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Welcome Messages

Her Excellency Dr. Hanan Mohamed Al Kuwari
Minister of Public Health

Qatar is a wonderfully ambitious nation with a diverse and vibrant population. Indeed it is the passion, commitment and productivity of its people that have been the driving factors behind Qatar’s rapid growth in recent decades.

The Qatar National Vision 2030 (QNV) recognizes the importance of a healthy population. It sets out clearly that the health system should “meet the needs of existing and future generations and provide for an increasingly healthy and lengthy life for all”.

The Qatar Public Health Strategy will operate under the overarching National Health Strategy 2017-2022, one of eight sector strategies that make up the National Development Strategy 2017-2022 for Qatar. Where practicable, the 16 Health Areas and 4 Strategic Enablers initiatives within the Public Health Strategy will align with and subsequently achieve a portion of the targets and outcomes of the National Health Strategy.

To ensure that this takes place, initiatives will go through an approval process and be regularly monitored by the relevant governance committees tasked with successfully delivering the Qatar Public Health Strategy 2017-2022.

Underpinning the National Health Strategy 2017-2022 are three main aims - Better Health, Better Care and Better Value. The Qatar Public Health Strategy 2017-2022 connects closely with the Better Health dimension, emphasizing that the health of the population is everyone’s responsibility and aims to make people healthier by enhancing health promotion and the prevention of disease.

Qatar’s population faces specific health issues that affect the extent to which many people can enjoy their lives in this wonderful country. Obesity, diabetes, heart disease and respiratory conditions are all on the rise within our population. The good news is that these prominent diseases are all largely preventable as they are often a direct result of unhealthy lifestyle habits.

These lifestyle diseases threaten to reduce our quality of life unless we work together to reverse the trend. It is a relatively simple task to identify what needs to change in order to improve health. The challenge, however, comes in laying the foundations that change the way people behave.

The scientific evidence is unquestionable – if you consume a healthy balanced diet, exercise regularly, and abstain from smoking, you are far more likely to live a long healthy life, free of chronic disease, than if you regularly make unhealthy choices.

We are realistic about the scale of the challenge that faces us; indeed it would be easy to be overwhelmed. But unless we act now the future for our children, and indeed their children, will be one where chronic disease replaces healthy birth to old age.

We have a vision of where we want to be – of what a healthy Qatar looks like. To achieve this vision we need individuals, families, employers, schools and government to all play their part and take responsibility for developing a healthier society.

Maintaining and improving the health of our population against a backdrop where non-communicable and lifestyle diseases are on the rise and the threat of communicable diseases is both changing in nature and ever present represents a significant challenge.

To meet this objective we must work together across government to identify, agree and respond to risks and threats to the population’s health. Whilst government has a significant role to play in improving health and wellbeing and preventing ill-health it is also the commitment of each and every individual to take responsibility for their own health, and that of their families, that will help deliver improvements. A central pillar of this strategy is therefore to engage and empower individuals and communities to address their health risks. This recognizes that individuals, together with their families, friends, communities, religious organizations, sports clubs, employers, the media and many others can play a significant role, particularly in tackling like diabetes, asthma, cardiovascular disease and mental health disorders.

Sustained investment in public health makes sense. It yields significant population benefits and reduces downstream care costs associated with managing people when they get ill. It is in the nation’s interest to invest effectively in public health.

I would like to extend my thanks to the National Preventive Health Committee and the National Public Health Steering Committee for their insight, passion and drive in supporting the development of the first Public Health Strategy. I would also like to thank the many and diverse individuals and organizations that took part in stakeholder events, meetings and interviews. I am encouraged by the enthusiasm and ideas that were generated during this process.

This Public Health Strategy could not have been developed without this contribution which represents a genuine desire across the nation to improve public health and wellbeing. Successfully implementing the strategy will improve the capacity and capability of our public health system, support individuals and families to take better care of their health and ultimately lead to a healthier and more prosperous nation.
“The greatest asset that someone can have is their health”. Promoting health and wellbeing and protecting the public from health hazards and diseases is of critical importance for all individuals, whether they are nationals, residents or visitors.

This ambitious Public Health Strategy has relied, as it should, on the energy, ideas and challenges of numerous individuals and organizations. Only by this involvement have we arrived at a position where, for the first time, there is a national vision and strategic approach to public health. Ongoing and further engagement of individuals and communities will be the cornerstone of strategy delivery and health interventions.

The strategy sets a vision for “a comprehensive, dynamic and collaborative health system, working together to improve the health and prosperity of Qatar”, therefore providing a shared focus for the whole nation to drive toward improved public health.

The strategy sets a particular focus on improving the capacity and capability of the public health system because it ensures programs, activities and interventions are forward-looking, prioritized, evidence-based, continuously improving, effective and efficient. Improving the system will be no easy task. It will rely on strengthening four enablers which have been informed by international best practice: community engagement and empowerment; data driven intelligence; workforce and system capability; and leadership, regulation and accountability.

To ensure system improvement and change, the strategy has 14 strategic goals with 42 separate initiatives each of which have initial plans and key performance indicators to allow progress to be measured and monitored.

The strategy also addresses the range of key public health issues facing the nation. These issues can often be complex and rely on the expertise, will and drive of many different individuals and organizations. Monitoring and measuring progress against the 63 objectives, across 16 key areas, will also take place throughout implementation.

The Ministry of Public Health is already taking a number of steps to ensure strong implementation of the strategy: it has refreshed the national Public Health Committee; is establishing a Public Health Strategy Implementation Steering Committee; is ensuring the Business Plan for 2017 focuses on strategy implementation; is reviewing the structure of the MOPH Public Health Department to ensure it is shaped to support strategy implementation; and is establishing project management arrangements.

In addition, we will review the strategy every 2 years to measure progress, ensure it remains valid and is adjusted if necessary. The strength of any strategy is that it allows for changed circumstances.

I strongly encourage every individual and organization who has input to the strategy, and will be involved in its implementation, to consider what they can do individually and with others to contribute to improving the health and wellbeing of the nation.
Executive Summary
Qatar currently experiences similar health challenges to many first world countries around the globe, with the prevalence of non-communicable diseases such as diabetes, obesity and cardiovascular disease on a continuous rise.

**Obesity:**
70.1% of the 1,864 Qatar nationals who completed survey were identified as being overweight

**Diabetes:**
Approximately 17% of the Qatar adult population suffers from diabetes

**Cardiovascular Disease:**
44.9% of those aged 18 to 64 years have three or more risk factors for cardiovascular disease

**Road Safety:**
Road traffic injuries are the leading cause of premature death in Qatar

The underlying causes of ill-health

Over the past 40 years Qatar has evolved almost beyond recognition. The journey to becoming a world-leading economy has dramatically changed the lifestyle habits of its population – one that is now faced with a range of risk factors contributing to the development of the leading diseases.
The Future Vision for a Healthy Qatar

Improving the health of Qatar’s people is a significant challenge. Developed countries around the world are struggling to turn the tide on the lifestyle habits that lead to poor health. This strategy recognizes the scale of the challenge and through its clear objectives, acknowledges that reversing the trend of ill health can be successfully achieved if health is put firmly at the forefront of the agenda for everyone in Qatar.

Increased education
Raising awareness and educating people about what constitutes a healthy lifestyle is a fundamental principle of this strategy. It is not sufficient for government healthcare organisations and clinicians to simply tell people to make healthy choices. Individuals must be empowered through knowledge to do what is best for their health.

Greater options
Once people understand the need to prioritize their health, they must be given an environment in which it is easy to make healthy choices. For example, healthy food must be made accessible and affordable, and gyms, sports clubs and public areas to exercise must be made available to all.

Strict legislation
Effective monitoring and enforcement of laws that protect the health of individuals is vital. Strong legislation can improve road safety, ensure food, water and air quality is of the highest possible standard, limit the growing consumption of fast food and reduce the use of tobacco products.
The purpose of the Qatar’s first Public Health Strategy is to further develop an integrated and comprehensive system that can effectively address current and future public health challenges.

By implementing this strategy, Qatar can optimize the health and wellbeing of all citizens and residents with particular attention to sub-populations at risk. The health objectives focus on:

- Decreasing the impact and burden of communicable diseases.
- Reducing morbidity and premature mortality related to the rapidly increasing prevalence of non-communicable diseases.
- Empowering people to make informed decisions to improve their health through effective public health promotion and prevention strategies that support an increase in their life expectancy and years spent in good health.

- Strengthening the management of, and preparedness for potential public health emergencies and outbreaks through disaster planning.

In addition, the strategy consists of the following elements:

Reimagining Public Health by establishing the vision for a reimagined public health system that will drive significant improvements in the health and wellbeing of the population.

Current health status of the population by summarizing the insight into the current public health challenges and indicating the system activity required to protect and improve the health and wellbeing of the population.

Public health system strategic enablers that support its initiatives, setting out how the public health system will improve its capability, performance, responsiveness and resilience to effectively manage the health of the population.

Implementation of a detailed framework that gives the strategy practical effect.

Through comprehensive, extensive and collaborative strategic design events and consultation with multiple stakeholders, four strategic enablers were identified. To assist in their delivery, 14 goals and 42 initiatives will be implemented; which when completed will see a public health system that is capable and resilient with capacity to manage the current, emerging and re-emerging public health challenges.

The four Strategic Enablers are:

Community Engagement and Empowerment
- The improved health of the entire population through targeted public health interventions that enable people to make better decisions that affect their wellbeing.
- Greater local involvement and ownership of public health interventions and programs to support all generations.

Data Driven Intelligence
- Establishment of an integrated surveillance and monitoring system that enables the utilization of comprehensive public health information to identify priorities and monitor policies and programs that strengthen national research capabilities.
- Enhance preparedness and response processes to appropriately manage public health emergencies and disease outbreaks, locally, regionally and globally.

Workforce and System Capability
- A highly trained, qualified and experienced public health workforce with a skill set and capability that is aligned with the core functions of public health.
- An enhanced local, regional and global public health network that enables integrated responses and supports staff development and knowledge transfer.

Leadership, Regulation and Accountability
- A trusted and accountable public health system that is enabled by robust governance, transparency and performance management.
- An effective legal and regulatory framework to appropriately support public health activities.

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<th>4 Strategic Enablers</th>
<th>14 Goals</th>
<th>42 Initiatives</th>
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<tr>
<td>Community Engagement and Empowerment</td>
<td>3 Goals</td>
<td>11 Initiatives</td>
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<td>Data Driven Intelligence</td>
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<td>Workforce and System Capability</td>
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<td>Leadership, Regulation and Accountability</td>
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16 Health Areas with 63 Objectives

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<th>Healthy Lifestyle</th>
<th>Cancer</th>
<th>Vision</th>
<th>Communicable Disease</th>
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<td>Cardiovascular Disease</td>
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<td>Oral Health</td>
<td>Road Safety</td>
<td>Maternal and Child Health</td>
<td>Respiratory Disease</td>
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This strategy has been informed by an in-depth assessment of the health status of the population of Qatar. It is essential that public health programs and initiatives are cognizant of interdependencies across diseases, health behaviors, risk factors and population characteristics.

This strategy pledges to improve the health and wellbeing of the population across the following 16 areas, and associated 63 objectives.

Considerable investment is required to enable all communities to thrive within a public health framework that supports the prevention and minimization of the burden of disease. This includes recognizing the need to invest in and collaborate across social, economic and environmental policy, programs and initiatives that impact on the broader determinants of health. Adopting a ‘Health in All Policies’ approach is essential to achieve this and will lead to significant benefits for the nation.

This strategy provides the framework for all public health system partners to deliver more effective public health policy, programs and initiatives for the population of Qatar through:

- Evidence-based policy and decision-making
- Workforce development and capability building
- Good governance frameworks
- Transparency and accountability
- System agility and responsiveness
- Integrated and collective action
- A shift in focus from curative to preventative care
- Enhanced early disease detection
- Effective management of outbreaks and public health emergencies

This strategy is action oriented and outcomes focused to drive significant public health system reform over the next six years. It will enable the establishment of greater capacity and capability within the public health system to effectively deliver the functions required to manage a dynamic and rapidly growing population.

There have been significant achievements and extensive work undertaken in public health to date that should be recognized. This strategy builds upon these and provides the population of Qatar with greater opportunities to optimize their health and live longer and healthier lives. Communities will be empowered to be actively involved in decision-making processes and guide public health initiatives that are relevant, effective, sustainable and reduce health disparities.

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**Figure 1: 16 Health Areas**

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<th>Healthy Lifestyle</th>
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<td>Diabetes</td>
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<td>Oral Health</td>
<td>Maternal and Child Health</td>
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<td>Food Safety</td>
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<td>Occupational Health</td>
<td>Environmental Health</td>
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<tr>
<td>Road Safety</td>
<td>Respiratory Disease</td>
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63 Objectives
Reimagining Public Health

A shared vision has been developed through extensive consultation and collaboration with stakeholders across the public health system. The vision is:

“A comprehensive, dynamic and collaborative public health system, working together with all stakeholders to improve the health and prosperity of Qatar.”

The framework and direction to drive a public health system is founded on integration, collective actioning and alignment. It requires:

- Strong governance that includes leadership
- Targeted and effective regulation
- Appropriate funding mechanisms
- Integration of traditional and non-traditional health partners
- Meaningful performance management mechanisms

Essential public health functions

This strategy has been informed by the US Centers for Disease Control and Prevention (CDC) ten essential public health functions. The functional framework takes an integrative approach to improving the health status of individuals and population as a whole. It uses a data-driven approach to policy development, engagement and advocacy in order to support an effective and balanced set of health and social service based solutions. These solutions are delivered within a framework that is accountable, comprehensively evaluated and supported by the required depth and breadth of skills and capabilities in public health. To ensure that the future public health system is aligned with leading approaches globally, essential public health functions are central to the development of this strategy.

Leading public health approaches also highlight the pivotal role of the community in informing, developing and supporting effective responses to public health challenges. Active engagement with the community to contextualize health issues, and participation in the design and implementation of community-based interventions is critical. For public health measures to be successful, the community needs to be supported to understand, adapt and ultimately adopt the preventive measures put in place. This is of particular importance in Qatar given the diversity of populations and associated variances in health needs and challenges.
Seven guiding principles for the future public health system

The Qatar Public Health Strategy utilizes the seven principles to ensure alignment of all priorities, goals and initiatives with the public health vision, its emerging challenges and opportunities for the public health system.

1. **Collaboration**
   Foster collaboration and coordination of public health activities enabling a whole of system approach to public health

2. **Accountability**
   Embed accountability at all levels of the system to ensure responsibility for the health and wellbeing of the population will be maximized

3. **Authoritative and trustworthiness**
   Empower all communities through the dissemination of informative, consistent and clear information on key public health issues

4. **Cultural appropriateness**
   Provide culturally, socially and environmentally appropriate responses to public health challenges that are meaningful to all communities

5. **Data driven**
   Adopt a data-driven, evidence based approach to policy and decision-making for public health that can be robustly evaluated

6. **Resilience**
   Establish a dynamic public health system, capable of proactively responding to developing situations and the changing health needs of the population

7. **Sustainability**
   Embed quality improvement mechanisms at all levels of the public health system to ensure the sustainability of the system

Benefits

The successful implementation of the strategy will provide significant benefits for the population and the public health system as detailed below:

**For the population:**

- Clearer and more consistent public health messaging
- Better access to up to date evidence-based advice about staying well and optimizing health and wellbeing
- Confidence that a timely and effective response will be made for any outbreaks, epidemics or disasters
- Greater understanding of the role that individuals, families and communities can play in maintaining and improving their health and wellbeing
- Opportunities to further develop health literacy
- Ultimately longer, more productive lives and a reduction in illness, disease, injuries and premature death

**For the public health system:**

- Effective and sustainable health protection and promotion mechanisms
- Greater clarity on roles and relationships within the system
- Enhanced public health workforce depth and capability
- Reduced curative care burden as a result of improved public health interventions and preventive programs
- Stronger governance to coordinate, enable and lead public health programs across the healthcare economy and beyond
- Collaborative system focused on knowledge sharing and innovation in public health
- More effective use of public health resources and investment
- Embedded continuous improvement and performance management processes
- Accountability and transparency
- Agility and resilience
The Current Health Status of the Population and Strategy Objectives

16 Health Areas

63 Objectives
Qatar’s Population

Population overview
Qatar has been home to one of the fastest growing populations in recent decades. Since 2002, the population has increased from 750,000 to around two and a half million at present.

Qatar’s growth has been driven by a thriving oil and gas industry and the ambition of the country’s leaders to invest and develop the nation. This investment has delivered financial rewards for many residents of Qatar and the country now has one of the highest per capita incomes in the world. However, this new found affluence has significantly affected the lifestyles of residents and brought with it an increase in non-communicable diseases such as obesity, cancer, heart disease and diabetes.

Health Objectives
Through the strategy’s consultation process, 16 public health areas were identified. A total of 63 objectives have been developed to align with the focus areas. The key priority areas and objectives are identified and discussed further in this strategy.

<table>
<thead>
<tr>
<th>Public Health Areas</th>
<th>Objectives</th>
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<tbody>
<tr>
<td>Healthy Lifestyle (HL)</td>
<td>6</td>
</tr>
<tr>
<td>Cardiovascular Disease (CVD)</td>
<td>2</td>
</tr>
<tr>
<td>Diabetes (D)</td>
<td>3</td>
</tr>
<tr>
<td>Oral Health (O)</td>
<td>3</td>
</tr>
<tr>
<td>Vision (V)</td>
<td>1</td>
</tr>
<tr>
<td>Tobacco Cessation (TC)</td>
<td>4</td>
</tr>
<tr>
<td>Musculoskeletal (MS)</td>
<td>6</td>
</tr>
<tr>
<td>Maternal and Child Health (MC)</td>
<td>4</td>
</tr>
<tr>
<td>Cancer (C)</td>
<td>5</td>
</tr>
<tr>
<td>Mental Health (MH)</td>
<td>4</td>
</tr>
<tr>
<td>Occupational Health (OH)</td>
<td>3</td>
</tr>
<tr>
<td>Road Safety (RS)</td>
<td>3</td>
</tr>
<tr>
<td>Communicable Disease (CD)</td>
<td>9</td>
</tr>
<tr>
<td>Food Safety (FS)</td>
<td>5</td>
</tr>
<tr>
<td>Environmental Health (EH)</td>
<td>3</td>
</tr>
<tr>
<td>Respiratory Disease (RD)</td>
<td>2</td>
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</tbody>
</table>

Figure 4: Health Objectives.
Qatar's rapidly growing population is comprised of multiple sub-populations. As of 2013, the population consisted of:

- Stable population of 275,325 Qatari Nationals
- Transient population of 1.9 million non-Qatari residents

This population growth shows no signs of slowing. Recently released figures show an 8.8% increase in the population of Qatar between October 2014 and October 2015.

### Transient expatriate population

In addition to the rapid increase in the number of people living in Qatar, another unique characteristic of its population is the large percentage of expatriate residents.

Figure 6 shows the age pyramid for non-Qatari residents superimposed on the numbers for Qatari nationals as of 2014. The age-pyramid of non-Qatari residents demonstrates the effects of single male labor immigration on the population composition. Overall, there are 3.8 times more non-Qatari males than non-Qatari females in Qatar. Figure 6 also reveals a significant population of infants and children of non-Qatari nationals. Both of these sub-populations require consideration in public health initiatives.

### Current mortality rates

In 2010, the Institute of Health Metrics and Evaluation (IHME) calculated there to be an age standardized mortality rate of 5.86 per 1,000 population in Qatar. This can be considered a low mortality rate when compared to other high-income countries (Figure 7).

Furthermore, Figure 8 shows that mortality rates have been continuously declining in Qatar. While life expectancy of Qatari nationals is high, the very low overall mortality rates for the whole Qatari population are likely, at least in part, due to the presence of large numbers of expatriate workers who are returning to their home countries when they fall ill or approach the elderly age range.
Healthy Lifestyle

Leading risk factors

The prevalence of risk factors for chronic disease has been increasing in recent years across all high-income countries, including Qatar.

The table below details the top risk factors contributing to mortality in Qatar, select high-income countries and the high-income Arab region.

In addition, contributing to the mortality risk are high total cholesterol, smoking and physical activity, together with certain dietary habits such as high sodium intake and low fruit, vegetable and nut consumption. The top three mortality risk indicators are similar to Oman, Kuwait and the overall MENA region. Qatari nationals often do not suffer from just a single chronic disease risk factor, but rather experience the simultaneous effect and burden of several chronic disease risk factors.

### Figure 9: Top risk factors contributing to mortality in Qatar and other countries, 2015

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Qatar</th>
<th>MENA</th>
<th>Kuwait</th>
<th>Oman</th>
<th>Canada</th>
<th>USA</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>High body-mass index</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>High fasting plasma glucose</td>
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<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
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<td>4</td>
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<td>Ambient particulate matter</td>
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<td>5</td>
<td>5</td>
<td>13</td>
<td>12</td>
<td>6</td>
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<td>Low whole grains</td>
<td>5</td>
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<td>7</td>
<td>6</td>
<td>12</td>
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<td>High total cholesterol</td>
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<td>3</td>
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<td>3</td>
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<td>3</td>
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<tr>
<td>Smoking</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Alcohol use</td>
<td>8</td>
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<td>20</td>
<td>15</td>
<td>16</td>
<td>14</td>
<td>18</td>
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<tr>
<td>Low physical activity</td>
<td>9</td>
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<td>9</td>
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<td>10</td>
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<td>High sodium</td>
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<td>13</td>
<td>7</td>
<td>11</td>
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<td>5</td>
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</table>

(Both sexes, all ages, 2015. Deaths per 100,000)

The 2012 STEPS report suggests that for Qatari Nationals, the prevalence of having three or more cardiovascular risk factors was:

- **Aged 18-64**: 44.9%
- **Aged 45-64**: 70.4%

(Source: IHME Global Disease Burden Study, 2015)
Obesity

For the past few decades the number of people classified as overweight or obese has continued to rise. The issue has become so widespread that Qatar is now facing an obesity epidemic which has serious consequences.

The 2012 STEPS report suggests a significant obesity epidemic in Qatar with:

- 70.1% of Qatari Nationals (71.8% in men, 68.3% in women) are overweight (BMI ≥25 kg/m2)
- 41.4% of Qatari Nationals (39.5% in men, 43.2% in women) are obese (BMI ≥30 kg/m2).

The percentage of people classified as overweight is particularly concerning as it is significantly above the WHO’s stated global prevalence of 39% - a figure already considered too high.

Population overweight and obesity are estimated to represent 23% of Qatar’s total population. The 2012 STEPS report suggests a significant obesity epidemic which has serious consequences.

Children and adolescents with obesity are at high risk of developing long-term health conditions such as metabolic syndrome and diabetes. A childhood obesity epidemic among children in Qatar is particularly concerning as numerous international studies have shown that obese children are more likely to become obese adults who are at risk of poor health.

Figure 11: BMI among Qatari nationals

![Figure 11: BMI among Qatari nationals](Source: 2012 STEPS report)

Physical inactivity and poor diet

Though accurate data on physical activity and diet is scarce, it is generally acknowledged among experts that a large percentage of Qatar’s population fails to meet recommended levels of activity or exercise and that many healthy eating recommendations – such as consuming sufficient amounts of fruit and vegetables, drinking enough water and limiting sugar intake – are not consistently followed.

The lifestyles of Qatar’s population has been influenced, and changed significantly over the last few decades - often negatively impacting on their health. While there is little accurate data available to support this, it is widely believed that people living in Qatar today live sedentary lives, eat more food and consume low-quality ready-made meals than people living in Qatar 30 or 40 years ago.

Health implications

Being overweight or obese significantly increases a person’s risk of developing long-term health conditions including diabetes, musculoskeletal disorders and cardiovascular disease.

In addition to being at increased risk of developing health issues such as type 2 diabetes and respiratory problems, overweight and obese children are more likely to be absent from school due to sickness, suffer from sleep disorders, joint problems and social and mental health problems such as bullying and poor self-esteem.

The increasing number of overweight and obese children in Qatar is particularly concerning as numerous international studies have shown that obese children are more likely to become obese adults who are at risk of poor health.

Healthy Lifestyle Objectives

The objectives endeavor to educate people about the importance of making good healthy lifestyle choices and provide them with greater options that encourage and assist changes in behavior.

1. Reduce risk factors of chronic non-communicable diseases (unhealthy nutrition and physical inactivity)
2. Increase overall public awareness on the positive health effects of healthy nutrition and engaging in regular physical activity
3. Formulate and promote culturally appropriate and sustainable policies and legislations aimed at food diversity, healthy eating habits and increasing physical activity in the population
4. Stimulate/increase the practice of regular physical activity across the population, with particular emphasis on schools, workplaces and targeted communities
5. Establish wellness services and health coaches in primary healthcare centers focused on patients at risk of one of the four major risk factors (obesity, smoking, physical inactivity and malnutrition)
6. Enhance collaboration with the private sector to promote the importation, production and distribution of food products which contribute to a healthier and more balanced diet
Cardiovascular Disease

Cardiovascular disease (CVD) is the number one cause of death from non-communicable diseases in Qatar.

Mortality from CVD in 2011-2013 was 8.3 per 100,000 for Qatari males and 4.1 per 100,000 for non-Qatari males aged 20-44 years. After the age of 45, CVD mortality rose significantly to 247 per 100,000 among Qatari males. Cardiovascular deaths in Qatar are found to be high as in other high income countries.

The proportion of deaths due to CVD is comparable to the proportion of deaths in the UAE, where CVD accounts for 30% of all deaths. However, when hospital discharge rates for CVD in Qatar are compared against other OECD countries, Qatar has a rate that is four times higher (Figure 12).

Health implications

Cardiovascular disease is the name given to a group of disorders that affect the arteries of the body, potentially leading to heart attack, stroke or angina. In addition to the high mortality rate from CVD, this condition puts enormous strain on healthcare resources as people with ongoing heart conditions require continual medical support. CVD significantly affects the quality of life for those who suffer from this condition, while also reducing their life expectancy.

Cardiovascular Disease Objectives

The majority of CVD cases are preventable. While risk factors such as family history, gender, age and race do have an influence, unhealthy lifestyle behaviors including tobacco use, poor diet, excess body fat and physical inactivity are the primary risk factors that contribute to the onset of CVD. With this in mind, the strategy’s Cardiovascular Disease Objectives aim to promote healthy behaviors to reduce these controllable risk factors as well as implement effective screening programs that identify people who are most at risk.

Three or more risk factors for cardiovascular disease

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 18-64</td>
<td>44.9%</td>
</tr>
<tr>
<td>Aged 45-64</td>
<td>70.4%</td>
</tr>
</tbody>
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(Source: 2012 Steps Report)
Diabetes

The rate of diabetes in Qatar is significantly higher than the regional and global rates. In 2008, WHO estimated the global prevalence of diabetes to be 10% in adults above 25 years; with the highest rates reported from the Eastern Mediterranean region and the Americas (11% for both sexes).

It is estimated that in 2012 approximately 17% of the adult Qatari population had diabetes. (Source: Qatar Stepwise Survey, 2012)

The 2012 Stepwise survey found that the percentage of men and women who were either on medication for hyperglycemia or had a fasting blood glucose level of equal to or more than 5.6 mmol/L, amounted to 23.4% and 22.1%, respectively. Therefore, it is believed that 22-23% of Qataris could be identified as being pre-diabetic or diabetic – considerably above the global rate. The worldwide prevalence of elevated fasting blood glucose in 2008 was 9.8% in men and 9.2% in women.

As with most affluent countries around the world, Qatar has seen an increase in the number of children diagnosed with type 2 diabetes. Once considered an illness only among adults, there has been a dramatic rise in the incidence of type 2 diabetes in children and adolescents during the past decade. Furthermore, the increasing rate of obesity is the single biggest factor for the rise in type 2 diabetes in children.

Health implications

People with diabetes have an increased risk of heart disease and stroke. In fact, around half of all diabetics die from cardiovascular disease. Additional health complications associated with diabetes include the development of foot ulcers, leading to limb amputation, vision problems due to long-term damage to blood vessels in the eyes and kidney failure. Diabetes also negatively impacts on the quality of life of those affected, with diabetics requiring life-long monitoring and treatment.

Diabetes Objectives

As with the majority of non-communicable diseases, healthy lifestyle habits such as exercise and good diet are vital elements of prevention. The Diabetes Objectives set out in this strategy prioritize the need to raise public awareness of these healthy habits. Screening is also an area of focus due to the importance of early detection. The sooner diabetes is diagnosed and treated, the lower the risk of complications.
Oral Health

Oral health is defined by WHO as “the state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity”.

Rates of cavities are high in Qatari children. The MOPH’s 2011 National Oral Health Survey identified that 88% of Qatari and 61% of non-Qatari six year olds had dental cavities (Figure 13). In comparison, a sample of 5 year old French children identified that only 30% had cavities. Qatari children have an average of 4.45 decayed primary teeth while non-Qatari children have an average of 2.46 decayed primary teeth.

There is a low rate of dental fluorosis, and the National Oral Health Survey recommended mapping fluoride content in Qatar’s drinking water as a basis of making further recommendations regarding either water fluoridation or oral supplementation.

The oral health survey was not able to assess home hygiene practices or home intake of sweets and sugary beverages or of bottle-propping at bed time; all of these behaviors have been associated with dental cavities.

Health implications

Poor oral health can lead to a number of complications including cavities, tooth loss, gum disease and oral cancer. The consequences of these complications range from difficulty eating due to tooth decay and loss, to the life-threatening effects of cancer.

Oral Health Objectives

Qatar’s healthcare authorities have already identified oral health as a pressing concern and begun implementing programs to address the issue. One such initiative is the ‘Beautiful Smiles Oral Health Program’ - a PHCC initiative that provides basic dental care and oral health promotion to children aged 0.5 years old and to pregnant women. This service focuses on a networked clinic approach to improve access for high risk populations. The strategy’s Oral Health Objectives seek to continue and expand on oral health promotion and prevention initiatives while also increasing oral and dental check-ups for adults that identify oral health problems early and enable treatment to be provided.

Qatar’s healthcare authorities have already identified oral health as a pressing concern and begun implementing programs to address the issue.

Oral Health Objectives

O1 Establish school-based oral disease prevention and promotion programs including fluoride application and fissure sealants.

O2 Implement targeted population-based oral disease prevention and promotion programs, including healthy eating and tobacco cessation initiatives.

O3 Implement annual oral and dental check-ups for adults as per international recommendations.

6 year olds have dental cavities

<table>
<thead>
<tr>
<th></th>
<th>Qatari</th>
<th>Non-Qatari</th>
</tr>
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<tbody>
<tr>
<td>88%</td>
<td></td>
<td></td>
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</table>

12 year olds have dental cavities

<table>
<thead>
<tr>
<th></th>
<th>Qatari</th>
<th>Non-Qatari</th>
</tr>
</thead>
<tbody>
<tr>
<td>61%</td>
<td></td>
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15 year olds have dental cavities

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<tr>
<th></th>
<th>Qatari</th>
<th>Non-Qatari</th>
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<tbody>
<tr>
<td>66%</td>
<td></td>
<td></td>
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</tbody>
</table>

(Source: 2011 National Oral Health Survey)
**Vision**

Worldwide, more than 285 million people were classified as visually impaired in 2010, with 39 million classified as blind.

In Qatar, the main cause of bilateral blindness is Glaucoma (39%) and visual disability accounts for around 15% of all disabilities.

The age and sex adjusted prevalence of bilateral blindness in Qatar’s population, aged 50 years and above, is 1.28% and the prevalence of severe visual impairment and low vision are 1.67% and 3.66% respectively.

A 2009 community based survey conducted in Qatar studied the prevalence and determinants of diabetic retinopathy (DR) in persons 40 years and older. When age and sex were adjusted, the study identified that 23.5% of the population suffered from DR.

**Health implications**

Up to 80% of blindness in adults is avoidable through prevention or treatment. The two most avoidable causes of visual impairment are uncorrected refractive errors (42%) and cataracts (33%). People who are visually blind are often unable to carry out everyday tasks unassisted, requiring a high level of support from family or carers. Blindness and visual impairment significantly affect the quality of life for individuals and put strain on both their family and healthcare providers.

**Vision Objectives**

A national plan for eye health was launched in Qatar in 2014 following the Global Action Plan 2014-2019.

The Vision Objective of this strategy has taken into account analysis of the risk factors among diabetic people with retinopathy that indicates a need for universal and periodic eye screening of patients with diabetes.

**Worldwide in 2010**

285 million

Classified as visually impaired

39 million

Classified as blind

**Figure 14: Causes of bilateral blindness in Qatar.**
(Source: Rapid Assessment of Avoidable Blindness 2009)
Tobacco Cessation

Smoking is a significant public health issue in Qatar, not only for tobacco consumers themselves, but also non-smokers who are exposed to second-hand smoke. Smoking is prevalent in Qatar, with many people smoking either cigarettes or traditional shisha pipes.

The 2012 STEPS survey identified that the prevalence of tobacco use within the Qatari population was 16.4%. Men were found to be 26 times more likely than women to use tobacco products (31.9% versus 1.2%). Additionally, the 2013 Global Youth Tobacco Survey on smoking prevalence in Qatar, identified that 15.7% of youths aged between 13 to 15 smoked tobacco.

According to the Global Audit Tobacco Survey data, the exposure to second hand smoke in Qatar within restaurants, workplaces and households was:

- Restaurant precincts was 21.2% for men and 32.2% for women
- Workplaces was 13.8% for non-Qataris and 8.3% for Qataris
- Households at least once a month was 16.8% for both Qataris and non-Qataris

Law No. 10 of 2016 on Control of Tobacco and its Derivatives introduced a number of additional restrictions on smoking in closed public spaces, including whilst driving in the presence of children under 18 years. An extension of the ban on selling cigarettes within close proximity of schools or educational establishments, increased from 500 meters to 1 kilometer, while tougher restrictions were also extended on the promotion or advertisement of tobacco and its derivatives and tighter measures introduced for the importation of electronic cigarettes.

Health implications

The health consequences of tobacco use are severe. According to the WHO, smoking kills half of all its users. Regular exposure to tobacco smoke, whether first hand or second hand, is directly associated with the development of ill health including cancer, heart disease, stroke and respiratory issues.

Tobacco Cessation Objectives

This strategy recognizes tobacco use as one of the most pressing health risks in Qatar. The Tobacco Cessation Objectives provide a comprehensive plan to reduce the number of smokers in Qatar and, therefore, decrease the associated burden of disease. The objectives focus on strengthening tobacco legislation, which includes enforcing and reinforcing existing public bans, and providing greater support to those smokers who wish to quit, but need help. The strategy recognizes the addictive nature of tobacco and for this reason the objectives target preventing people from ever taking up the habit.

Secondhand smoking in Qatar

According to GATS data, the exposure to second-hand smoke in Qatar:

<table>
<thead>
<tr>
<th>Restaurants</th>
<th>Workplaces</th>
<th>Households</th>
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<tbody>
<tr>
<td>21.2%</td>
<td>13.8%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Males</td>
<td>Non-Qatari</td>
<td>Both Qataris and Non-Qatari</td>
</tr>
<tr>
<td>32.2%</td>
<td>8.3%</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Qatar</td>
<td></td>
</tr>
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</table>

The strategy recognizes the addictive nature of tobacco and for this reason a key focus of the objectives will be to prevent people from ever taking up the habit.

- 16.4% Tobacco use in 2012
- 31.9% Males were using tobacco
- 26x times more men were using tobacco than women

(Source: 2012 STEPS Survey)
Musculoskeletal

According to the WHO, musculoskeletal conditions can be broadly categorized as joint diseases, physical disability, spinal disorders, and conditions resulting from trauma. They include over 150 diseases and syndromes including forms of arthritis, osteoporosis and chronic back pain. These conditions affect movement of the musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.) are progressive in nature and are associated with pain.

There is limited data available on the prevalence of musculoskeletal conditions in Qatar’s population. On a global scale, osteoarthritis affects 9.6% of men and 18% of women aged >60 years, rheumatoid arthritis affects 0.3–1.0% of the general population and is more prevalent among women in developed countries, while hip fracture due to osteoporosis is associated with 20% mortality and 50% permanent loss in function. Additionally, low back pain affects nearly everyone at some point in time and according to chronic rheumatic conditions data from the WHO, about 4–33% of the population at any given point. (WHO Chronic rheumatic conditions 2016)

Health implications

Musculoskeletal conditions are a major burden on individuals, health systems and social care systems. They are also one of the leading causes of morbidity and disability in developed and developing countries, giving rise to increased healthcare expenditures and days of work lost. The Global Burden of Disease Study 2010 found that in Qatar, low back pain was one of the top three causes of disability-adjusted life years (DALYs).

Musculoskeletal Objectives

Musculoskeletal conditions continue to rise due to changes in lifestyles and an increase in risk factors, with obesity being the largest followed by occupational risks. The strategy’s Musculoskeletal Objectives aim to reduce the prevalence of these conditions and enable those people living with musculoskeletal conditions to be more active and free from pain.

On a global scale osteoarthritis affects

9.6% of men

18% of women

aged >60 years.

(Source: WHO Chronic rheumatic conditions 2016)
Maternal and Child Health

Qatar has good prenatal care provision, with 92% of Qataris having had at least 4 antenatal visits during pregnancy, and over 95% reporting having had appropriate blood pressure, urine specimen and blood sample testing during their visits. Gestational diabetes has been documented to have a high prevalence in Qatar and pre-existing obesity is a risk factor.

In Qatar, 96% of all new-borns received a postnatal health check. However, 68% of women reported having no dedicated post-natal care visit. In a nationally representative sample of the United States population, all women sampled reported at least one post-natal care visit.

Qatar has low infant and child-mortality rates, with the leading causes of infant and child mortality in 2013 being perinatal and congenital diseases accounting for 37% and 39% of all deaths in children <5 years of age, respectively. The 2011-2013 deaths data did not show a significant difference in rates of these conditions in Qataris versus non-Qataris.

Health implications

Inadequate prenatal care increases the risk of complications during birth and decreases the ability to identify existing medical conditions in the unborn baby. A lack of postnatal care means medical conditions affecting mother or baby may go undetected and contribute to depression. A 2010/11 Qatar based study of postpartum depression conducted in PHCC suggested a prevalence of 17.6%, and a UAE study highlighted the importance of postnatal depression screening as it showed within the sample group that after 3 months of giving birth and being discharged from hospital:

- 22% of women showed depressive symptoms
- 21% of women showed borderline depressive symptoms

Maternal and Child Health Objectives

Although individual obstetricians in Qatar currently prescribe prenatal vitamins, there is no national public health program to promote pre-conception care, especially folic acid supplementation. The strategy’s Maternal and Child Health Objectives address these type of issues and aim to provide appropriate support at all significant life transition points. Additionally, the objectives focus on designing a program dedicated to recognizing post-natal depression as part of future planning for primary care screening.

Figure 16: Rates of death (under 5 mortality) from perinatal conditions and congenital malformations.
(Source: Ministry of Development Planning and Statistics 2011 - 2013)
Cancer

According to the 2014 Qatar Population Health Report, cancer was the second leading cause of death between 2004 and 2010. The majority of Qatar’s residents will have been affected by cancer, either directly or indirectly.

The most recent statistics from the Qatar National Cancer Registry state that in 2014:
- There were 1,412 newly diagnosed cases of malignant cancer (44% females, 56% males)
- There was an overall crude rate of 66.02 per 100,000
- There was an age-standardized rate (ASR) of 224 per 100,000

Health implications

Cancer risk can be reduced by following healthy lifestyle habits that include not smoking, limiting alcohol consumption, limiting UV ray exposure from the sun, consuming a healthy diet and exercising regularly.

Qatar has a relatively young population and statistics show that the burden of cancer affects mainly the older generation. According to 2014 statistics from the Ministry of Development, Planning and Statistics, 49% of the population is under the age of 18. However, when age adjustment techniques are applied to the cancer incidence data, we see an increase in the incidence of cancer with age. After age adjustment, we can clearly see that cancer deaths in Qatar mainly affect older residents.

Cancer Objectives

The strategy recognizes the need to educate people more effectively about the facts on cancer. Previous research has identified that there are many myths and misconceptions about cancer that can adversely affect people’s treatment and care. A high priority of the cancer objectives is the need to reinforce the message that early detection can save lives. With this in mind, the establishment of Primary Health Care Corporation-led screening programs is helping facilitate early detection.

The most common cancers were:

- **17.42%** Breast Cancers
- **10.55%** Colorectal
- **5.74%** Leukemia
- **6.52%** Prostate and Lymphoma
- **5.24%** Liver

Figure 17: Age-specific death rate of cancer in Qatar, 2014.
(Source: Qatar National Cancer Registry 2014)
Mental Health

Mental health can have significant effects on the health and wellbeing of individuals, families and communities. Worldwide, mental health disorders have been quantified as being amongst the most burdensome of all classes of disorders because of their high prevalence, early age of onset, chronicity and associated functional impairment.

A study of 1,660 people aged 18 to 65 years attending Qatar’s primary health care centers found that nearly 25% of adults who attended a public health consultation, had at least one type of mental disorder. Additionally, the study found 9.3% of the primary care population had a high rate of depression within this study group, anxiety and stress with co-existing physical health conditions. Depression accounted for 13.5% of mental disorders followed by anxiety at 10.3%. Women were at higher risk than men with a female to male ratio of 1.3 to 1.

Health implications

People with mental illness experience high rates of disability and mortality and the social impact of mental illness can be severe, affecting their daily life, relationships, education and employment. In addition to mental health disorders impacting on people’s wellbeing, they pose a notable burden to health systems, social welfare and economic output. Mental illness can increase the risk of a person developing physical illnesses such as cancer, diabetes, heart and neurological disease, can exacerbate the severity of existing illnesses and compromise recovery from illness and injury. Many risk factors such as stress, low socioeconomic status and substance use are common to both mental disorders and other non-communicable diseases.

Mental Health Objectives

Non-communicable diseases such as cardiovascular disease and cancer may account for the majority of deaths among Qatar’s population, but it is mental health disorders that pose the biggest threat to the quality of life that people in Qatar are able to enjoy. A significant hurdle to the successful treatment of people with mental health disorders is the stigma associated with the conditions. The strategy’s Mental Health Objectives seek to encourage people to speak openly about mental health disorders and for them to seek help early. Education and raising awareness are central themes of the strategy’s objectives.

The strategy’s objectives seek to encourage people to speak openly about mental health disorders and for them to seek help early.

Mental Health Objectives

MH1
Raise public awareness about mental health and reduce the stigma associated with mental health illness, including an increase in the Mental Health Attitudes and Awareness Index

MH2
Establish multi-sectoral targeted mental health promotion and prevention programs for different populations, including workers, children and young people, and families

MH3
Develop and disseminate mental health information, including a national website to promote early access to services

MH4
Develop and implement national initiatives for the prevention of suicide and self harm

9.3% of people who attended a primary health center consultation, suffered from depression, anxiety and stress together with co-existing health conditions

(Source: Prevalence of mental disorders in adult population attending primary health care setting in Qatari population 2011)
Occupational Health

Qatar is an economically dynamic country in which the manual labour workforce constitutes the majority of the population. In this context, occupational injuries and diseases are important public health challenges that need to be appropriately addressed in order to ensure health and wellbeing of the workforce.

Information from the Hamad Trauma Registry suggests that there is a fatal occupational injury rate of 1.6 per 100,000 workers. A report based on 6,555 trauma admissions from January 1, 2010 to December 31, 2013 showed that 2,015 (30.7%) of trauma cases were occupational injuries with falls from heights being common among injured workers. Internationally, the fatal work injury rate for US workers in 2014 was 3.3 per 100,000 full-time equivalent (FTE) workers according to the Bureau of Labour Statistics. In the UK, the number of workers fatally injured in 2014/15 is 142, and corresponds to a rate of fatal injury of 0.46 deaths per 100,000 workers according to UK National Statistics. Qatar has three times the fatality rate of the UK, but just less than half of the US.

Health implications

Occupational health injuries can often be severe, resulting from injury or trauma due to an accident or negligence in the workplace. The vast majority of occupational health injuries in Qatar affect manual labour workers. Relatively minor injuries can be treated and the individual return to work, however acute injuries may result in the individual being unable to perform their job as before, leading to loss of employment and income.

Occupational Health Objectives

The strategy’s objectives are informed by the WHO’s recommendation for the development of an occupational health profile including demographic information, economic data, health sector description, and disease statistics for all countries. This data and reporting system will enable authorities to identify trends in occupational health and focus efforts on areas of most concern. Educating manual labourers and ensuring safety standards are maintained are also both key aspects of the objectives aimed at reducing the incidence of workplace injury.

In this context, occupational injuries and diseases are important public health challenges that need to be appropriately addressed in order to ensure health and wellbeing of the workforce.

Fatal work injury rate of 1.6 per 100,000 workers in Qatar
Fatal work injury rate of 3.3 per 100,000 workers in US
Fatal work injury rate of 0.46 per 100,000 workers in UK

30.7% of trauma cases were occupational injuries

(Source: Hamad Trauma Registry, Bureau of Labour Statistics, UK National Statistics)
Road Safety

Road traffic injuries are the leading cause of premature death in Qatar. The road traffic fatality rate in 2014 was 8 deaths per 100,000 people. This rate is not favorable when compared to several best performing countries such as the UK and Switzerland that report rates of around 3 deaths per 100,000 people. Young Qatari males are at particular risk of dying from a road traffic accident. Although there is no accurate data available showing how many drivers and passengers consistently wear seat belts, it is widely believed that low seat belt compliance is a key factor in the number of deaths due to road traffic accidents.

Mortality data shows that young Qatari males have a road safety fatality rate that is 9.3 times higher than young Qatari females and 5.75 times higher than non-Qatari males.

It should be noted that pedestrian fatalities are also of particular concern, constituting 33% of all road traffic related fatalities, compared with the global average of 22% (Figure 18).

Health implications

Not only are road traffic accidents the number one cause of premature death in Qatar, they also contribute significantly to the burden of disability on the population.

Road Safety Objectives

Law enforcement and education are identified in the objectives as a key area for development. Existing laws require all drivers and front seat passengers to wear an appropriate seat belt, but education about the life-saving benefits of wearing a seat belt is required in order for people to better understand why this is so important. The objectives also recognize the need to raise road safety awareness among young Qatari drivers, parents with young children and pedestrians.

Figure 18: Road Deaths by categories in Qatar, 2010
 Communicable Disease

Communicable diseases account for around 8% of deaths in Qatar and remain a significant challenge for public health services.

Immunization and improved treatment have reduced mortality and morbidity rates in Qatar and across the world in recent years. Qatar’s Expanded Program of Immunization (EPI) ensures that all age groups are protected against priority diseases for their age group. The childhood immunization schedule protects children against 14 important vaccine preventable diseases. Together with the adult schedule, recommended vaccinations for high risk groups and the high rates of coverage assists with addressing communicable diseases.

However, there are a number of issues of concern that include the increasing worldwide antibiotic resistance, new threats such as Ebola and Middle East Respiratory Syndrome (MERS-CoV) and increasing worldwide travel facilitating the spread of disease.

In 2014, Varicella (chicken pox) and influenza-like illness were the most commonly reported communicable diseases in Qatar. The incidence of both these diseases increased between 2013 and 2014. Diseases that are often transmitted by food or water, including E. histolitica (amoebiasis), salmonella and typhoid food poisoning remain problematic.

Communicable Disease Objectives

The Strategy’s Communicable Disease Objectives identify the need for effective prevention programs, including education, awareness and comprehensive immunization programs. The incidence of measles has decreased in the resident population but the aim is to eliminate measles completely. Another key initiative is the encouragement of adult immunization through the promotion of vaccination services through Primary Health Care Corporation clinics and to high risk populations so that Qatar can continue to tackle communicable diseases and maintain very low levels of disease such as malaria, HIV and tuberculosis.

Health implications

Communicable diseases account for a significant number of deaths each year in Qatar, negatively affecting the quality of life of residents that places considerable burden on Qatar’s healthcare system.

Qatar supports the UN Sustainable Development Goals. Goal 3, Good health and wellbeing commits to ‘ending the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combating hepatitis, waterborne diseases and other communicable diseases by 2030.’
Food Safety

Food safety control is integral to assuring the quality and standards associated with the importation, production, processing, preparation and disposal of food products. Food safety control is particularly important because approximately 90% of the food in Qatar is imported. The rapidly growing population continues to place greater strain on food inspection services and port authorities, with the need to increase food imports in parallel with the need to continually manage and pre-empt the threat of potential outbreaks.

Health implications
Qatar experiences foodborne outbreaks every year with a variable number of causative organisms including e-coli, salmonella and typhoid food poisoning. As shown in the table below, the number of reported cases of food poisoning has risen steadily since the beginning of the century, though much of this rise may be due to the population growth.

Food Safety Objectives
The monitoring of food safety standards is the responsibility of the Ministry of Public Health, Ministry of Municipalities and Urban Planning, Ministry of Environment and Ministry of Economy and Trade. This emphasizes the need for collaborative cross-sectoral policy development and decision-making to provide an effective Food Safety Framework for Qatar. The strategy’s Food Safety Objectives seek to raise awareness among the public about the health risks associated with consuming unsafe food. Additionally, a key focus of the objectives is the promotion of a strong food safety culture among all parties involved in the supply chain.

Figure 20: Food poisoning incidence in Qatar (2000-2015)
(Source: Communicable Diseases Control Framework (Draft) Qatar, January, 2015)

90% of food in Qatar is imported

The strategy’s Food Safety Objectives seek to raise awareness among the public about the health risks associated with consuming unsafe food.
Environmental Health

Environmental health is a core component of public health. Providing a healthy environment in which people can live is essential in order to sustain a healthy population. In Qatar, the main areas of concern regarding environmental health include air quality, drinking water and waste management. Data from the World Health Organization shows that air pollution is the largest single environmental health risk in the world.

Health implications

For a population to thrive, it must have a healthy environment in which to live – free from pollutants and toxins. Ensuring clean water is paramount to supporting optimal health. Frequent consumption of contaminated water can lead to conditions including diarrhea, bacterial dysentery, cholera, typhoid and others. Similarly, air pollution can contribute to ill health. The World Health Organization states that countries that are able to reduce air pollution levels can reduce their burden of diseases such as stroke, heart disease, lung cancer and respiratory conditions.

Environmental Health Objectives

For many key areas of this strategy there is considerable emphasis on individuals taking control of their own health, with the strategy creating the support network to enable them to do this. However, the overriding focus of the Environmental Health Objectives puts the emphasis on authorities to monitor and enforce processes and regulations that will lead to the sustainability of a healthy environment in which population can live.

The World Health Organization states that countries that are able to reduce air pollution levels can reduce their burden of diseases such as:

- Stroke
- Heart disease
- Lung cancer
- Respiratory conditions

For a population to thrive, it must have a healthy environment in which to live – free from pollutants and toxins.
Respiratory Disease

Asthma incidence is increasing worldwide, especially among children, and by 2025 it is predicted that asthma will be affecting around 400 million people (WHO). Qatar and other GCC countries have a high rate of asthma which may be attributable to a rapid change in lifestyle, dietary habits or higher exposure to indoor allergens, tobacco smoke, dust and sandstorms.

A cross sectional study in Qatar conducted among 3,283 school children in 2005, revealed a high prevalence of diagnosed asthma (19.8%).

Health implications

Respiratory conditions including asthma and obstructive pulmonary disease adversely affect the quality of life of many people in Qatar, a large proportion of these being children. People with asthma are at risk of developing complications from respiratory infections such as influenza and pneumonia. There is no cure for asthma, but once it is properly diagnosed and a treatment plan is in place it is possible to manage the condition, and quality of life will improve.

Respiratory Diseases Objectives

Reducing the high rates of respiratory disease in Qatar will require not only improved primary care services, but also working in specific settings where children spend significant amounts of time, such as childcare settings and schools. The Environmental Health Objectives will also play a key role in reducing the burden of respiratory diseases, most notably thorough improving air quality. Additionally, raising public awareness about respiratory diseases is a key priority. For example, it is important that people are aware that lifestyle habits such as smoking increase the risk of developing these conditions.

19.8% prevalence of diagnosed asthma school children in 2005

Asthma is predicted to affect 400 Million worldwide by 2025

(Source: Interventions to Improve Asthma Management of the School Age Child: Clinical Pediatrics 2014)

(Source: World Health Organization)
Strategic Enablers

4 Enablers

14 Goals

42 Initiatives
Strategic Enablers

- Support the health of the rapidly growing population
- Strengthen the effective management of emerging and re-emerging public health threats
- Effectively manage the developing population disease profiles, including preventing and reducing the impact of non-communicable diseases
- Manage increasing resource demands on environment and food safety services

This includes being able to support the nation’s response to the epidemiological transition from infectious diseases to non-communicable diseases as the primary cause of morbidity and mortality.

Strategic enablers will allow the public health system to improve its capability, performance, responsiveness and resilience to effectively manage the health of the population. The required transformation will enable the delivery of exceptional public health services that are aligned with the Qatar National Vision, the United Nations Sustainable Development Goals and leading public health practice.

Global best practices in public health do not rely on services and interventions being delivered solely by a public health department or by traditional health partners. Active involvement, collaboration, and collective action is required across all public health partners to achieve a shared common purpose. The performance, efficiency and achievement of strategic enablers and goals needs to be governed across the system with an emphasis on transparency and accountability.

In order to increase the effectiveness of public health services, strategic system partners must be empowered to utilize sound planning and decision-making processes founded on accurate and accessible population health information. The public health system must also have confidence in the monitoring and evaluation processes for proposed and implemented initiatives. The outcome of these processes provides validation that the strategic enablers and goals are being met and that opportunities for broader system improvement are identified and actioned.

This systemic investment will help engage both traditional and non-traditional public health partners, enabling them to deliver more effective and resilient health protection, promotion, preparedness and preventative processes and services that support the prosperity of the population, across the broader determinants of health.

To address the identified public health system challenges and opportunities four strategic enablers have been identified. The enablers are the pillars of the public health strategy and will prioritize the development and delivery of effective health protection, promotion, preparedness and preventative policies, programs and initiatives. Each enabler consists of goals and initiatives which provide the focus and roadmap for delivery.

The strategic enablers form the basis upon which capability and capacity can be nurtured to develop an integrated and comprehensive public health system that is resilient and robust.

**Figure 21: Four Strategic Enablers for the Public Health System**

<table>
<thead>
<tr>
<th>Enabler</th>
<th>3 Goals</th>
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<tbody>
<tr>
<td>Community Engagement and Empowerment</td>
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<td>Data Driven Intelligence</td>
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<td>Workforce and System Capability</td>
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<td>Leadership, Regulation and Accountability</td>
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Qatar Public Health Strategy
Community engagement and empowerment is essential to enable local partnerships to improve the health of the population. Community engagement significantly improves the sustainability of public health programs and initiatives because of a strong sense of ownership of the intervention and its success. It promotes the efficient utilization of existing resources and enables programs to be tailored to appropriately meet community needs.

A range of stakeholders are integral to effective engagement processes including community leaders, MOPH, PHCC, hospitals, municipalities, religious communities, schools, universities, NGOs, sports authorities, private companies, civil society, media and others.

Three goals and 11 initiatives have been identified to enable greater community engagement and empowerment.

**Goal 1.1**

**Greater understanding of the health needs of all communities in Qatar**

To improve the health of the population, comprehensive community assessments are required to determine the demographic and health risks profile, as well as the public health resources and assets available in associated communities. In addition to gathering information on the population as a whole, it is necessary to engage with community leaders and stakeholders across various sectors to identify specific local needs and to design efficient health interventions. This information allows community resources to be utilized to develop relevant and sustainable solutions to local public health needs.

**Community advisory taskforce**

Identified community leaders and public health officials mobilized to form a taskforce that convenes quarterly to plan local public health programs aligned with the community health and behavioral risk profile.

**Public health community partners and asset register**

Community partners and assets identified across government agencies, private sector, NGOs, etc. to align and integrate public health activities and optimize the utilization of resources.

---

**3 Goals**

1. **Greater understanding of the health needs of all communities in Qatar**
2. **Enhanced community health and behavior improvement**
3. **Improved community resource utilization**

**11 Initiatives**

1. **Community advisory taskforce**
2. **Public health community partners and asset register**
3. **Community capacity building**
4. **Public health education and awareness**
5. **Community health infrastructure improvement**
6. **Community health resource optimization**
7. **Community health behavior change interventions**
8. **Community health resource mobilization**
9. **Community health resource sustainability**
10. **Community health resource evaluation**
11. **Community health resource accountability**
Focus on public health literacy to empower community members to have greater influence over their health outcomes

Public health literacy is essential to empower individuals to make the best health and behavioural choices for themselves and their families. To improve health literacy levels, messaging strategies must be developed that are culturally and linguistically appropriate for all target groups, including high risk populations.

Goal 1.3

National public health literacy framework

Individuals enabled to make informed decisions about their own health and to influence the health and well-being of the community across the broader determinants of health.

Community professional public health training programs

Skilled and sustainable local community public health workforce further developed that can support key messages and programs about preventative health and behavioral risk modification.

High risk population community education programs

Targeted health literacy programs established to reduce inequalities in existing public health programs and provide maximal opportunities for high risk populations to improve their health and well-being.

School based public health programs

Good health behaviors ingrained within children and the youth to minimize the potential burden of disease later in life and reduce behavioral risk factors.
Ensure high quality, comprehensive and accessible population health data

A systematic approach to the collection and management of public health data will provide significant improvements in the understanding of the health and wellbeing of communities. This includes agreement on public health data requirements, articulation of roles and responsibilities, consistent processes for data collection, robust methods for data management and analysis, development of standardized case definitions and protocols for data security.

2.1.1 Public health data definitions, health indicators, collection protocols and data sharing agreements

Leading practice data management systems and processes established that standardize data collection, reporting and access.

Goal 2.1

Four goals and nine initiatives have been identified to strengthen data driven intelligence capability.
Enhance the monitoring and responsiveness of Qatar’s public health system

A comprehensive understanding of the population is required to develop targeted public health policy. Effective and integrated monitoring, surveillance and laboratory functions are essential to protect and improve the health of a population.

Qatar has a unique population demographic with a transient expatriate population posing continual challenges for the existing health infrastructure. This includes the risk of disease importation which might be new or reintroduced to the region. As Qatar continues to host major events, an integrated early warning system is crucial.

Strengthening the public health research capability is required to promote a focus on a high quality research portfolio that enables effective policy planning, decision making and evaluation processes. Emphasis should be placed on practical research that is consistent with world class standards.

Key linkages and opportunities for collaborative research need to be established with the Qatar National Research Fund, universities, health providers, and other public health stakeholders.
Create networks and forums for public health expertise to come together to solve key public health challenges

Enhancing a culture of collaboration will create a public health network that brings experts – local, regional and international - to work together to address the health challenges of the population. Strategic collaboration is fundamental to a successful public health system and requires sharing responsibilities across sectors, ministries and entities.

Three goals and nine initiatives have been identified to strengthen the workforce and system capability.
Goal 3.2  
Develop the capability and capacity of all public health staff and the future leaders of Qatar’s public health system

It is essential that public health is promoted as an attractive, viable, and rewarding career that provides opportunities to significantly improve the wellbeing of the population and enable personal and professional development. Public health must be seen as a multi-faceted career that allows the ability to work across the essential public health functions and organizations, to deliver cross-sectoral policy and programs that impact the broader determinants of health.

Public health needs to attract and retain senior public health expertise to work in the country and provide technical assistance to the local leadership. This senior workforce is required to build the in-country capacity to fulfill the essential public health functions. Partners need to be cognizant of the strengths and weaknesses across the system so that senior public health figures can be actively involved in identifying and addressing gaps.

Public health workforce taskforce
Targeted approach to improve the depth and capability of public health skills and expertise across the system

Public health employee surveys
Employee engagement, training needs and workforce demographics comprehensively assessed to support development processes

Mentorship programs and structured internships for public health graduates
Local talent provided with opportunities to work across public health domains and supported to have an articulated career transition

Goal 3.3  
Emergency/hazard preparedness communication protocols, training and drills

A robust public health system has the ability to respond to disease outbreaks, natural disaster and other emergencies to prevent and minimize threats to the population’s health. This requires having up-to-date protocols and procedures to guide an immediate response in case of an emergency or outbreak and a designated public health workforce that is familiar with the procedures and is well trained to identify and contain/control potential risks.

The Emergency Preparedness and Response department at the MOPH works closely with key stakeholders and is taking the lead in coordinating the health sector emergency preparedness and response activities. The main initiatives currently include the development of a National Health Emergency Management Plan and establishment of a National Poison Centre.

Revision of outbreak, hazard and emergency response communication protocols
Support the alignment, consistency and familiarity of all protocols across key stakeholders to coordinate and deliver a timely and effective response

Outbreak/emergency preparedness training and drills
Enable comprehensive assessment of performance, identify further training requirements, improve system responsiveness and embed ‘ways of working’

Major events public health taskforce
Strengthen cross-sectoral planning and response processes to support greater system capability, resilience and scalability for large scale events
Strategic Enabler 4

Leadership, Regulation and Accountability

Strengthening governance, regulation, performance management and the profile of public health is required to enable the delivery of the essential public health functions. Clearly defining the roles of the leadership function across the system will support effective communication, encourage collaboration and resource sharing, and achieve implementation of the strategy. Establishing a trusted voice for the public health system is required so that the population has confidence in the policies and processes utilised to protect and improve their health and wellbeing.

Goal 4.1

Articulate and enact strengthened governance

Developing a comprehensive governance and legislative framework across the public health system is required to define stakeholder responsibilities, establish a hierarchy of designated leadership and decision makers and to support clear reporting and escalation processes. Governance is critical to overcome intra and intersectoral barriers, ensure the ownership of responsibilities and to enable the implementation of ‘Health in All Policies.’

4.1.1 Establish the State of Qatar Public Health Act
Provide the legal mandate to fulfil regulatory and enforcement responsibilities

4.1.2 Review of public health laws/regulations
Health of the population protected through adequate laws that adhere to International Health Regulations

4.1.3 Phased public health budget increase between 2017-2022
Considered investment to enable capability growth across the system and the appropriate sustainable resourcing of initiatives

4.1.4 Inter-Ministry board for public health
Collaboration, policy development and collective action established for cross-sectoral public health issues - incorporating ‘Health in All Policies’

4.1.5 Public health committee
Provide a formal policy advisory role to the Inter-Ministry Board and strengthen cross-sectoral collaboration across partners

4.1.6 Implement preventive health guidelines
Robust development and vetting processes for all proposed public health initiatives
Introduce a performance management and quality framework

A performance management and quality framework needs to be established to monitor and evaluate the efficiency and effectiveness of public health programs and initiatives. This framework will drive systemic improvement and ensure the optimal utilization of resources. As public health is a shared responsibility, the framework must adequately assess performance across the system. Aspiring to achieve accreditation of the public health department will raise standards and demonstrate the commitment to quality, governance, and continual improvement.

Develop a national public health brand

Enhancing the effectiveness, perceived value, trust and visibility of public health information can be achieved through building a strong unified brand. Qatar’s public health system has the potential to be a leader in the region. A clear visible brand will not only foster the relationship of public health with the people of Qatar, but also across the GCC.

Promote national public health leadership

Public health challenges are influenced by the broader determinants of health. A comprehensive and structured cross sectoral approach is required to develop effective policy, planning and development processes. Alignment of objectives, capabilities, resources and expertise across the public health system is critical.

Identified leaders in public health need to be supported through training and development processes so that they can continue to improve performance and capability across the system. Leaders need to be able to effectively encourage all public health professionals and stakeholders to contribute meaningfully to improving the health and wellbeing of the population.
Strategy
Implementation
Strategy Implementation

It is important to state that the Qatar Public Health Strategy 2017-2022 feeds into the overarching National Health Strategy 2017-2022, which aligns itself to the Institute for Healthcare Improvement’s Triple Aim initiative - Better Health, Better Care and Better Value.

This strategy will only succeed if there is sufficient engagement, planning, accountability and resources to ensure effective implementation.

In order to successfully deliver the strategy its key priorities, initiatives and objectives will be monitored regularly and measured against key performance indicators and milestones. A Two-Year Action Plan will also be developed, that will outline specific projects or objectives from the Health Areas and/or Strategic Enablers that will be focused on as a priority in the upcoming two years.

In 2019, a midpoint implementation review will be undertaken to assess the progress of implementation and review future plans and deliverables.

There are eight strategy enablers that are fundamental to the strength of the Public Health Strategy implementation. They are:

- **Governance**
- **Leadership**
- **Change Management**
- **Communication and Stakeholder Engagement**
- **Risk Management**
- **Performance Management**
- **Project Management**
- **Resourcing**

**Governance**
A refreshed Public Health Committee, chaired by the Minister of Public Health has been established. The Committee will oversee the implementation of the Strategy as well as other key health strategies including those for cancer, diabetes and mental health all of which have significant preventive aspects.

In addition to this a Public Health Strategy Implementation Group will be created to oversee and report on the detailed implementation of the Strategy to the Public Health Committee. The Group will maintain alignment with other national health projects to manage interdependencies and opportunities for efficiencies in implementation. It will also support the timely resolution of issues and challenges to maintain project momentum.

**Leadership**
Leadership across the public health system will provide an ongoing unified commitment to guide and support the implementation of the Strategy. This will, in part, be achieved through the governance described above but also through implementation of the Strategy itself including the strategic enablers on:
- Community Engagement and Empowerment;
- Workforce and System Capability; and,
- Leadership, Regulation and Accountability.

**Change Management**
The extent of change associated with the implementation of the Strategy will require change strategies and plans. Managing change and its challenges will be required throughout the implementation of the strategy.

Reaffirmation of the public health vision and the recognition and celebration of key milestones is essential to maintain momentum and commitment to achieving all objectives and initiatives.

System readiness to implement the objectives and initiatives will be determined to manage and mitigate potential risk to the implementation of proposed objectives and initiatives.

**Communication and Stakeholder Management**
Throughout implementation the level of stakeholder engagement and shared commitment must continue to build on the excellent start made in the strategy development process. Stakeholder engagement and support is essential if objectives and initiatives are to be sustained.

Regular collaborative forums will be established to promote innovation and collaboration across the public health system and to maintain momentum so that knowledge sharing and collaborative development becomes universal. Communicating achievements and change will support engagement further.

**Risk Management**
A risk reporting framework will be implemented through the governance structure described above. It will be regularly reviewed and updated by system partners. Any risk that relates to a potential decline in performance during implementation must be managed as soon as it is identified. Effective change management and stakeholder engagement strategies and well planned resourcing arrangements will help minimize this risk.

**Performance Management**
Expectations of key personnel involved in implementation processes will be articulated and communicated. Emphasis on efficiency and productivity will help to maintain the pace and rigor of implementation.

Key performance data will be identified and a reporting framework developed across all public health system partners. This will enable the generation of regular reports by the Public Health Strategy Implementation Group to the Minister for Health and NHS Steering Committee on implementation progress.

**Program and Project Management**
Progress is already underway, supported by the NHS Program Management Office, to develop a strategy implementation plan and governance. The PMO will support the integration of implementation activities across the system and coordinate with other NHS and strategic health programs.

**Resourcing**
The new health sector program based budgeting system will enable implementation funding to be ring fenced to ensure that it is channeled to support implementation. Strategic initiative 4.1.3 identifies a phased approach to increasing public health funding to support the delivery of improved public health services as capacity and capability develop.

**Action Plan**
The Action Plan is designed to create focus and measurable progress by the end of 2018 and initiate future focus areas in two-year increments. The proposed Health Areas and Strategic Enablers that will be focused on initially include:
- Road Safety
- Communicable Disease
- Environmental Health (specifically air quality)
- Cancer
- Diabetes (specifically health promotion)
- Data Driven Intelligence

The proposed Health Areas and Strategic Enablers will be reviewed against what the public consider priority areas that are to be captured through the public consultation process. In addition, the dedicated Taskforces will have responsibility for identifying projects and initiatives to be undertaken, aligning to the National Health Strategy where practicable. These projects and initiatives will then be submitted to the Public Health Implementation Group and Public Health Committee for approval.