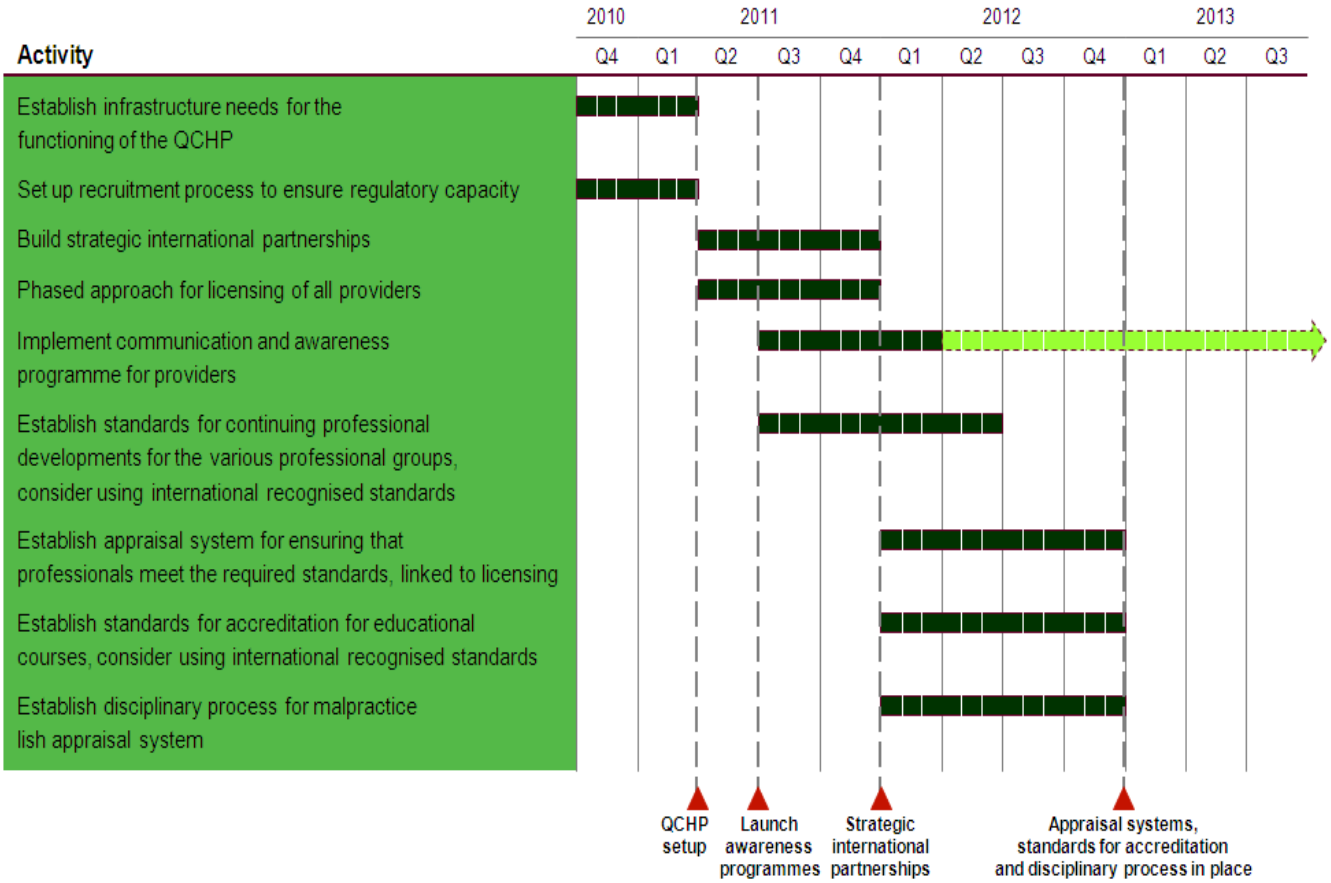
Project Name:	5.2 Healthcare professional regulation
Related QNV 2030 Goal: A national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare	
Background and Justification	▪ Currently the SCH does not license all healthcare professionals in Qatar. HMC has its own licensing process. ▪ The SCH needs to be the sole and independent regulator for licensing and credentialing all health professionals. The SCH is in the process of setting up QCHP for this purpose. ▪ QCHP is to act as the sole body regulating for healthcare professionals. It will perform registration and licensing (including verification), appraisal, disciplinary action, and accreditation. ▪ The QCHP governance structure will have subcommittees representing the different healthcare professionals (e.g., nurses) and functions (e.g., evidence-based healthcare initiatives).
Objectives/Benefits/ Outcomes	▪ Improved quality of healthcare professionals ▪ QCHP established as the regulator for healthcare professionals in Qatar ▪ Outcomes: – Registration—increased detection of fraudulent applications – Licensing—All health professionals licensed through QCHP – Accreditation—All healthcare professional training programs accredited by QCHP
Outputs	5.2.1 Health practitioner registration and licensing system 5.2.2 Strategic international partnerships (e.g., IAMRA) 5.2.3 Licensing examinations for select practitioner groups 5.2.4 Objective primary source verification and credentialing

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish infrastructure needs for the functioning of the QCHP ▪ Set up a recruitment process to ensure regulatory capacity ▪ Build strategic international partnerships ▪ Develop a phased approach for the licensing of all providers ▪ Implement a communication and awareness program for providers ▪ Establish standards for continuing professional development for the various professional groups—consider using international recognized standards ▪ Establish appraisal system for ensuring that professionals meet the required standards, linked to licensing ▪ Establish standards for accreditation for educational courses—consider using international recognized standards	▪ QCHP set up ▪ Registration and licensing set up	▪ SCH	▪ Require experts in healthcare regulation

▪ Establish a disciplinary process for malpractice			

Key Stakeholders and Overall Management Structure	▪ SCH	
Beneficiaries	▪ Healthcare stakeholders, general population	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M-50M QAR	
Estimated Duration	▪ 36 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Require legislative powers and resources ▪ Lack of support from external stakeholders	▪ Ensure rapid implementation of project to build up SCH capacity ▪ Leverage the SCH executive committee's power to ensure this project receives appropriate focus and necessary resources

Implementation Plan: Healthcare professional regulation



Project: 5.2 Healthcare professional regulation				**Start Date: Q4, 2010** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish infrastructure needs for the functioning of the QCHP	Q4, 2010	Q1, 2011		Infrastructure needs for QCHP established
Set up recruitment process to ensure regulatory capacity	Q4, 2010	Q1, 2011		Recruitment process for regulatory capacity established
Build strategic international partnerships	Q2, 2011	Q4, 2011		Strategic international partnerships established
Develop a phased approach for the licensing of all providers	Q2, 2011	Q4, 2011		Phased approach for licensing determined
Implement a communication and awareness program for providers	Q3, 2011 Q2, 2012	Q1,2012 Ongoing		Communication and awareness program for all providers launched
Establish standards for continuing professional development for the various professional groups—consider using international recognized standards	Q3, 2011	Q2, 2012		Standards for continuing professional development established for various professional groups
Establish an appraisal system for ensuring that professionals meet the required standards, linked to licensing	Q1, 2012	Q4, 2012		Appraisal systems for professionals established
Establish standards for accreditation for educational courses—consider using international recognized standards	Q1, 2012	Q4, 2012		Accreditation standards established
Establish disciplinary process for malpractice	Q1, 2012	Q4, 2012		Disciplinary process for malpractice established
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . .Activity n:				

Project Name:	5.3 Healthcare facilities regulation

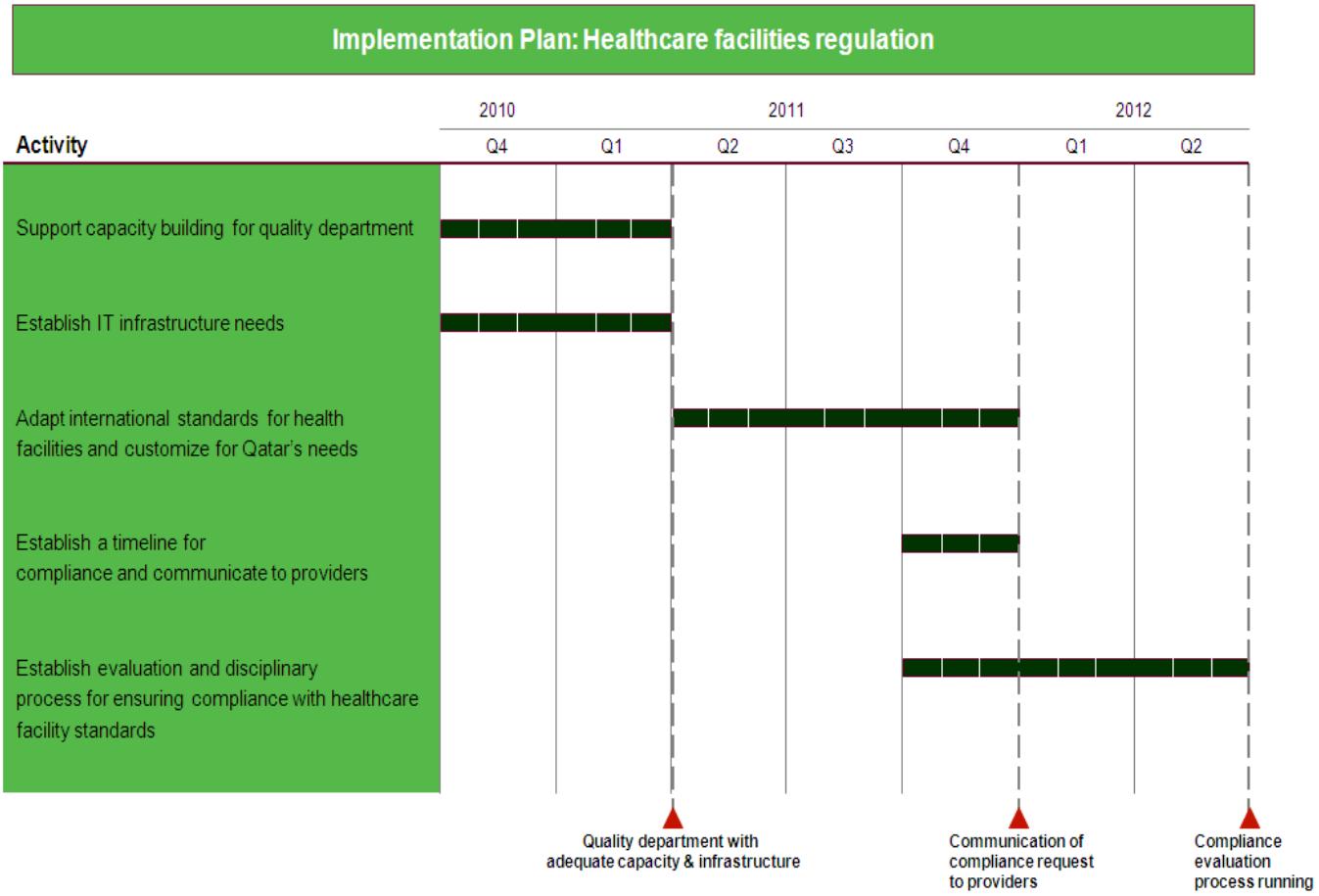
Related QNV 2030 Goal: A national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare

Background and Justification	▪ Currently the SCH has limited oversight on healthcare facilities in Qatar, especially those in the private sector. ▪ The SCH needs to establish and enforce a framework for regulating health facilities: – The Quality Department should act as the sole body regulating facilities. – The Quality Department needs to set standards, provide guidance, perform assessments and benchmarking, license, and apply disciplinary action.
Objectives/Benefits/ Outcomes	▪ Enhanced quality of health facilities ▪ Outcomes: – Healthcare facility regulatory framework – Increase in number of facilities licensed – Increase in facilities that meet national or international accreditation standards within five years
Outputs	5.3.1 Facilities licensing standards based on objective international standards 5.3.2 National accreditation standards for facilities 5.3.3 Education programs for facilities on safety

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Support capacity building for quality department ▪ Establish IT infrastructure needs ▪ Adapt international standards for health facilities and customise them for Qatar's needs ▪ Establish a timeline for compliance, and communicate it to providers ▪ Establish an evaluation and disciplinary process for ensuring compliance with healthcare facility standards	▪ Quality department with adequate capacity and infrastructure ▪ Facilities registration and licensing set up	▪ SCH	▪ Require experts in healthcare regulation

Key Stakeholders and Overall Management Structure	▪ SCH
Beneficiaries	▪ Healthcare stakeholders
Cross-sectoral Linkages	
Estimated Cost	▪ 10M–50M QAR
Estimated Duration	▪ 18 months

Risk and Mitigation Measures	Risks	Mitigation Measures
	▪ Require legislative powers and resources ▪ Support from external stakeholders	▪ Ensure rapid implementation of the project to build up SCH capacity ▪ Leverage the SCH executive committee's power to ensure this project receives appropriate focus and necessary resources


Implementation Plan: Healthcare facilities regulation
2010
2011
2012
Activity
Q4
Q1
Q2
Q3
Q4
Q1
Q2
Support capacity building for quality department
Establish IT infrastructure needs
Adapt international standards for health facilities and customize for Qatar's needs
Establish a timeline for compliance and communicate to providers
Establish evaluation and disciplinary process for ensuring compliance with healthcare facility standards
Quality department with adequate capacity & infrastructure
Communication of compliance request to providers
Compliance evaluation process running

Project: 5.3 Healthcare facilities regulation				**Start Date: Q4, 2010** **End Date: Q2, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Support capacity building for Quality department	Q4, 2010	Q1, 2011		Capacity building of Quality department completed
Establish IT infrastructure needs	Q4, 2010	Q1, 2011		IT infrastructure needs for Quality department determined
Adapt international standards for health facilities and customise them for Qatar's needs	Q2, 2011	Q4, 2011		International-level standards for health facilities developed
Establish a timeline for compliance and communicate it to providers	Q4, 2011	Q4, 2011		Timeline for compliance communicated to providers
Establish an evaluation and disciplinary process for ensuring compliance with healthcare facility standards	Q4, 2011	Q2, 2012		Evaluation and disciplinary process for healthcare facilities established
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

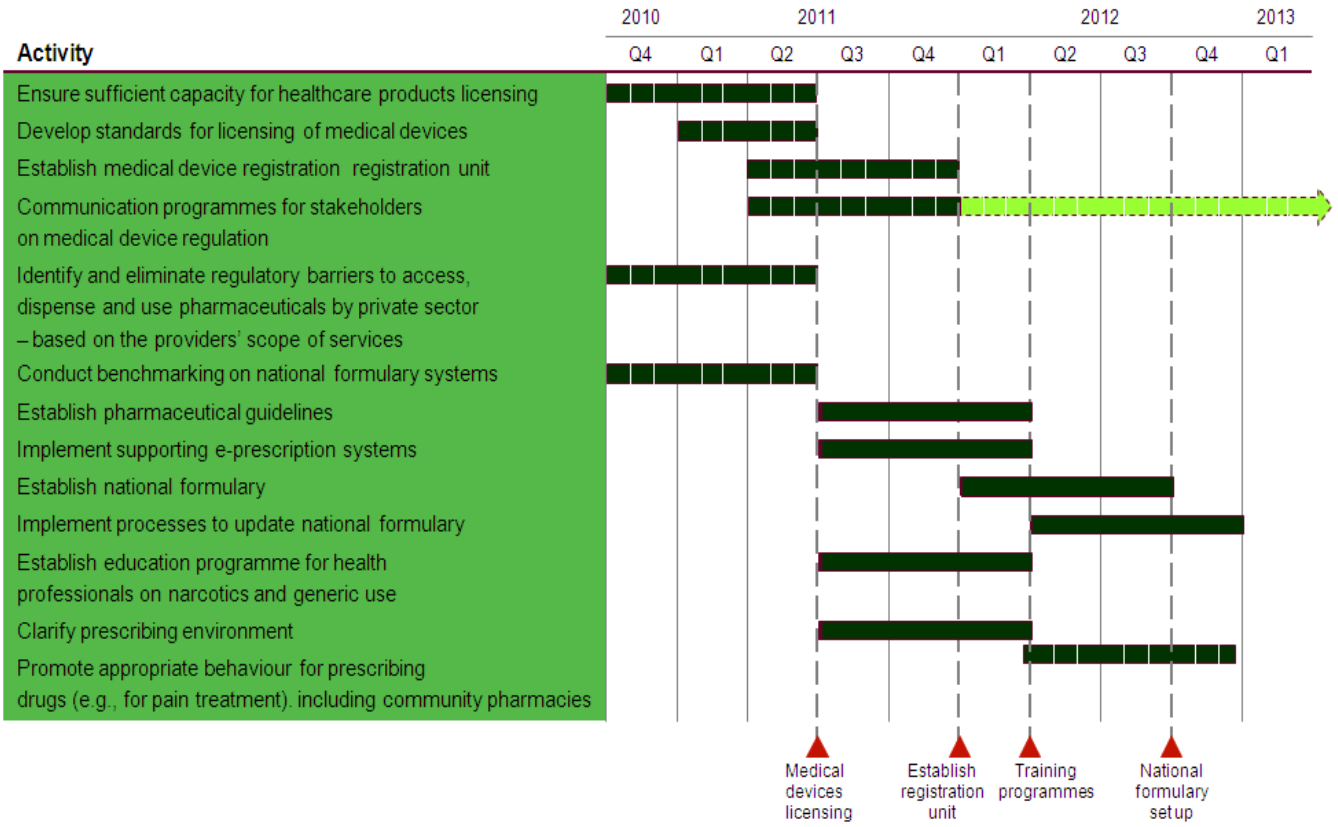
Project Name:	5.4 Healthcare products regulation
Related QNV 2030 Goal: A national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare	
Background and Justification	▪ A department of pharmacy and drug control already exists within the SCH, but it needs to be supported with appropriate capacity and enhanced with additional functionalities: – Expand its scope to include medical devices. – Establish a medical device registration unit. – Establish a national formulary. – Establish an education program for health professionals on the use of narcotics and generics. ▪ Additionally, Qatar has a particular problem because of its comparatively high use of branded drugs. Establishing a national formulary with recommendations for preferred drugs per indication can also promote the use of generics. This must be done in conjunction with mechanisms to ensure that generics are obtained from the highest-quality sources.
Objectives/Benefits/ Outcomes	▪ Ensured safety and quality of healthcare products ▪ Enhanced healthcare products regulation ▪ Outcomes: – Expanded coverage to include regulation **o**f medical devices, herbs, and complementary products – Increased testing of drugs to ensure safety and appropriate composition
Outputs	5.4.1 Expanded scope to include medical devices 5.4.2 Medical device registration unit 5.4.3 National formulary 5.4.4 Education program for health professionals on narcotics and generic use

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Ensure sufficient capacity for healthcare products licensing ▪ Develop standards for licensing of medical devices ▪ Establish a medical registration unit ▪ Develop communication programs for stakeholders on medical device regulation ▪ Identify and eliminate regulatory barriers to the private sector's accessing, dispensing, and using pharmaceuticals, based on the providers' scope of services ▪ Conduct benchmarking on national formulary systems ▪ Establish pharmaceutical guidelines ▪ Implement supporting e-prescription systems ▪ Establish a national formulary ▪ Implement processes to update the national formulary	▪ Medical device licensing ▪ Medical device registration unit ▪ National formulary	▪ SCH	▪ Require pharmacists ▪ Require experts in healthcare regulation

▪ Establish an education program for health professionals on narcotics and generic use ▪ Clarify the prescribing environment ▪ Promote appropriate behavior for prescribing drugs (e.g., for pain treatment), and include community pharmacies in the effort	▪ Education programs on generic and narcotic use		

Key Stakeholders and Overall Management Structure	▪ SCH	
Beneficiaries	▪ Healthcare stakeholders	
Cross-sectoral Linkages		
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ 30 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Require legislative powers and resources ▪ Insufficient support from external stakeholders	▪ Ensure rapid implementation of the project to build up SCH capacity ▪ Leverage the SCH executive committee's power to ensure this project receives appropriate focus and necessary resources

Implementation Plan: Healthcare products regulation



Project: 5.4 Healthcare products regulation				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Ensure sufficient capacity for healthcare products licensing	Q4, 2010	Q2, 2011		Capacity for healthcare products licensing in place
Develop standards for licensing of medical devices	Q1, 2011	Q2, 2011		Standards for licensing of medical devices in place
Establish a medical registration registration unit	Q2, 2011	Q4, 2011		Medical registration unit established
Develop communication programs for stakeholders on medical device regulation	Q2, 2011 Q1, 2012	Q4, 2011 Ongoing		Medical device regulation communicated to all stakeholders
Identify and eliminate regulatory barriers to the private sector's accessing, dispensing, and using pharmaceuticals, based on the providers' scope of services	Q4, 2010	Q2, 2011		Regulatory barriers to access and dispense pharmaceuticals by private sector identified and eliminated
Conduct benchmarking on national formulary systems	Q4, 2010	Q2, 2011		Benchmarking on international formulary
Establish pharmaceutical guidelines	Q3, 2011	Q1, 2011		Pharmaceutical guidelines established
Implement supporting e-prescription systems	Q3, 2011	Q1, 2011		E-prescription system implemented
Establish a national formulary	Q1, 2012	Q3, 2012		National formulary established
Implement processes to update the national formulary	Q2, 2012	Q4, 2012		Process to update national formulary implemented
Establish an education program for health professionals on narcotics and generic use	Q3, 2011	Q1, 2011		Education program for health professionals on narcotic use established
Clarify prescribing environment	Q3, 2011	Q1, 2011		Prescribing environment clarifications
Promote appropriate behavior for prescribing drugs (e.g., for pain treatment), and include community pharmacies in the effort	Q2, 2012	Q4, 2012		Promotion of appropriate prescribing behavior for drugs at all pharmacies

Project Achievements

(What did each project activity achieve? List of achievements)

Activity 1:

Activity 2:

….Activity n:

Project Name:	5.5 Patient advocacy body

Related QNV 2030 Goal: A national health policy that sets and monitors standards for social, economic, administrative, and technical aspects of healthcare

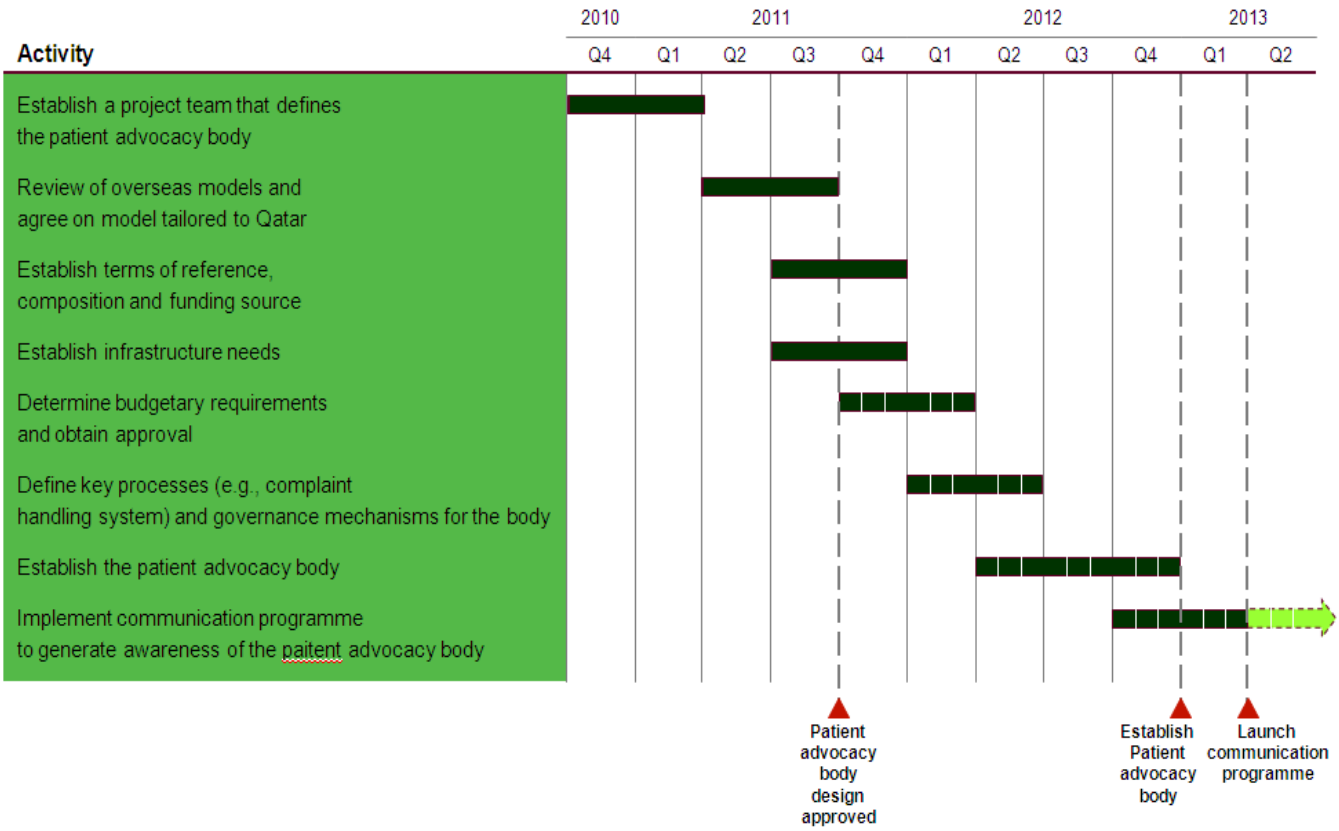
Background and Justification	▪ Currently in Qatar there is no independent body that examines the rights and issues of patients. Individual stakeholders do have departments that examine patient complaints, but similarly to other world class healthcare systems there is a need to establish a patient advocate (e.g., the patient ombudsman in the UK) ▪ An initial mandate should be focussed on facilitating complaints. In the medium to long term, the body should expand the mandate to cover protection of patient rights and data.
Objectives/Benefits/ Outcomes	▪ Set up a neutral, confidential, and independent third party to support patient complaints and protect patient rights. This body should be independent of the SCH and other healthcare stakeholders ▪ Outcomes: – Improved percentage of complaints resolved – Higher patient satisfaction ratings – An awareness of the patient advocacy body among the general public
Outputs	5.5.1 Patient advocacy body

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team that defines the patient advocacy body ▪ Review overseas models and agree on a model tailored to Qatar ▪ Establish terms of reference, composition, and a funding source ▪ Establish infrastructure needs ▪ Determine budgetary requirements and obtain approval ▪ Define key processes (e.g. complaint handling system) and governance mechanisms for the body ▪ Establish the patient advocacy body ▪ Implement a communication program to generate awareness of the patient advocacy body	▪ Patient advocacy body	▪ SCH, HMC, other key health stake-holders	▪ Require experts in healthcare regulation

Key Stakeholders and Overall Management Structure	▪ SCH
Beneficiaries	▪ General population, healthcare stakeholders,
Cross-sectoral Links	
Estimated Cost	▪ <10M QAR
Estimated Duration	▪ 18 months

Risk and Mitigation Measures	Risks	Mitigation Measures
	▪ Require legislative powers and resources ▪ Insufficient support from external stakeholders	▪ Leverage the SCH executive committee's power to ensure this project receives appropriate focus and necessary resources

Implementation Plan: Patient advocacy body



Project: 5.5 Patient advocacy body				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team that defines the patient advocacy body	Q4, 2010	Q1, 2011		Project team established
Review overseas models and agree on a model tailored to Qatar	Q2, 2011	Q3, 2011		Overseas patient advocacy bodies reviewed
Establish terms of reference, composition, and a funding source	Q3, 2011	Q4, 2011		Terms of reference, composition, and funding source for patient advocacy body established
Establish infrastructure needs	Q3, 2011	Q4, 2011		Infrastructure needs determined
Determine budgetary requirements and obtain approval	Q4, 2011	Q1, 2012		Budgetary requirements approved
Define key processes (e.g., complaint handling system) and governance mechanisms for the body	Q1, 2012	Q2, 2012		Key processes for patient advocacy body defined
Establish the patient advocacy body	Q2, 2012	Q4, 2012		Patient advocacy body established
Implement a communication program to generate awareness of the patient advocacy body	Q4, 2012 Q2, 2013	Q1, 2013 Ongoing		Communication program to generate awareness about patient advocacy body conducted
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: Activity n:				

Project Name:	6.1 Budgeting process
Related QNV 2030 Goal: Effective and affordable services in accordance with the principles of partnership in bearing the costs of healthcare.	

Background and Justification	▪ In Qatar, public expenditures for healthcare provision have increased over the past five years. This increase in healthcare costs is due to a large infrastructure buildup. Healthcare expenses per capita have also grown rapidly with a compound annual growth rate of more than 15 per cent. The real growth is likely to be higher since the figures do not include certain areas of expenditure (e.g., Qatar Foundation's health expenditure and treatment abroad). Hence it is important to set up meaningful control mechanisms, and the first step toward this is establishing a budgeting process. ▪ Health budgets have been developed using linear extrapolation based on historical spending. Individual cost heads are typically lump sum amounts estimated without underlying cost driver analysis. Standard budgeting practices like program-based budgeting, multiyear budgeting, and activity based budgeting are not followed. ▪ Hence, to comply with the QNV goal stated here, there must be a clear and accurate budgeting process.
Objectives/Benefits/ Outcomes	Develop a transparent budgeting process that enables monitoring and control of cost. ▪ Outcomes: – Revised budgeting process – Multiple-year budgets to ensure long-term planning for dedicated projects – Transition plan
Outputs	6.1.1 Budgeting process and a transition plan 6.1.2 Institutional requirements for implementing budgeting process 6.1.3 Multi-year budgeting program for public health sector spending

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish a project team (multiple-stakeholder) ▪ Recruit healthcare budgeting experts to support the task force ▪ Determine Ministry of Economy and Finance budgeting requirements ▪ Develop a baseline for current healthcare spending and classify it into programs ▪ Define a healthcare-specific budgeting process (activity based costing) and nomenclature ▪ Define institutional capacities to implement the budgeting process, perform gap analyses, and develop capacity buildup plans. ▪ Develop and implement a pilot budget process (a three- to five-year budget) for the SCH and other public healthcare institutions ▪ Review the budgeting process	▪ Budgeting process ▪ Institutional requirements ▪ Pilot budget	▪ SCH ▪ Ministry of Economy and Finance ▪ Ministry of Economy and Finance ▪ SCH ▪ SCH ▪ SCH	▪ Need capacity and expertise in budgeting and accounting methods ▪ Need alignment with healthcare data recommendations to meet budgeting prerequisites

and modify it			
Key Stakeholders and Overall Management Structure	▪ SCH to lead the development of healthcare budget requirements and processes ▪ Ministry of Economy and Finance ▪ HMC, PHC, and other public health stakeholders		
Beneficiaries	▪ Increased efficiency and effectiveness of healthcare expense in Qatar ▪ The general population, which reaps clinical benefits through better allocation of funds		
Cross-sectoral Linkages	▪		
Estimated Cost	▪ <10M QAR		
Estimated Duration	▪ Full implementation of activity based budgeting by Q4 2016		
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**	
	▪ Lack of cooperation from other Ministries and key healthcare stakeholders ▪ Inadequate staffing capacity ▪ Missing common IT platform or information exchange standards	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Other measures addressed in the SCH capacity development program	

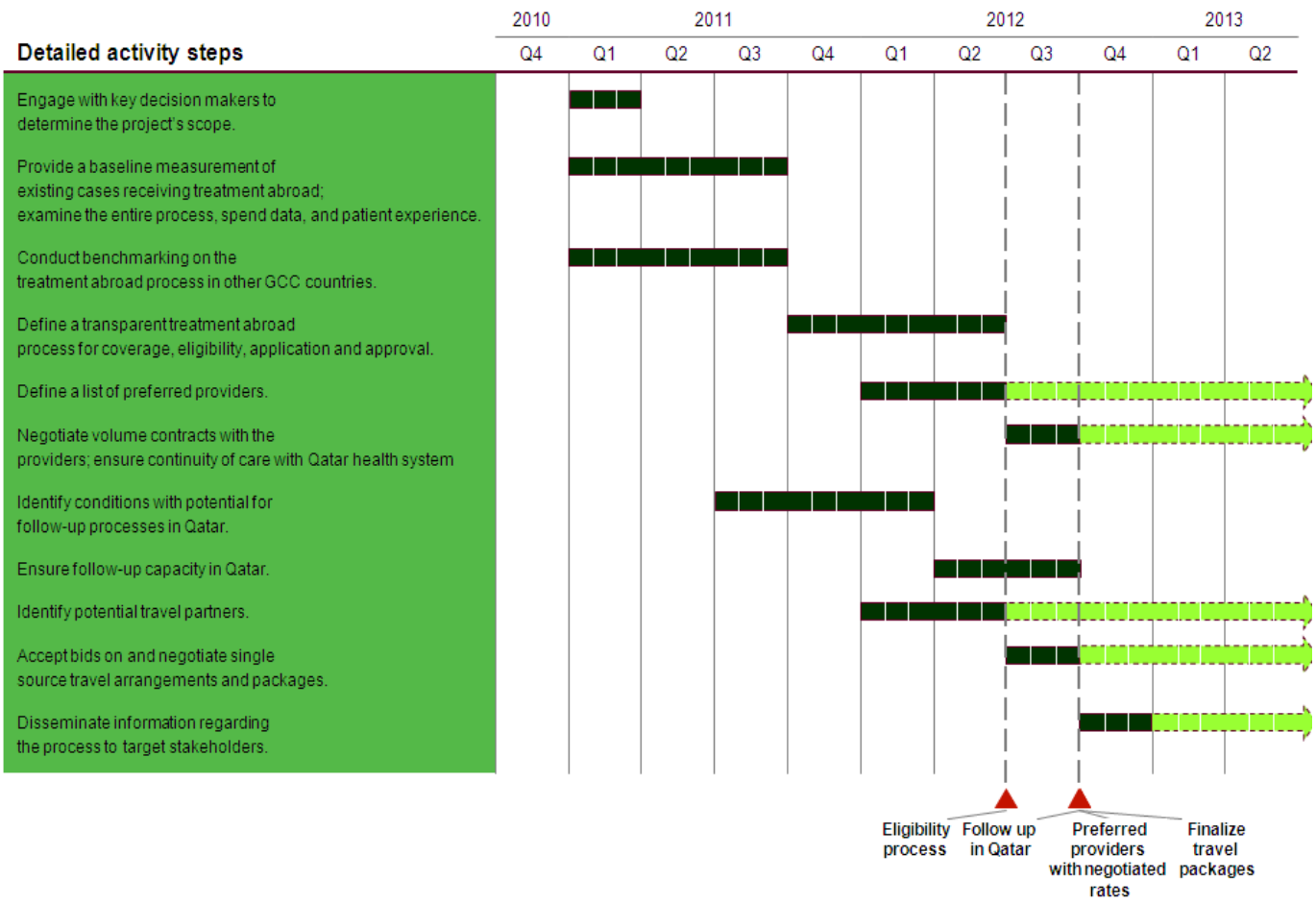
Project: 6.1 Budgeting process				**Start Date: Q4, 2010** **End Date: Ongoing**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish a project team (multiple-stakeholder)	Q4, 2010	Q1, 2011		Project team established
Recruit healthcare budgeting experts to support the task force	Q4, 2010	Q1, 2011		Healthcare budgeting experts recruited
Determine Ministry of Economy and Finance budgeting requirements	Q2, 2011	Q3, 2011		Ministry of Economy and Finance requirements determined
Develop a baseline for current healthcare spending and classify it into programs	Q2, 2011	Q3, 2011		Current healthcare spending baselined and classified into programs
Define healthcare-specific budgeting process (activity based costing) and nomenclature	Q4, 2011	Q1, 2011		Healthcare-specific budgeting process and nomenclature defined
Define institutional capacities to implement the budgeting process, perform gap analyses, and develop capacity buildup plans	Q1, 2011	Q1, 2011		Institutional capacities to implement budgeting process identified
Develop and implement a pilot budget process (a three- to five-year budget) for the SCH and other public healthcare institutions	Q2, 2012 Q1, 2013	Q4, 2012 Ongoing		Budgeting process for SCH and other public healthcare institutions piloted
Review budgeting process and modify	Q4, 2012 Q1, 2013	Q4, 2012 Ongoing		Budgeting process reviewed and modified based on pilot
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

Project Name:	6.2 Management of treatment abroad
Related QNV 2030 Goal: Effective and affordable services in accordance with the principle of partnership in bearing the costs of healthcare	
Background and Justification	▪ Because certain specialty services are not available in Qatar, some citizens have been sent abroad for treatment. Every year increasing sums are spent on treatment abroad. Anecdotal evidence suggests that spending on treatment abroad topped 0.5B QAR for approximately 950 patients, and that the cost per procedure was approximately 600k QAR. ▪ The process of getting treatment abroad has room for improvement through cost efficiency and management. This can be done without limiting access to care. There is a potential to enhance quality through the standardization of processes.
Objectives/Benefits/ Outcomes	▪ Examine treatment abroad and standardise processes to Optimize expenditures and enhance quality of care. ▪ Outcome: – Effective use of spending on treatment abroad – Increased utilization of services in Qatar
Outputs	6.2.1 List of preferred providers based on quality, and volume contracts negotiated with these providers 6.2.2 Single source for travel arrangements and development of package solutions 6.2.3 Follow-up care to take place in Qatar as appropriate 6.2.4 Definition of indications that are eligible for treatment abroad, and transparent application and approval process

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Engage with key decision makers to determine the project's scope ▪ Provide a baseline measurement of existing cases receiving treatment abroad; examine the entire process, spend data, and patient experience. ▪ Conduct benchmarking on the treatment abroad process in other GCC countries. ▪ Define a transparent treatment abroad process for coverage, eligibility, application, and approval ▪ Define a list of preferred providers ▪ Negotiate volume contracts with the providers; ensure continuity of care with Qatar's health system ▪ Identify conditions with potential for follow-up processes in Qatar ▪ Ensure follow-up capacity in Qatar ▪ Identify potential travel partners ▪ Accept bids on and negotiate single source travel arrangements and packages ▪ Disseminate information regarding the process to target stakeholders	▪ Eligibility process ▪ Preferred providers ▪ Follow-up in Qatar ▪ Travel packages determined	▪ SCH ▪ SCH, HMC	▪ Need political will to address a potentially sensitive issue ▪ Need comprehensive data and documentation on past treatment abroad cases to be available

Key Stakeholders and Overall Management Structure	▪ SCH, working with HMC and other providers to establish follow-up procedures in Qatar	
Beneficiaries	▪ Qatari population, SCH, healthcare providers	
Cross-sectoral Linkages		
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ 24 months	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of mandate from key decision makers to execute the project ▪ Lack of capacity to implement and monitor the process ▪ Limited compliance from international partners	▪ Understand the project's scope based on direction from higher authorities ▪ Ensure ability to recruit appropriate capacity to implement process ▪ Devise clear performance agreements and SLAs with international providers, and including consequences for nonperformance

Implementation Plan: Management of treatment abroad



Project: 6.2 Management of treatment abroad				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Engage with key decision makers to determine the project's scope.	Q1, 2011	Q1, 2011		Determine scope of project
Provide a baseline measurement of existing cases receiving treatment abroad; examine the entire process, spend data, and patient experience	Q1, 2011	Q3, 2011		Baseline of existing treatment abroad
Conduct benchmarking on the treatment abroad process in other GCC countries	Q1, 2011	Q3, 2011		Benchmarking of treatment abroad process in other GCC countries conducted
Define a transparent treatment abroad process for coverage, eligibility, application and approval	Q4, 2011	Q2, 2012		Transparent treatment abroad process defined
Define a list of preferred providers	Q1, 2012 Q3, 2012	Q2, 2012 Ongoing		Preferred list of providers defined
Negotiate volume contracts with the providers; ensure continuity of care with Qatar's health system	Q3, 2012 Q4, 2013	Q3, 2012 Ongoing		Volume contracts with preferred providers negotiated
Identify conditions with potential for follow-up processes in Qatar	Q3, 2011	Q1, 2011		Conditions with potential for follow-up in Qatar identified
Ensure follow-up capacity in Qatar	Q2, 2012	Q3, 2012		Capacity to handle follow-up in Qatar in place
Identify potential travel partners	Q1, 2012 Q3, 2012	Q2, 2012 Ongoing		Travel partners identified
Accept bids on and negotiate single source travel arrangements and packages	Q3, 2012 Q4, 2013	Q3, 2012 Ongoing		
Disseminate	Q4, 2012	Q4, 2012		Information on treatment

information regarding the process to target stakeholders	Q1, 2013	Ongoing		abroad process disseminated to stakeholders

Project Achievements
(What did each project activity achieve? List of achievements)
Activity 1:
Activity 2:
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Activity n:

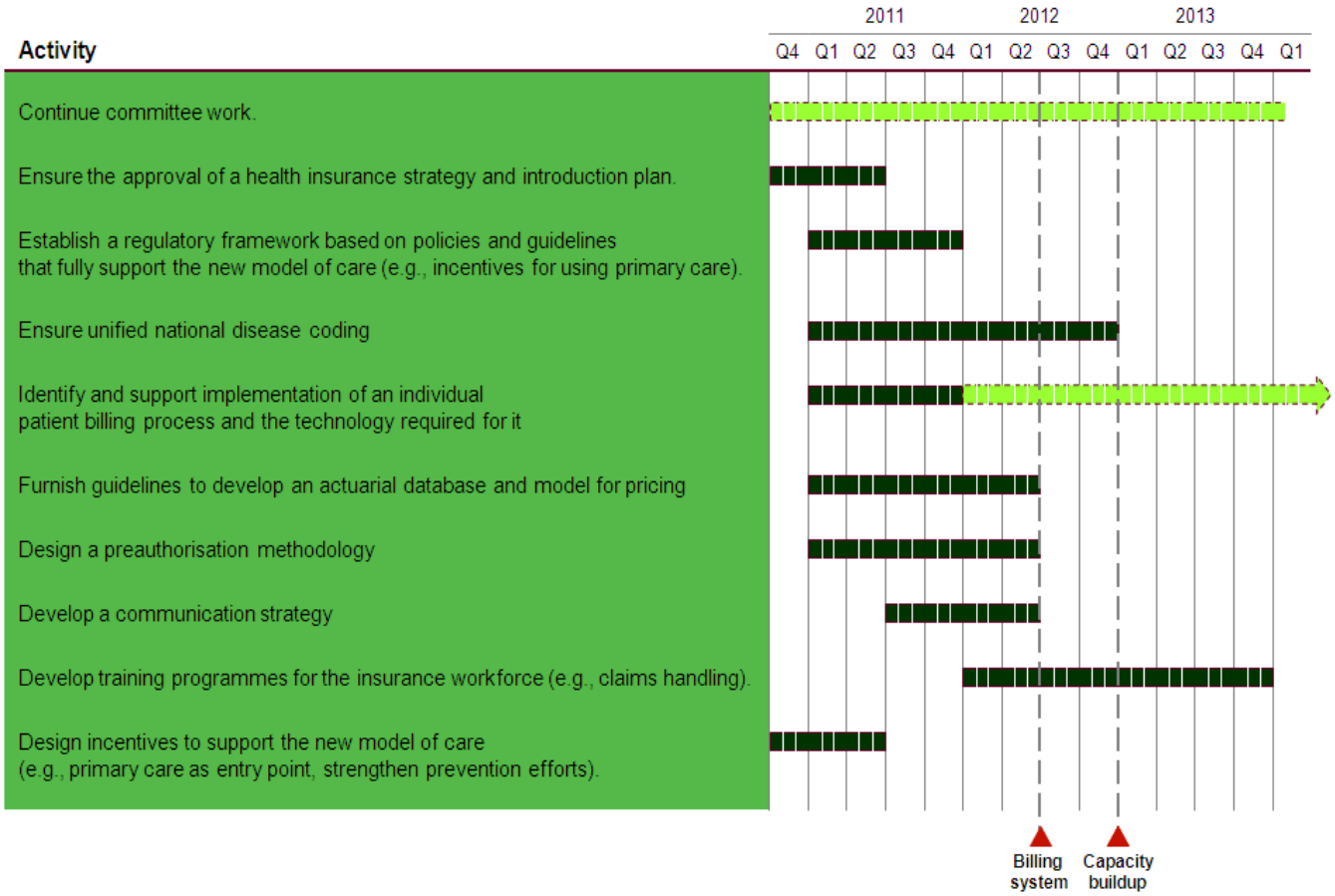
Project Name:	6.3 Health insurance establishment
Related QNV 2030 Goal: Effective and affordable services in accordance with the principles of partnership in bearing the costs of healthcare.	
Background and Justification	▪ Health insurance is one of the key components to achieving a world class healthcare system because of its integral role in bringing various facets of the system together (e.g., it will enable and endorse the new model of care). ▪ Qatar has been working on introducing a health insurance scheme for several years and can benefit from knowledge gained by its neighboring countries that have already implemented respective systems. ▪ The health insurance establishment project should ensure that prerequisites necessary for a successful launch are also in place. ▪ Health insurance is the key enabler to achieving the QNV goals of effective and affordable services.
Objectives/Benefits/ Outcomes	▪ Introduce health insurance as a tool to ensure a sustainable quality health system ▪ Outcome: – Access to healthcare facilities and regulation of the use of healthcare services – 100 per cent insurance coverage of the Qataris and the resident population by Q4 2016 – Quality enhancement incentives for providers incorporated – Incentives for consumers to encourage healthy behaviors
Outputs	6.3.1 Health insurance scheme in Qatar 6.3.2 Full billing capabilities 6.3.3 Preauthorisation standards 6.3.4 Education and training programs 6.3.5 Transparent communication campaign

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Continue committee work ▪ Ensure the approval of a health insurance strategy and introduction plan ▪ Establish a regulatory framework based on policies and guidelines that fully support the new model of care (e.g., incentives for using primary care) ▪ Ensure unified national disease coding ▪ Identify and support implementation of an individual patient billing process and the technology required for it ▪ Furnish guidelines to develop an actuarial database and model for pricing. ▪ Design a preauthorisation methodology ▪ Develop a communication strategy ▪ Develop training programs for the insurance workforce (e.g., claims	▪ Billing system ▪ Increase in public awareness ▪ Capacity buildup	▪ SCH, Health Insurance Committee	▪ There is a capacity shortage in skills and staff ▪ Providers must be able to comply with insurance processes requirements

handling) ▪ Design incentives to support the new model of care (e.g., primary care as entry point, strengthen prevention efforts)			

Key Stakeholders and Overall Management Structure	▪ SCH (lead) ▪ Health insurance committee (established May 2009)	
Beneficiaries	▪ People of Qatar will gain access to all health service providers ▪ SCH and Ministry of Economy and Finance will get clarity and accuracy on health service expenditures	
Cross-sectoral Linkages	▪ Ministry of Economy and Finance ▪ Insurance companies	
Estimated Cost	▪ Ongoing project resource requirement not estimated	
Estimated Duration	▪ Aim for rollout of first phase of new insurance scheme in Q2 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ It must be ensured that insurance providers do not indulge in flawed pricing strategies that threaten the stability of the system ▪ Lack of an insurance regulator ▪ Capacity shortages both on skills and workforce numbers	▪ Ensure development of an actuarial model for the same ▪ Establish a health insurance committee that acts as a robust regulator for health insurance ▪ Plan for SCH workforce capacity—establish training programs with select local and international insurance providers

Implementation Plan: Health Insurance Establishment



Project: 6.3 Health insurance establishment				Start Date: Q4, 2011 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Continue committee work	Q4, 2011	Q4, 2013		Insurance committee work continued
Ensure the approval of a health insurance strategy and introduction plan	Q4, 2011	Q2, 2011		Health insurance strategy and introduction plan approved
Establish a regulatory framework based on policies and guidelines that fully support the new model of care (e.g., incentives for using primary care)	Q1, 2011	Q4, 2011		Health insurance regulatory framework that supports new model of care established
Ensure unified national disease coding	Q1, 2011	Q4, 2012		Unified national disease coding established
Identify and support implementation of an individual patient billing process and the technology required for it	Q1, 2011 Q1, 2012	Q4,2011 Ongoing		Individual billing process implemented
Furnish guidelines to develop an actuarial database and model for pricing	Q1, 2011	Q2, 2012		Guidelines to develop an actuarial database and pricing model established
Design a preauthorisation methodology	Q1, 2011	Q2, 2012		Preauthorisation methodology designed
Develop a communication strategy	Q3, 2011	Q2, 2012		Communication strategy to introduce health insurance developed
Develop training programs for the insurance workforce (e.g., claims handling)	Q1, 2012	Q4, 2013		Training programs for health insurance specific workforce developed
Design incentives to support the new model of care (e.g., primary care as entry point, strengthen prevention efforts)	Q4, 2011	Q2, 2011		Incentives to support new model of care in place
Project Achievements				

(What did each project activity achieve? List of achievements)
Activity 1:
Activity 2:
.
.
.
Activity n:

Project Name:	6.4 Healthcare infrastructure master plan

Related QNV 2030 Goal: Effective and affordable services in accordance with the principles of partnership in bearing the costs of healthcare.

Background and Justification

- Currently majority of healthcare services in Qatar have been provided in a hospital setup. Qatar is expected to double hospital bed capacity in the next few years. This expansion has been characterised by limited coordination and is likely to become further complicated because of the private sector's increasing involvement. Additionally, there has been little focus on community-based services, including planning for primary care and continuing care projects.
- To address these problems, Qatar needs to develop an infrastructure master plan linked to the model of care that determines the size, scope, and geographic distribution of facilities and large-scale technical equipment (e.g., equipment costing more than 10M QAR) required in Qatar.
- The healthcare infrastructure master plan will be developed to:
  - avoid the unnecessary duplication of services if those services are not aligned with patient volumes;
  - ensure infrastructure plans take into account key determinants, such as workforce;
  - allow for sound and efficient use of financial resources; and
  - control for supply-induced demand due to misalignment of incentives (moral hazard problem).
- This program is linked to the Capital Expenditure committee, which will enforce the infrastructure master plan that will be developed. The program will build off the existing CSF being developed by the SCH.

Objectives/Benefits/ Outcomes

- Integrated and coordinated healthcare infrastructure based on population needs
- Outcomes:
  - Comprehensive infrastructure master plan that includes facilities (primary, secondary, tertiary, continuing care) and large-scale technical equipment on a needs basis
  - Process for annual updates of the plan

Outputs

6.4.1 Comprehensive healthcare infrastructure master plan
6.4.2 Process to update the healthcare infrastructure master plan annually

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Determine the type and thresholds of equipment to be included in the master plan ▪ Obtain data on all existing and planned facilities and large-scale technical equipment ▪ Develop an infrastructure master plan linked to the CSF ▪ Obtain approval from higher authorities	▪ Healthcare infrastructure master plan	▪ SCH ▪ SCH ▪ SCH ▪ SCH	▪ Needs capacity and expertise in healthcare facility planning ▪ Needs capacity and expertise in healthcare technology

Key Stakeholders and Overall Management Structure

- SCH
- Other key stakeholders:
  - Ministry of Economy and Finance
  - Ministry of Urban Planning and Municipality
  - HMC
  - Sidra

<table>
<tr><td></td><td colspan="2">– Private providers (to be specified)
▪ Ashghal</td></tr>
<tr><td>Beneficiaries</td><td colspan="2">▪ Public and private providers because of improved coordination and transparency
▪ Ministry of Economy and Finance because of greater efficiency in healthcare expenses
▪ Urban planning and Ashghal because of the ability to plan better for healthcare facilities</td></tr>
<tr><td>Cross-sectoral Linkages</td><td colspan="2">▪ Ministry of Economy and Finance
▪ Ministry of Urban Planning</td></tr>
<tr><td>Estimated Cost</td><td colspan="2">▪ <10M QAR</td></tr>
<tr><td>Estimated Duration</td><td colspan="2">▪ Master plan should be finished 12 months after CSF has been finalized but not later than the end of Q4 2011</td></tr>
<tr><td>Risk and Mitigation Measures</td><td>Risks</td><td>Mitigation Measures</td></tr>
<tr><td></td><td>▪ Lack of cooperation from other Ministries and key healthcare stakeholders
▪ Lack of CSF
▪ Inadequate staffing capacity</td><td>▪ Leverage the SCH executive committee’s power to obtain cross-sectoral collaboration
▪ Other measures addressed in the SCH capacity development program</td></tr>
</table>

Project Name:	6.5 Capital expenditure committee

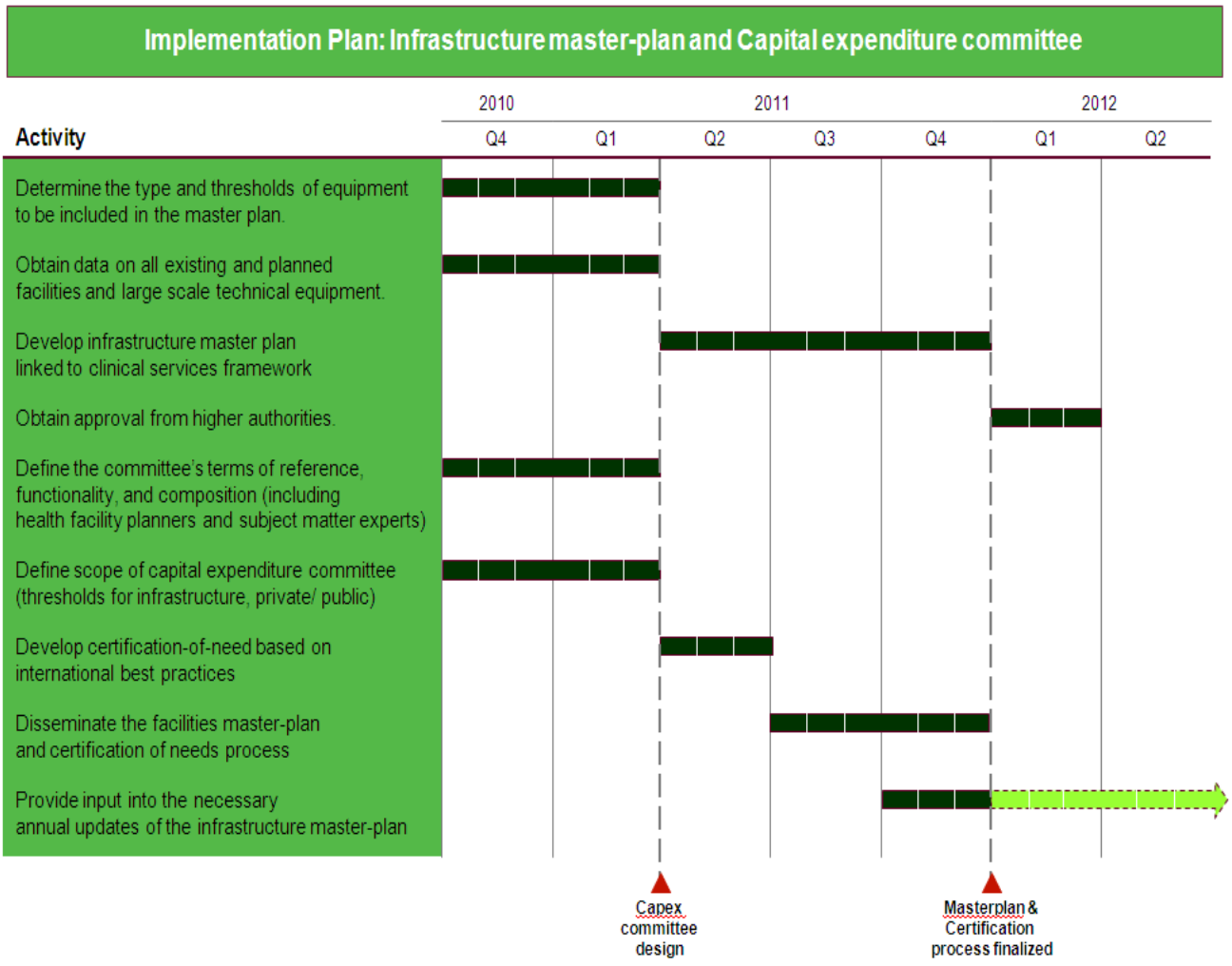
Related QNV 2030 Goal: Effective and affordable services in accordance with the principles of partnership in bearing the costs of healthcare.

Background and Justification	▪ Infrastructure building activities are a major driver of annual healthcare costs in Qatar. ▪ There has been a general lack of coordination and governance regarding infrastructure planning in Qatar. With the development of a master plan, a body will be needed to oversee stewardship of the plan and to: – facilitate consistent decision making; – foster integration among all key providers, including private providers; and – ensure that infrastructure spending is linked to needs and aligned to the model of care. ▪ The capital expenditure committee must be given legislative power to enforce its decisions. ▪ Private providers requiring any public funding will need approval from the capital expenditure committee.
Objectives/Benefits/ Outcomes	Ensure infrastructure development is based on needs and aligned to the model of care ▪ Outcome: – Effective enforcement mechanism for the infrastructure master plan – Efficient use of public expenditures for facilities and large-scale technical equipment
Outputs	6.5.1 Establishment of the capital expenditure committee according to the terms of reference. 6.5.2 Defining certificate-of-need process for Qatar.

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Define the committee's terms of reference, functionality, and composition (including health facility planners and subject matter experts) ▪ Define scope of capital expenditure committee (thresholds for infrastructure, both private and public) ▪ Develop CON based on international best practices ▪ Disseminate the facilities master-plan and CON process ▪ Provide input into the necessary annual updates of the infrastructure master plan	▪ Capex committee ▪ Certificate of need process	▪ SCH ▪ SCH, Ministry of Economy and Finance, HMC, Ashghal, private sector ▪ SCH ▪ SCH ▪ SCH	▪ Needs capacity and expertise in business planning ▪ Needs expertise in healthcare data collection and interpretation ▪ Needs expertise in healthcare facility planning and technology assessment

Key Stakeholders and Overall Management Structure	▪ SCH ▪ All health facility providers in Qatar (covering the entire spectrum from primary care to continuing care) ▪ Ministry of Economy and Finance ▪ Ministry Municipality and Urban Planning
Beneficiaries	▪ General population ▪ Ministry of Economy and Finance

	▪ Healthcare providers (public and private)	
Cross-sectoral Linkages	▪ Economic infrastructure diversification	
Estimated Cost	▪ <10M QAR	
Estimated Duration	▪ Committee up and running by Q4 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Lack of cooperation from other Ministries and key healthcare stakeholders ▪ Lack of CSF and the resulting master plan ▪ Inadequate staffing capacity	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Align with the CSF ▪ Other measures addressed in the SCH capacity development program



Project: 6.4 Infrastructure master plan—6.5 Capital expenditure committee				Start Date: Q4, 2010 End Date: Ongoing
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Determine the type and thresholds of equipment to be included in the master plan	Q4, 2010	Q1, 2011		Thresholds for equipment included in master plan determined
Obtain data on all existing and planned facilities and large-scale technical equipment	Q4, 2010	Q1, 2011		Data on all existing and planned facilities and large scale equipment collected
Develop infrastructure master plan linked to CSF	Q2, 2011	Q4, 2011		Infrastructure master plan linked to clinical services framework developed
Obtain approval from higher authorities	Q1, 2012	Q1, 2012		Approval of infrastructure master plan obtained
Define the committee's terms of reference, functionality, and composition (including health facility planners and subject matter experts)	Q4, 2010	Q1, 2011		Capex committee's terms of reference, functionality, and composition defined
Define scope of capital expenditure committee (thresholds for infrastructure, private/ public)	Q4, 2010	Q1, 2011		Scope of capital expenditure committee defined
Develop CON based on international best practices	Q2, 2011	Q2, 2011		CON process developed
Disseminate the facilities master plan and CON process	Q3, 2011	Q4, 2011		Information on facilities master-plan and CON process disseminated
Provide input into the necessary annual updates of the healthcare infrastructure master plan	Q4, 2011 Q1, 2012	Q4, 2011 Ongoing		Annual updates of healthcare infrastructure master plan conducted
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . . Activity n:				

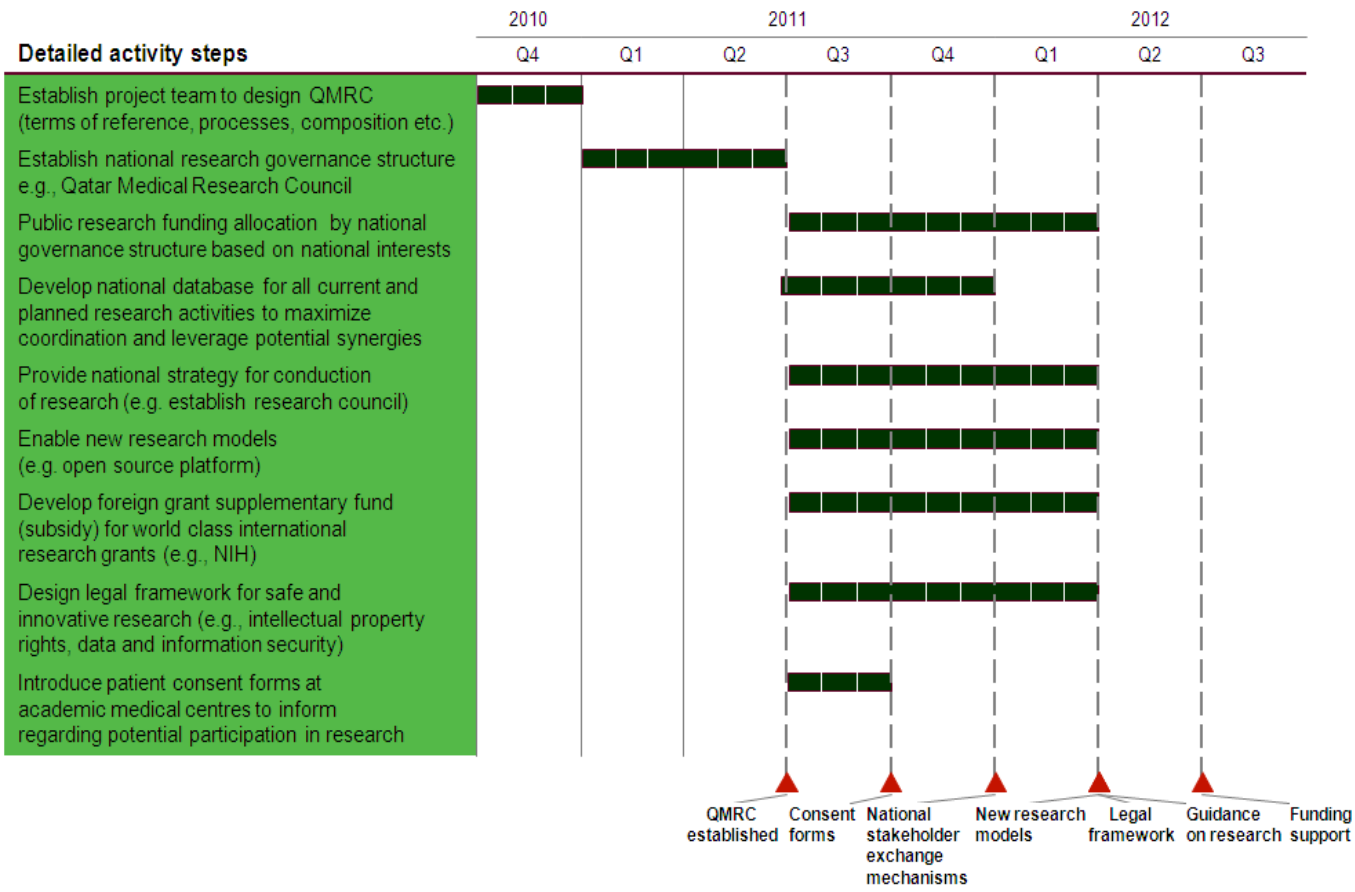
Project Name:	7.1 Research governance
Related QNV 2030 Goal: High-quality research directed at improving the effectiveness and quality of healthcare	
Background and Justification	▪ Qatar has embarked on an ambitious research program, but thus far there has been limited national coordination. ▪ Healthcare research activities in Qatar are currently almost exclusively focused on biomedical topics, with public health and policy projects missing. ▪ To meet the QNV goals on quality and effectiveness of research, there has to be national alignment on all research activities and appropriate utilization of resources, as well as a need to embed research in all aspects of healthcare, including clinical effectiveness, quality improvement, primary care, policy, etc.
Objectives/Benefits/ Outcomes	▪ Ensure coordination and sufficient funding for different types of healthcare research, including biomedical, public health, clinical effectiveness, and health policy.
Outputs	7.1.1 Governance structure and legal framework for safe and innovative research 7.1.2 National coordination of health research activity through a centralised body, led by the SCH (including specialised equipment purchasing), (eg QMRC) 7.1.3 Guidance on performing research according to international standards 7.1.4 Funding support for all national healthcare research priorities 7.1.5 New research models 7.1.6 Cross-stakeholder exchange mechanisms 7.1.7 Patient consent forms at institutions that perform research

Activities	Indicators	Responsible Parties	Institutional Readiness and Capacities
▪ Establish national research governance structure, led by the SCH, to ensure national coordination and prioritization of health research activity (e.g., QMRC) ▪ Allocate public research funding by national governance structure based on national interests ▪ Develop national database for all current and planned research activities to maximise coordination and to leverage potential synergies ▪ Provide national strategy for the conducting of research (e.g., establish a research council) ▪ Enable new research models (e.g., open-source platform) ▪ Develop a foreign grant supplementary fund (subsidy) for world class international research grants (e.g., NIH) ▪ Design legal framework for safe and innovative research (e.g., intellectual property rights, data and information security)	▪ Structure established ▪ Funding support ▪ Cross-stakeholder exchange mechanisms ▪ Guidance on research ▪ New research models ▪	▪ SCH, represent-atives from all research entities ▪ SCH	▪ Need professionals with expertise in conducting translational and clinical research (clinical trial design, data acquisition, and statistical analysis) ▪ Expertise in implementing the monitoring and evaluation system to track the project's effectiveness (e.g., publications, citations, patents, external grant funding)

▪ Introduce patient consent forms at academic medical centers to inform patients of potential participation in research	▪ Legal framework ▪ Patient consent forms	▪	▪

Key Stakeholders and Overall Management Structure	▪ SCH, Qatar Research Institute (Biomedical Research), WCMC-Q, QU, QSTP, Shafallah, CNA-Q, HMC, PHC, and others	
Beneficiaries	▪ Research institutes ▪ Health stakeholder ▪ General population	
Cross-sectoral Linkages	▪ Education	
Estimated Cost	▪ 10M–50M QAR	
Estimated Duration	▪ Working group recommendations ready by Q4 2012 ▪ Attract three externally funded research projects to Qatar by Q4 2011	
Risk and Mitigation Measures	**Risks**	**Mitigation Measures**
	▪ Cooperation from other Ministries and key healthcare stakeholders ▪ Availability of research expertise and capacity	▪ Leverage the SCH executive committee's power to obtain cross-sectoral collaboration ▪ Other measures addressed in the workforce capacity development program

Implementation Plan: Research governance



Project: 7.1 Research governance				**Start Date: Q4, 2010 End Date: Q1, 2012**
Activities	**Start date**	**End Date**	**Date of Assessment**	**Indicator of completion of activity**
Establish project team to design QMRC (e.g., terms of reference, processes, composition)	Q4, 2010	Q4, 2010		Project team for research governance established
Establish national research governance structure (e.g., QMRC)	Q2, 2011	Q2, 2011		National research governance (QMRC) established
Allocate public research funding by national governance structure, based on national interests	Q3, 2011	Q1, 2012		Public research funding allocation by national governance structure completed
Develop national database for all current and planned research activities to maximise coordination and leverage potential synergies	Q3, 2011	Q4, 2011		National database for all current and planned research activities conducted
Provide national strategy for the conducting of research	Q3, 2011	Q1, 2012		National strategy for research developed
Enable new research models (e.g., open-source platform)	Q3, 2011	Q1, 2012		New research models established
Develop foreign grant supplementary fund (subsidy) for world class international research grants (e.g., NIH)	Q3, 2011	Q1, 2012		Foreign grant supplementary fund developed
Design legal framework for safe and innovative research (e.g., intellectual property rights, data and information security)	Q3, 2011	Q1, 2012		Legal framework for safe and innovative research in place
Introduce patient consent forms at academic medical centers to inform patients of potential participation in research	Q3, 2011	Q3, 2011		Patient consent forms introduced
Project Achievements (What did each project activity achieve? List of achievements) Activity 1: Activity 2: . . Activity n:				

Annex B—Team members and other lists

Table 1. Members of the Planning Team

Name	Position and Organisation
Dr. Juliet Ibrahim	Department of Health Planning and Assessment, SCH
Prof. Andrejs Zamurs	Hamad Medical Corporation
John Gregg	Office of Her Highness Sheikha Mozah bint Nasser Al Missned
Samantha Page	SCH

Table 2. Members of the Executive Group

Name	Organisation
HE Dr. Mohammed GA Al-Maadheed (Chair)	**Vice Chairman, Executive Committee, SCH**
HE Abdullah Khalid Al-Qahtani	Minister of Health, Secretary General, SCH
HE Dr. Ibrahim Ibrahim	Secretary General, GSDP
Professor Dr. David Kerr	Chief Research Advisor, SIDRA

Table 3. Members of the Task Team

Name	Organisation
Dr. Mohammed GA Al-Maadheed (Chair)	**Vice-Chairman, Executive Committee, SCH**
Dr. Mariam Abdulmalik	PHC
Mr. Dan Bergin	SIDRA
Mr. Mohammed Emadi	Al Emadi Hospital
Dr. Faleh Mohammed Hussein Ali	SCH
Dr. Juliet Ibrahim	SCH
Dr. Hanan Kuwari	HMC
Captain Sapt Kuwari	MoI
Dr. Richard Leete	GSDP
Mr. Abdulaziz Naama	Qatar Armed Forces Medical Services
Dr. Javaid Sheikh	Weil-Cornell Medical College-Qatar
Dr. Khalifa Al-Kuwari	ASPETAR
Mr. Bala Krishnan	Qatar Military Hospital

Table 4. Members of Sub-Task Team—Model of Care

Name	Organisation
Dr. Saleh Al Marri (chair)	**SCH**
Dr. Mariam Abdul Malik (co-chair)	**Primary Healthcare**
Dr. Adenike Ajani	Supreme Council of Health
Dr. Mohammed Al Emadi	Al Emadi Hospital
Dr. Salma Khalaf Al-Kaabi	Supreme Council of Health
Dr. Nabeela Al Meer	Hamad Medical Corporation
Dr. Abdul Wahab Al Musleh	Hamad Medical Corporation
Dr. Khalid Alnoor	Hamad Medical Corporation
Mr. Dan Bergin	SIDRA
Ms. Kerrie Cross	Hamad Medical Corporation
Dr. Juliet Ibrahim	Supreme Council of Health
Professor David Kerr	SIDRA
Dr. Mariam Abdul Malik	Primary Healthcare
Dr. Robert Owen	Hamad Medical Corporation
Ms. Samantha Page	Supreme Council of Health
Mr. Michael Stroud	Al-Ahli hospital
Mrs. Donna Valkuchak	SIDRA

Table 5. Members of Sub-Task Team—Public Health

Name	Organisation
Shk. Dr. Moh. Al Thani (chair)	**SCH**
Dr. Zeki Ali Mohamed (co-chair)	**Ministry of Interior**
Dr. Adenike Ajani	Supreme Council of Health
Dr. Hamad Saadun Al Azba	Qatar Armed Forces
Ms. Wassan Al Baker	Supreme Council of Health
Dr. Haseina Saidan Masoud Al-Hamad	Qatar Petroleum
Mr. Mahmood Abdul Rahman Al-Jaidah	Qatar Petroleum
Dr. Mohammed Gaith Al Kuwari	Supreme Council of Health
Mr. Nasser Al Maki	Ministry of Municipality
Brigadier General Mohamed Al-Malki	Ministry of Interior
Ms. Mariam Al Misnad	Supreme Council of Family Affairs
Dr. Al Anoud Mohammed Al Thani	Supreme Council of Health
Dr. Wasif Alam	Supreme Council of Health
Dr. Abdullatif Alkhal	Hamad Medical Corporation
Dr. Abd Elhalim Elsayed Bakri	Al-Ahli hospital
Dr. Hazem Ghobashy	Ministry of Environment
Dr. Juliet Ibrahim	Supreme Council of Health
Mr. Ademola Gideon Ilori	Ministry of Interior
Dr. Ravinder Mamtani	Weill Cornell Medical College - Qatar
Mr. Mubarak Fraish Mubarak Saleh Salem	Ministry of Municipality
Ms. Samantha Page	Supreme Council of Health

Table 6. Members of Sub-Task Team—Finance and Infrastructure

Name	Organisation
Mr. Paul Grant (chair)	**HMC**
Ms. Nabeela Al Hashimi (co-chair)	**Supreme Council of Health**
Dr. Adenike Ajani	Supreme Council of Health
Mr. Ali Al Janahi	Hamad Medical Corporation
Mr. Nasser Al Malki	Ministry of Municpality
Mr. Mahmoud Al Nasir	Doha Insurance Company
Mr. Masoud Mahmoud Al-Qadi	ASHGHAL
Mr. Bader Ahmed Al-Qayed	Ministry of Economy and Finance
Mr. Thomas Birmingham	Al-Ahli hospital
Mr. Paul Grant	Hamad Medical Corporation
Dr. Juliet Ibrahim	Supreme Council of Health
Ms. Samantha Page	Supreme Council of Health
Mr. Husein Reka	Supreme Council of Health
Mr. Awn Sharif	Supreme Council of Health
Mr. Llew Werner	SIDRA
Mr. Naim Younis	Hamad Medical Corporation

Table 7. Members of Sub-Task Team—Regulation and Workforce

Name	Organisation
Dr. Fouzia Al-Naimi (chair)	**Supreme Council of Health**
Dr. Jamal Al Khanji (co-chair)	**Supreme Council of Health**
Dr. Mobin Abdulla	Al-Ahli hospital
Dr. Adenike Ajani	Supreme Council of Health
Ms. Aisha Said Al Abdulla	Hamad Medical Corporation
Dr. Aisha Al Ansari	Supreme Council of Health
Dr. Khalid Al-Bader	Primary Healthcare
Major Salem Jarallah Al-Marri	Ministry of Interior
Ms. Christine Bolan	College of the North Atlantic Qatar
Dr. Sheila Evans	University of Calgary Qatar
Mr. Edward Fraser	Primary Healthcare
Dr. Juliet Ibrahim	Supreme Council of Health
Dr. Wisam Mahdi	Hamad Medical Corporation
Dr. Samir Makled	Primary Healthcare
Dr. Suzanne Malt	SIDRA
Mr. Curt Monk	College of the North Atlantic Qatar
Ms. Nasra Omar	Hamad Medical Corporation
Ms. Samantha Page	GSDP
Mr. Omer Tahir	Ministry of Interior
Mr. Ian Young	SIDRA

Table 8. Members of Sub-Task Team—Data, Research and Innovation

Name	Organisation
Dr. Momtaz Wassef (chair)	**SCH**
Professor Abdul Bari Benner (co-chair)	**Hamad Medical Corporation**
Dr. Fouzia Abdulla	Supreme Council of Health
Dr. Laith Abu-Raddad	Weill Cornell Medical College – Qatar
Dr. Adenike Ajani	Supreme Council of Health
Ms. Asma Al-Emadi	Qatar Statistics Authority
Mr. Tawfiq Al-Herbawi	Primary Healthcare
Ms. Loulwa Jassim Ali Al-Kuwari	Supreme Council of Health
Dr. Wafa Al-Sulaiti	Qatar Statistics Authority
Dr. Al Anoud Mohammed Al Thani	Supreme Council of Health
Ms. Caroline Ashley	Supreme Council of Health
Ms. Lamia Barghouti	Supreme Council of Health
Mr. Mohamed Bsaiso	Aspetar hospital
Mr. Abdulla Emadi	Hamad Medical Corporation
Mr. Dhamendra Ghai	Hamad Medical Corporation
Mr. Justin Grantham	Aspetar hospital
Dr. Bill Greer	SIDRA
Mr. Bruce Hamilton	Aspetar hospital
Mr. Jamal Hammad	Al-Ahli hospital
Dr. Abdelali Haoudi	Qatar Foundation
Dr. Juliet Ibrahim	Supreme Council of Health
Professor David Kerr	SIDRA
Dr. Dirar Khoury	Qatar Foundation
Ms. Eman Nasrella	Qatar Foundation
Ms. Samantha Page	GSDP
Professor Gerard Saillant	Aspetar hospital
Mr. Shameer Sam	Hamad Medical Corporation
Dr. Momtaz Wassef	Supreme Council of Health

Table 9: List of organisations consulted

Within the healthcare sector	Outside the healthcare sector
Supreme Council of Health	General Secretariat for Development Planning
Hamad Medical Corporation	Ministry of Economy and Finance
Primary Healthcare	Ministry of Interior
SIDRA	College of the North Atlantic – Qatar
Aspetar Hospital	Qatar Petroleum
Qatar Foundation	Qatar Science and Technology Park
Weill Cornell Medical College	Ashghal
Qatar University	Supreme Council of Family Affairs
University of Calgary	Qatar Steel (Health Safety Department)
Al-Ahli Hospital	Ministry of Environment
Al-Emadi Hospital	Ministry of Municipality and Agriculture
Doha Insurance	
Qatar Insurance Corporation	

Table 10: Interviewee list

SCH	HMC	Other
Dr. Faleh Mohammed Ali	Mr. Ali Al Janahi	Dr. Khalid Al Badr (PHC)
Mr. Ahmed Al Khulaifi	Dr. Abdulla Al Kaabi	Dr. Mohammad Gaith Al Kuwari (PHC)
Dr. Saleh Ali Al Marri	Dr. Abdul Lateef Al Khal	Dr. Mohammed Al Madheed (Aspetar)
Dr. Foziah Abdulla	Dr. Hanan Al Kuwari	Mr. Nasser Al Maki (Min. of Municipality & Agri)
Dr. Adenike Frances Ajani	Dr. Mohammed Al Kuwari	Brigadier General Mohamed Al-Malki (Min. of Interior)
Dr. Aisha Al Ansari	Dr. Nabila Al Meer	Ms. Mariam Al Misnad (Supreme Council of Family Affairs)
Dr. Wassan Al Baker	Dr. Abdul Wahab Al Musleh	Mr. Mahmoud Al Nasir (Doha Insurance)
Dr. Walaa Fattah Mahmood Al-Chetachi	Dr. Mohammed Ali Jassim	Mr. Masoud Mahmoud Al-Qadi (Ashgal)
Dr. Maryam Al Emadi	Prof. Bari Bener	Mr. Bader Ahmed Al-Qayed (Ministry of Economy & Finance)
Ms. Nabeela Al Hashimi	Dr. Caroline (Rumaillah Hospital)	Mr. Dan Bergin (Sidra)
Dr. Jamal Al Khanji	Ms. Kerrie Cross	Dr. Vasiliki Chini (Shafallah)
Dr. Noura Al-Kubaisi	Dr. Mohan Dhanogropal	Dr. Hatem Elshanti (Shafallah)
Dr. Fouzia Al Naimi	Dr. Judith Don (Rumaillah)	Dr. Sheila Evans (Calgary)
Dr. Maya Al Shaiba	Mr. Paul Grant	Dr. GalalEl-DinRashwan (QIC)
Dr. Alanoud Al Thani	Mr. Hussein Hassouna	Mr. Hazem Gobashy (Min. of Environment)
Dr. Sheikh Mohammed Al Thani	Dr. Ismail Helmi	Mr. John Gregg (OHH)
Dr. Wasif Alam	Dr. Peter Hill	Dr. Abdelali Haoudi (QF)
Mr. Mohammed Altajani	Dr. Jane (Rumaillah Hospital)	Dr. Richard William Hopper (QP)
Ms. Carolyn Ashley	Ms. Freda Martin	Mr. Bassam Hussein (Doha Insurance)
Dr. Assam	Dr. Robert Owen	Prof. David Kerr (Sidra)
Mr. Mark Cawthorne	Mr. Martin Smith	Dr. Dirar Khoury (QF)
Dr. Hago El Khalifa	Mr. Shaun White	Dr. Tidu Maini
Dr. Fatima El Sadiq	Mr. Naim Younis	Dr. Mariam Abdul Malik (PHC)
Dr. Jalal Ibrahim	Prof. Andrejs Zamurs	Dr. Ravinder Mamtani (WCMC)
Dr. Ahmed Kamal Naji		Dr. Zaki Ali Mohamed (Min. of Interior)
Mr. Husein Reka		Dr. Eulian Roberts (QSTP)
Mr. Awn Sharif		Mr. Mohammed Saffarini (QSTP)
Dr. Momtaz Wassef		Dr. Hanna Said (PHC)
Mr. Tariq Hamed		Prof. Gerard Saillant (Aspetar)
Dr. Yosuf Abdulla Al-Abdulla		Dr. Javaid Sheikh (WCMC)
		Mr. Michael Stroud (Al Ahli)
		Ms. Donna Valkuchak (Sidra)

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