

PUBLIC HEALTH REPORT

HEALTH PROSPERITY IN A **WORLD CUP ERA**

QATAR 2022

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FOREWORD

FOREWORD

We are pleased to present to you the second Biennial Public Health Report, part of the series of Public Health Reports that will be published regularly. Our first report titled “A Decade of Health and Well-Being” was considered a milestone within our Public Health Strategy 2017 – 2022 (PHS) and we are proudly continuing our tradition of connecting with the community on the most important and trending public health topics.

In this report, we will provide an overview of the public health response to the COVID-19 global pandemic, posing the biggest health crisis faced by Qatar in the last 100 years. We will also highlight the key efforts being done in building a strong foundation of public health protection and promotion for the people of Qatar through ongoing implementation of the PHS 2017 – 2022. This Strategy supported the national response to the pandemic, especially in areas of communicable disease surveillance, border health, contact tracing and mass vaccination. This report will not be conclusive without a progress update on public health preparedness to ensure a safe and successful FIFA World Cup Qatar 2022™.

First and foremost, we would like to thank His Highness Sheikh Tamim Bin Hamad Al Thani, our Emir and leader, whose forward-thinking vision has helped Qatar become a global leader in health and wellbeing and has ensured that Qatar's population is provided with the utmost care. Secondly, we would like to express our sincere thanks to Her Excellency Dr. Hanan Al Kuwari, our Minister of Public Health, who has supported Qatar's National Health and Public Health Strategies. We thank her for her leadership and constant support throughout the COVID-19 pandemic; for helping us thrive and advance in our public health goals and for her eagerness to always ensure that the health and wellbeing of Qatar's population are a national priority. We would further like to extend our gratitude to the World Health Organization (WHO) and all countries in the Gulf region, whose cooperation and support have helped us collect necessary data and learn best practices in order to continuously improve and strengthen our public health and healthcare sector. I would also like to extend my thanks to all public health and healthcare workers who have gone above and beyond the call of duty to protect the nation against the pandemic.

Further, I would like to extend my thanks to all my colleagues for their hard work and commitment towards improving the health and wellbeing of Qatar's population. We recognize the continuous support and cooperation of all the government entities and ministries, Hamad Medical Corporation (HMC), the Primary Health Care Corporation (PHCC), primary, secondary, and tertiary healthcare providers, academic and research institutions, and the players of the non-healthcare sectors in the successful contributions to support the PHS 2017-2022. Lastly, I would like to thank all my colleagues in the Public Health (PH) Department for their valuable contribution in developing this report.

The past two years deemed public health to be more important than ever in protecting people's lives and improving their health. Public health is a major pillar that strengthens and protects the healthcare system and prepares countries to face any future crisis or emergency. We will always work relentlessly to thrive in the public health sector and improve the health of Qatar's population by identifying people's needs and tailoring interventions and policies accordingly.

Sincerely,

Sheikh Dr. Mohamed Bin Hamad Al Thani
Director of Public Health Department, Ministry of Public Health

INTRODUCTION

INTRODUCTION

With the rise of Coronavirus (COVID-19), the State of Qatar was ultimately challenged to deal with a pandemic that caused a state of emergency globally. Although COVID-19 was the priority of public health work in March 2020, other ongoing projects were also deemed as significant. For instance, it was especially important to focus efforts on initiatives under the PHS 2017-2022 since they ultimately lay the foundation of a resilient public health system, supporting recovery of national health, wellbeing, and economic prosperity.

2022 is a milestone year for Qatar as it signals the end of the PHS 2017-2022; the Strategy with an overall goal of improving the health and wellbeing of Qatar's population by addressing current and future public health challenges and putting health at the forefront of everyone's agenda.

Moreover, the year 2022 brings another major milestone to the country - ever since Qatar was honored with hosting the World Cup 2022, much of the work has been focused on supporting the preparations for this mega-event, to ensure Qatar has a strong and resilient Public Health System and infrastructure in place. Qatar is expecting more than 1.5 million fans and spectators and taking all the necessary preventive measures to manage the COVID-19 pandemic.

The ongoing work of the PH Department at the Ministry of Public Health (MOPH) to implement the PHS 2017-2022 and solidify the foundations of an effective Public Health System have enabled a successful navigation of the challenges presented by COVID-19 and ensured that the country is prepared for the upcoming FIFA World Cup Qatar 2022™. COVID-19 and the restrictions imposed to control the pandemic and halt its spread continues to impact people's health and wellbeing, economy, and society. In fact, COVID-19 has changed the way societies and their lifestyles function, exacerbating existing health inequalities. The pandemic also gave rise to challenges in non-essential services caused by diversion of resources to respond to the pandemic. Therefore, Qatar's main focus was to successfully control the outbreak and limit its spread, especially at the height of the pandemic, while protecting and improving the health and wellbeing of residents. Despite the challenges emerged from COVID-19, the nation's priority was to continuously ensure that residents received consistent, uninterrupted, and ultimately the best public health and healthcare services. In addition, Qatar has experienced one of the lowest mortality rates attributed to COVID-19 and has been very successful in dealing with the acute crisis as well as maintaining the health of its population and securing and disseminating vaccines among all nationals and residents.

This report provides Qatar's story in dealing with the COVID-19 pandemic and related burden on the country to date. The report also sheds light on the achievements done under the PHS 2017-2022 for both the health areas and Strategic Enablers (SE), as well as Qatar's story of preparing for mass gathering events, highlighting the nation's journey in ensuring a safe and successful FIFA World Cup Qatar 2022™.

Section 1: Qatar's Response to the COVID-19 Pandemic

COVID-19 had a substantial impact worldwide, affecting the health and wellbeing of people as well as the global economy. Qatar's key objective was to lay out a COVID-19 response plan that prevents the spread of the virus in the community, alleviates the burden on the healthcare system and protects the health and wellbeing of Qatar's population. This section showcases the success stories and challenges in Qatar's fight against COVID-19 and highlights the digital acceleration that occurred across the healthcare sector.

Section 2: Public Health Strategy 2017-2022 Achievements

The PHS 2017-2022 was developed to have an effective Public Health System in Qatar addressing current and future health challenges of the community. It revolves around four SEs and 16 health areas with specific objectives and initiatives. This section summarizes the achievements done under each health area and each SE, highlighting the percentage of achievement, the impact of the projects completed during this period and the future considerations that need to be addressed.

Section 3: Road to the FIFA World Cup Qatar 2022™

Despite all the challenges and delays that Qatar has experienced due to COVID-19, the government is fulfilling its promise in planning a safe and successful FIFA World Cup Qatar 2022™. This section highlights public health work planned to support the preparations for the tournament which will be different to the post-COVID-19 world. This includes communicable disease surveillance and outbreak response, COVID-19 testing, and contact tracing protocol. This section also shows how the FIFA World Cup Qatar 2022™ will be used to promote physical activity and healthy nutrition as well as summarizes all public health and health promotion initiatives planned to occur during the tournament.



SECTION 1

QATAR'S RESPONSE TO THE COVID-19 PANDEMIC

The COVID-19 pandemic has been the key public health and national priority for the last two years. Besides the significant global impact, the pandemic placed considerable burden on Qatar and its public health system. It has also shown that a strong and appropriately resourced public health infrastructure is critical to large scale and urgent responses to healthcare emergencies, to reduce its adverse impact on health and wellbeing, economy, education, and society as a whole.

The WHO declared COVID-19 a pandemic in March 2020. However, Qatar had started the preparations for responding to the outbreak immediately after the news of cases in Wuhan, China was made public. Qatar's main objective since the start has been to:

Control the entry of the virus into the country through strong surveillance and border controls

Limit its spread in the community, through rapid testing, tracing of contacts and stringent self-isolation of COVID-19 cases and close contacts

Reduce the impact on health by managing demand and capacity, access to treatment and infection prevention and control

Minimize the impact on the wider economy by having clear policies and regulations in place while ensuring business continuity

However, as a global travel and economic hub with significant mobile expatriate population, soon after the first case of COVID-19 in Qatar was reported on 29 February 2020, cases started to multiply quickly. Mirroring all developed nations, "flattening the curve" of COVID-19 became the main priority.

1.1. QATAR'S PREPAREDNESS FOR PANDEMICS & GOVERNANCE

In the year 2019, MOPH had collaborated with key partners and produced the “Qatar National Preparedness and Response Plan for Communicable Diseases”, as a comprehensive plan to manage potential outbreaks and pandemics. The plan was developed based on the WHO Pandemic Influenza Risk Management Guide 2013. Its main purpose was to coordinate the management of communicable diseases through the prevention, risk mitigation, and control of such diseases, as well as outbreaks and pandemics.

Having this multi-agency ‘Whole of Government Approach’ plan in place proved instrumental in providing clear and coordinated COVID-19 control response across the country (Figure 1).

- The Supreme Committee for Crisis Management under the leadership of the Prime Minister and Minister of Interior His Excellency Sheikh Khalid bin Khalifa bin Abdulaziz al Thani, held the strategic oversight and final decision authority on the pandemic response.
- The implementation of the National Response Action Plan and coordination of multi-agency response was led by the National Committee for COVID -19 chaired by the Minister of Public Health Her Excellency Dr Hanan Mohamed Al Kuwari, and the membership of representatives from various ministries and government entities.
- At the healthcare sector level, MOPH was the cornerstone in coordinating the response against COVID-19 at a national level. A command structure was established that consisted of strategic and tactical groups. This was supported by various taskforces and expert groups specializing in clinical and scientific advisory, planning, implementation, and communication.
- Besides MOPH and the health sector, each of the Government agencies had an important role in leading the actions relevant to their jurisdiction, as well as supporting the health sector in implementing the pandemic-response actions, maintaining continuity of essential services, raising awareness, and maintaining the public’s confidence in the government. For instance, Ministry of Transport, Ooredoo and Ministry of Culture and Sports worked with MOPH to develop and broadcast COVID-19 awareness messages through multiple media channels, monitor public sentiments, and support new ways of working such as virtual learning and working from home. Further, Ministry of Finance, Qatar Central Bank and Qatar Development Bank developed forecast models for economic impact of the virus on Qatar and provided emergency funding for the implementation of a COVID-19 action plan. Last but not least, the Ministry of Commerce and Industry (MOCI) and the Ministry of Municipality and Environment (MME) helped in procurement and management of emergency stockpile of essential supplies, Personal Protective Equipment (PPE), medicines, and vaccines.

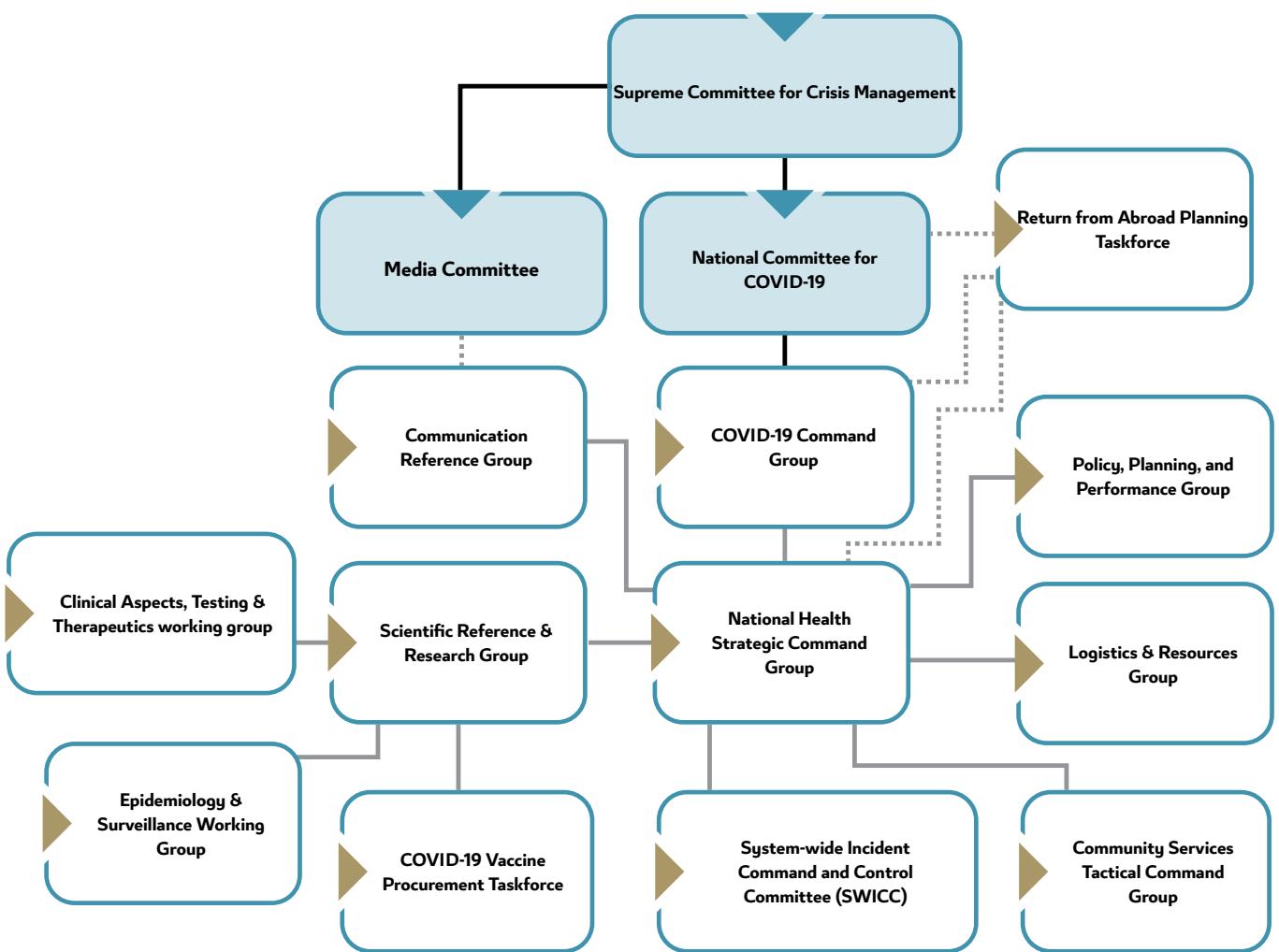


Figure 1- Governance Structure of the Qatar National COVID-19 Response

1.2. QATAR'S NATIONAL RESPONSE AGAINST COVID-19

1.2.1 COVID-19 WAVES:

Since Qatar's first confirmed case of COVID-19, the country has witnessed three waves since the start of the pandemic. The highest daily average was reported during the third wave in December 2021 and January 2022 which peaked at 4,206 positive COVID-19 cases in a day. A cumulative number of 361,020 cases have been reported in the country thus far since the outbreak began in Qatar in Mid-March 2022.

The epidemiologic curve below shows the COVID-19 laboratory-confirmed cases reported in Qatar as of 29 February 2020 alongside the number of hospital and ICU admissions and the number of deaths caused by COVID-19 per day.

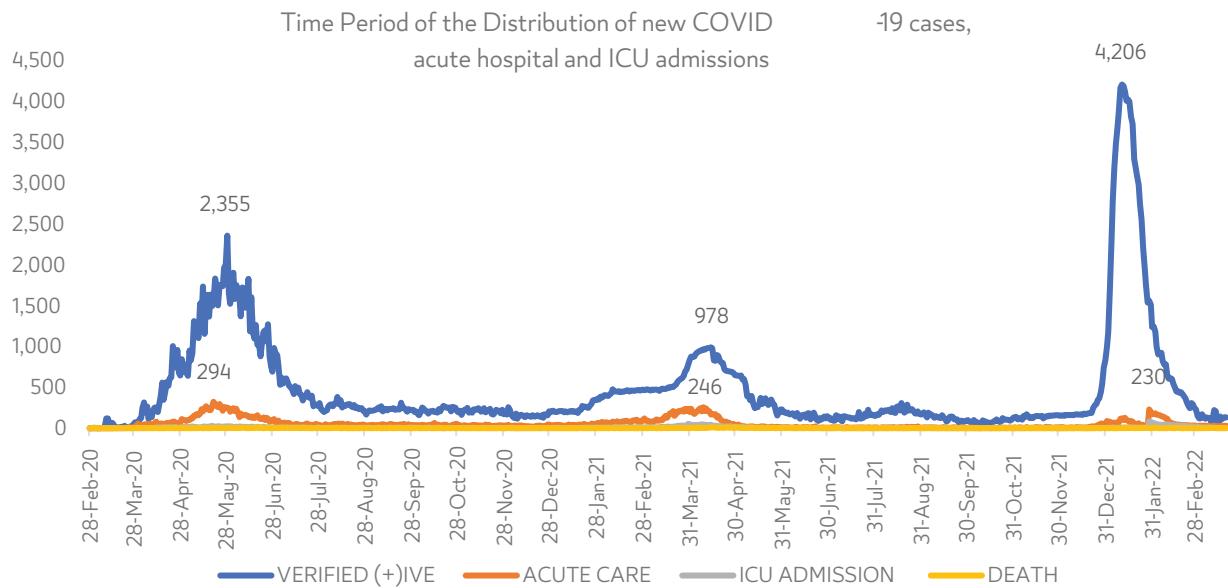


Figure 2 - Daily distribution of new COVID-19 cases, acute hospital, and ICU admissions

1.2.2 BORDER CONTROLS:

After WHO declared COVID-19 a 'Public Health Emergency of International Concern', screening of all passengers coming from Wuhan, China was first imposed along with quarantine requirements. These regulations were later extended to all passengers and flight crew coming to Qatar from abroad; screening at seaports airports was also initiated. The Health Protection - Communicable Disease Control (HP-CDC) team at MOPH was responsible for supervising the screening held at these ports during the start of the pandemic. Moreover, restrictions on travel and public transportation were imposed promptly. Firstly, direct flights to and from China were suspended; and subsequently a wider travel ban was introduced. Additionally, public transportation in Qatar were initially discontinued on the weekends and later, suspended completely to prevent spread from overcrowding. Strict regulations to limit spread between the community have been implemented and proved to be extremely impactful in controlling the disease, combined with increased awareness to promote social distancing. MOPH has developed a phased plan to progressively lift these restrictions imposed once the disease transmission had reached a plateau.

1.2.3 SURVEILLANCE:

Emergency preparedness measures along with robust surveillance were key to combat the virus and limit its spread.

A- Testing:

Qatar has embraced a “testing, tracing, and isolation” approach following the WHO guidelines, implementing a country-wide active case investigation, contact tracing and testing using the Reverse Transcription Polymerase Chain Reaction (RT-PCR) test. RT-PCR testing for COVID-19 in Qatar started in February 2020, which was later approved by MOPH. Following that, was the Rapid Antigen tests which were widely used starting in January 2022. By March 2022, a total of 11,329,498 COVID-19 tests were performed, with the highest number of tests performed in a day being 64,850 on the 10 of January 2022.

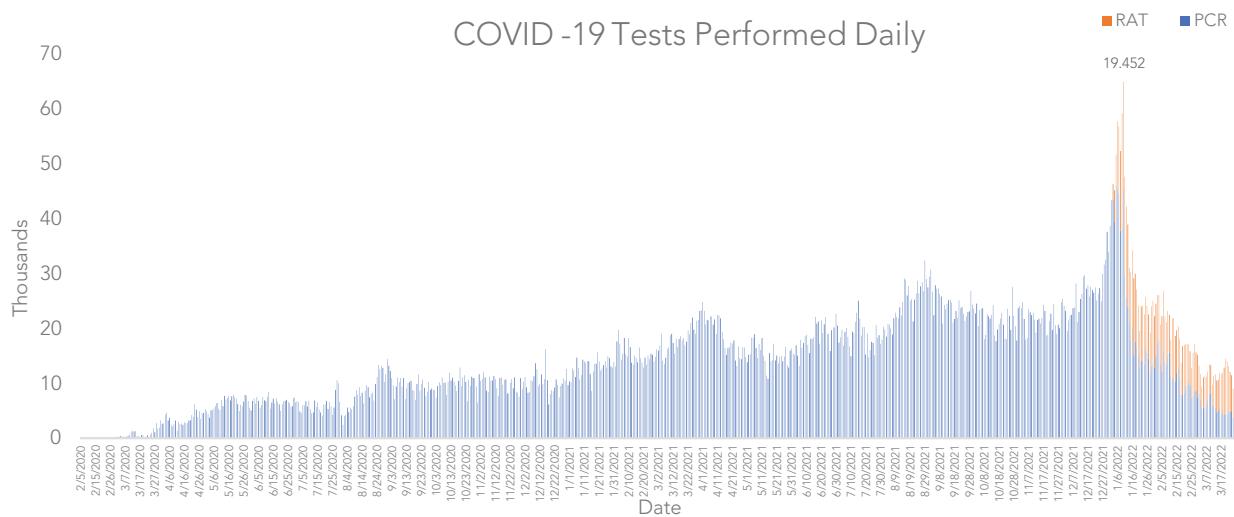


Figure 3 - Number of RT-PCR tests performed daily from March 2020 to March 2022

B- Tracing:

The HP-CDC Department in the PH Department of MOPH has an essential role in the fight against COVID-19. To provide adequate response, the department was reconfigured into COVID-19 case investigation and COVID-19 contact tracing functions. The case investigation team undertakes detailed epidemiological investigation into all new cases to identify sources, linkages and spread. The focus of the contact tracing team is on identifying, assessing, and isolating people who have been exposed to a confirmed COVID-19 case to prevent onward transmission in the wider community.

Case Investigation Team

At the onset of the outbreak, MOPH started recruiting temporary healthcare professional workers including nurses, public health coordinators and physicians' assistants to support the pandemic response. As the number of COVID-19 cases increased, a National Volunteering Campaign was launched in to recruit lay members to assist healthcare staff. The surveillance and outbreak unit was able to bring together 100 investigators with diverse backgrounds who speak different languages. They were all provided rapid training to build their capacity in several areas including data entry, case investigation and reporting to support surveillance function.

A typical case investigation workflow is enclosed below (Figure 4):

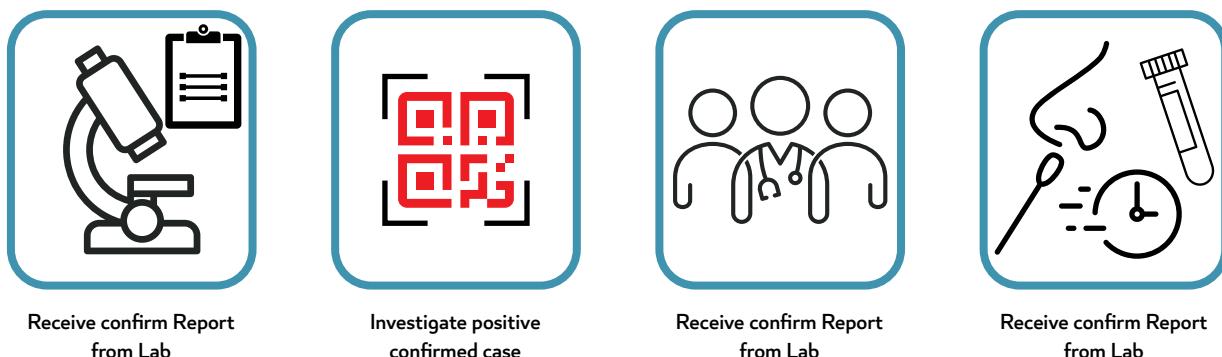
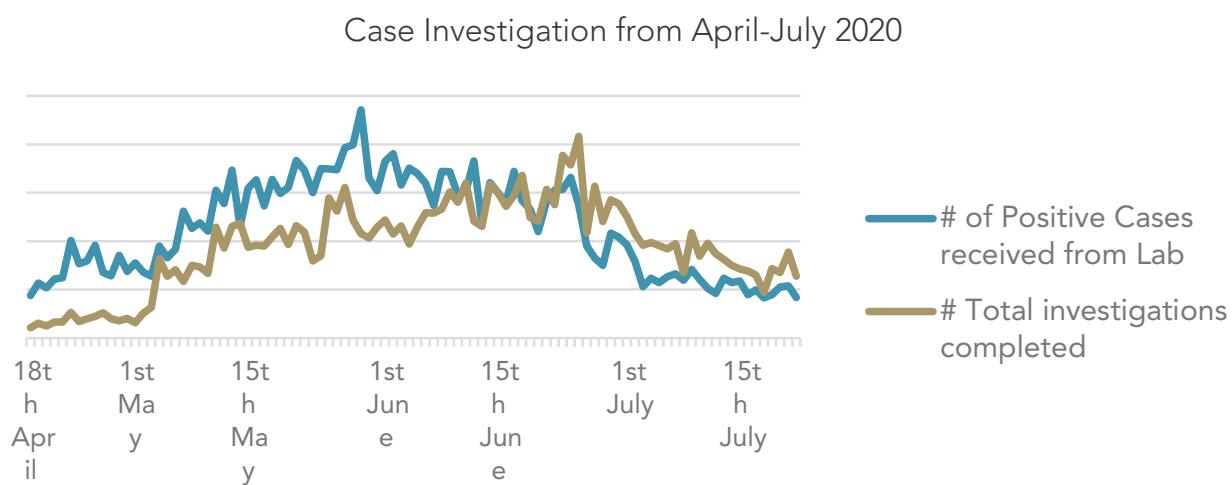


Figure 4 - Case Investigation Workflow

Following the establishment of the case investigation team, the total number of investigations completed since June 2020 is enclosed below (Figure 5).



Contact Tracing Team - "Track N Trace" Team

Contact tracing team is responsible for contact tracing as well as screening done to identify hot zones and potential clusters. To serve this function effectively, the team was expanded almost 12-fold during the pandemic; what started at 20 staff members, the team now consists of 350 members. The service was expanded from one to five locations and advanced technological support was provided for data management and data confidentiality maintenance. The field team in the "Track N Trace" was led by permanent staff from MOPH and comprised of approximately 250 temporary staff working as mobile swabbing teams. Daily swabs done by the "Track N Trace" team reached up to 4,500 swabs during high transmission periods and an average of 1,500-2,000 daily RT-PCR test swabs since April 2020 to date.

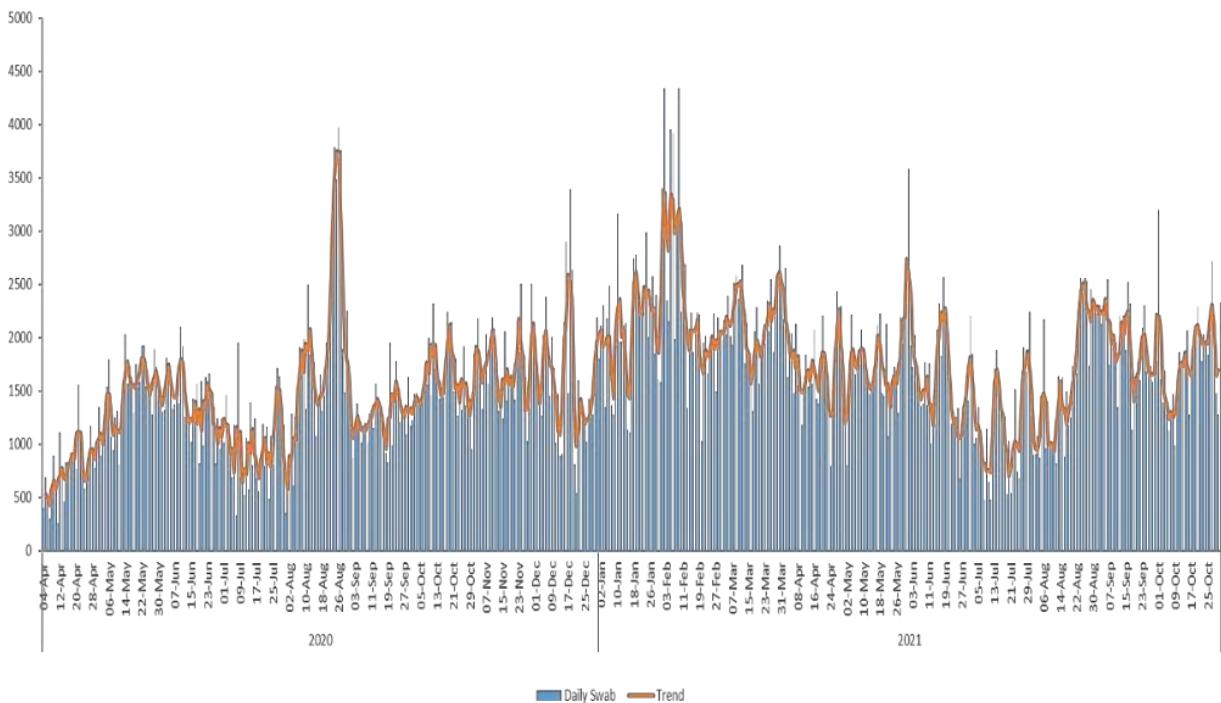


Figure 6 - The distribution of the swabbing tasks done by the “Track n Trace” team from its institution till 30of October 2021

In addition, contact tracing team also provided testing services in various high-risk locations as part of the plan to lift restrictions in the country. For example, all staff from both private and public schools were tested before school reopening. Similarly, staff from various restaurants, food outlets, supermarkets, delivery companies, malls, gyms, and sports facilities were also tested before reopening. Additionally, ad-hoc testing campaigns in workplaces and residential areas were undertaken.

Furthermore, a National COVID-19 call center was set up and consisted of more than 16,000 trained staff to tackle queries related to COVID-19 and resolve identified issues.

C- Self-isolation/Quarantine:

Furthermore, facilities for accommodating guests were first set up to quarantine the passengers and the flight crew coming from China, Iran, and South Korea. Two-week quarantine period was later imposed on all Qatar's residents flying from any high-risk country (i.e., countries on the “red list”) during which RT-PCR testing was provided, free of cost. HP-CDC staff was initially managing the quarantine guest facilities along with nursing staff from HMC and PHCC; HMC and the Ministry of Interior (MOI) were additionally responsible for the facilities’ cleaning requirements. In addition, citizens who were returning to Qatar during the rise in cases within the community were given the option to isolate themselves at home, given they have access to proper home isolation. During home isolation, individuals were followed-up regularly by the “Home Isolation Team” and were provided clearance letters from MOPH after completing the isolation period without showing any flu-like symptoms. Such procedures introduced helped maintain low virus transmission and contained the spread of infections in the community.

D- Digital Surveillance Technologies

KASHIF

To handle the surge of COVID-19, KASHIF, a swab database developed in collaboration with the MOI, supports digital documentation and reporting of individual information during COVID-19 testing. The application uses scanning technology for error-free data entry, immediate OTP verification, and real-time data verification and integration to various healthcare systems.

EHTERAZ

EHTERAZ (Arabic for ‘precaution’), a contact tracing mobile application, was introduced by MOI in collaboration with MOPH and was mandated in November 2020 for people aged 18 and above. The application provides phone alerts or notifications when members of the public are exposed to a suspected, infected, or confirmed COVID-19 case through prompt, accurate and digital contact tracing. The application relies on a visual Quick Response (QR) code showing infection and/or vaccination status to other individuals for safe interaction with the wider community and works on all local mobile platforms.

QR Health Codes

The profile of each user is linked to QR Code by automatically extracting the user’s health information from the official bodies according to the following categorizations:



For inquiries : Call the Government Contact Center 109



Figure 7 - Digital Application EHTERAZ

Surveillance & Vaccine Electronic Software (SaVES):

SaVES was under development as a national software for surveillance and vaccine registration prior to the pandemic. With the pandemic looming, the roll-out was expedited. The national vaccine registry was successfully launched in December 2020 as part of SaVES and initially focused on COVID-19 vaccine records and linkage across various digital systems.

1.2.4 HOSPITALIZATION, INTENSIVE CARE UNIT (ICU) ADMISSIONS AND MORTALITY

By Mid-March 2022, Qatar saw 40,078 acute hospital admissions and 5,784 ICU admissions related to COVID-19. This corresponds to 11.1% of COVID-19 patients requiring acute hospital admissions and 1.6% of the cases being admitted to the ICU.

Moreover, there have been 677 deaths related to COVID-19 which indicates a case-fatality rate of 0.18% of COVID-19 cases.

1.2.5 COVID-19 VACCINATION

Qatar was one of the first countries to procure COVID-19 vaccines and start the COVID-19 vaccination campaign. The COVID-19 vaccine plan was developed by the National Strategic Committee and implemented by the Vaccination Section of MOPH in collaboration with HMC and PHCC.

Four COVID-19 vaccines have been approved in Qatar to date: Pfizer approved in December 2020, Moderna in February 2021, Janssen (Johnson & Johnson) in March 2021, AstraZeneca in April 2021, and a few others such as Sinopharm, Sputnik and Sinovac have been conditionally approved. Guidelines and recommendation for COVID-19 vaccines have been developed and are regularly updated as new scientific evidence emerges.

Qatar's COVID-19 vaccination campaign started on 23 December 2020 and was provided for free for the whole population. The primary targeted groups were high-risk categories namely, frontline health care workers, people with chronic illness, elderly, and teachers. Once almost half of the primary targeted groups were covered, centers including Qatar National Convention Center (QNCC) and Qatar Vaccination Center (QVC) were open for mass vaccination campaigns for the general population.

Since the start of COVID-19 vaccination campaign, 6,486,566 doses were administered until the 31 of March 2022. In total, 75.5% of the eligible population residing in Qatar have received at least one dose, 73.6% of the eligible population have received the second dose and 42.6% of have received the third dose thus far. Additionally, 29,675 of the 5-11 years old have received their first dose since January 2022.

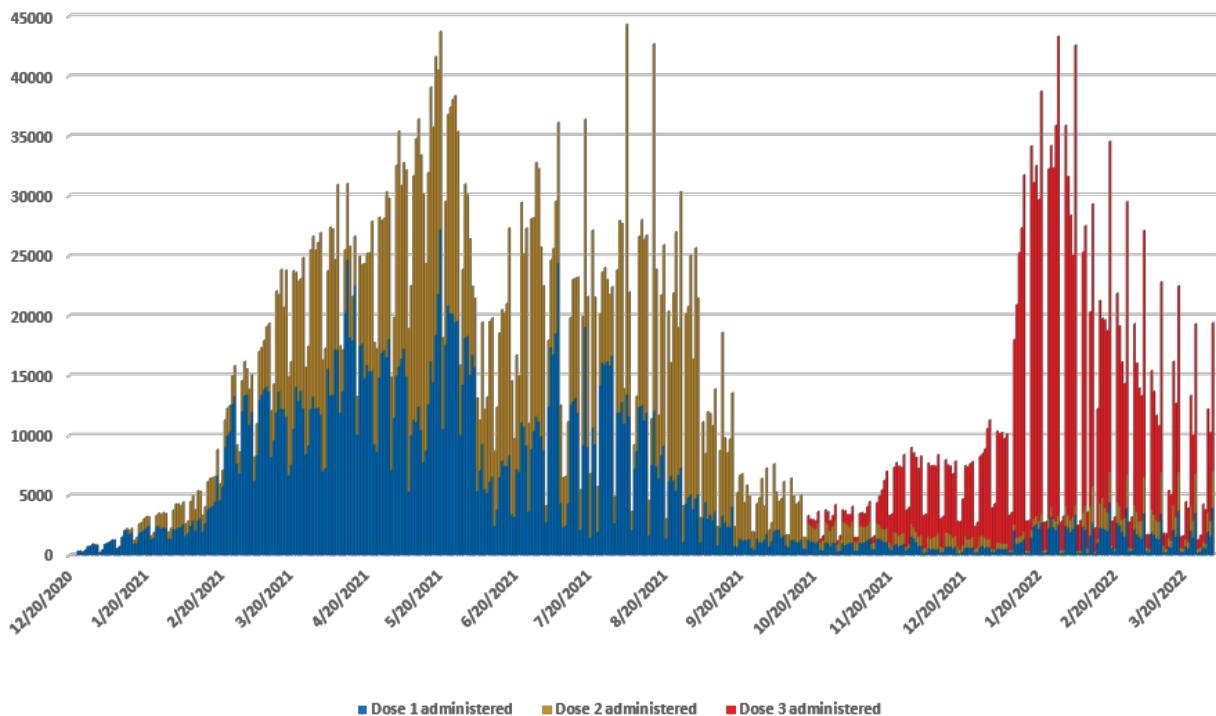


Figure 8 - Number of Vaccine doses administered daily from December 2020 to March 2022

Additionally, a pre-existing Adverse Event Following Immunization (AEFI) reporting system was used to track adverse events following the administration of COVID-19 vaccines. So far, most of the reports have been of mild AEFI that did not require an intervention.

Several factors led to the big success of Qatar's COVID-19 vaccination campaign. These include:

- A well-established platform for seasonal influenza vaccination campaign which helped the implementation of a national COVID-19 vaccination campaign
- Availability of a large workforce that was pooled in for combating the COVID-19 pandemic
- Mass outreach campaign locations such as the QNCC, Qatar Vaccination Centre, and the Vaccination Centre in the Industrial Area, catering to the Craft and Manual workers in Qatar
- A national vaccine registry which provided an overview and assessment of COVID-19 vaccination campaign
- An established AEFI reporting system providing early notification of AEFI, early investigation, and regular feedback
- High level of compliance to national guidelines and reporting protocols

1.3. COVID-19 COMMUNICATION

Communication plays a critical role in the fight against COVID-19, at the global and national levels to provide the latest and most accurate information. It aims at promoting the preventive measures adopted by the State, addressing community's fears and limits the spread of misinformation.

A taskforce was formed to prepare and implement a communication plan that effectively reflects COVID-19 updates through appropriate and timely messages. The COVID-19 communication strategy places accurate sharing of information as a top priority, keeping all segments of society informed about the latest updates using various media channels including social, print and broadcast media, as well as the COVID-19 dedicated page on MOPH's website.

Social Media

Social media plays a key role in Qatar's COVID-19 communication plan. All public health and healthcare institutions joined forces and used their social networking sites to send unified messages, ensuring they reach the highest number of community members. As such, MOPH social media platform grew drastically during the COVID-19 pandemic reflecting the level of public trust in the platforms as a key source of information. MOPH social media accounts grew as follows since January 2020:

- Facebook account: from 114,000 to 660,000 followers
- Twitter account: 75,000 to 314,000 followers
- Instagram account: 150,000 followers since its launch in March 2020

COVID-19 Website

A COVID-19 dedicated page on the MOPH's website was launched in January 2020 disseminating all COVID-19 related information and updates to the public. The website shares awareness messages targeted to Qatar's community including preventive measures, mental health advice, recommendations for specific groups such as the elderly, children, people with chronic diseases and pregnant women. Additionally, the website disseminates information and guidelines related to COVID-19 restrictions, travel and return policy including testing and quarantine requirements as well as the country's epidemic data which is updated daily. Every week, there is approximately 910,000 visits to the website.

Other Media Channels

Press conferences were held since the start of the pandemic to inform the public about the latest news related to COVID-19. Additionally, press releases regarding COVID-19 updates were published regularly in the media. This was followed generally with broadcast interviews providing more details and addressing the public's concerns.

1.4. COVID-19 PREVENTION AND RESTRICTIONS

1.4.1 A FOUR-PHASED PLAN

Qatar initiated a four-phase plan for the gradual lifting of COVID-19 restrictions that were imposed to limit the spread of the virus. The restrictions were gradually lifted in accordance with a set timetable. Various factors affected the decision to move from one phase to the next including reaching target values for key performance indicators, compliance to COVID-19 precautionary measures, following a defined process of monitor-review-adapt having at least 3 weeks between one phase and the other to allow data analysis. The four-phased plan focused on easing up restrictions from one phase to the next around gatherings, transport, outdoor and professional sports, education and health, and business and leisure.



Figure 9 - The Gradual Lifting of COVID-19 Restrictions

1.4.2 PREVENTION AT EDUCATIONAL FACILITIES

In educational institutions, classroom teaching was suspended at the onset of the pandemic, and strict measures were implemented to ensure the safety of students and teachers before the new academic year. Private and public schools reopened in a phased manner after having 100% of the staff tested for COVID-19 and all students aged above 12 years old vaccinated or undergoing regular rapid antigen testing. Contact tracing procedures were enforced with specific guidelines and requirements, such as the assignment of a COVID-19 Safety Officer to monitor, reinforce, and report on compliance with the precautions set out.

1.4.3 PREVENTION AT WORKPLACES

At the onset of the pandemic and during phase one of the four-phase plan of COVID-19 restrictions, workplaces adopted a 20% capacity in addition to following strict health precautions. The percentage gradually increased moving to next phases to reach 50% capacity during phase 2, 80% during phase 3 and a 100% during the fourth and last phase while following strict health precautions in every phase.

Moreover, sustainable solutions were put in place to address future health problems, including -but not limited to- the development of national guidelines and awareness materials for the prevention of infectious diseases in the workplace and accommodation sites. Through being continuously informed by the updated WHO technical directives and standards, several national guidelines, and policy briefs were developed to direct the public health efforts in implementing preventive and mitigative measures, mitigation actions, and arrangements required for the gradual return to work. These included recommendations for the Prevention of the COVID-19 in workplaces, regulation of workers' camps during an infectious disease outbreak, health protocols for lifting COVID-19 restrictions, and housekeeping recruitment guidance in the context of COVID-19. Additionally, inter-governmental field teams were appointed to assess public health risks and apply corrective measures to protect craft and manual workers. MOPH was committed to the health and wellbeing of workers since the onset of the pandemic. As a result, field visits and case clustering among workers in the Industrial Area and accommodation sites started early on; the accommodation sites were periodically evaluated in accordance with national guidelines and an on-site quarantine facility was created.

Additionally, malls, restaurants, health clubs and gyms all faced a four-phased gradual lifting of restrictions to ensure a safe reopening.

1.4.4 PREVENTION AT FOOD BUSINESSES

During the COVID-19 pandemic, the Food Safety and Environmental Health (FSEH) Department at MOPH played a key role in monitoring and limiting the spread of COVID-19 virus through food.

Inspection checklists were updated to align with COVID-19 restrictions. MOPH inspectors were responsible for monitoring the implementation of COVID-19 preventive measures in addition to food safety requirements within food businesses. Awareness sessions were conducted during every inspection for the Person-in-charge (PIC) as well as food handlers on COVID-19 precaution measures within food operations.

In collaboration with the Permanent Committee for Industrial Zone Affairs responsible for disinfection and sterilization, FSEH has supervised the sterilization and disinfection process for several hypermarkets to monitor the application of food hygiene requirements and COVID-19 guidelines.

Additionally, Qatar Clean Program was implemented in collaboration with Qatar Tourism Authority and the MME. This program puts in place measures and regulations that restaurants and hotels must follow to protect and maintain the safety of their guests, employees, contractors, and suppliers from COVID-19. A team of 16 inspectors covered 956 restaurants (101 hotels restaurants and 855 restaurants located in touristic areas) where FSEH inspectors monitored compliance with requirements and MOPH COVID-19 restrictions to prevent the spread of the virus by food. In total, 1795 inspections were conducted including follow-up visits to check the implementation of corrective actions and FSEH team's recommendations.

Other initiatives included:

- Partnership with MME, MOCI, and Hassad Qatar to develop plans to control the spread of the virus in central markets
- Partnership with MME, MOCI, Widam, Centers for Disease Control and Prevention (CDC), Emergency Preparedness and Response Department and Occupational Health Department to develop plans to prevent COVID-19 transmission during Eid Al Adha 2020. FSEH inspected more than 100 slaughterhouses in Qatar and a piloted plan was developed and conducted to check the effectiveness of systems implemented in these food establishments.

1.5. COMMUNITY SUPPORT – MENTAL HEALTH

Mental Health Services across Qatar played a vital role in managing the increased demand for mental health support across the country. In the initial national response plan, Qatar developed a comprehensive System-wide Action Plan to address the Mental Health and Psychosocial needs of the country. The action plan was aligned to the WHO Interventions for psychosocial support during COVID-19 as well as the United Nations Policy Brief COVID-19 and the Need for Action on Mental Health. In addition, the mental health priorities outlined in the National Health Strategy (NHS) were reviewed and reprioritized to support the integration of COVID-19 best practices and learning.

Qatar developed and implemented several initiatives to promote mental health across different population groups during the pandemic.

Accordingly, awareness raising activities were conducted via social media and on television at a large scale and with high outreach potential to all the populations.

In addition, a dedicated National Mental Health helpline was established and was promoted using videos among other promotional material. To date, the helpline has supported over 38,000 persons overcome psychological challenges during the pandemic in Qatar.

Some initiatives targeted healthcare workers specifically, such as a 'Positive Attitudes to COVID Challenges' webinar series and a COVID-19 psychological training package for frontline clinicians about coping mechanisms and access to mental care services, as well as the establishment of Support Clinics for staff working across key inpatient facilities.



16000

Are you OK?

Don't be afraid to ask for help.

A free and confidential **Mental Health and Wellbeing Helpline** for anyone feeling low, anxious or depressed.

The helpline is staffed by a team of mental health professionals who can provide assessment and support to all callers.

The Mental Health helpline is available from 7 AM to 3 PM, Saturday to Thursday.

To access the helpline:
(1) Call 16000 (2) Select the language (Arabic or English) (3) Press 4 for Mental Health

The helpline is staffed by a team of mental health professionals who can speak several languages.

Figure 10 - Mental Health and Wellbeing Helpline.



SECTION 2

PUBLIC HEALTH STRATEGY 2017-2022 ACHIEVEMENTS

The PHS 2017-2022 was developed with input from world leading public health experts, academic partners, and benchmarked to leading health systems in the world aiming to set the foundations of an effective Public Health System in Qatar. The PHS is based on a situational analysis which was conducted in 2016 and is aligned to international best practice; and its implementation has been monitored closely, in alignment with the NHS 2018-2022, the overarching strategy for the health sector in Qatar.

The PHS 2017-2022 incorporates four SEs and 16 health areas with specific objectives, subobjectives and leading projects to better reach and empower the community, improve data collection and research, as well as establish clear leadership and governance.

2.1. HEALTH AREAS

This section provides an overview of the key milestones and achievements for the health areas of the PHS 2017-2022 and presents future considerations according to identified gaps. While dealing with the pandemic meant prioritizing the tactical COVID-19 response over some of the strategic work, the foundations already in place through the PHS over the past 3 years allowed for a much more systematic and stronger public health response to COVID-19.



Figure 11 - Health Areas of the PHS 2017-2022

2.1.1 HEALTHY LIFESTYLE

Objective
HL 1. Reduce the risk factors for chronic non-communicable diseases (unhealthy nutrition and physical inactivity)
HL 2. Increase the overall public awareness of the positive health effects of healthy nutrition and engaging in regular physical activity to enable the population to easily make healthy nutritional choices
HL 3. Formulate and promote culturally appropriate and sustainable policies and legislations aimed at promoting food diversity, healthy eating habits and increasing physical activity in the population
HL 4. Increase regular physical activity across the population with particular emphasis on schools, workplaces, and targeted communities
HL 5. Establishment of wellness services and health coaches into primary healthcare centers
HL 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

Physical inactivity and poor diet are highly correlated with the development of ill health and disease. The key objective of a healthy lifestyle is to achieve and maintain good health through prevention of lifestyle-related risk. This can be reached through the development and implementation of policies, legislations, guidelines, and awareness programs, to educate the community regarding the importance of making good healthy lifestyle choices and support them to adopt a healthy lifestyle.

Prevention, Awareness and Health Promotion Initiatives

To support a healthy start by promoting and protecting the nutritional wellbeing of women and children, the Healthy Lifestyle team was responsible for the implementation of the Baby Friendly Hospital Initiative (BFHI) which focuses on adapting best practices for breastfeeding. A ministerial decree has been issued in 2021 by Her Excellency the Minister of Public so that hospitals implement the ten steps of the BFHI to get their accreditations as baby friendly hospitals.

During 2020-2022, the PH Department worked on strengthening its ongoing healthy lifestyle initiatives. This included expansion of the Wellness Program at Workplace (WPW) to include major employers who recently joined such as Qatar Rail, Qatar Financial Markets Authority and Qatar Gas Transport Company (Nakilat), Qatar International Court and Dispute Resolution Center, United Development Company, and many other institutions, to encourage employees to eat healthy be active.

The PH Department contributed to the preparation of the first Sidra Forum on Mother and Child Health with the Scientific Committee and participated in the conference that was held in March 2020. The PH Department also participated in “Tasmu Qatar”, a project aimed at developing healthcare digital services including smart applications such as “the Digital Fitness and Nutritional Guide” and “Pregnancy and baby care”.

Additionally, enhancing collaboration with the private sector to promote the importation, production and distribution of food products that contribute to a healthier and more balanced diet was essential. Therefore, the Fat, Salt and Sugar Reduction Initiative was launched with both the public and private sector aiming to increase the number of private sector companies adhering to the government’s framework and roadmap on fat, salt, and sugar reduction.

Awareness campaigns to promote breastfeeding were conducted annually where educational messages on breastfeeding were widely disseminated on the media and lectures and training workshops were conducted at different settings.



Figure 12 - Flyer for the Breastfeeding Workshop

Guidelines and Policies

A significant work during the last two years focused on developing professional and public facing evidence-based guidance on nutrition and other aspects of a healthy lifestyle so that the professionals and population have a clear understanding of what works and what does not. This included the development, ongoing implementation, and monitoring of:

- Qatar Dietary Guidelines
- Qatar Healthy School Canteen Guidelines in collaboration with the permanent school canteens committee to ensure students have access to healthy options
- Qatar Physical Activity Guidelines developed by ASPETAR in collaboration with Qatar physical activity subcommittee outlining best practices regarding physical activity and hazards of having a sedentary lifestyle
- Food and Beverage Guidelines for Cafeterias and Vending Machines supporting healthy eating
- Excise Tax imposed on Soft Drinks (50%) and Energy Drinks (100%)



Figure 13 - Qatar Dietary Guidelines Brochure

Work also continued building a strong regulatory and financial framework to support healthier lifestyles and dissuade access to unhealthy options.

Capability and Workforce Capacity Building

Training of Trainers (ToT) workshops were conducted for healthcare professionals in 2017, 2018, 2020 and 2021 on providing advice and coaching patients to eat healthy. To date, more than 150 healthcare professional providers from HMC, PHCC and all private hospitals have been trained on:

- Qatar Dietary Guidelines to unify the nutrition messages delivered to the community.
- Breastfeeding Counsellors to encourage exclusive breastfeeding.
- Fat, Salt and Sugar Reduction workshop for representatives from the public and private sector/ food industry.
- Assessors for the accreditation of Baby Friendly Hospitals initiative.

Capacity building for more than 60 dietitians and nutritionists from private diet centers and Qatar University graduates on implementing Qatar Dietary Guidelines to standardize nutritional messages addressed to all groups of Qatari society was also introduced.

Future Consideration

- To encourage healthy eating and increase physical activity, several initiatives are currently planned:
- Develop a media campaign as part of the implementation of the roadmap of the Fat, Salt and Sugar Reduction Initiative increasing community's knowledge on the negative health effects of these nutrients
- Develop Qatar Dietary Guidelines for Mother and Child (0-5 years old) to reduce risk factors for NCDs caused by poor nutrition and physical activity for future generations
- Conduct a Food Frequency Questionnaire (FFQ) to understand eating patterns of Qatar's residents and use findings to update and generate policies and guidelines

2.1.2 CARDIOVASCULAR DISEASE (CVD)

Objective
CVD 1. Reduce the prevalence and burden associated with CVD through promotion of healthy behaviors including education programs at primary care centers
CVD 2. Develop and implement screening guidelines for the early detection of risk factors leading to CVDs

CVD's key goal is to promote healthy behaviors to reduce preventable risk factors including poor dietary habits, physical inactivity, smoking, obesity, hypertension, and dyslipidemia, and implement effective screening programs to identify individuals who are at most risk.

Prevention, Awareness and Health Promotion Initiatives

National CVD risk factor prevention strategy: was developed to provide a roadmap for CVD and risk factors prevention over the next few years. The strategy will help align and prioritize various CVD-related initiatives within MOPH and across various stakeholder agencies and providers to achieve maximum impact in reduction of CVD related ill-health.

Diabetes & Atherosclerotic Cardiovascular Disease (ASCVD) Risk Factor screening: As the risk factors of CVD and Diabetes largely overlap, the screening program was named as the National Diabetes and ASCVD Risk Factors Screening Program and a combined annual health plan for all screened individuals with diabetes and ASCVD risk factors was being implemented.

Public awareness programs: Awareness and prevention campaigns were conducted to the public to increase awareness about ASCVD risk factors among the adult population through various events as well as social media platforms, including during World Diabetes Day and World Heart Day. Key messages and materials were designed for the launch of a national awareness campaign for Diabetes and ASCVD Risk Factor screening.

Guidelines and Policies

National clinical guidelines for the management and screening of atherosclerosis, diabetes and pre-diabetes were developed and implemented. Accredited Continuing Professional Development (CPD) education was provided for healthcare professionals through e-Learning modules and series of webinars to enhance the capacity of frontline healthcare professionals in providing high quality screening services based on national screening guidelines.

Future Consideration

In the future, CVD Risk Factor Prevention Program will be aligned with the diabetes strategy and other areas within Department of Health Promotion to have a better impact on the target population.

According to a study done by Usher Institute at the University of Edinburgh, there is no ASCVD risk calculator particular for use by Qatari population. Work is in progress to develop ASCVD Risk Calculator predicting risk accurately among the local population with the support of various stakeholders.

2.1.3 DIABETES

Objective
D1. Integrate public awareness & prevention activities focusing on target populations
D2. Implement a national diabetes screening program
D3. Implement an annual health plan for all screened individuals with diabetes

Qatar recognized early the urgent need for a National Diabetes Strategy (NDS) that was launched with a vision to prevent diabetes and its complications and improve the health and quality of life of patients. The strategy focuses on the need to raise public awareness on healthy habits including exercise and healthy diet, and on screening as a key factor for diabetes early detection.

Governance

A robust governance framework was established to support the delivery of the priority projects under each pillar with excellent collaboration of many partner organizations including HMC, PHCC, Sidra Medicine and Qatar Diabetes Association (QDA). Accordingly, the National Diabetes Committee that was established by Her Excellency the Minister of Public Health in 2017 was amended with Decision No.5 of 2020, to lead the implementation of Qatar NDS 2016-2022. The overall purpose of the Qatar National Diabetes Committee is to oversee implementation and facilitate interaction and collaboration between all healthcare delivery organizations in Qatar involved in diabetes and to engage all relevant governmental and Non-Governmental Organizations (NGOs) in the prevention of diabetes.



Figure 14 - Qatar NDS 2016-2022

An interim diabetes registry was also put in place to address the information needs of the NDS. The interim registry provides data on Type 1 Diabetes, Type 2 Diabetes, Gestational Diabetes, and the list of individuals eligible for diabetes screening. In addition, the registry also facilitates information regarding care provisioned to these patients and status of complications such as retinopathy, amputations and renal transplant. The interim registry will support data needs of NDS till a national e-Health platform is put in place.

Prevention, Awareness and Health Promotion Initiatives

Integrating public awareness and prevention activities focusing on increasing the percentage of awareness about diabetes among the adult population is key to prevent diabetes:

- Development of a “National Research Agenda” on Diabetes and Associated CVD Risk factors.
- Collaboration with local research institutions including Hamad Bin Khalifa University, Qatar University, Qatar Biobank, Weill Cornell Medicine Qatar, and Qatar National Research Fund for diabetes research priorities is key. Identified research areas include diabetes prevention, early detection, disease reversal, treatment and system and outcomes.
- Awareness and prevention campaigns related to diabetes including launch of a national awareness campaign for screening to the public through events and social media platforms.
- Launch of a comprehensive diabetes website to increase public awareness.

Capability and Workforce Capacity Building

Accredited CPD education was provided for healthcare professionals through e-Learning modules and series of webinars, and training for healthcare professionals in Qatar on diabetes guidelines, pathways and protocols was conducted. Figure 15 - Integrated Diabetes Care Webinars

The screenshot shows a registration page for a 'Continuing Professional Development Program' titled 'Integrated Diabetes Care Webinars'. The page includes logos for the National Research Fund, National Health Care Commission, and National Diabetes Strategy. It provides details such as date (03/02/2021), time (12:30 PM - 1:30 PM), venue (Virtual online Webinars), target audience (PHCC Physicians, Nurses, Allied Health (Diabetic Educators)), activity code (HGI-01-P340), and total credit hours (1). The page also contains sections for accreditation statement, SPC declaration, overall learning objectives, session learning objectives, and registration/contact details.

Activity Title: Integrated Diabetes Care Webinars

Date: 03/02/2021 **Time:** 12:30 PM - 1:30 PM
Venue: Virtual online Webinars

Target Audience: PHCC Physicians, Nurses, Allied Health (Diabetic Educators)

Activity Code: HGI-01-P340

Total Credit hrs. - 1

Accreditation Statement: "This activity is a Category-1 Accredited Group Learning Activity as defined by Department of Healthcare Professions – Accreditation Section and is approved for a maximum of 1.0 credit hours."

SPC Declaration: "The Scientific Planning Committee has reviewed all disclosed financial relationships of speakers, moderators, facilitators and / or authors in advance of this CPD activity and had implemented procedures to manage any potential or real conflicts of interest."

Overall Learning Objectives: By the end of the webinars, the attendees should be able to:

1. Describe classification of diabetes and its different types, clinical characteristics, and diagnostic criteria.
2. Discuss integrated diabetes care and the role of National diabetes strategy in integrated diabetes care, and the screening program for diabetes.
3. Demonstrate the complications of diabetes and utilize lifestyle and pharmacological approaches to the prevention and treatment of diabetes complications.
4. Describe the diabetes care in primary care setting and referral from primary to secondary care.
5. Discuss self-management and team approach for diabetes management and diabetes management in special situations and populations.

Session Learning Objectives

Date	Sessions	Session Objectives
03/02/2021	Special Situations - Diabetes in Hajj and Ramadan (Fasting) Speaker: Dr. Zeinab Dabbous	<ol style="list-style-type: none">1. Describe the components of pre-Ramadan assessment and individualized management plan for the person with diabetes fasting in Ramadan.2. Discuss the Pre-Ramadan education to advise patients with diabetes how to fast safely.3. Explain to patient how to manage their diabetes medication during fasting.4. Discuss the diabetes management in high risk groups during fasting.5. Identify the general health risks during Hajj for person with diabetes.6. Describe the components of Pre-Hajj assessment.7. Discuss the appropriate treatment regimens for Hajj.

Registration/contact details: Registration is done through LMS, crao@phcc.gov.qa

External Participants: By HMC as per nomination

Figure 15 - Integrated Diabetes Care Webinars

Future Consideration

Going forward, and as services return to normal operations, the aim is to focus efforts by close collaboration between HMC and PHCC and continue delivering the national program to screen the adult population for diabetes after being delayed and suspended due to COVID-19; and provide an annual health plan for all those who have been screened and are at risk of disease progression. Specific plans to address the steep rise in diabetes seen in children and adolescents alongside the rising tide of obesity, both in children and adults, will be at the center of Qatar NDS (2023-2028).

2.1.4 ORAL HEALTH

Objective
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

Poor oral health can cause several complications ranging from tooth loss to oral cancer. Hence, Qatar has identified oral disease as a pressing concern and began implementing programs to address the issue since 2017 ranging from oral health promotion to early detection and treatment of oral health problems.

Prevention, Awareness and Health Promotion Initiatives

A- Dental Health Program at Schools:

One key priority has been to establish a school-based oral disease prevention and promotion program. The first phase of the program was launched in November 2018, provided by PHCC. By the end of 2019, the program was implemented across 52 government schools and 36 kindergartens, with oral health screenings taking place for 16,686 students during the academic year of 2018-2019. However, the onset of the COVID-19 pandemic in 2020 has limited further progress of this program. Alongside oral health screening and preventative intervention including fissure sealant and fluoride application, a major element of the program was delivering awareness on oral diseases and oral health promotion.

B- Health Education and Promotion Campaigns:

Since 2019, the PH Department at MOPH has earmarked a month each year to focus on raising community awareness of oral disease and good oral health practices. Each week of the allotted month would focus on educating a different population group, may that be, children between the age of 5-12 years old, pregnant women and new-born mothers, or geriatrics.

A global trend highlighted by the WHO is the manifestation of oral diseases together with NCDs in the form of comorbidities.¹ In response, the PH Department at MOPH has focused on the implementation of campaigns that integrate oral Health Promotion with NCD (HP-NCD) prevention and management. In 2019, 2020 and 2021, joint campaigns with other public health areas took place and of specific note were those with Tobacco cessation and Diabetes.

Since 2019, there have been six National campaigns aimed at raising awareness of oral disease and promotion of good oral healthcare practice. Combined, media releases and social platform posts have gathered the attention of over 50,000 people in Qatar over the past years. Most prominently, the campaigns that gained the most engagement were the National Oral Health Month long campaigns in 2020 and 2021.

C- Adult Dental Screening:

Acknowledging this opportunity, in October 2020, the National Adult Oral Health Screening service was launched. PHCC provided this service in a primary care setting, and its major purpose was to proactively reach out to the adult

¹ Valderas JM, Sibbald B, Salisbury C. Defining Comorbidity: Implications for Understanding Health and Health Services. Ann Fam Med. 2009;7(4): 357–63. Available from: <https://doi.org/10.1370/afm.983>

population in Qatar, providing oral health screenings that would support population segmentation. Those at risk, including predominantly smokers and diabetic patients, received targeted education that supports a positive health behavior change. Additionally, this has provided an opportunity to detect early oral disease, improving patient experience and managing health system costs and burden.

Monitoring and Evaluation

Preparations are currently being made for the launch of the first national adult oral health survey in Qatar and the independent review by the Chief Dental Officer of Singapore was key in the development of this project. This National survey aims to attain a national baseline of oral disease prevalence and oral health status for the adult population in Qatar.

Future Consideration

National oral health campaigns and awareness programs will continue and the National Oral Health Committee (NOHC) of Qatar will keep lobbying for a change in policy that may lead to increased access to community-based fluoridation (water) where appropriate². Moreover, there is a plan to include oral health in the curricula of all health professions in Qatar, so oral health diseases are addressed through multidisciplinary care. More research will be conducted in the future focused on barriers to oral health care and the socioeconomic and demographic predictors of oral health in Qatar for the adult population, which will guide the establishment of new national priorities for this population group.



Figure 16 - Oral Health Awareness Booth

2 Water fluoridation is an effective and safe way to systematically protect oral health in populations with a moderate to high risk of tooth decay and reduce oral health inequalities. The recommended level of fluoride needs to be provided and therefore, fluoridation needs to be accompanied by quality control measures and regular monitoring. FDI Policy Statement adopted by the FDI General Assembly: September 2014, New Delhi, India. Original version adopted by the FDI General Assembly: November 2000, Paris, France. New Delhi: FDI World Dental Federation; 2014. Available from: <https://www.fdiworlddental.org/promoting-oral-health-through-water-fluoridation>

2.1.5 VISION

Objective

Comprehensive and effective eye health education and screening services for the population

It has been estimated that over 80% of global visual impairment is preventable or treatable. Vision health area objective is to develop and implement national plans for the prevention of avoidable visual impairment and blinding eye diseases through effective eye health awareness and screening programs and strengthening collaboration with governmental and private eye health care partners.

Prevention, Awareness and Health Promotion Initiatives

Vision health objective in Qatar aims to reduce the prevalence of blindness in those 50 years and older from 1.2% (HMC, 2009 Survey) to 0.6%. The Rapid Assessment of Avoidable Blindness (RAAB) Survey was planned to determine the baseline and to update the percentage of people living with blindness. To date, a vision taskforce was established, the budget breakdown and timeline were set, and coordination with WHO experts and RAAB certified trainers was accomplished. Meanwhile, a Memorandum of Understanding (MOU) between MOPH and PHCC was signed in 2022 to facilitate the survey implementation in health centers.

Annual screening programs for diabetic and glaucoma patients were put in place to increase the percentage of registered diabetic and glaucoma patients for a pre-programmed annual routine retinal examination and are follow-up annually.

In schools, school eye health program and annual Visual Acuity (VA) screening program aim for early detection and referral of children with low vision and refractive errors and to reduce the magnitude of amblyopia (lazy eye) and visual impairment among school-age children. During the academic year 2018-2019, this screening program documented that all (100%) governmental schools, and 93% of private schools have conducted the VA measurement of targeted students (grades 1,3,5,7&9).

Additionally, public awareness campaigns were held during World Glaucoma Week in March and World Sight Day in October aiming to spread awareness about vision health and early identify people at high risk for vision loss.

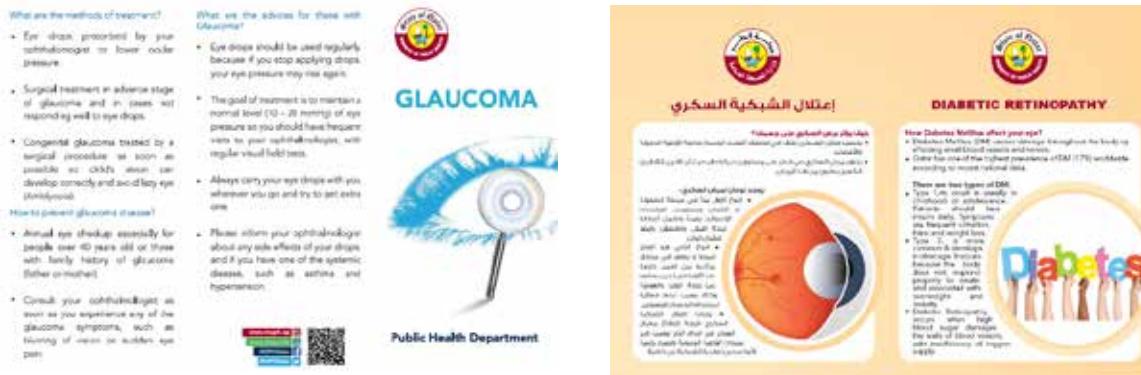


Figure 17 - Glaucoma and Diabetic Retinopathy flyers during awareness campaigns

Capability and Workforce Capacity Building

Lectures and training courses were regularly held for eye health professionals (ophthalmologists, optometrists, and nurses) to strengthen their clinical skills. Also, nurses at governmental and private schools undertook a CPD program which advances professional practice and improves the eye care services at schools. The program enhances the knowledge and

skills of nurses about common eye diseases, VA measurement, referral methods for low vision students and the new vision screening guidelines with the precautionary measures for COVID-19.

Future Consideration

Future work will be focused on improving screening and health education for diabetic retinopathy as well as detection and health education of glaucoma at HMC, PHCC and the private sector. Plans are in place to enhance the school health program including eye health across all private schools and to strengthen eye care service delivery in PHCC Health Centers with eye clinics including screening of diabetic retinopathy and glaucoma.

2.1.6 TOBACCO CONTROL

Objective
TC1. Establish a tobacco surveillance system (at a national level involving the primary care system) and conduct regular surveys as per GTSS
TC2. Implement a tobacco law enforcement framework that is aligned with the WHO Framework Convention on Tobacco Control compatible policy and legislation
TC3. Establish standardized, quality, integrated and accessible tobacco cessation services including a national quit line and website, availability of all options of nicotine replacement therapy, and support through PHCC
TC4. Establish a functional comprehensive tobacco product taxation model that includes customs and excise taxes

Tobacco use, whether first-hand or second hand, is correlated with higher prevalence of ill health including cancer, heart disease, stroke and respiratory diseases and can lead to death. A key objective of tobacco control unit of the PH Department is to regulate tobacco products in Qatar and reduce the number of smokers thus, decreasing the associated burden of disease.

Prevention, Awareness and Health Promotion Initiatives

- National health awareness campaign: launched in 2019 to reduce the harmful effects of smoking by a twin-target approach to increase smoking awareness about the risks associated with tobacco use and discouraging youth from starting the smoking habit.
- Additional awareness campaigns to maintain high level of awareness about tobacco hazards: Two campaigns for the general public addressing various topics including awareness about tobacco law and health hazards, and one campaign, targeting the young population, about preventing smoking, and promoting quitting.
- The Graphic Health Warning (GHW) was designed and developed to be used for many awareness purposes including cigarettes packaging.

Guidelines and Policies

The PH Department strengthened tobacco legislation and implemented a tobacco law enforcement framework that is aligned with the WHO Framework Convention on Tobacco Control. A comprehensive tobacco electronic system was established to enforce tobacco law implementation and link it with Nadeem system of the National Custom Authority.

A selective taxation law has been developed, endorsed, and implemented in 2019 to increase tobacco products tax to 100% and the protocol on illicit tobacco trade was endorsed developing a functional comprehensive tobacco product taxation model that includes customs and excise taxes.

Capability and Workforce Capacity Building

Multiple Tobacco Cessation Clinics were opened in PHCC, to add to HMC Tobacco Control centers and previously established clinics in PHCC providing tobacco cessation services, including counseling and nicotine replacement therapies that are currently available free of charge in the public sector.

Additionally, the tobacco inspection team has been strengthened since 2019 by recruiting 47 inspectors to enforce Tobacco law No 10 (year 2016) implementation and report violations.

2.1.7 MUSCULOSKELETAL HEALTH

Objective
MSK1. Develop guidelines and increase awareness for the prevention of low back pain and neck pain
MSK2. Develop and implement guidelines for the screening, prevention & diagnosis of osteoporosis: Osteoporotic Fracture Prevention Strategy

"Musculoskeletal pain is a challenging condition for both patients and physicians. Many adults have experienced one or more episodes of musculoskeletal pain at some time of their lives, regardless of age, gender, or economic status. It affects approximately 47% of the general population. Of those, about 39–45% have long-lasting problems that require medical consultation." 3 Therefore, the Musculoskeletal Taskforce has been established to improve the detection, prevention, and the clinical standards of musculoskeletal diseases in the State of Qatar. Key stakeholders have been selected from Qatar's health sector including MOPH, HMC and PHCC.

Prevention, Awareness and Health Promotion Initiatives

Informative videos, including postural exercises and awareness videos, were created to be disseminated through social media platforms to raise community awareness regarding the prevention of low back pain and neck pain.

A Fracture Liaison Service (FLS) to identify at-risk population and prevent repeat fractures has been also established to screen the population of Qatar and support future research. It focuses on community outreach, screening of people and referral to physicians if needed.

For the screening, prevention, and diagnosis of osteoporosis, the Musculoskeletal Taskforce and HMC Rheumatology Osteoporosis team, in collaboration with Fracture Risk Assessment Tool (FRAX) team from the University of Sheffield in the UK, have formulated FRAX, which is expected to enhance osteoporosis management among Qatar's population. The FRAX tool is available in English and Arabic and can be used by healthcare workers as well as patients to predict the probabilities of their fragility fractures. It is an automated online calculator that enables a step change in the management of osteoporosis as it aids clinical decision making about the use of pharmacologic therapies in patients based on their absolute fracture risk rather than bone mineral density alone. The use of Qatar FRAX tool in the diagnosis and management of osteoporosis will support early detection and subsequent reduction in numbers of hip fracture which will help Qatari population enjoy better life

Guidelines and Policies

Throughout 2019-2022, National Clinical Guidelines on Low Back Pain including patient information materials were developed to standardize clinical treatments and increase awareness about the prevention of low back pain, one of the most common musculoskeletal complaints. This will be followed by the development of Clinical Guidelines on Neck Pain including preventive Guidelines in collaboration with WHO.

Additionally, to standardize Osteoporosis treatment, the Musculoskeletal Taskforce reviewed regional and global Osteoporosis guidelines and developed accordingly the Qatar Osteoporosis guidelines.

3 (El-Tallawy SN, 2021)

Capability and Workforce Capacity Building

To raise awareness and encourage the use of the current and newly added guidelines, a survey has been conducted for Qatar's healthcare professionals to understand the training needs and the preferred delivery method. Results showed 64% of the participants have chosen online training modules as their preferred method of delivery. Hence, selected national subject matter experts created and conducted an accredited live online workshop for healthcare practitioners. The materials developed will be hosted online by the Department for Healthcare Professions (DHP) accessible for the medical community.

Efforts made in building the capacity of health professionals in the state of Qatar and providing them with national clinical guidelines had a great impact in supporting the health system and in standardizing the criteria for diagnosing and treating cases of low back and neck pain in the country.

The use of Qatar FRAX tool in the diagnosis and management of osteoporosis will support early detection and subsequent reduction in numbers of hip fracture which will help Qatari population enjoy better life.

Future Consideration

Work will continue to address major prevalent musculoskeletal health problems in collaboration with other health related partners in Qatar. Further research of common conditions among Qatari population is on the top of the list of priorities to guide future efforts and interventions.

Compliance with national clinical guidelines and application of standard measures, together with continuous training of healthcare professionals, are among the top priorities for Musculoskeletal health.

2.1.8 MATERNAL AND CHILD HEALTH

Objective
MCH1. Improve the health and wellbeing of women and children by establishing post-natal depression screening programs
MCH2. Establish a maternal and child public health unit within MOPH
MCH3. Establish a preconception service within primary care
MCH4. Implement initiatives to encourage and promote breastfeeding

Inadequate prenatal and postnatal care increase the risk of medical conditions affecting the mother and baby and leading to complications. Maternal and child health's main objective is to increase prevention and awareness and provide appropriate support at all stages of the pregnancy and all life transition points.

Prevention, Awareness and Health Promotion Initiatives

To improve the health and wellbeing of women and children several initiatives were put in place:

- The PH Department continued with the “Maternal and Child Forum”, a series of educational sessions addressed to the community to shed light on women and children’s health. Various sessions were held since 2020 with more than 80 participants per session. Covered topics included preconception Health – Nutrition during pregnancy, benefits of breastfeeding, challenges during breastfeeding and complementary feeding.
- Educational materials for the public were widely disseminated covering health promotion topics including breastfeeding, nutrition, and children’s health. This included the distribution of roll ups to 11 maternal and health facilities in Qatar and the distribution of educational materials around hunger cues, breastfeeding benefits for mothers, breastfeeding benefits for children and breastmilk storage.
- National awareness campaigns for breastfeeding with World Alliance for Breastfeeding Action (WABA) linked to international platform have been conducted since 2019 in health facilities and through media and social media platforms to the general community, while also engaging several partners including HMC, PHCC, Sidra Medicine and private hospitals.



Figure 18 - WABA Certificate of Participation

Guidelines and Policies

Achievements included the development of policies and legislations such as:

- Ministerial Decree for implementing the BFHI in all Maternity facilities in 2021
- National Code of Marketing of Breastmilk Substitutes waiting for final approval
- National Breastfeeding policy which is under development

Capability and Workforce Capacity Building

A maternity psychiatry service was established at Women's Wellness and Research Center (WWRC) and Sidra Medicine for known and newly identified patients and antenatal psychology screening at PHCC booking visit was initiated.

In terms of capacity building, a training program was conducted to upskill midwives to provide home care at PHCC. Training for trainers for BFHI courses was held for all health facilities to receive the BFHI accreditation as well as training of national assessors on WHO and United Nations Children's Fund (UNICEF) BFHI Standards and BFHI virtual trainings in collaboration with HMC International Training Center for maternity staff.



Figure 19 - BFHI Training Invitation

Work was done to establish a preconception service within the PHCC to decrease the percentage of unplanned pregnancy and increase the percentage of women who have reproductive planning and benefit from preconception care including family planning services and counselling.

Impact of COVID-19

Due to the emerged situation of COVID-19, virtual consultations were organized, and more emphasis was placed on social media platforms as they were considered a mass means of promotion influencing public opinion. Disseminated videos included topics covering breastfeeding benefits for children and breastfeeding misconceptions. Additionally, BFHI and lactation counsellors in-person trainings were replaced by virtual trainings and e-learning courses to support the ongoing capacity building of healthcare professionals during the pandemic.

2.1.9 CANCER

Objective
C1. Implement national cancer myth refutation campaigns
C2. Implement cancer prevention educational sessions targeting academic institutions
C3. Implement integrated national cancer awareness activities across key stakeholders
C4. Establish and integrate a national cancer observatory with the PHD
C5. Implement integrated cancer screening programs for bowel, and breast cancer

Cancer is the leading cause of death in Qatar. Under the leadership of the National Cancer Committee and following the strategic plan of the National Cancer Framework 2017-2022, cancer services in the State of Qatar continued to develop over the period 2019-2021, to guarantee excellent care, and quality of life for both cancer patients and the whole population at risk. Lives can be saved through early detection and timely treatment which is why raising awareness and cancer screening are at the core of the public health cancer strategy.

Prevention, Awareness and Health Promotion Initiatives

Cancer myth refutation continued through different activities including Cancer Awareness Measure (CAM) and comprehensive national myth refutation media campaigns, monthly cancer awareness events and awareness activities in collaboration with religious leaders.

Due to limitations in face-to-face contact imposed by COVID-19, a dedicated platform for online education and awareness was created. This platform was open to the public and academic institutions including schools. This led to the increase in the percentage of academic institutions providing cancer awareness activities through e-learning courses and school health programs.

Policy and Guidelines

A major focus during this period was put on early detection and screening. In collaboration with WHO and International Agency for Research on Cancer (IARC), cancer screening guidelines were updated to reflect most recent evidence and best practices. Monitoring and Evaluation

Screening quality assurance

A screening quality framework was developed for breast and bowel cancer to enable a proper evaluation and monitoring of the national program.

Cancer epidemiology data

In terms of data and information, the PH Department automatically receives cancer screening data from PHCC and inputs it into Qatar National Cancer Registry (QNCR). Additionally, the Qatar Cancer Information Center (QCIC) was created to provide enhancement to the QNCR through its renewed data dictionary and online cancer data reporting system. The QCIC offers a regulatory framework to protect cancer information through a set of policies and guidelines that were developed, and regularly monitored by the Cancer Information Governance Board (CIGB).



Figure 20 - The QCIC – Incidence Information

Aiming to enhance collaboration and improve resource utilization, the QCIC included the newly established Qatar Cancer Network (QCN), which will serve as a link between numerous institutions and professionals from diverse backgrounds,

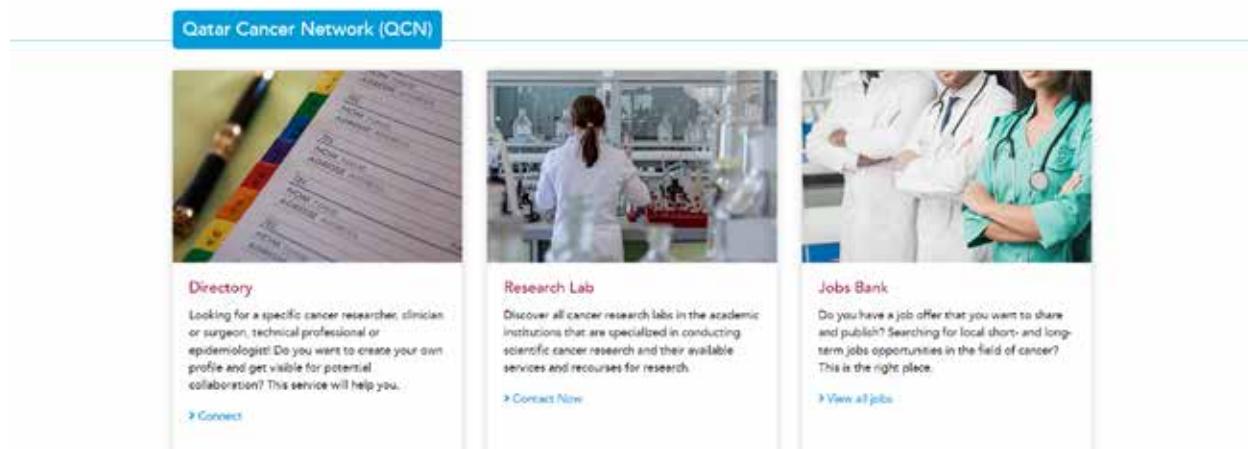


Figure 21 - Cancer Awareness Evaluation Tool

The CAM was introduced in 2021 and will be the golden tool to evaluate the impact of health promotion and myth refutations activities. This will need at least a year to start providing indicators on the impact of cancer awareness activities.

Future Consideration

The National Cancer Program (NCP) is conducting a feasibility study in collaboration with Qatar University – Health to study the benefit of creating a new cancer screening program, in addition to the current ones on breast and bowel cancer screening. The NCP is also studying the feasibility of national lung, prostate, and thyroid cancer screening programs.

2.1.10 MENTAL HEALTH

Objective
Raise public awareness about mental health and reduce the stigma associated with mental illness, including an increase in the Mental Health Attitudes and Awareness Index
Establish multi-sectorial targeted mental health promotion and prevention programs including workers, children and young people, and families
Develop and disseminate mental health information, including a national website to promote early access to services
Develop and implement national initiatives for the prevention of suicide and self-harm

Mental Health disorders present significant threats to the health and wellbeing of individuals and communities. Mental Health and Wellbeing goal for the PHS 2017-2022 was to increase mental health awareness through health education activities and reduce the stigma and cultural biases associated with mental health among the public. This will help encourage people to speak openly about mental health conditions and seek help early.

Prevention, Awareness and Health Promotion Initiatives

A National Mental Health website www.sehanafsia.moph.gov.qa was launched since the year 2018 and updated regularly to provide general information, recognizing signs of illness, and knowing where to seek help. The website is in both Arabic and English.

The National Mental Health Website features several key sections:

- Wellbeing:** A diagram shows how Physical Health, Mental Health, and Social Connectedness combine to form Wellbeing.
- Managing Stress at Work:** Discusses stressors at work and provides tips for managing stress.
- Physical Activity:** Provides tips on how physical activity helps mental health.
- A Healthy Mind in a Healthy Body:** Offers advice on diet, exercise, and mental health.

Figure 22 - The National Mental Health Website

Popular social media channels were actively engaged to provide tips on mental wellbeing and information about available help across partner organizations. A ‘Virtual Women’s Mental Health Service’ was delivered to reduce stigma and support women in accessing mental health services.

A dedicated guide on access to mental health services in Qatar was launched in 2019. The information is in Arabic and

English and is available in PHCC clinics and HMC.

“Are you OK” campaign was launched in October 2020 and was widely publicized through various social media platforms. It provided information on how people could access help and support in Qatar which was especially helpful during spikes in COVID-19 cases when many people were socially isolated.



Figure 23 - “Are you OK” Campaign

Policies and Guidelines:

Educational mental health materials were developed as part of the National Mental Health Program and targeted:

- Students in schools, parents, teachers, and health staff working across the educational system
- Healthcare workers across the healthcare system and workplaces addressing topics such as raising awareness of mental health in the workplace; managing mental health in the workplace; stress management; emotional intelligence and resilience building.

Additionally, clinical guidelines and pathways to support patients with depression and anxiety and substance use disorder were developed in 2020.

Capability and Workforce Capacity Building

Primary health centers have expanded the network of Integrated Advanced Support Clinics and family doctors and nurses have received regular psychosocial training to facilitate basic mental health and wellbeing support. PHCC has invested in appointing more psychiatrists and psychologists to run specialist support clinics for people experiencing mild to moderate mental health concerns. This has helped more people seek support and reduced the stigma as people are accessing services in general healthcare facilities.

Monitoring and Evaluation

The impact of the National Mental Health was assessed through Mental Health Attitudes and Awareness Surveys, indicating substantial shift in awareness and attitudes towards mental health over the years, as shown in the figures below. The survey will be conducted every two years to assess the advancements in the area.

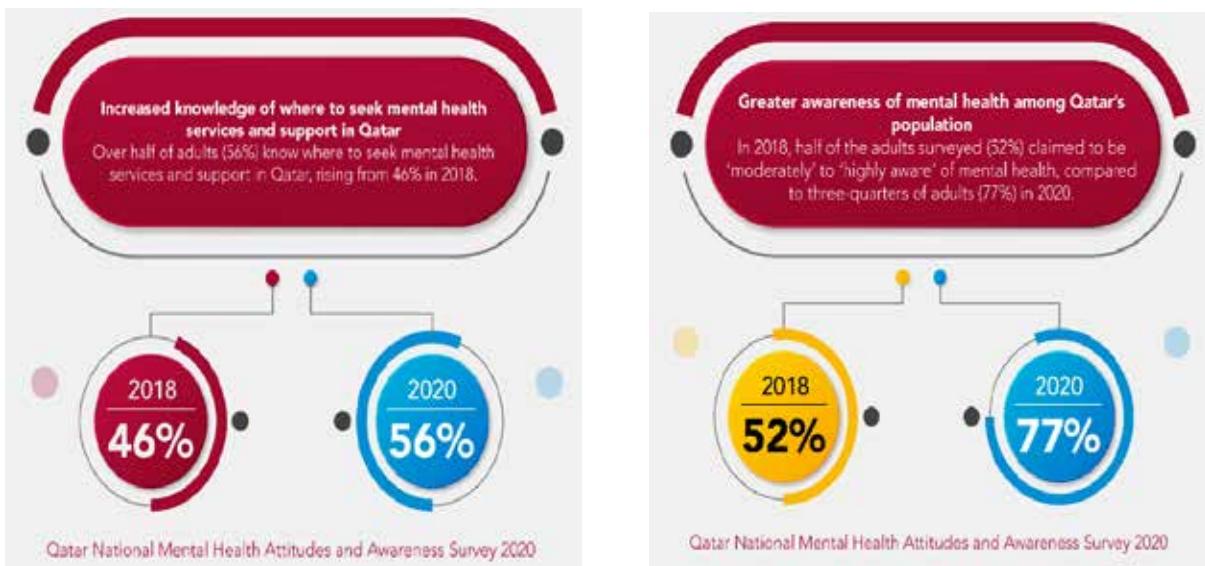


Figure 24 - Results of Mental Health Attitudes and Awareness Survey

During this period, the PH Department has worked with HMC clinicians to develop a mental health surveillance registry. This will help monitor the key mental health issues which are seen in the healthcare system, help identify high risk groups for intervention and inform future public health policies and clinical practices.

The Qatar Mental Health Attitudes and Awareness Index (QMHAII) is an important tool which tracks the effectiveness of mental health promotion and prevention initiatives across four key measures: Communications, Awareness, Attitudes and Services.

The table below presents the QMHAII results for 2018 and 2020. The increase in the QMHAII for 2020 provides data-led evidence that MOPH is delivering on the mental health vision to provide good mental health and wellbeing for the people of Qatar, supported by integrated mental health services with access to the right care, at the right time and in the right place.

QMHAII Total Weighted Index Measure		
	2018	2020
MH Communications	4.31	6.27
MH Awareness	20.57	23.87
MH Attitudes	19.09	21.04
MH Services	11.50	12.80
Total Weighted Index	55.47	63.98

Figure 25 - QMHAII results for 2018 vs. 2020

Future Consideration

Beyond 2022 regarding mental health the focus will be on developing further targeted prevention programs, reducing the stigma associated with mental health and developing campaigns to support people seeking help. Plans are in place to:

- Develop an integrated plan of research across primary, secondary, and tertiary care to inform and target future mental health and wellbeing campaigns.
- Conduct clinical research and studies related to treatment, rehabilitation, and preventative programs.
- Develop standardized multilingual educational resources.
- Develop and implement national initiatives for the prevention of suicide and self-harm.
- Expand Workplace Mental Health & Wellbeing Programs, including delivery of Emotional Intelligence and Resilience Building Programs.
- Help identify post pandemic mental health needs and the re-design of mental health services.

2.1.11 OCCUPATIONAL HEALTH:

Objective
OH1. Enhance the occupational health capability that contributes to the development, implementation & enforcement of occupational health standards
OH2. Establish an information & reporting system for the monitoring of occupational health
OH3. Minimize the rate of occupational diseases, injuries, fatalities, and exposure to hazards at all workplaces

Qatar has expanded economically in recent years, resulting in the arrival of many workers from different countries to work in developing the infrastructure of the country and prepare for the upcoming FIFA World Cup Qatar 2022™. The increase in the number of workers in Qatar made occupational health and safety issues a priority public health challenge that need to be addressed adequately.

Prevention, Awareness and Health Promotion Initiatives

The PH Department adopted a mixture of awareness raising methods to maximize the benefit and reach various categories of workers with multiple languages and diverse cultural backgrounds inducing behavioral change and healthy attitude adoption. A workplace health promotion program targeting mainly foreign workers, has been implemented for the first time in the country and the region, making Qatar a pioneer in translating the government commitment towards protecting the health of its working population.

To raise awareness on common health and safety issues, the PH Department continuously celebrated international health and safety days including World Day for Safety and Health at Work, in collaboration with other governmental and non-governmental relevant partners.



First Aid for Heat Illness

The following are signs of a medical emergency!



- Abnormal thinking or behavior
- Slurred speech
- Seizures
- Loss of consciousness

- ① CALL 999 IMMEDIATELY
- ② COOL THE WORKER RIGHT AWAY WITH WATER OR ICE
- ③ STAY WITH THE WORKER UNTIL HELP ARRIVES



Watch for any other signs of heat illness and act quickly. When in doubt, call 999.

If a worker experiences:

- Headache or nausea
- Weakness or dizziness
- Heavy sweating or hot, dry skin
- Elevated body temperature
- Thirst
- Decreased urine output

Take these actions:

- ▶ Give water to drink
- ▶ Remove unnecessary clothing
- ▶ Move to a cooler area
- ▶ Cool with water, ice, or a fan
- ▶ Do not leave alone
- ▶ Seek medical care if needed



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Language
English

Figure 26 - Workplace Health Promotion

Guidelines and Policies

As a foundation to Occupational Safety and Health (OSH) initiatives in the country, the Ministry of Labor (MOL) and the PH Department at MOPH worked extensively in consultation with relevant stakeholders to develop the national OSH policy adopted in 2020. The policy aims to promote the protection of workers' health and prevent work-related accidents, injuries, and illnesses by eliminating or minimizing the causes of hazards inherent in working environment. Work is in progress to implement the policy in a coordinated and harmonized manner, monitored by OSH compliance framework developed by MOPH.

National guidelines for Occupational Health assessment were developed by a national working group of Occupational Health specialists from various institutions. They aim at ensuring compatibility of workers to their assigned job and that exposure to job hazards does not have any detrimental effect on their health.

List of occupational diseases was updated to save the rights of workers in compensations due to work attributed disabilities. The list provides guidelines for the identification, reporting, and registering of occupational diseases, provision of employment injury benefits, and for the development of national and enterprise level preventive programs.

National educational guidelines and health awareness materials were developed and published in different languages. This included proper use of PPE, workplace environment safety, and prevention and management of heat stress.



Figure 27 – List of Occupational Diseases

Capability and Workforce Capacity Building

Occupational Health requirements for corporate and private clinics were set to guide the provision of basic Occupational Health and other health-related services in the country. Training of frontline doctors, allied healthcare professionals and OSH specialists will support the system to provide high-quality services and minimize work-related injuries, illnesses, and occupational diseases, to help promote health and wellbeing of workers.

Monitoring and Evaluation

National efforts were put together to establish a comprehensive OSH information and reporting system to collect data on work-related injuries and illness including fatal accidents, and to monitor the performance of OSH systems and services in the country. Data captured from the system will be used to inform evidence-based Public Health policies, guidelines, and programs.

Future Consideration

Efforts done were clearly reflected in the enhancement of health and safety culture in different economic sectors, as well as the acknowledgement of workers' health by the employers and business owners which was observed in the effective measures taken to protect workers' rights and promote their health and safety.

The PH Department will systematically gather and analyze data on work related injuries, illnesses, and deaths through the implementation of the comprehensive OSH information and reporting system in all governmental, semi-governmental and private institutions in Qatar. Data gathered will serve as evidence for tailored occupational health programs with the aim of reducing work-related injuries and deaths.

Efforts will focus on ensuring the delivery of standard Occupational Health services in all primary care facilities and company clinics through the implementation of national Occupational Health assessment guidelines and enforcement of Occupational Health requirements in these facilities.

2.1.12 ROAD SAFETY

Objective
RS1. Strengthen national collective action to reduce the annual rate of road traffic mortality, "serious injuries" and pedestrians' mortality through law enforcement, education, and prevention programs
RS2. Develop and implement leading practice road safety educational campaigns targeting young drivers, school age students, drivers with multiple traffic violations, parents, and pedestrians
RS3. Strengthen leading practice regarding evaluation and re-evaluation of drivers

Over recent years, the State of Qatar has made a strategic and sustained investment in road safety recognizing it as a public health issue and adopting a strategic approach to address any systemic weaknesses. Law enforcement and education of people were at the core of Road Safety's objectives along with increasing awareness among young drivers, parents with young children and pedestrians.

Prevention, Awareness and Health Promotion Initiatives

Young adults, particularly males, remain the dominant risk group in road traffic accidents. Hence, aiming to reduce the number of young drivers' deaths, MOPH PH Department developed the Road Safety Program which included:

- Road safety educational campaigns for young drivers and school age students.
- Training courses for injury prevention team and health staff in collaboration with HMC Trauma Surgery, Emergency, and Ambulance services.
- Road Safety Ambassadors program: selected students from Qatar University were nominated as trainers and acted as ambassadors in 30 male independent high schools.
- Home visits for education and evaluation for fitness to drive of injured drivers during their rehabilitation phase.

Guidelines and Policies

Projects on this matter included the development of a surveillance system for Road Traffic Injuries (RTI), update of the Road Safety Task Force, review and update of Qatar's Traffic Law and the implementation of an effective post-crash response and incidents reach. Surveillance cameras which record traffic violations at signals and intersections were recently installed in Qatar to enforce the implementation of the Traffic Law.



Figure 28 - New Surveillance Cameras in Qatar

Monitoring and Evaluation

A review of the data showed that the number of road traffic fatalities has been reduced from 11.7 in 2013 to 5.8 per 100,000 inhabitants in 2021, which occurred in parallel to the rise in population and number of registered vehicles. This is highly correlated with law enforcement and the increase in education and awareness among the population regarding road safety aiming to reduce the annual rate of road traffic mortality, “serious injuries” and pedestrians’ mortality. The number of road traffic mortalities was even lower in 2020 and reached 5.4 per 100,00 inhabitants, however, this was related to COVID-19 restrictions imposed in the country. Additionally, the number of deceased from traffic accidents among Qataris dropped to 15 cases in 2020 showing a major progress in this area. However, pedestrian casualties accounted for 30% of the road traffic deaths which is far behind the target set for 2022, that is 17%.

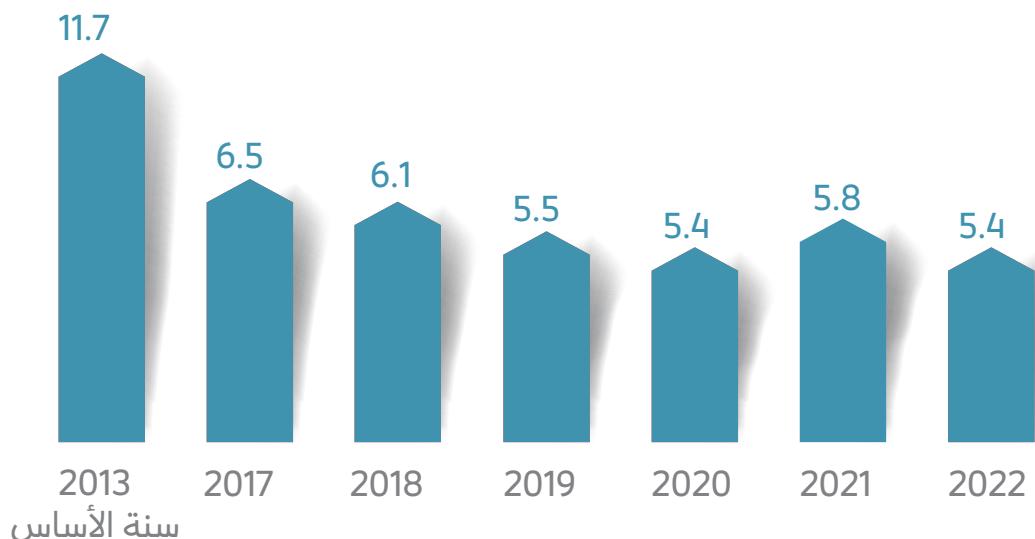


Figure 29 - Road Traffic Mortalities 2013 - 2022

Future Consideration

Qatar is clearly emerging as a leading nation in the region in road safety. Yet, there is still an extra mile to go to deliver continued incremental changes over the long term and decrease road traffic fatalities and serious and slight injuries. Even though mitigation measures being introduced for road safety are preventing road deaths, the collision frequency is still increasing against a backdrop of rising population and vehicle registrations.

2.1.13 COMMUNICABLE DISEASES

While communicable diseases have accounted for an average of 8-10% of deaths in Qatar, they are still a major public health issue in Qatar causing significant burden to the healthcare system. The COVID-19 pandemic has taught us that maintaining strong public health infectious diseases services is critical for not just reducing the mortality and morbidity from major pandemics and epidemics, but for the national economic success and overall wellbeing. For the period of 2017-22, the key focus of this health area has been the following:

- Implementing effective prevention programs including education, awareness, and comprehensive immunization programs
 - Ensuring early detection of outbreaks and epidemics through a robust infectious disease surveillance system
- Developing and coordinating a comprehensive preparedness and response framework

While COVID-19 was the key priority for communicable disease prevention and management during the period of this report, this section focuses mainly on all the other health areas where work continues relentlessly in the background, helping protect the country against other deadly infectious diseases.

HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immune Deficiency Syndrome)

Objective
CDC1. Implement and sustain effective HIV prevention programs, including education and awareness, and effective anti-retroviral therapy

As part of its commitment to the global efforts for ending HIV and AIDS as a public health threat, the state of Qatar developed a National HIV strategic plan that describes the strategic lines of action to be implemented by MOPH and stakeholders between 2021 and 2025. This was done to help achieve MOPH vision of HIV being no longer a public health threat for Qatar by 2030 through fast-tracking access to a continuum of integrated and high-quality services that protect and promote human rights for all.

The plan was developed with inputs from the Director of WHO Collaborating Centre for HIV Strategic Information and various national and international stakeholders. The HIV Situational and Response Analysis report 2021 provided a qualitative baseline measure of the current HIV prevention and control situation in Qatar and the Monitoring and Evaluation Framework 2021-25 was developed to measure the impact on HIV prevention through implementation of the National HIV Strategic Plan.



Figure 30 - HIV National Strategic Plan & its Monitoring and Evaluation Framework

Qatar National HIV/AIDS Plan was presented in a seminar hosted by MOPH in February 2021 attended by national and international stakeholders and healthcare providers in Qatar.

Prevention, Awareness and Health Promotion Initiatives

A key HIV education event for Qatar is World AIDS Day. This is celebrated every year on the 1st of December. In preparation for this event, the PH Department organizes public talks by leading experts from MOPH and HMC, provides HIV voluntary testing and develops education material including flyers and disseminates it to the public.

To prevent spread of HIV in Qatar, the PH Department is leading a wave of change in this area by increasing awareness, reducing stigma, timely detection, and treatment along with good contact tracing.

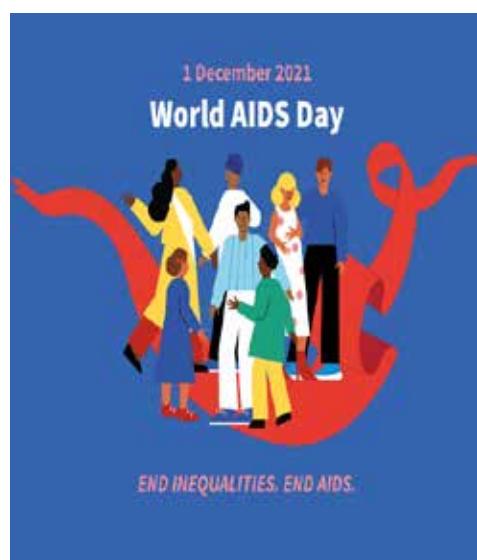


Figure 31 - World AIDS Day Flyer

Future Consideration

Modern medicine has changed the outcomes for AIDS and HIV no longer being a death sentence as it used to be. Qatar therefore needs to keep strengthening its public health response to HIV, dispel the misinformation and stigma attached to the disease and scale up HIV diagnostic and treatment services in particular among high-risk groups.

Sexually Transmitted Infections (STI)

Objective
CDC2. Implement a comprehensive control program for sexually transmitted infections

Implementing a comprehensive STI control program was a key objective of PHS 2017-2022, led by the communicable diseases' surveillance and outbreak team of MOPH PH Department.

Governance

A working group comprising of key stakeholders responsible for the prevention and treatment of sexually transmitted diseases was appointed to provide oversight to the national STIs subgroups tasked to deliver the STI program objectives.

A National Validation Team was appointed to undertake the WHO validation process for elimination of mother-to-child syphilis Hepatitis B Virus (HBV) and HIV transmission. The team consists of multidisciplinary members from different health and non-health sectors in the country.

Prevention, Awareness and Health Promotion Initiatives

To raise awareness on STIs and HIV, MOPH PH Department celebrated sexual health along with World HIV Day on 1st December of every year since 2018. Public-facing health educational material including brochures, booklets and videos regarding STIs were disseminated to the community in health centers, hospitals and through social media platforms.

Guidelines and Policies

“National Diagnosis and Management Guideline for STIs” was developed and published in March 2021. These guidelines provide evidence-based standardized guidelines for diagnosis and treatment STIs in primary and acute care settings. Moreover, a draft of National STIs Screening Guideline, which is a complementary guideline to “National Diagnosis and Management Guideline for STIs” was developed, submitted for approval by the National STIs working group.

Monitoring and Evaluation

New STIs reporting form, piloted on SaVES, were introduced to standardize reporting of STI cases from various health facilities to the PH Department.

Viral Hepatitis

Objective
CDC3. Implement effective Viral Hepatitis prevention programs

Implementing effective Viral Hepatitis prevention programs was a key objective to MOPH PH Department aiming to increase screening and detection and reduce overall prevalence due to reduction in transmission. This will lead to the increase in the percentage of patients with chronic HBV and chronic hepatitis C (HCV) who have been diagnosed and initiated treatment.

Governance

To achieve this goal, MOPH established a hepatitis technical working group to oversee and coordinate the implementation of The Qatar Viral Hepatitis Strategic Framework (2018-2022). The role of this working group was described as follows:

- Addressing specific technical issues and gaps in the development and implementation of standard guidelines
- Documenting best practices and learning
- Operationalizing the data revolution
- Ensuring effective dissemination and use of standards

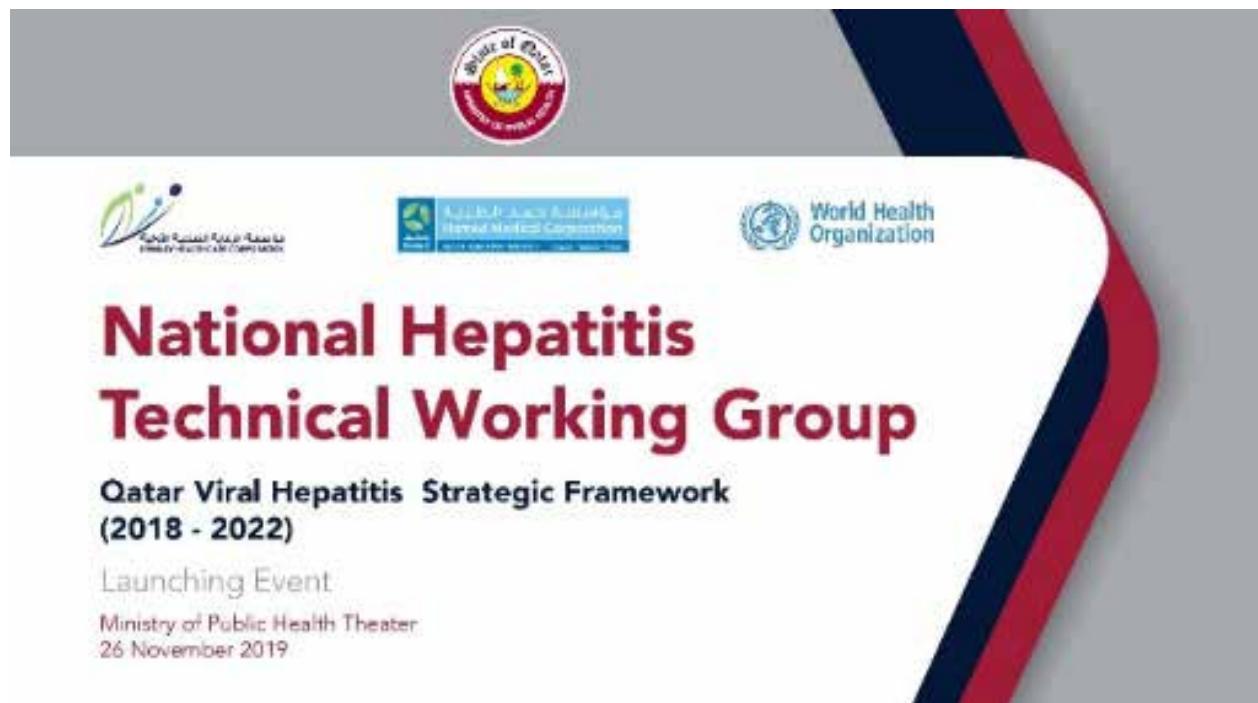


Figure 32 - Viral Hepatitis Strategic Framework

The Qatar Viral Hepatitis Strategic Framework has a vision of Qatar that is free of new hepatitis infections; it also has a goal to eliminate viral hepatitis as a major public health threat in Qatar by 2030. This will be achieved through five strategic directions implemented by a number of national and international stakeholders.

NATIONAL PRIORITY DIRECTIONS



01

Governance for coordinated response.



02

Information for focused action.



03

Interventions for impact.



04

Maintaining equitable access.



05

Financing for sustainability

Figure 33 - Strategic Directions for Viral Hepatitis Vision

Prevention, Awareness and Health Promotion Initiatives

MOPH celebrates annual World Hepatitis Day since 2018 and uses this as a pivotal annual event to increase awareness. Education materials were disseminated to the public through media channels and social media platforms.

MOPH PH Department agreed with Weill Cornell Medicine to conduct viral hepatitis estimations of the national disease and treatment burden. Further research was undertaken to determine the prevalence and determinants of viral hepatitis infections in blood donors with the aim to improve blood safety. This has informed the Blood Donor linkage and Referral process which will ensure that blood donors who tested positive for HBV or HCV are contacted and receive confirmatory testing and treatment if needed. This referral system is based on the collaboration between MOPH PH Department, blood banks and HMC.

MOPH has a standing collaboration with Center for Disease Analysis (CDA) for the publication of a number of peer-reviewed papers on the burden of HBV and HCV in prestigious journals where the data highlighted that Qatar is among nine countries to eliminate HCV by 2030.

Monitoring and Evaluation

Standardized viral hepatitis data collection forms were designed and piloted on SAVEs. Annual viral hepatitis reports are now issued yearly since 2019, providing data regarding number of infected persons diagnosed with HBV and HCV during this year as well as the number of individuals who received treatment.

Future Consideration

A new strategic framework beyond 2022 based on gaps, successes and challenges of the current strategy would be needed. This includes expanding the scope to include pediatrics hepatitis screening and treatment and healthcare workers training in this area.

Tuberculosis (TB)

Objective
CDC4. Implement effective TB control programs, including diagnosis, reporting

As set by the PHS, the work in this objective has been focused on implementing effective TB control programs, including diagnosis, reporting and treatment. The goals for this include:

- reducing TB incidence in Qatar to 15/100,000 by 2022 from a baseline of 34/100,000 in 2015
- achieving >90% treatment success rate by 2022 compared to a baseline of 85% in 2014
- achieving >90% target for screening and starting treatment for latent TB infection

MOPH PH Department aims to deliver these through strengthening the co-ordination and oversight of TB control, developing a public health workforce with a focus on TB and actively participating and contributing to all TB Task Force Groups.

Governance

Of Qatar's 2.3 million non-Qatari residents, nearly 60% are from the Indian Sub-Continent which has a high TB endemicity. Hence, to prevent spread of TB in Qatar, strengthening the TB control programs was a key public health priority. A five year (2018-2022) National TB control strategic plan was developed with the aim to fulfill Qatar's commitment to the WHO global strategy to eliminate TB by 2035.

MOPH strengthened the co-ordination and oversight of TB control by facilitating the creation of the National TB Board to provide the strategic oversight to the National TB strategy, developing a public health workforce with a focus on TB and actively participating and contributing to all TB taskforce groups.

Prevention, Awareness and Health Promotion Initiatives

Public education about TB is crucial to increase public awareness regarding this topic. Hence, MOPH PH Department led efforts in promoting effective community involvement through conducting awareness activities on social media channels and organizing an annual TB awareness day since 2018.

Guidelines and Policies

Over the past 3 years, MOPH PH Department has developed a Standard Operating Procedure (SOP) for TB case management, revised TB surveillance strategy and TB screening and contact tracing policies. To strengthen diagnostic, preventive, and screening services, the PH Department worked in collaboration with HMC to implement standardized TB risk assessment and TB screening of foreign workers.

Monitoring and Evaluation

Establishment of standardized TB reporting form on SAVES for TB recording and reporting and quarterly and annual TB surveillance reports were key achievements in this area.

INDICATORS	MILESTONES ACHIEVED BY 2020
Reduction in numbers of TB deaths compared with 2015 (%)	35%
Reduction in TB incidence rate compared with 2015 (%)	20%
TB-affected families facing catastrophic costs due to TB (%)	(<85/100000)

Figure 34 - Milestones achieved for TB indicators

Future Consideration

Reliable data to help understand the local TB epidemiology and impact of public health interventions is critical for developing evidence-based policies for TB control programs in the future. This will be done through retrospective analysis of existing healthcare datasets including Electronic Medical Record (EMR) systems, and data molecular surveillance and strain bank data at the National Reference laboratory using advanced digital analytics tools. Implementing a Latent Tuberculosis Infection (LTBI) screening and prevention will be the next step towards achieving the global TB elimination target.

Foodborne Diseases (FBD)

Objective
CDC5. Implement effective investigation & response to FBD events

Guidelines and Policies

The priority in this health area is early detection of FBD to reduce mortality and morbidity from the disease and ensure safe food and water supply in Qatar. The FBD Technical Working Group reviewed the national protocols for the diagnosis and reporting of cases suspected with diarrhea or food poisoning and should come into effect once endorsed.

Capability and Workforce Capacity Building

Annual training courses were arranged to take place for clinical staff in walk-in clinics (primary healthcare and private clinics) and on acute urgent care pathway (in Emergency Rooms) to enhance timely detection, reporting, and investigation of potential FBDs in cases presenting with gastrointestinal symptoms according to the updated clinical protocols and national FBD guidelines. Moreover, annual refresher training courses were also planned to take place to familiarize CDC staff on the updated FBD outbreak investigation guidelines and SOPs.

Monitoring and Evaluation

Operations research was conducted on the process of reporting and investigation of FBD events by analyzing data on FBD outbreaks collected from relevant stakeholders. This provided information to strengthen FBD operational capacity. To enhance onsite digital data reporting, electronic tablets were provided to staff for field investigations. A FBD registry was established to document all reported events and track operational response and outcomes.

Vaccination

Objective
CDC6. Achieve and sustain recommended routine and adult immunization coverage for the whole population, including high risk groups
CDC7. Achieve and maintain communicable diseases eradication for polio and elimination for measles, rubella, tetanus
CDC8. Implement and enforce vaccine management, storage, and handling guidelines to minimize wastage and ensure adequate stock piling

Immunization is the single most successful and cost-effective health protection intervention at individual and population level. High immunization rates are key to preventing the spread of infectious diseases and prevent complications and premature mortality.

Prevention, Awareness and Health Promotion Initiatives

Qatar has a comprehensive and free immunization program, including well-established immunization infrastructure, surveillance, and quality assurance system. The Expanded Program on Immunization [EPI] aims to reduce infant and childhood mortality and morbidity through decreasing the prevalence of 15 Vaccine Preventable Diseases (VPDs): polio, TB, diphtheria, pertussis, tetanus, measles, mumps, rubella, hepatitis A, HBV, meningitis, chickenpox, influenza, pneumococcal diseases, and rotavirus.

Qatar succeeded in achieving and maintaining a coverage rate for all the vaccines in the National immunization program above 95 % for children aged 0-6 years, due to close collaboration between EPI team at MOPH, PHCC, HMC, semi-governmental and the private sector. The EPI was further extended to provide appropriate coverage for adolescents and adults with the aim to improve the population herd immunity and protect high-risk groups such as elderly and those with immune compromised conditions. These vaccines are provided to all adults, both Qataris and non-Qataris, free of cost.

Alongside COVID-19 successful vaccination campaign, which was further detailed in the previous section, the Vaccination Section in MOPH conducts annual seasonal influenza vaccination campaign targeting the high-risk groups including healthcare workers, elderly > 50 years, young children 6 months-5 years, pregnant women, and people with chronic medical conditions. The influenza vaccine is procured by the government and provided free of cost to the population through the governmental, semi-governmental and since 2018 private health facilities. The uptake of influenza vaccine improved drastically from 2017/2018 influenza season campaign from 70,000 doses to 223,298 doses in 2020/2021 flu season.



Figure 35 - Influenza vaccine uptake 2018-2020

Coverage among the target groups during 2020-21 campaign

Elderly, 65 Years and Above	15.4%
Elderly, 50 years and Above	19.3%
Children 0-5 Years	11.4%
Patients with Chronic Conditions	8.4%
Pregnant Women	9.8%
Healthcare Workers	79.8%

Figure 36 - Target groups coverage for Influenza vaccine

During the 2021/2022 seasonal influenza campaign, so far, 160,089 were vaccinated from the beginning of the campaign in September 2021 and 57% of the doses utilized were to vaccinate the high-risk category.

Moreover, Tetanus, Diphtheria, Pertussis (Tdap) vaccination campaign was conducted annually for students of Grade 10 of all public and private schools in Qatar in collaboration with PHCC and Qatar Energy (QE).

Year	School Category	% of target population vaccinated
2017	Independent school (targeted by PHCC teams)	56.2 %
	Private schools (targeted by MOPH teams)	66.5 %
2018	Independent schools (targeted by PHCC teams)	64.5 %
	Private schools (targeted by MOPH teams)	64.1 %
2019	Independent schools (targeted by PHCC teams)	66 %
	Private schools (targeted by MOPH teams)	63.5 %
2020	Independent schools (targeted by PHCC teams)	58.5%
	Private schools (targeted by MOPH teams)	%

Figure 37 - Progress of Population Vaccinated in Schools 2017-2020

Guidelines and Policies

Other achievements include the first National Immunization guidelines manual for healthcare workers in Qatar, that was developed in 2017 and is currently being updated; it will be re-published upon approval in 2022. Guidelines and recommendations for COVID-19 vaccines, Influenza vaccine and Contact Tracing Guidelines were also developed.

Capability and Workforce Capacity Building

While the healthcare sector has been working on securing the availability of vaccines for the entire population of Qatar, it has also expanded its geographical presence by establishing health centers scattered all over the country to ensure increased vaccination coverage. The numbers of governmental primary health care centers providing immunization services have increased from 21 in 2008 to 30 in 2021. Private health facilities providing immunization services have increased from less than 4 in 2012 to 54 approved private clinics providing vaccination as a service in 2020.

Supportive supervision is a key element in ensuring quality immunization services by the Health Care Facilities (HCF) with approved vaccination services. The approved facilities are supervised quarterly to ensure they abide by the recommendations put forward by MOPH and cold chain management is ensured. Supervisory visits were suspended during the peak of the pandemic and resumed as cases decreased. The team picked up on this in 2021 as shown below.

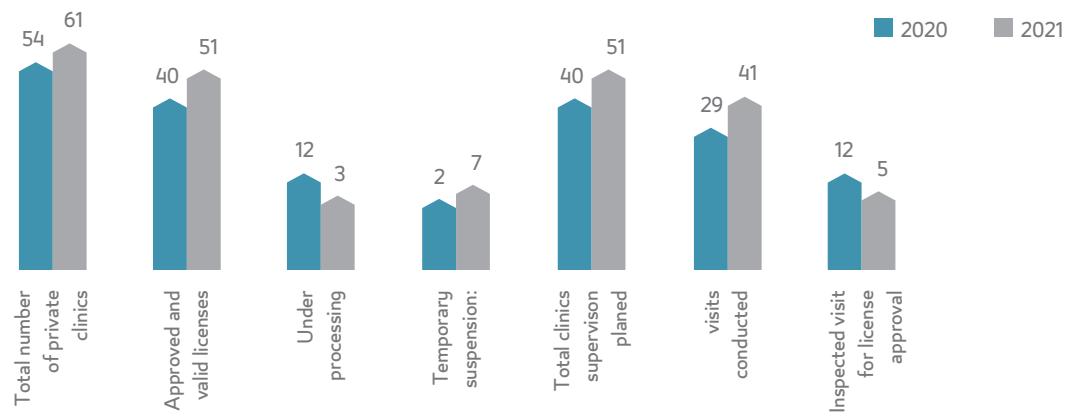


Figure 38 - Supportive supervision progress summary 2020-2021

Furthermore, workshops for Tdap campaign were conducted for the School Health Nurses from Health Centers and doctors and nurses from private schools prior to the Tdap campaign. During the workshop, a de-briefing session was given to all mobile team members about how to administer the Tdap vaccine, cold chain vaccine management, adverse events following immunization and how and when to use EpiPen injection.

Monitoring and Evaluation

The full development of Saves, an electronic reporting system, was completed in public and private hospitals. The system will help increase the percentage of complete and timely case reporting of communicable diseases outbreak investigation and response reporting. As such, infectious diseases case reporting forms, case and outbreaks investigations and response tools and National Indicators for Surveillance and Outbreak Response were integrated within SaVES.

An Event-Based Surveillance (EBS) guideline was developed with Qatar being the first country in Eastern Mediterranean Regional Office (EMRO) region to adopt EBS. EBS is a comprehensive reporting system of all hazards that have impact on public health and allows efficient and timely reporting of events not only by medical staff, but by all sectors and individuals in the country.

Impact of COVID-19

Less than 5% disruption of the vaccination services between March 2020 and August 2020 was ensured and reached pre-pandemic levels in 2021. However, a dip was seen in the vaccination coverages of most vaccines in 2020, which can be explained by the pandemic and this phenomenon was noticed world over, except Bacille Calmette-Guérin (BCG) and HBV zero dose, as these two are given at birth before discharge from hospital. The annual Tdap campaign 2019/2020 was successfully conducted although the pandemic had started. However, due to the COVID-19 pandemic, the campaign in 2021 was cancelled. Therefore, the annual Tdap campaign for 2021/ 2022 has been planned to include both Grade 10 and 11.

	2017	2018	2019	2020
BCG	98.5	98.6	98.4	97.9
Hep B 0	97	97.1	98	97.9
DTaP1	98	98.8	98.7	88.9
DTaP3	97.1	97.9	97.9	81.6
Hib3	97.1	98	97.9	81.6
Hep B 3	97	98	97.9	81.6
OPV 3	97	98	99.6	88.7
IPV	98	99	98.7	81.5
MCV 1	99	99	99.9	89.5
MCV 2	93	95	98.3	89.5

Figure 39 - Vaccination coverage from 2017- 2020

Future Consideration

Future plans include increasing the influenza vaccine stock available in the country by 30 % each year and increasing awareness on the benefits of influenza vaccine among healthcare professionals and the general public.

International Health Regulations (IHR)

Objective
CDC9. Align recommended committees and sub committees with IHR 2005

Governance

The IHR (2005) represent an international agreement that is legally binding 194 countries (States Parties), including all WHO Member States. The IHR define their “purpose and scope” as follows, “to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade”. The IHR law was ratified and approved by His Highness the Emir of Qatar. Various committees related to National IHR committees were established and activated including:

- An Emergency Response Committee, comprising members of CDC and Emergency and Preparedness Department
- A Food Safety Committee, comprises members of CDC and the Food Safety Department at MOPH
- A Joint Committee for Health in All Policies

Additionally, complete and timely case reporting of communicable diseases as well as outbreak response and EBS was accomplished by developing specific reporting templates and automating the reports using SaVES.

2.1.14 FOOD SAFETY

Objective
FS1. Strengthen public awareness of food hazards and health risks associated with the consumption of unsafe food through the use of various effective forms of modern mass media communication channels
FS2. Strengthen the capacities of the food safety management system to deliver services aligned to international best practice in all important operational areas such as inspection services, laboratory services, risk analysis, monitoring and surveillance and regulatory standards setting
FS3. Establish an integrated Food Safety Authority (FSA) aligned with international best practices standards to manage food safety through the entire food supply chain – from 'farm to table'
FS4. Develop an integrated risk-based inspection service certified to relevant international standards such as ISO 17020:2012 for imported, locally produced, and exported food products that is supported by modern electronic management systems, effective diagnostic services, and monitoring and surveillance systems
FS 5: Promote a food safety culture among all parties involved in the food supply chain through effective public- private sector partnership programs which aim to develop a heightened sense of awareness for taking responsibility for managing food safety risk

The key objective for the Food Safety Strategy is to protect public health and prevent foodborne illness by ensuring that food available in Qatar, both local and imported, is safe, wholesome, and fit for human consumption.

Governance

An effective governance was established with Chamber of Commerce to conduct discussions between industry groups where the FSEH Manager was included as a member for the food security and environment steering committee. FSEH staff were nominated and included as leaders of the sub-committees for farms and food factories responsible for monitoring and control of food safety measures.

Prevention, Awareness and Health Promotion Initiatives

Several initiatives were put in place to increase public awareness regarding food safety including:

- Development of Food Safety awareness videos and monthly social media messages disseminated to the public.
- Launch of surveys addressed to the general population to help gauge the population's perception on food safety.
- Annual Celebration of "World Food Safety Day" (07th June), which consist of a series of webinars about food safety guidelines for food businesses and food handlers.
- Launch of a National Salmonella Control Program in collaboration with MM. The program prevents and controls salmonella infection in primary production and at the slaughter and processing levels minimalizing human exposure to salmonella spp, through the consumption of contaminated meat or milk.
- Identification of research priorities including monitoring of pesticide residues in local vegetable farms, monitoring system of heavy metals in local fish and prevalence and risk assessment of Salmonellosis and Campylobacteriosis in poultry flocks and their environment in Qatar.
- Start implementing a strategy aiming to systematically rely upon risk analysis as the main decision-making framework for food regulatory decisions; part of this framework is the formulation of the National Food Risk Assessment Committee; its objective is to contribute to the developing and delivering of scientific opinions and food risk assessments.

Guidelines and Policies

A strategic plan to create a National FSA was developed based on international best practices and will be the sole control body of the food safety system in the State of Qatar protecting consumer health. The FSA will adopt a science-based approach through which food hazards can be easily traced and contained at any stage of the food supply chain and set up an emergency response system.

The Food Safety Code of Practice for food services was developed and published in 2021 (in three languages: Arabic, English, and Hindi) to help food services comply with Qatari laws and regulations. The Code of Practice explains how to meet the mandatory legislative requirements and details the food safety hygiene measures that should be followed based on Hazard Analysis Control Critical Points (HACCP) approach.



Additionally, FSEH developed specific guidelines including guideline for bottled water, food street vendors and manufacturers.

Capability and Workforce Capacity Building

Trainings were conducted for FSEH employees strengthening the inspection skills and food safety knowledge. Training topics included ISO 22000, HACCP, ISO 17025, ISO 17020, Food Hygiene and food safety regulations and standards.

Monitoring and Evaluation

- Electronic Management System for Food Safety: an electronic exchange developed and launched in 2022 for border and local inspection, risk analysis, compliance, and surveillance. It provides various certifications including health certificates, phytosanitary, Halal and Halal Slaughtering certificates and certificates related to food and beverages' imports to Qatar.
- Food Registration System: launched in 2021 for Food and Food Businesses where all food establishments and food items sold in Qatar will need to be registered on this system.
- Quality Management System (QMS): developed in 2021 according to ISO 17020:2012 to improve the quality and accuracy of examination for inspection. It specifies the requirements needed for the inspection bodies to ensure impartiality and consistency of their inspection activities.
- The Central Food Lab (CFL) was the first laboratory in Qatar that received the International Organization for Standardization (ISO) 17025:2017 accreditation from the American National Accreditation Board (ANAB/L-A-B), achieving the accreditation of 14 new analytical methods during 2021-2022.

2.1.15 ENVIRONMENTAL HEALTH (EH)

Objective
EH1. Assess and achieve health- based air pollution standards and reduce risk from indoor and ambient air contaminants
EH 2. Ensure effective and efficient monitoring, detection, and notification of water (recreational water) related risks to prevent potential water contamination
EH 3. Strengthen and implementing effective and efficient medical waste management

Providing a healthy environment is key to having a healthy population. EH Objectives focus on providing a healthy environment for Qatar's population by emphasizing on authorities to monitor and enforce processes and regulations that lead to having a healthy environment.

Prevention, Awareness and Health Promotion Initiatives

Multiple awareness campaigns on Indoor Air Quality (IAQ), Healthy & Safe Public Swimming Pools, and Safe Management of Domestic Medical Waste (DMW) were conducted for the public and various stakeholders.

Also, the following training courses were instituted for all stakeholders and professionals:

- Indoor air QMS/guidelines for schools
- Regulation for Healthy & Safe Public Swimming Pools
- Accredited HCF for Medical Waste Management Program (MWMP)
- Potential health risk and Safe Management of DMW

Guidelines and Policies

IAQ guidelines were developed in 2021 for schools to improve the quality of the indoor environment in educational facilities and increase healthy IAQ.

National MWM guidelines, complementary to previously developed guidelines were developed in collaboration with MME, HMC and Primary Health Care Authority (PHCA) and represented key strategies for "Medical waste management in HCF" and "Medical waste generated from home healthcare". These guidelines provide the minimum standards for MWM that should be met by HCFs to receive the accreditation from MOPH Care Standards.

EH unit prepared the following guidelines in both Arabic and English during the COVID-19 pandemic:

- Health procedures to lift COVID-19 restrictions in nurseries.
- Guidelines for Safe Heating, Ventilation, and Air Conditioning (HVAC) system in buildings.
- Guidelines for environmental cleaning in non-healthcare facilities exposed to COVID-19.
- Guidelines for Safe re-opening of swimming pools during the pandemic.

Monitoring and Evaluation

To decrease the annual percentage average of Particulate Matter PM2.5 in ambient air from manmade sources, a study for Chemical Characterization and source apportionment of Fine Particulate Filter Samples was launched in Greater Doha City in 2020 (2 phases). Sources of pollution in the city were identified with Soil Earth being the main source of pollution (28%) (Figure 40) and based on findings, the PM2.5 strategies reduction will be developed and implemented with stakeholders.

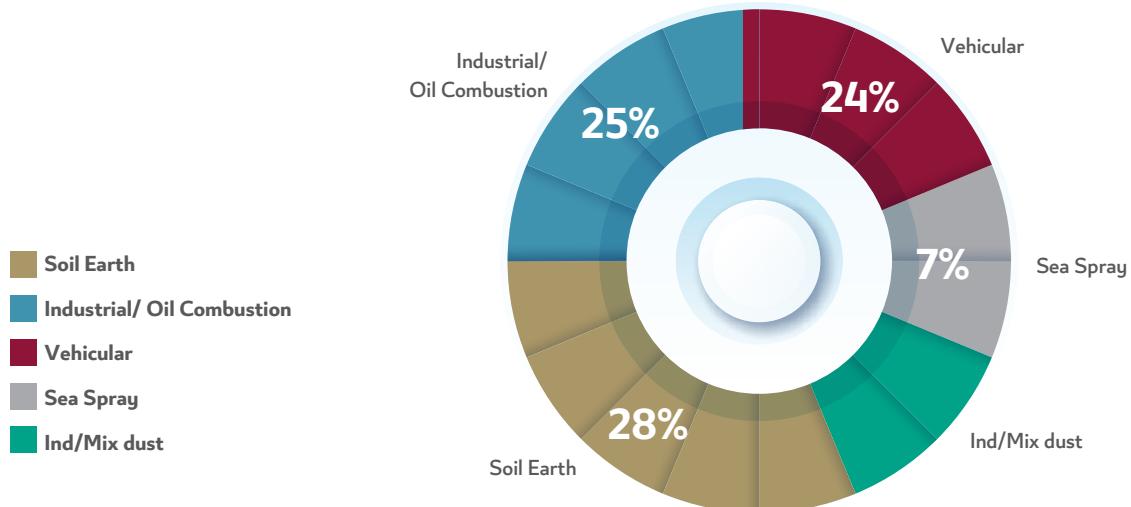


Figure 40 - PM2.5 Source Contribution

Annual inspections for MWM and auditing for accreditation were completed and a SOPs has been developed to attain high quality control.

The waste control unit was able to:

- Identify different types of medical waste generated by healthcare facilities
- Conduct annual inventory for healthcare facilities that generated hazardous medical waste, around 945 for 2020
- Reach a 100% of healthcare facilities applying the legal requirements for safe MWM with 95% of them committed with sound practicing
- Increase the number of private medical waste treatment plants, compliant to the required standards, from two to three in collaboration with different stakeholders

Capability and Workforce Capacity Building

EH Unit established standards for indoor air units and strengthened awareness of air pollution and health risks associated with poor IAQ for more than 300 staff from public and private schools.

The inspections of safety and health of recreational water settings is a vital preventive activity to protect bathers from associated potential health hazards. As such, an inspection plan was developed and implemented in 2021 to assess recreational facilities including swimming pools and spas. EH inspectors detected numerous safety violations, preventing hazardous water contamination and subsequent illness in consumers.

COVID-19 Impact

During the COVID-19 pandemic, the EH team conducted a study in 17 private and public schools in Qatar detecting the presence of SARS-COVID-19 virus on surfaces to assess the efficiency of cleaning and disinfection protocols and serve as a base to develop infection prevention policies. 71 out of 418 collected samples showed the presence of COVID-19 virus.

2.1.16. RESPIRATORY DISEASES

Objective
RD1. Enhance the integrated asthma program in schools, including education regarding asthma awareness and support program
RD 2. Raise community awareness about chronic respiratory diseases symptoms and interventions

In Qatar, there is a high rate of asthma which is correlated to the change of people's lifestyle and dietary habits as well as higher exposure to tobacco smoke, allergens, and dust. Raising awareness regarding respiratory diseases is a key priority to prevent complications and burden associated.

Prevention, Awareness and Health Promotion Initiatives

A cross-sectional study of 3,283 schoolchildren living in both urban and rural areas showed a high prevalence of diagnosed asthma among children (19.8%). Therefore, integrating asthma awareness in schools was identified as a priority. Asthma-Friendly Schools' Program (AFSP) was implemented in 2013 at just six elementary schools and expanded to reach 211 government schools in 2020. The aim of the program was to create a safe and supportive learning environment for students with asthma and empower them by providing life-long skills for controlling their condition and improving their quality of life. The program targeted government schools in Qatar focusing on asthmatic students aged 6 to 18 years.

AFSP- Key Statistics:

Government schools 2019-2020								
Primary			Preparatory			Secondary		
Schools	Asthmatic students	School students	Schools	Asthmatic students	School students	Schools	Asthmatic students	School students
103	933	44889	46	329	19585	62	457	26527
	2.08%	100.00%		1.68%	100.00%		1.72%	100.00%

*AFSP - Health educators' evaluation and performance reports (Qatar 2019/20)

Figure 41 - ASFP- Number of school participants, students, and asthmatic students (Qatar 2019/20)

More than 91,000 students participated in asthma awareness activities and a total of 1719 asthmatic students directly benefitted from this program during the academic year 2019/2020. 234 awareness session activities were conducted for communities in government schools during 2019/2020. The program also conducted pre/post evaluation using questionnaires targeting school students and staff.

ACTIVITIES FOR STUDENTS IN GOVERNMENT SCHOOLS

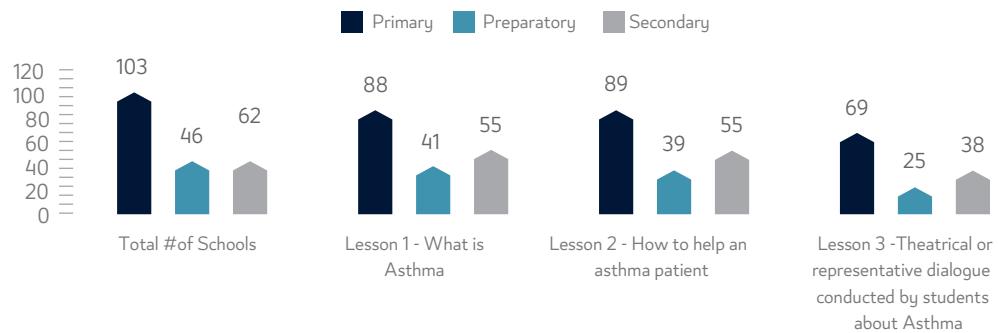


Figure 42 - ASFP- Number of school activities for the students in government schools for provided by health care provider (Qatar AY2019/20)

The AFSP succeeded in adding asthma monitoring charts to the PHCC-Cerner system which monitors and evaluates asthmatic students in government schools.

A National Awareness Campaign was launched to raise community's understanding of asthma and Chronic Obstructive Pulmonary Disease (COPD). This included short video series, cinema advertisements and social media campaign with key messages addressing the community regarding asthma and COPD symptoms, risk factors, triggers, and management.



Figure 43 - ASFP Awareness Flyers

Capability and Workforce Capacity Building

The AFSP conducted two new starter and three refresher workshops in collaboration with HMC, PHCC and Sidra Medicine, for a total of 346 government school health providers to provide them with the necessary skills for running a successful AFSP.

2.2. STRATEGIC ENABLERS

Implementing the SE initiatives set in Qatar's PHS 2017-2022 enhances the public health system's capability and performance and helps address the health challenges that the population is facing, futureproofing health and wellbeing of Qatar's population.

4 Strategic Enablers	14 Goals	42 Initiatives
 Community Engagement and Empowerment	3 Goals	11 Initiatives
 Data Driven Intelligence	4 Goals	9 Initiatives
 Workforce and System Capability	3 Goals	9 Initiatives
 Leadership, Regulation and Accountability	4 Goals	13 Initiatives

Figure 44 - SEs of the PHS 2017-2022

Strategic Enablers (SE)
SE 1. Community Engagement and Empowerment
SE 2. Data Driven Intelligence
SE 3. Workforce and System Capability
SE 4. Leadership, Regulation and Accountability

2.2.1 STRATEGIC ENABLER 1: COMMUNITY ENGAGEMENT AND EMPOWERMENT

To improve the health of Qatar's population, it is vital to enable local partnerships through community engagement and empowerment. This enhances the sustainability of public health initiatives and makes public health programs tailored to the community's needs.

MOPH has been working on achieving the goals set for this SE through the implementation of 11 initiatives set to be accomplished by 2022.

Goal 1.1 – Greater understanding of the health needs of all communities in Qatar

To achieve this goal, two initiatives were completed during this period. First, a Community Health Advisory Group (CHAG) was appointed. This group includes community representatives such as religious leaders, community leaders, and special interest groups who will help co-design public health programs aligned with community health needs.

A Public Health Community Partners and Asset Register was developed including key partners from other government agencies, private sector, and NGOs aiming to align and integrate public health activities and optimize the utilization of resources. Regular meetings are held with different partners to discuss alignment of the overall vision, ensure public health considerations are factored in community programs and plan initiatives that have a public health impact. Examples of long-term collaborations include "Action on Diabetes Campaign", an initiative aimed to reduce the incidence of diabetes and "Your Health First Campaign", a public health initiative about healthy behaviors and disease prevention. There are also short-term collaborations included such as "For the Sake of Qatar" aimed to support Qatar's fight against COVID-19 and "World Food Safety Day" which consisted of a series of webinars about food safety guidelines for food handlers.

Goal 1.2 – Increase community involvement in the implementation and sustainability of public health programs and initiatives

Future public health programs must engage communities in the different stages of the process, from planning, designing, to evaluating public health interventions. This results in improving the health of Qatar's population by having public health programs that are relevant and tailored to the community's needs. Various initiatives were put in place to reach this goal.

Firstly, a public health communication strategy was developed and included action points and objectives for ensuring the establishment of internal and external communication for MOPH's PH Department. Accordingly, Communications Associates were nominated from the three divisions within the PH Department to plan, communicate, and facilitate delivery of health promotion and media calendars and act as the linking point between departments, and the Public Relations (PR) team.

Secondly, MOPH PH Department developed a Public Health Program Evaluation Framework with inputs from leading Public Health experts from John Hopkins University, which included a standardized assessment criteria to assess performance of public health programs and allow regular improvements. An effective framework is critical as the priorities,

goals and initiatives of the strategy need to be delivered across a broad range of partners, sectors, and ministries. Nine programs were evaluated in 2021, including FSEH, HP & CDC, and HP & NCD projects.

Thirdly, to determine the effectiveness of the public health initiatives and identify opportunities for improvement, MOPH developed a Public Health Community Engagement and Satisfaction Survey. The survey plays an important role in understanding the perspectives and health needs of Qatar's community and tailor programs to best meet these needs and address key challenges. The survey was conducted for 2,500 respondents consisting of Qatari nationals and resident expatriates including adults working in manual and craft labor positions aged 18 and over. Data collection was conducted through Computer-Assisted Telephone Interviews (CATI) in Arabic and English from November 2020 to January 2021 because of the social distancing restrictions. The survey measures community attitudes, perceptions, and satisfaction across five key sections:

Section 1: Knowledge, awareness, and practice of healthy living: a community perspective

Section 2: Most important aspects of a healthy community

Section 3: Satisfaction with Public Health Services

Section 4: Satisfaction with quality of life and social environment: a craft and manual worker perspective

Section 5: Attitudes towards community life

Key results of the survey are outlined in the figure below.



Figure 45 - Key findings of Public Health Community Engagement and Satisfaction Survey 2021

Furthermore, establishing Collaborative Community Public Health Forums to facilitate community level discussion of key public health challenges was another initiative under this goal. On this regard, MOPH conducted multiple seminars around various topics on the different Health Areas within the PHS, hosting international speakers who gave a broad overview on topics as well as local speakers providing a local perspective. Additionally, MOPH conducted PH Department Forums for various departments in 2020 and 2021 as well as Public Health Forums addressed to the wider public including "Technology Leading The Way Through Pandemics", "Maternal and Child Health: Preconception Health", "General Food

Safety Requirements for Hypermarkets and The Role of The PIC” and “The Food Registration System and Its Role in Ensuring Food Safety (Webinar)”.

In addition, a Public Health Awards framework has been developed to recognize contributions of lay members of the public as well as organizations who champion health promotion and awareness within their local communities. The objective of having an awarding system in place is to ensure individuals and organizations contributing to public health initiatives are recognized for their inputs and others are encouraged to participate.

Goal 1.3 – Focus on public health literacy to empower community members in having greater influence over their health outcomes

To help achieve this goal, the PH Department appointed a Health Literacy Working Group (HLWG) in 2019 to develop the National Public Health Literacy Framework which will empower and enable lay public in making informed decisions about their own health such as making healthy food choices, exercising, quitting smoking, and managing stress. The key achievements in this area during the period of the report include:

- School Public Health Program - an active intervention program implemented in schools to lay early healthy lifestyle foundations and help the children and youth of Qatar make the right health choices, and grow into healthy adults, thus minimizing future burden of disease. This will embed sound health decisions within children and youth to reduce risky behaviors and burden of disease later in life and influence more senior family members and their broader social networks to engage in good health behaviors.
- School Health Education Guidelines and Healthy & Safe School Environment Guidelines – to provide a standardized and evidence-based approach to health promotion and health and safety in schools.

2.2.2 STRATEGIC ENABLER 2: DATA DRIVEN INTELLIGENCE

Strengthening data driven intelligence capability by having high quality data, ongoing surveillance and epidemiological studies is vital to monitor the health of Qatar's population, assess the effectiveness of implemented programs and identify new or emerging diseases. This helps inform public health priorities, while ensuring the appropriate utilization of resources. Several goals and initiatives have been identified to reach this overall objective.

Goal 2.1. – Ensure high quality, comprehensive and accessible population health data

To develop a systematic approach to the collection and management of health data, the following have been undertaken in the last couple years:

- Baseline review of the data management systems and processes already established for collection and analysis of public health data
- Developed a single inventory of various routine and ad-hoc surveys undertaken by various PH Departments including those in MOPH,
- Collated the public health data requirements (including healthy lifestyle indicators, disease surveillance, program performance data required by the PH Departments, national health indicators, and reporting requirements for WHO and other international agencies) and mapped against the data inventory and analytical capabilities currently available to identify the gaps
- Identified the minimal public health dataset as part of Qatar's Core Health Indicators (QCHI) and developed a manual for QCHI data collection and processing

Goal 2.2 – Increased reporting and access to population health data

Public Health Observatory Function: To ensure timely analysis and publication of data, a health observatory function was created as the single entity responsible for the collation, analysis and reporting of health data. This work is overseen by the Health Observatory Committee which meets periodically to peer-review and approve analysis, reports, and scientific publication from the observatory. As such, Qatar National Health report was published and provided an overview of health status and health systems in the country, emphasizing the particular characteristics and challenges that can be compared to a selection of countries, preferably with similar demographic, economic and social context.

National Public Health Survey Calendar: A calendar of regular surveys and publication was developed with input from health area leads and subject matter experts. The Global Youth Tobacco Survey was completed in 2018, the second national STEPwise survey was delayed due to COVID-19 but expected to be conducted in 2022.

Public Health Report: To provide a summary of the state of public health in the country and an overview of the public health work in the area of non-communicable diseases management, infectious disease surveillance response, food, water and environmental safety, the PH Department will publish a public health report every other year. This is the second report in the series with the first summary report covering the period of 2008-2018.

Goal 2.3 – Enhance the monitoring and responsiveness of Qatar’s public health system

An integrated infectious disease monitoring and surveillance system is crucial for protection against known infectious diseases as well as novel pathogens like SARS Cov-2. To strengthen Qatar’s capability for timely identification and control of infectious disease outbreaks, “Surveillance and Vaccination Electronic System (SaVES)”, a world-class national integrated surveillance system, was launched during the COVID-19 pandemic in March 2020. This will be further integrated with the public health Laboratory Information Management System (LIMS) and the HMC EMR systems to allow seamless real-time automated dataflow without any delays and data entry errors. SaVES allowed to successfully monitor the pandemic, support epidemiological modelling, and manage COVID-19 vaccination. Frontline healthcare providers and public health teams received training to use these digital systems over the last two years.

A new structure was developed for the Health Information Center (HIC) to act as a public health intelligence unit, the centralized public health statistical and analytical resource. The HIC is linked with regional and global units to support benchmarking and public health research collaborations. Public health intelligence experts were identified to recruit including biostatistics, epidemiologists, data scientists, demographers, health analytics, informatics specialists and public health experts. The activation of the HIC is dependent on approval of the new MOPH organization structure.

Goal 2.4 – Enhance public health research and capability

Strengthening public health research capability is essential to drive evidence-based policy, program development and evaluation in Qatar. This is done by establishing partnerships with academic institutions which will provide opportunities for shared research and continuing education and will address gaps in research and data collection. As a first step, a review of all public health-related research activities in Qatar over the past five years was undertaken; this will support a gap analysis and in turn inform public health research priorities to be considered going forward.

2.2.3. STRATEGIC ENABLER 3: WORKFORCE AND SYSTEM CAPABILITY

Goal 3.1 – Create networks and forums for public health experts to come together to solve key public health challenges

A public health Knowledge Sharing Platform was established in 2018 which is a digital library containing all documents pertaining to the implementation of the PHS, dating back to 2018. The platform will allow cross-sectoral problem solving, innovation and opportunities for joint partnerships and enable connectivity and transparency of information amongst employees to address the problem of working in silos. Focal points from each of the PH Department were appointed to identify, categorize, and upload key policy documents, scientific papers and evidence reviews from their field. This will be further expanded to include collaboration sandbox with regional partners including WHO and support public health manpower training and development.

Moreover, the Biennial Qatar Public Health Conference (QPHC) Series was launched by the PH Department at MOPH in collaboration with public health system stakeholders including HMC, PHCC, academia and research institutions and aims to discuss public health in Qatar by engaging local, regional, and international public health experts. The first QPHC entitled “10 years of public health: Looking back and moving forward” was held in 2019 with more than 500 attendees and 57 local and international speakers. It celebrated the success of public health over the last 10 years and addressed challenges of present and future generations. Due to the COVID-19 pandemic restrictions, the second QPHC meeting was held in February 2022 with the Qatar Health 2022 in partnership with HMC and was titled “Preparing for the 2022 World Cup and the Response to Pandemics in Qatar – a multidisciplinary team approach”. The three-day conference hosted more than 4000 participants and provided valuable learnings from over 50 local and international experts regarding the preparations for the FIFA World Cup Qatar 2022™ amidst the ongoing COVID-19 pandemic.

To strengthen strategic alliance with global institutions, MOUs were signed with Johns Hopkins University, Public Health England, CDC Atlanta, Pasteur Institute France, Sanofi Aventis Group and Erasmus University Rotterdam. These networks will allow public health practitioners to participate in ground-breaking research, exchange and disseminate insights and learnings, train in new and emerging scientific methods and get more specialists interested in working in various public health areas in Qatar.

Goal 3.2 – Develop the capability and capacity of all public health staff and future leaders Qatar’s public health system.

Small countries like ours will always have a challenge in maintaining a pool of specialist healthcare manpower and public health is one of the more complex areas from a manpower competency perspective due to:

- there are usually niche specialized roles at times
- a large part of training is experiential learning and hence not always easily transferable across countries
- the public health professionals can come from a wide group of medical and non-medical backgrounds
- the demand fluctuates, as an example, the COVID-19 pandemic has raised an extraordinary demand for infectious disease epidemiologists and outbreak response specialists.

To enhance our public health manpower expertise and attract the best professionals from the global pool, a Public Health Workforce Taskforce was created in 2019. The Taskforce is responsible for:

- Providing targeted skills and capabilities across public health disciplines
- Identifying system strengths, gaps, and opportunities
- Developing a targeted public health system workforce recruitment plan
- Supporting alignment of job description with public health core competencies

2.2.4. STRATEGIC ENABLER 4: LEADERSHIP, REGULATION AND ACCOUNTABILITY

While the PH Department is well-led and the organizational structure is aligned within the overall MOPH structure and comparable to public health agencies around the world, the PHS 2017-2022 aimed to strengthen the Public Health functional and fiscal governance within overall health agenda and ensure appropriate legal powers and enforcement framework are available to protect the population health and wellbeing.

Goal 4.1 Articulate and enact strengthened governance

Establishing a comprehensive governance framework across the public health system is crucial to assign stakeholders' responsibilities and have a defined hierarchy of leadership and was accomplished through the following initiatives:

Legal Framework:

- A review of the prevailing laws, decrees, and other regulatory tools available in Qatar which directly or indirectly support health protection and promotion.
- Drafted a single comprehensive Public Health Law for the State of Qatar in which brought together various pieces of existing legislation and also addressed identified gaps including:
 - Infectious Diseases law is outdated and needs reform
 - The Tobacco and Mental Health laws need by-laws to ensure laws meet the objectives set
- The Public Health law included development of a new law which covers (Health Protection, Health Promotion and Health Information)

Public Health Budget:

- Review of historical PH Department budget allocation and utilization from 2016 to 2018 as well as the budget spent in 2019 to identify areas of underfunding or underutilization.
- Development of a new budget utilization plan for 2019-21 and financial performance tracker for monitoring and reporting.
- Increase in budget utilization within the PH Department as a result of better planning and regular monitoring, and in turn increase in dedicated funds for public health.

Governance and oversight:

Health in All policies:

Health in All Policies is a collaborative approach to improve health of all people by incorporating health considerations into decision-making across sectors and policy areas. With NCDs being the major cause of deaths in Qatar, a mix of sector policies can prevent the prevalence of NCDs and engender opportunities for health. Accordingly, an inter-ministerial board for Health in All Policies was appointed by Her Excellency the Minister of Public Health Dr Hanan Mohamed Al Kuwari in 2020, and has been actively meeting since then, overseeing a coordinated approach to public health across all national agencies and sectors.

Evidence-based public health practice

With NCDs on the rise in the country and the threat of communicable diseases increasing, prevention and early diagnosis has the biggest impact on reducing the burden of these diseases. Producing evidence-based information for healthcare professionals and the public for prevention is a core public health function. Accordingly, existing guidelines were assessed, gaps were identified, and a list of preventive health guidelines were recommended to be developed including preventive guidelines in three divisions in the PH Department:

- HP-NCD Guidelines
- HP-CDC Guidelines
- FSEH Guidelines

Selected priority guidelines were developed for each division including “Prevention of Obesity in Children for NCD” and “STI Prevention Guidelines” for CDC departments.

Goal 4.2 – Introduce a performance management and quality framework

To monitor and evaluate the efficiency of public health programs, a performance management and quality improvement framework was developed to increase accountability for public health activities undertaken by the three departments within the public health directorate. The framework details the specifics of the execution and performance management of the PHS 2017-2022 and ensures progress is being made in terms of goals and desired outcomes by systematically collecting and analyzing data to track results to identify opportunities and targets for improvement.

Moreover, accreditation of the PH Department is key to raise the department's standards and demonstrate the commitment to quality and improvement. Public Health Accreditation measures the Capacity and Performance of the Health Department to deliver 10 Essential Public Health Services against a set of evidence-based standards. Accordingly, the Public Health Accreditation Board (PHAB), the only Accrediting body that offers accreditation to PH Departments, was engaged in 2019 to assess Qatar's eligibility to apply for accreditation. After receiving PHAB approval to apply, PHAB Accreditation documents were submitted on February 2022 and the site visit to the PH Department at MOPH in Qatar is planned in May 2022 where the final decision will be made accordingly.

Goal 4.3 – Develop national public health brand

Building a strong unified brand is needed to improve the effectiveness and trust of public health information. As such, collaboration with Virginia Commonwealth University (VCU) was established to support and engage students to participate in the development of proposed Public Health Identity-based systematic assessment of local context and perceptions of public health. This led to an internship opportunity with a number of students, who worked with the PH Department to develop this further, which can be integrated into future health awareness campaigns.

Goal 4.4 – Promote national public health leadership

Public health requires effective leadership that can enable change, influence policy, ensure robust planning processes, drive system improvement, and maintain strategic gains across a diverse range of stakeholders. Therefore, a public health leadership program was critical to improve the system's performance. Johns Hopkins University was engaged to compile a list of existing international public health leadership programs and propose a customized program for Qatar targeted at executive levels.

In the interim, MOPH approached Hamad Bin Khalifa University (HBKU) to support delivery of a tailored program for Qatar, which will be delivered in collaboration with international partners, targeted at managers and directors. This program is planned to be delivered in 2022 and will be followed by an advanced program delivered by Johns Hopkins University at a later stage.



SECTION 3

ROAD TO THE FIFA WORLD CUP QATAR 2022™

The FIFA World Cup Qatar 2022™ is scheduled to take place in Qatar from 21 November to 18 December 2022. Athletes, support staff and more than 1.5 Million visitors from more than 200 countries will gather to attend and celebrate the first FIFA World Cup Qatar 2022™ ever to be held in the Arab world. Global attention will be focused on Qatar for the duration of the tournament.



Prior to February 2020, significant preparatory work was underway to ensure that the healthcare and public health systems are ready to deliver a seamless experience with high standard of water, sanitation, food, and hygiene as a given. They should have timely accessibility to excellent healthcare services, should they need them, and they should feel safe in the fact that Qatar will be well-placed to handle any public health emergency of natural or man-made origins.

The world post the COVID-19 pandemic is a very different place, and accordingly, planning and preparing for mass events will not be the same. It is now clear that COVID-19 is unlikely to fully disappear by end of 2022 and even if the pandemic may show a declining trend, there is always a possibility of a new variant threat. The FIFA World Cup Qatar 2022™ will be a major test for how well-prepared Qatar is to conduct an event at this scale seamlessly and safely despite all the restrictions and requirements in place. MOPH, alongside a number of other entities, will have a central and critical role in the upcoming FIFA World Cup Qatar 2022™ with visitors' testing, vaccinations, and overall border safety away from just the ongoing pandemic, while also keeping the rest of the ongoing public health projects in place. This will go alongside all the efforts being done by HMC, PHCC and other healthcare partners to plan and prepare for a safe and successful FIFA World Cup Qatar 2022™.



In partnership with HMC, MOPH conducted "Qatar Health 2022 and the 2nd QPHC" in February 2022 hosting regional and international experts. The conference was aimed at bringing together various streams of ongoing public health and healthcare work for a successful FIFA World Cup Qatar 2022™, seeking international expertise and peer-review of Qatar's capabilities in the fields of border health, mass screening, vaccination, contact tracing, quarantine, mass gathering management, as well as conference side-track on emergency and disaster medicine, infectious disease surveillance and trauma surgery.

3.1 PROTECTING THE HEALTH OF THE COMMUNITY

Mass gatherings like the FIFA World Cup Qatar 2022™ require tremendous forward planning and preparedness, which in turn requires a well-prepared health sector especially in the field of Public Health with sufficient, well-trained, and clinical and non-clinical staff.

3.1.1 PUBLIC HEALTH SURVEILLANCE AND EPIDEMIOLOGY

A strong public health surveillance system is a key pillar of ensuring timely identification and prevention of spread of common infectious diseases. This is a requirement from WHO for all countries hosting mass gathering sport events like the Olympics Games and FIFA World Cup. The COVID-19 pandemic has enabled testing and identification of areas where the infectious disease surveillance system needed to be strengthened.

Qatar Integrated Disease Surveillance and Response - Early Warning Alert and Response System (EWARS)

A digital EWARS software for mass gathering events has been implemented which allows automated reporting from laboratories and other surveillance sites. This reduces the time taken to detect outbreaks so that public health interventions can be employed to prevent further spread of disease and consequently hospitalizations and deaths. EWARS is the organized and rapid capture of information about events that are a potential risk to public health. This information can be transmitted through formal channels (i.e., established routine reporting systems) or informal channels (i.e., media, health workers and nongovernmental organizations reports); EWARS relies on the immediate reporting of events and is designed to detect new and rare events that are not specifically included in the routine surveillance system and events that occur in populations which do not access health care through formal channels.

Besides this, to scale the EWARS capacity and capability for the FIFA World Cup Qatar 2022™, the number and training of staff has been stepped up, from legislations, resources, to infrastructure. The EWARS consists of three teams within MOPH, each of which has its own responsibilities and tasks.

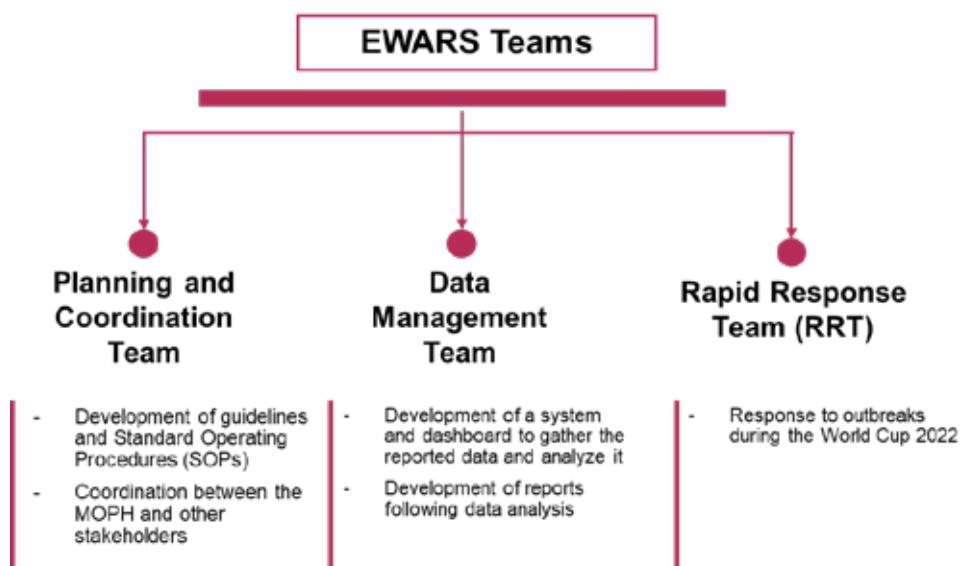


Figure 46 - EWARS Teams and Respective Responsibilities

3.1.2 FIELD TRACING AND OUTBREAK RESPONSE MANAGEMENT

A task force group has been formed including the Supreme Committee for Delivery and Legacy, Case Investigation Team and Track N Trace Team to conduct rapid testing, field tracing and respond to any COVID-19 outbreak during the FIFA World Cup Qatar 2022™. As such, Live Real Time Notification of any COVID-19 positive case should be put in place for the Case Investigation Team and the Track and Trace team to act immediately.

The positive cases, regardless of their vaccination status, will be managed as any active case and contact tracing will be completed (Figure 47).

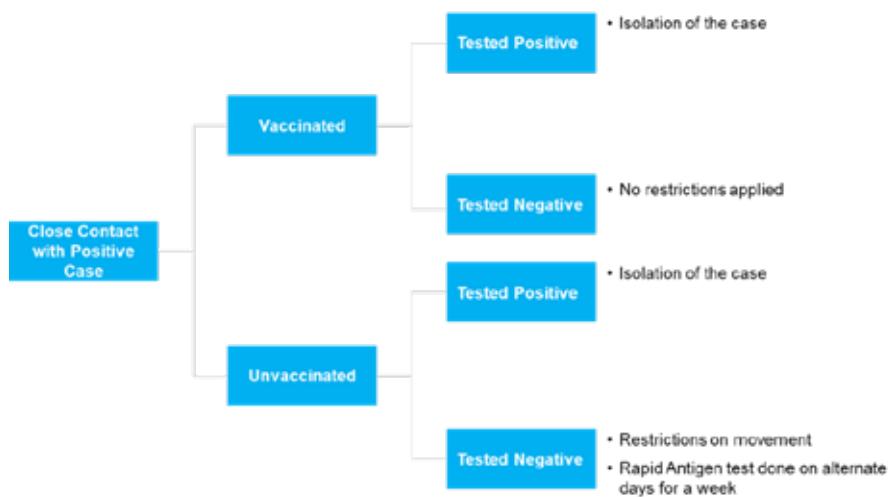


Figure 47 - Process Followed if Close Contact with a COVID-19 Positive Case

This is also applicable for players and delegates, therefore, if they are unvaccinated and were in close contact with a positive case, they will have to abide by the restrictions imposed, for instance, dining alone as well as not attending trainings and matches for a week.

To closely monitor and prevent any outbreak, active surveillance is crucial during the FIFA World Cup Qatar 2022™. As such, notification of any symptoms from any site will be responded to immediately, and the following categories will be screened for COVID-19 using RT-PCR:

- Delegates and athletes
- Staff and volunteers at the stadiums
- Hotel staff where visitors, delegates and players will be accommodated
- Food catering companies and food handlers in all relative locations
- Random testing for spectators attending the sport events one week after attending a game

Finally, approved COVID-19 vaccines will be mandatory for all spectators and the following vaccines were recommended by the National Immunization Technical Advisory Group (NITAG):

- Influenza Vaccine – to be highly recommended for spectators
- Meningococcal vaccine – to be recommended for spectators
- Oral Polio Vaccine – recommended for those coming from the three endemic countries, Nigeria, Afghanistan, and Pakistan.

3.2 PRESERVING PUBLIC HEALTH DURING THE FIFA WORLD CUP QATAR 2022™

3.2.1 A HEALTHY FIFA WORLD CUP QATAR 2022™

Qatar, FIFA, and the WHO have partnered ahead of the FIFA World Cup Qatar 2022™ to use the mega football event as a tool to promote health and wellbeing. Qatar is the first country in the Middle East to host the FIFA World Cup and will also be the first nation hosting the tournament during the COVID-19 pandemic. Accordingly, a MOU was signed between MOPH and WHO to implement a healthy and safe FIFA World Cup Qatar 2022™, as an effective and lasting model that enhances the integration of health, security, and wellbeing in major sporting events in the future. The three-year joint project, titled “Healthy 2022 World Cup - Creating Legacy for Sport and Health,” aims to place the promotion of healthy lives, health security and physical and mental wellbeing at the heart of the world football’s pinnacle event. The target population has been identified as adolescents and young adults up to 20 years old (Tier 1), followed by 20 and 40 years old (Tier 2) and finally extended to include the remainder of the population (Tier 3). The project has five main pillars and areas of work:

3.2.1.1 COMMUNICATION FOR AWARENESS RAISING AND VISIBILITY

The objective of this pillar is to reach the sports audience in Qatar and all over the world through communication channels and promote the importance of healthy lifestyles, health security in mass gatherings, access to health services as well as protecting the vulnerable population and promoting gender diversity in sports.

3.2.1.2 PHYSICAL ACTIVITY PROMOTION AND AWARENESS

To increase average physical activity, the multi-pronged plan would include:

- Health promotion: aimed at increasing knowledge, awareness, and motivation.
- Enabling environment: creating an enabling physical environment and increasing access to physical activity, exercise and sports programs and services.
- Sustained impact: strengthening program governance and information systems, linked to various healthy lifestyle initiatives across conditions (healthy eating, physical activity, mental health, smoking cessation) and across outreach channels (school health promotion, grassroots community programs, workplace health promotion, primary healthcare).

3.2.1.3 HEALTHY FOOD AND HEALTHY FOOD ENVIRONMENTS

This pillar will be multipronged with the aim to promote and protect healthy eating through increasing awareness and providing healthier food options around the games' settings, entertainment venues and at home.

3.2.1.4 HEALTH SECURITY

The objective of this pillar is to strengthen health security of mass gatherings making the FIFA World Cup events safe through the prevention of health-related risks. After the FIFA World Cup Qatar 2022™, lessons learned will be developed and disseminated to build legacy around the tournament and learning resources will be developed for other hosting countries of similar mega-sports events presenting Qatar's benchmarks and legacy.

3.2.1.5 PARTNERSHIPS AND COORDINATION

Partnerships and coordination between various stakeholders are crucial for the successful implementation of the FIFA World Cup Qatar 2022™ and will be enabling functions to maximize the delivery and legacy dimensions under different project components including communication, health promotion and health security.

Examples of Planned Health Promotion Activities

Installation of digital beacons that will send announcements to passers' phones via Bluetooth containing health information message pop ups

- Light show on buildings to demonstrate different physical activities
- Social media contest "Cook your own MOPH cookbook recipe" providing the cookbook as a scanned code and requesting visitors to post a picture of the dish from the cookbook. Another social media contest includes asking visitors to post health images and hashtag MOPH.
- Physical activity competitions where visitors scan QR codes around walkways and parks as checkpoints. Each location will advertise specific messages to cover a range of 5K run, walk, or cycle exercise.
- "Your Way to Health Bus" to go around Qatar to deliver health messages addressing health topics on digital screens.
- Embedded health messages in popular social media channels through scannable infographics QR code.
- Media campaign: promotional videos, conducting interviews, health discussions and talk shows with national and international sportsmen, sharing health success stories.

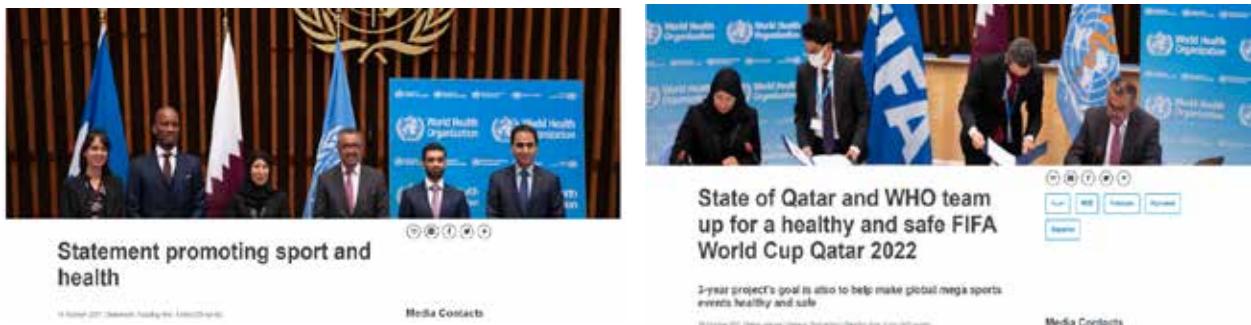


Figure 48 - Healthy and Safe World Cup Qatar 2022

3.2.2 SAFETY IN READINESS

The Supreme Committee for Delivery and Legacy is coordinating the preparedness for the FIFA World Cup Qatar 2022™ through its National Security Committee, which has identified the welfare of the multitudes of the workers involved in building and supporting all the FIFA-related projects as its key priority.

The Public Health Department of MOPH has been actively involved in planning and implementation of workplace health promotion program for various public and private sector organizations involved in the FIFA World Cup Qatar 2022™ preparations. The work so far has included ensuring companies have safe and secure work and living conditions for their workers, that they have access to medical treatment and are protected against occupational health and safety risks by delivering tailored orientation sessions and training programs.

In 2019, a comprehensive mental health and wellbeing program for all workers employed for the FIFA World Cup Qatar 2022™ projects was designed by MOPH. This public health program identifies workers with mental health issues and supports them by faster access to treatment and counselling in a safe and secure environment. In addition, the program also attempts to prevent mental health issues through extensive awareness campaigns. Clinicians working across the FIFA World Cup Qatar 2022™ sites were given mental health awareness and screening trainings to enhance their ability to identify and address potential mental health concerns amongst workers. Close to 6000 workers have gone through comprehensive mental health screenings since the program began in 2019.

With the pandemic, the need for better health and wellbeing of workers became even more important. The focus on workers' mental health further intensified during the COVID-19 pandemic with workers being alone, isolated, and concerned about their own wellbeing and loved ones in their home countries. A tailored mental health awareness campaign was developed using infographics and videos in eight languages to address key mental health issues, promote general wellbeing while following COVID-safe practices, re-iterating the importance of actively identifying and dealing with mental health problems, and most importantly, reducing the stigma attached to mental health.

Through the Supreme Committee for Delivery and Legacy, MOPH and MOL worked jointly to implement the highest standards of health and safety in accommodations and work sites of different companies working for the projects of the FIFA World Cup Qatar 2022™. MOPH closely worked with the Safety and Health Leadership Committee and the Workers Welfare team providing technical advice and support in coordination with different departments of MOPH. The efforts doubled during the pandemic, with specific measures taken to prevent workers from contracting the virus and raising their level of awareness about different health problems.

3.2.3 FOOD SAFETY INITIATIVES

A food safety strategy based on inspection, monitoring and capacity building is key to hosting a successful and safe FIFA World Cup Qatar 2022™. Plans include:

A- Installation of mobile food testing labs scattered over the country and especially around stadiums and events. This was similarly done during the 2021 FIFA Arab Cup, where the FSEH team installed four mobile food testing labs in areas including Lusail, Al Thumama, Forest Park: Al-Bidda, and Education City. During the FIFA World Cup Qatar 2022™, each mobile lab will be divided into three analytical units (micro, molecular & chemistry), to avoid cross-contamination. Labs will be operational round the clock with three to four laboratory staff per shift; and will be responsible for performing different tests on food samples to ensure that food hygiene requirements are being adopted and food is safe for consumption.



Figure 49 - Mobile Labs for the World Cup 2022

- Development of the Food Defense Program by FSEH team which aims to protect consumers and food establishments against food terrorism during the FIFA World Cup Qatar 2022™, ensuring the security of food and drinks from all forms of malicious attack. As such, guidelines and manuals on biosecurity standards were developed by the FSEH team and awareness programs on food terrorism and food defense were conducted for food services sectors.
- Development of a risk-based inspection plan on borders detecting food hazards to prevent and minimize the risk of food incidents during the tournament.
- Launch of a registration system in which all food items and establishments should be registered.
- Plan for pre-assessment of venues offering food including hotels, caterers, night markets, fan zone, exhibition, media centers and training sites. Follow-up visits will be conducted to inspect non-conformities and provide corrective measures and recommendations.
- Development of a National Food Safety Emergency Response Plan to ensure that the system detects and responds to any potential food incident in a timely and efficient manner.

3.2.4 ENVIRONMENTAL HEALTH INITIATIVES

Pre-assessment of EH-related issues in hotels, stadiums and public facilities involved with the FIFA World Cup Qatar 2022™ will be conducted in line with international protocols which were tested during the 2021 FIFA Arab Cup. The PH Department's EH team will conduct audits on IAQ, temperature, and relative humidity. HVAC system will be checked and hygiene swabs from various locations in the stadiums will be analyzed. Based on the assessment's results, operators of participating premises will be given notices to ensure any remedial or improvement actions are implemented in a timely manner.

3.2.5 TOBACCO-FREE WORLD CUP

The FIFA World Cup Qatar 2022™ will be a tobacco-free event to promote healthy lifestyle in line with Qatar and WHO's respective health and wellbeing priority. MOPH will support FIFA in designing, monitoring, and enforcing tobacco-free policies during the FIFA World Cup Qatar 2022™ by raising awareness about tobacco health hazards through a targeted anti-smoking campaign. Additionally, football athletes will help in raising awareness and promote a no-smoking healthy lifestyle. MOPH tobacco inspectors will prevent any tobacco-related advertising and will guide FIFA volunteers and securities to enforce the tobacco-free policy.



Figure 50 - FIFA World Cup Qatar 2022™: Partnership between FIFA, WHO and MOPH



STEPS GOING FOREWORD

STEPS GOING FOREWORD

The implementation of the PHS 2017-2022 has not only improved the quality of life, health, and wellbeing of the population of Qatar but has laid down the base and infrastructure to fight COVID-19 and to ensure a successful preparation for the FIFA World Cup Qatar 2022™.

Qatar's success in containing the COVID-19 pandemic and facing its health, economic and social challenges is attributed to the national response plan that the country adopted against the virus. Qatar's response plan was characterized by a strong governance and collaboration between the public and private sector in implementing effective measures and practices. To successfully manage the COVID-19 pandemic, Qatar put in place standardized guidelines and policies for testing, treatment and quarantine, protocols for diagnosis and treatment, an efficient surveillance and tracking system and a strong vaccination campaign. Amidst COVID-19 pandemic, work was in progress to implement the PHS 2017-2022 to improve the health and wellbeing of Qatar's population. The population-level health benefits of the PHS increased awareness about the impact of public health interventions on the health of our population and is a step forward in achieving the goals of Qatar National Vision 2030 (QNV2030). The PHS solidified the foundations of a strong and effective Public Health System in the country which will enable Qatar to successfully host the FIFA World Cup in 2022 integrating health, security, and wellbeing in this mega-event.

2022 marks the end of the first national PHS 2017-2022 in Qatar, a key milestone towards achieving QNV2030 goal for a healthy population. Despite the achievements done under each pillar of the Strategy, public health should remain a top priority and at the core of Qatar's future plans. To safeguard the health and wellbeing of Qatar's population, investments in progressing the public health sector is essential to address current public health challenges and future public health threats.

- Use of Internet of Things (IoT) in the public health sector to monitor the health of people accurately: IoT, a system of digital devices that collects and stores data, will enhance the public health system by focusing on prevention and proactive prediction, diagnosis, and treatment of diseases and health issues. This will improve the efficiency of the healthcare system and improve population health.
- Use of genomics to deliver targeted interventions for patients, better known as precision medicine: genomics, the study of how genes interact with each other and with environmental factors, to determine an individual's growth and wellbeing. Genomics will enable a better understanding of disease etiology, prevention, diagnosis, and treatment and deliver tailored interventions for patients and population-level interventions for targeted groups. Genomics will help improve the health of the population and specific groups who have higher predisposition to certain diseases.
- Deliver high quality health research: identify health research and more specifically public health research priorities in the country that go along with current and future health challenges and are aligned with the country's health priorities. Health research topics should include, but not be limited to: precision medicine, digital health solutions, Health Technology Assessment (HTA), behavioral health and NCDs, the major causes of deaths in Qatar, such as CVDs, diabetes, mental health, and cancer.
- Use of Big Data and interoperable data relying on a collaborative approach between various stakeholders: massive quantities of data are currently being available and provide an opportunity to the healthcare system for improvement especially in terms of disease prevention, early disease detection, tailored interventions, and population health. Big Data can also advance research in the healthcare and public health sector addressing both current and future challenges. It relies on turning high volumes of data into actionable knowledge to tailor interventions according to the findings and generate informed decision-making. This can only be enabled through strong collaboration between various public and private stakeholders.

GLOSSARY

GLOSSARY

AEFI	Adverse Event Following Immunization
AIDS	Acquired Immune Deficiency Syndrome
ANAB	American National Accreditation Board
AFSP	Asthma-Friendly Schools' Program
ASCVD	Atherosclerotic Cardiovascular Disease
BCG	Bacille Calmette-Guérin
BFHI	Baby Friendly Hospital Initiative
CAM	Cancer Awareness Measure
CATI	Computer-assisted Telephone Interviews
CDA	Center for Disease Analysis
CDC	Centers for Disease Control and Prevention
CDC	Communicable Disease Control
CFL	Central Food Lab
CHAG	Community Health Advisory Group
CIGB	Cancer Information Governance Board
COPD	Chronic Obstructive Pulmonary Disease
COVID-19	Coronavirus
CPD	Continuing Professional Development
CRG	Communications Reference Group
CVD	Cardiovascular Disease
DMW	Domestic Medical Waste
EBS	Event-Based Surveillance
EH	Environmental Health
EMR	Electronic Medical Record
EMRO	Eastern Mediterranean Regional Office
EPI	Expanded Program on Immunization
EWARS	Early Warning Alert and Response System
FBD	Foodborne Diseases
FIFA	Fédération Internationale de Football Association
FFQ	Food Frequency Questionnaire
FLS	Fracture Liaison Service
FRAX	Fracture Risk Assessment Tool
FSA	Food Safety Authority
FSEH	Food Safety and Environmental Health
GHW	Graphic Health Warning

HACCP	Hazard Analysis Control Critical Points
HBV	Hepatitis B Virus
HCF	Health Care Facilities
HCV	Hepatitis C
Hib	Hemophilus influenzae
HIC	Health Information Center
HIV	Human Immunodeficiency Virus
HMC	Hamad Medical Corporation
HP – CDC	Health Protection - Communicable Disease Control
HTA	Health Technology Assessment
HVAC	Heating, Ventilation and Air Conditioning
IAQ	Indoor Air Quality
IARC	International Agency for Research on Cancer
ICU	Intensive Care Unit
IHR	International Health Regulations
IoT	Internet of Things
IPV	Inactivated Poliovirus
ISO	International Organization for Standardization
LIMS	Laboratory Information Management System
LTBI	Latent Tuberculosis Infection
MCV	Meningococcal Conjugate Vaccine
MME	Ministry of Municipality and Environment
MOCI	Ministry of Commerce and Industry
MOI	Ministry of Interior
MOL	Ministry of Labor
MOPH	Ministry of Public Health
MOU	Memorandum of Understanding
MWMP	Medical Waste Management Program
NCD	Non-Communicable Disease
NCP	National Cancer Program
NDS	National Diabetes Strategy
NHS	National Health Strategy
NITAG	National Immunization Technical Advisory Group
NOHC	National Oral Health Committee
NGO	Non-Governmental Organizations
OPV	Oral Poliomyelitis Vaccine
OSH	Occupational Safety and Health
PHAB	Public Health Accreditation Board

PHCA	Primary Health Care Authority
PHCC	Primary Health Care Corporation
PIC	Person-in-charge
PM	Particulate Matter
PPE	Personal Protective Equipment
PR	Public Relations
QCHI	Qatar's Core Health Indicators
QCIC	Qatar Cancer Information Center
QCN	Qatar Cancer Network
QDA	Qatar Diabetes Association
QMHAAI	Qatar Mental Health Attitudes and Awareness Index
QMS	Quality Management System
QNCC	Qatar National Convention Center
QNCR	Qatar National Cancer Registry
QNV	Qatar National Vision
QE	Qatar Energy
QPHC	Qatar Public Health Conference
QR	Quick Response
QVC	Qatar Vaccination Center
RAAB	Rapid Assessment of Avoidable Blindness
RTI	Road Traffic Injuries
RT-PCR	Reverse transcription polymerase chain reaction
SaVES	Surveillance & Vaccine Electronic Software
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infections
TB	Tuberculosis
Tdap	Tetanus, Diphtheria, Pertussis
ToT	Training of Trainers
UNICEF	United Nations Children's Fund
VA	Visual Acuity
VCU	Virginia Commonwealth University
VPD	Vaccine Preventable Diseases
WABA	World Alliance for Breastfeeding Action
WHO	World Health Organization
WPW	Wellness Program at Workplace

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