

Qatar National Diabetes Strategy

Preventing Diabetes Together
2016 - 2022



Qatar

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Forward

by the Co-Chairs of
the National Diabetes
Committee



Diabetes is a major health challenge faced by Qatar. To address this growing serious problem, we must identify at-risk individuals and undiagnosed pre-diabetic and diabetic patients early so that they can all benefit from the best medical care to halt and potentially reverse the progression of diabetes and its complications. Because of the rapid growth in the number of patients with diabetes in Qatar, the public health and health service infrastructures fell behind this challenge. A key aim of the National Diabetes Strategy is to close this gap.

Healthcare is evolving. There is no longer such a term as an average diabetes patient, and certainly not a generic treatment package, to deliver the best care. Future services need to place the patient with diabetes at the heart of bespoke care pathways tailored according to age, lifestyle, and stage of the disease process, co-morbidities, and general health status. As healthcare professionals, the challenge is to treat the patient, not the disease.

The National Diabetes Strategy sets out a comprehensive action plan to deliver not just the world's best care for patients with diabetes, but to help Qatar develop the world's best workforce, infrastructure and research. The world is engaged in a losing and desperate battle against lifestyle driven chronic conditions including diabetes. With the proposed strategy, Qatar will have the opportunity to lead the way for the rest of the globe, using evidence-based international best practice in an innovative way, to deliver ground-breaking quality services.

We would like to thank all those members of the public, patients and healthcare professionals whose energy, insight and desire for better diabetic care has been a constant source of encouragement throughout this project. In particular members of the National Diabetes Committee deserve credit for guiding the development of this Strategy. We would also like to thank the team of international experts who have provided essential observations and direction throughout this work.

The development of this National Diabetes Strategy marks a significant milestone, but in reality, it is the start of the journey, not the conclusion. Significant investment of time, effort and money will now be required to achieve the visionary transformations set-out in this strategy. In a period of extensive change for the health system in general, this will be a significant challenge, requiring a relentless focus on delivery. This cannot be achieved alone, all organizations across Qatar must join efforts for a common purpose and, perhaps more importantly, must work with the people of Qatar. With this strategy, Qatar will build the best possible health system to support patients with diabetes and to empower patients to take control of their health, so that conditions like diabetes can be avoided entirely.

With this vision in mind, let this strategy be the commitment from Qatar that we give our best, but also our hope that by the time this ambitious project is fully implemented, the health of the nation is such that transformation on this scale is never required again.

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Executive summary

Why we need a National Diabetes Strategy

Diabetes is a growing health challenge for Qatar.

In 2015 it is estimated that 17% of the adult population in Qatar, about

85,000 people,

has diabetes, compared to 8% of adults globally (SCH, 2015-5).

In addition it is estimated that if nothing is done

there will be a 2.5 times increase in diabetes

for people between the ages of 35 - 65 in Qatar by 2045 (SCH, 2015).

Why we need a National Diabetes Strategy

Diabetes can be a debilitating illness that can seriously impact on people's lives and wellbeing, however in most cases diabetes is a preventable disease. In addition, if it is properly managed, people with the condition can live normal, comfortable and fulfilled lives.

Our mission is to make people more aware of diabetes, increase access to care that can prevent the disease and its complications, and support people with the condition. Together we will prevent diabetes.

This strategy has been developed through research of current and best practice in the State of Qatar and globally, analysis of the statistics, bringing together our own and international diabetes experts and extensive engagement with the people of Qatar.

What the future state will look like?

What the **current** environment looks like?

Information about diabetes is inconsistent and unclear

Education and empowerment tools are limited and inconsistent

Quality of services are inconsistent and at times difficult to access

There are gaps in the workforce and numbers of professionals specifically trained in diabetes care are limited

Healthcare professionals find it difficult to access and share information, and people find it difficult to access their own health information

Research initiatives are not focused or aligned

What the **future** state will look like?

People will be able to access the right information to support them to make healthy lifestyle choices

There will be multiple tools to support people to manage their own health in a way that suits their personal lifestyle

Services are designed around people's preferences and individual needs

There is the right workforce with the right training and knowledge to support the delivery of our future comprehensive diabetes services

Information technology will support interaction, learning and self-management

Research is focused on finding ways to improve the quality of life and diabetes service provision for people of Qatar

Our pledge to the people of Qatar to deliver a better and more proactive diabetes service

We believe that every person has a right to high quality and person-centered healthcare. Through this strategy we pledge that we will:

1. Invest significant time and energy to raise public awareness of diabetes, promote prevention and support people to maintain healthy lifestyles
2. Ensure that information about diabetes is easily accessible to everyone, and key messages about diabetes are clear and consistent
3. Ensure that every person has access to the highest quality and tailored diabetes education and is empowered to take control of their health in a way that works best for them
4. Deliver the highest quality, accessible, convenient and timely services for every person through a new and ambitious model of care
5. Build and maintain a strong and empowered workforce to deliver the future model of diabetes care where every healthcare professional has a robust understanding of diabetes and diabetes care options
6. Develop information systems that interact and support collaborative working and information sharing
7. Invest in setting the global standard in diabetes research

To deliver our pledge we will embark on an ambitious program of change, delivered through six strategic pillars.

Together these pillars form the structure of our future model of care:



The purpose of the National Diabetes Strategy

The purpose of this strategy is to articulate a vision for future diabetes healthcare services and describe how we will improve health and quality of life in Qatar through the realization of our ambition of **preventing diabetes together** as a nation.

The current context of diabetes in Qatar

What is diabetes and how can it affect diabetes patient

Diabetes is a condition through which the body cannot utilize glucose (the body's sugar) efficiently; this leads to a build-up of glucose in the blood. Diabetes may develop if the body does not produce enough insulin and/or the body is resistant to insulin.

Diabetes can manifest in various forms:

Type 1 diabetes results from destruction of the cells which make insulin, and once developed, the patient's life depends on injecting insulin.

Type 2 diabetes is a preventable disease caused by unhealthy lifestyle behaviors. Type 2 diabetes is the most common form of diabetes in Qatar.

Gestational diabetes is a form of the condition that occurs in some women during their pregnancy.

In addition, there are a number of other, rarer forms of diabetes.

Factors that increase a person's risk of developing diabetes include:

Modifiable / treatable risk factors:



Being overweight



Having a sedentary lifestyle without enough exercise



High levels of fat or cholesterol in the blood caused by a poor diet



Having high blood pressure



Tobacco consumption

Non-modifiable risk factors:



Having a family history of diabetes, particularly if this is a close relative



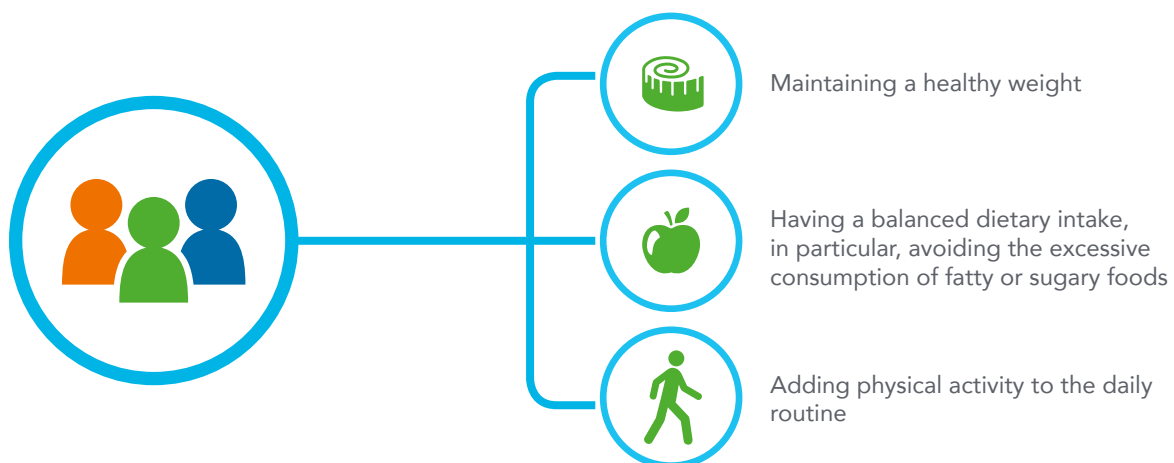
Age

Honestly, I
am scared of
this thing but
I didn't ask
about it

*Patient quote
SCH (2015-3)*

- Although diabetes is predicated by a number of recognizable symptoms, including persistent thirst and the increased need to urinate, it commonly goes undiagnosed. This is often because the disease develops gradually and may remain undiagnosed without clinical symptoms for many years. People at risk do not seek screening, or are unsure of or scared about what having diabetes could mean for them.
- Undiagnosed or poorly controlled diabetes can lead to serious impact on health and wellbeing including heart disease, blindness, amputations and kidney failure. In some cases it can even lead to coma and death.
- Living with the condition can mean different things for different people but will often have an impact on social and family life. People with diabetes can also face real or perceived stigma attached to having the disease which can seriously impact their psychological wellbeing.

There are a number of
easy and practical things
that people can do
themselves to prevent the
risk of diabetes including:



The global and regional prevalence of diabetes

Diabetes is a growing global healthcare challenge (IDF, 2014).

In 2014, the International Diabetes Federation (IDF) estimated that

382 million people (8% of adults globally) had diabetes. It is expected that this figure will grow rapidly, posing a real challenge globally. Addressing this challenge requires concerted action from all countries.

The United Nations (IDF, 2010) and the World Health Organization (WHO, 2010) have advised countries to develop national diabetes strategies to address country-specific needs in awareness, prevention, care delivery, research and healthcare policy.

Qatar is one of 20 countries in IDF's Middle East North Africa (MENA) region.

Over **37 million people** in the MENA region have been diagnosed with diabetes and by 2035; this number is expected to rise to over 68 million (WHO, 2010).



It is estimated that **17%** of the adult population in Qatar, or about **85,000 individuals**, have diabetes.

This is significantly higher than the global average, of 8% (SCH, 2015-1). In addition, 50% of the under 30 year old population in Qatar, which makes up 66% of the whole population (Bener, 2006), are at increased risk for diabetes because they are obese or overweight.

Approximately **80%** of the Qatari national population have **2–4 risk factors** for diabetes, and are at an increased risk of developing the condition. If nothing is changed in Qatar, as the population at risk grows, it is estimated that there will be a **2.5 times increase** in the number of diabetic people aged 35–65-years by 2045 (SCH, 2015-1).

If diabetes is not slowed down or prevented, Qatar will face significant strains on the healthcare system. It is thought that diabetes will contribute to 7% of the total disease burden and 10% of the death burden in Qatar by 2020 (IHME, 2010). In addition, diabetes presents a major risk for heart disease, kidney disease, stroke, blindness and amputations.

In addition to the impact of diabetes on people's lives and the lives of their families, the projected growth of diabetes cases could lead to costs of health services in Qatar increasing by 30% by 2020 (IHME, 2010).

What are the current gaps within the system?

Currently there are gaps evident within each of the areas that form the strategic pillars on which our strategy is built:

Prevention and awareness

- Inconsistency in the type, quality and content of information available meaning that information is not always complete or easy to understand
- Prevention and awareness initiatives are not joined up or building on each other's successes
- The channels used for prevention and awareness programs and materials are variable and channels that people have told us they prefer to use, remain underused

Education and empowerment

- There are no standard patient education curricula making it challenging for patients to take control of their condition
- Education is not always complete or person-appropriate
- There is not enough consistent, high quality training for diabetes educators or community champions

Care delivery

- A lack of clear ways to access or navigate through services results in people frequently choosing to go to hospital when they require support or losing their motivation to seek further care
- Patients do not always have a consistent experience of quality and timeliness of care
- There is a lack of continuum and difficulty in transferring patient information between facilities
- Variation in the way that appointments are coordinated creates a risk of losing information or people not accessing the necessary care
- There is variation in how diabetes-specific guidelines, protocols and pathways are used by healthcare professionals

Workforce

- There are too few diabetes educators, diabetes nurses, care coordinators, and community champions and overall insufficient workforce numbers to meet growing patient need
- Healthcare professionals working in diabetes care often have unclear roles
- There are insufficient diabetes training courses offered to staff
- There are limited numbers of graduates training in Qatar or staying in Qatar after qualification

Information systems

- There is an inconsistency in the storage, sharing and management of data, preventing healthcare professionals and service users accessing the information they need
- Complete patient data is not consistently collected during episodes of care
- Transfer of data is slow, complicated and often manual

Research

- There is a lack of coordination to set national research strategies or to drive, coordinate and organize researching organizations
- There is limited sharing of resources and knowledge across organizations

What can we do together to address diabetes nationally?

Currently we do not have the capability or infrastructure in place to deliver the kind of diabetes care that the people of Qatar need and deserve. If the prevalence of diabetes grows in the way that is currently predicted, we will face a serious challenge in future years.

Qatar urgently needs a national strategy to prevent any future increase in new cases and new complications, and to improve its national capabilities in prevention, care delivery and research.

Implementing a comprehensive diabetes prevention program, through the National Diabetes Strategy, is the only way to halt this predicted rise in diabetes prevalence.

As Qatar represents a relatively small and geographically confined population, a robust and strongly lead program of change, implemented through this strategy, has every chance of successfully achieving Qatar's vision of **preventing diabetes together**.

Building future diabetes care services

Our vision

The diabetes strategy selected **“Preventing Diabetes Together”** as its vision statement because prevention of diabetes and its complication requires continuous collaboration and coordination between health care professionals, patients, patients’ families, educators, community leaders, researchers, and all programs that influence the lifestyle and behavior of our population.

Goals and outcomes

Qatar’s National Diabetes Strategy is built around a set of strategic goals, which aim to:

- increase public awareness and improve patient empowerment
- prevent occurrence and delay disease progression
- deliver high quality diabetes care
- develop an information technology and diabetes research program

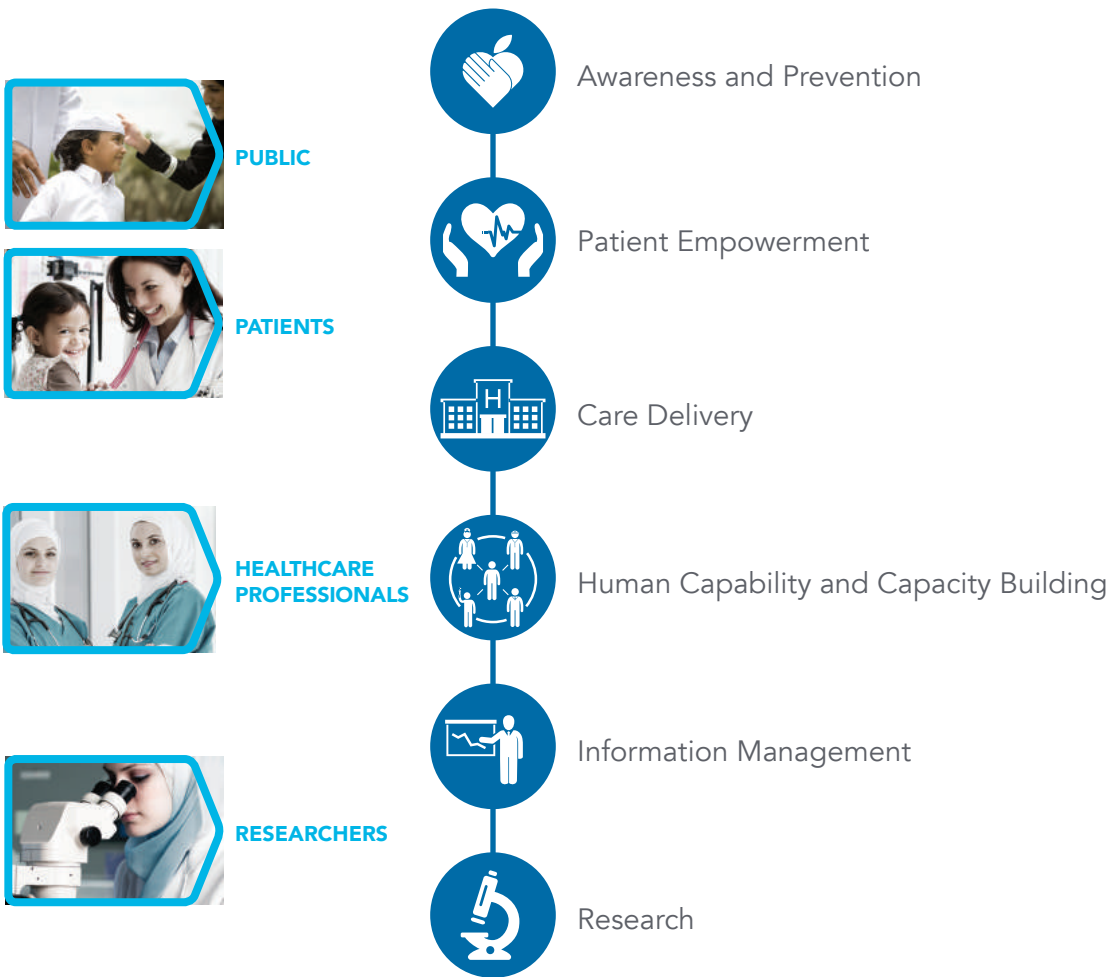
To achieve these goals

By 2018:	we will launch a national screening program through which all target adult populations will be screened for diabetes by 2020
By 2019:	all healthcare professionals will receive continuing education in diabetes care
By 2020:	all screened at-risk population and patients will be offered an annual health plan

Through the implementation of this strategy, we will decrease the incidence of diabetes and complications resulting in better health and quality of life by 2022.

The vision will be delivered by empowering four key groups

The four key groups that will be empowered are: the public, patients, healthcare professionals, and researchers. Specifically, the strategy will deliver outcomes that meet the specific needs of each group.



Ways in which the four key groups will be empowered

■ Implementing awareness and prevention campaigns for the **public** and those at risk to motivate lifestyle change by:

- delivering clear, memorable messages regarding risk factors, symptoms, preventive methods, complications, and mortality
- developing effective campaigns delivered through schools, workplace, mosques, social media, internet, billboards and other channels

■ Screening and empowering **patients** to take action on improving their health status by:

- providing personalized annual care plans to enable people to track their health status
- working with people to set achievable personal goals. These could involve goal setting in diet, exercise, smoking or other health targets
- providing person-centered education and self-management tools and programs to empower people with diabetes to take control of their own care
- making screening and empowerment programs accessible in community settings, wellness centers and other healthcare facilities. Community settings will include schools, workplaces, and mosques
- recruiting and educating community influencers to support patients in self-management of their health/diabetes

■ Supporting **healthcare professionals** to deliver the right care, at the right place, at the right time by:

- establishing clinical guidelines to guide healthcare professionals, improve access to care and maintaining national standards in quality and care provision
- using technology to enable information sharing and communication
- growing and developing the workforce to support the delivery of care
- introducing standard diabetes educational curriculums for patients and at-risk groups
- establishing central hotlines and coordinators to support improvement in access to care

■ Understanding the diabetes situation in the State of Qatar and developing a national research agenda, to support and motivate **researchers**. This will be achieved through:

- gathering complete population health statistics, collecting Qatar-specific data and analyzing population trends
- analysis of effectiveness of treatment, availability and utilization of healthcare services
- carrying out clinical trials and research
- making anonymized patient data accessible to researchers in Qatar and internationally for the benefit of future diabetes research



The six pillars that form the National Diabetes Strategy

Qatar’s National Diabetes Strategy is designed to achieve the future vision to ‘prevent diabetes together’ to improve health and quality of life in the State of Qatar.

We will achieve this through six strategic pillars.

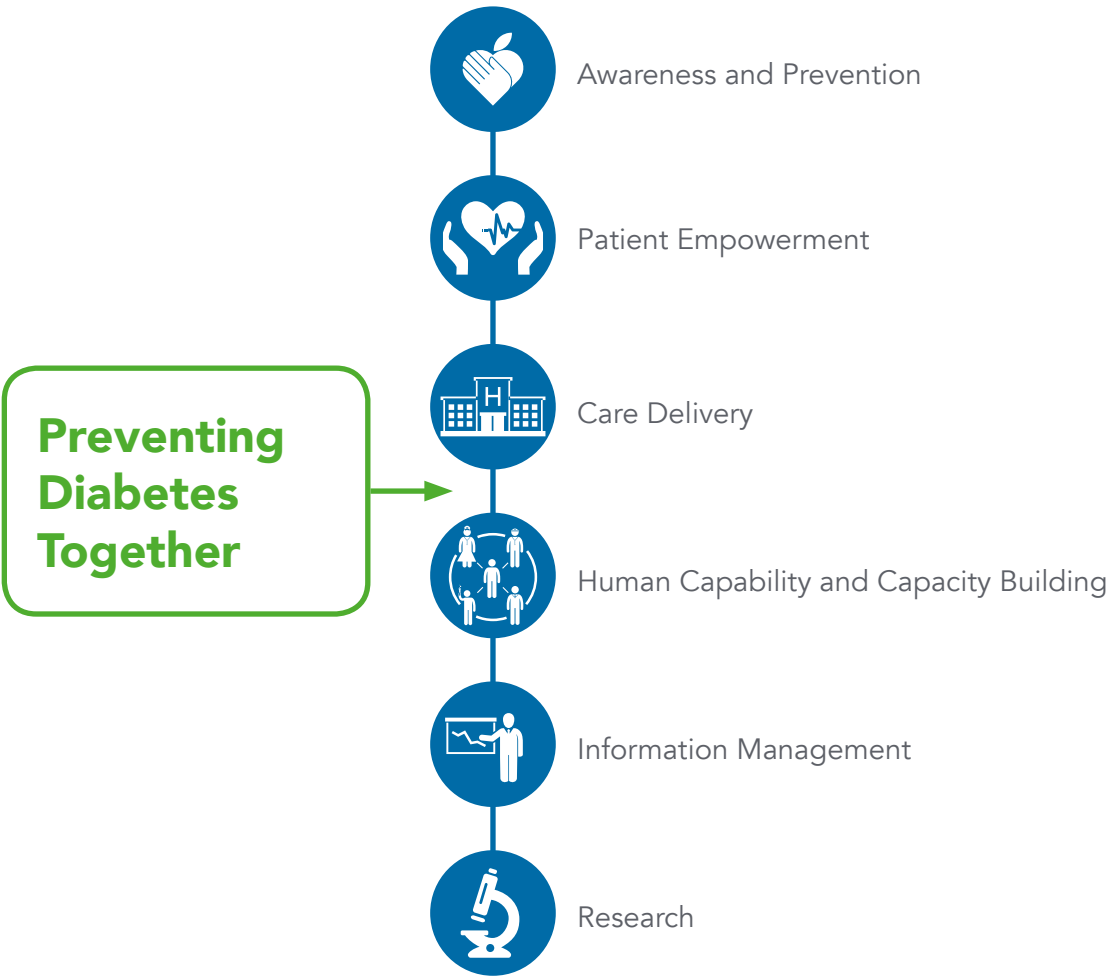


Figure 1: the six strategic pillars that form the National Diabetes Strategy



Strategic Pillar 1:

a. Awareness

Understanding diabetes risk factors, disease progression over time and its devastating complications is essential for prevention. Effective public awareness programs are key elements in preventing diabetes.

Awareness programs are provided by healthcare providers, government organizations and non-profit organizations across Qatar. However, the existing programs are not coordinated, their messages are not effective or well understood by the public and they do not reach all the segments of Qatar's population.

Public surveys conducted by the strategy team (SCH, 2015-2) revealed that despite multiple diabetes initiatives:

63% of people have never been screened for diabetes

only **14%** of people are aware of Type 1 diabetes

only **41%** of people are aware of Type 2 diabetes

He [the doctor] asks me to read and I don't like to

*Patient quote
SCH (2015-3)*

I like some pages on Facebook that provides information about diabetes

*Patient quote
SCH (2015-3)*

Through this pillar the strategy will...

- Provide directed, clear and easy to understand messages through campaigns to encourage participation and motivation to maintain a healthy lifestyle and seek help when needed. This will be achieved through the introduction of nationally agreed key messages to help people remember what they need to do to avoid or control diabetes. Consistent logos and branding will be used so that messages are recognizable and easily memorable.
- Deliver repeated and consistent messages through multiple media/Social channels to ensure that the messages reach everyone and are well understood by all. Identify the best channels to reach out to people so that we can be assured that we are delivering people-centered messages for maximum effectiveness. Information and campaigns will be accessible across:

Traditional media Pamphlets, billboards, and TV advertisement

New dynamic media Social networking, mobile chat technology, internet and TV programming

Live events World Diabetes Day, the Diabetes Screening Bus, mobile clinics, screening and awareness events in schools, workplaces, mosques, malls, cinemas and community centers

Influential people Family, friends, patients and other influential community members

The most important ... is awareness. First ... we should start by the students in schools. We should teach them to do sports and watch what they are eating

*Patient quote
SCH (2015-3)*

Strategic Pillar 1:

b. Prevention

Diabetes develops gradually over a long period of time during which the people may have “pre-diabetes” or “diabetes without symptoms”. An effective prevention program shall identify the “undiagnosed” people with diabetes and those who are at a high risk for diabetes development “pre-diabetes”.

It is estimated that about a quarter to a third of people who have diabetes are not aware of their disease and are not being treated; and if treated they would be protected from the devastating complications of diabetes. It is also estimated that about one out of six adult individuals have pre-diabetes, who if managed well, through lifestyle modification and/or medication, would be protected from the disease.

Through this pillar the strategy will...

Introduce a national screening drive to achieve the right care for every person. It is estimated that The national screening program screening could prevent over 500,000 nationals and long-term residents from diabetes (Census, 2010).

Screening will be used to identify the size and needs of: the apparently healthy public; those at risk (people who are overweight, obese, pregnant or those with a family history of diabetes); people who are pre-diabetic and people with undiagnosed and therefore untreated diabetes. In the future, screening will be:

- part of routine health check-ups by all healthcare professionals
- carried out at diabetes events, wellness centers, malls, mosques, workplaces, schools, primary care centers, and diabetes clinics throughout the country
- introduced into other processes including the immigration process, university enrollment procedures, registration for health insurance, dental check-ups and possibly school admissions.

- Through screening, we will direct people through the healthcare services to ensure they receive the **right care** at the **right place**, at the **right time** and from the **right healthcare professionals**. In the future:
- People who are considered high-risk will be referred to wellness programs and prevention counseling in a community setting
 - People who have been recently screened and diagnosed as having pre-diabetes or diabetes will receive diabetes education and care in a primary care setting
 - People with uncontrolled diabetes or those who are at risk of developing complications will be referred to the secondary level of diabetes care



Figure 2: the four key components of the future model of care

- Develop an electronic and accessible diabetes registry** to compile information and monitor all at-risk people, people who are pre-diabetic and people with diabetes, to ensure they receive the right support.

**What this means
for patients and
the public**



"I will be able to find understandable and clear information in a way that I find easiest and most convenient."

"I would have been screened and therefore know, if I am at risk and what I need to do to keep healthy."



Strategic Pillar 2: Patient empowerment

For effective treatment of diabetes, patients must be empowered to self-manage. Data shows that patients who become engaged in the management of their own disease achieve better health and are better protected from the complications of diabetes. In contrast, patients who are not empowered to self-manage (i.e. to adjust their own medications, meals and physical activities) tend to experience more emergency conditions or more severe complications of the disease.

A range of educational programs for patient education and empowerment have been piloted across Qatar. These patient education and empowerment efforts are delivered via programs, educational materials and patient self-management education led by individual facilities.

However an in-depth patient survey (SCH, 2015-3) revealed that when initially diagnosed:

38% of patients reported that they received too little information

only **16%** received annual appointment and check-up plans

only **15%** received a healthcare checklist

only **14%** received information on what to expect

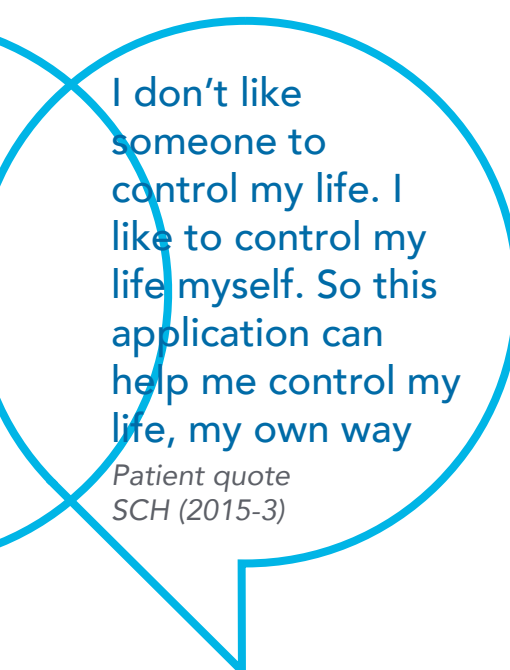
In addition, it was found that there is an appetite from the population to use technology as an educational and self-care tool:

89% of people would like reminders sent to their phones

74% would use a specific app to access diabetes information if it was available

69% would like to monitor their health electronically

52% would like to be able to text or email their doctors



I don't like someone to control my life. I like to control my life myself. So this application can help me control my life, my own way

Patient quote
SCH (2015-3)

Through this pillar the strategy will...

Establish the education needs of specific groups of the population and develop a national educational curriculum so that we can ensure people are hearing the right messages depending on their circumstances. We will develop customized messages, specific points of intervention, and tailored educational courses taking place at the right frequency for each key patient group. Key patient groups will include:

- Children with Type 1 diabetes
- Adults with Type 1 diabetes
- Children with Type 2 diabetes
- People with recently diagnosed Type 2 diabetes
- People with Type 2 diabetes that are being treated and controlled
- People with complex or uncontrolled Type 2 diabetes
- People with Type 2 diabetes who are suffering from complications
- Caregivers, friends, and families of people with pre-diabetes and diabetes

Provide standardized education and self-care tool kits that provide consistent and accurate information to enable patients to manage their condition. Patients will understand when and why to act and will be able to manage their own appointments. Tools will be available electronically, and information from both patients and healthcare professionals will be accessible, allowing interaction and motivating adherence.

- **Take a multi-channel approach to education and empowerment** to educate effectively. Channels for education will include one-on-one sessions, camps, group sessions and live events. Educational events will be available in the community and at work and school environments.
- **Monitor the effectiveness of education programs and self-care initiatives.** We will measure the level of influence of each type of educator, the impact of the key messages and the value of the different educational channels to allow us to be assured that people's needs are being met.

What this means for a patient



"I will be supported and empowered to take control of my own health in a way that meets my specific needs and suits my lifestyle."

I care a lot about the schedule because I forget a lot. Summary would be so useful too

*Patient quote
SCH (2015-3)*



Strategic Pillar 3:

Care delivery

Diabetes is a progressive condition; management of newly-developed diabetes is very different from that of diabetes that has been established for many years. Management programs and required medications vary depending on the duration of the disease and the presence of complications.

Effective management requires cooperation between multiple health care professionals, including primary health care physicians, endocrinologists / diabetologists, diabetes educators, nutritionists, podiatrists, among others. Patients need to be directed to the most appropriate facility and health care professional for their own disease.

An in depth healthcare professional survey (SCH, 2015-4) revealed that healthcare professionals in Qatar face challenges in guiding patients to access the right care at the right place at the right time. Only 58% of facilities provide formal training to staff on internationally accredited guidelines.

Through this pillar the strategy will...

Introduce a new model of care with clear patient pathways. The new patient pathway will screen, educate, track and treat people with diabetes. All care delivery organizations will use the same processes so that people can experience consistent high-quality care in all facilities. Care and support will be delivered by an integrated care team:

- Family medicine, general practitioners and other non-diabetologists within primary care will carry out screening based on risk factors, diagnose diabetes based on national criteria and provide basic maintenance care and education. They will be able to make referrals to diabetes clinics and specialists for specialist care
- Endocrinologists and diabetologists in diabetes clinics and secondary care specialists will focus on the management of complex diabetes cases or those experiencing complications
- Community care and wellness centers may provide screening, annual tracking and supportive care through education, counseling and care coordination through non-clinically-trained resources

Information will be provided through influential channels to describe to the patients how to access to care and what standards to expect. Care will be coordinated through hotlines, central coordinators or through mobile apps.

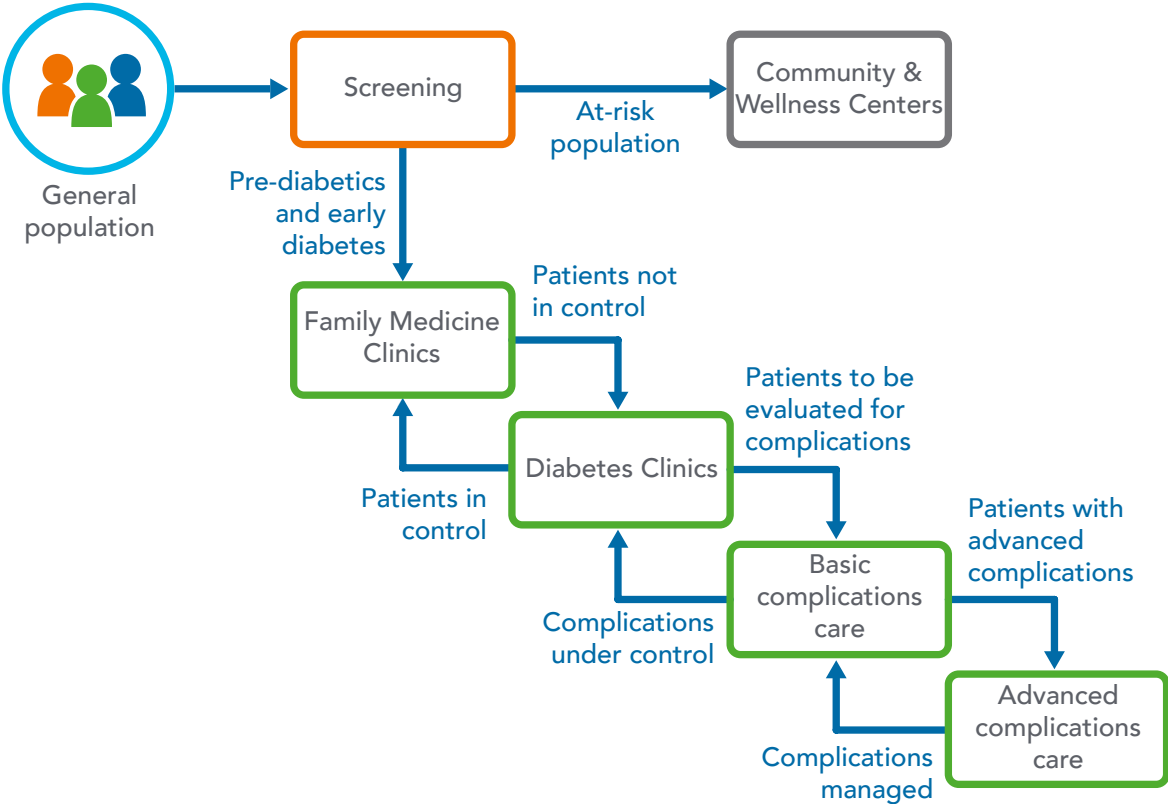


Figure 3: the future model of care

Appointments are very hard to get. It might take months to get an appointment with the doctor. If you want a special doctor you might need to wait for few months

Patient quote
SCH (2015-3)

Put in place an integrated team to deliver holistic and patient-centered care.

All healthcare professionals will be trained on the basics of diabetes education, screening, recording information and patient pathways. By 2022, most doctors, nurses, educators, and other healthcare professionals will check diabetes status as standard and will be able to offer screening immediately if required.

In addition, healthcare professionals in general will have better defined roles in diabetes specific care.

- **Primary care doctors** will carry out the initial treatment and maintenance of recently diagnosed or in-control diabetes patients. They will be focused on lifestyle interventions and therapy to prevent or slow disease progression
- **Specialist diabetes doctors** will focus on the more complex cases and will be responsible for prescribing therapy to manage diabetes and manage or prevent complications. Specialist doctors will also educate primary care doctors and nurses on how to handle complicated patient cases
- **Clinically trained nurses** and trained technicians will focus on ensuring annual diabetes care plans are followed and that progress and compliance are regularly reviewed
- **Educators** will facilitate patient empowerment, coach through lifestyle interventions, and help patients take full control of their health
- Educators will be supported by **community champions** who may be other patients, caregivers, social workers, or other non-clinical motivators

What this means for a patient



"I will know the best way of accessing support and will receive a consistently excellent service where ever I go by a professional I have confidence in."

"I will be supported to find my way to access all the care I need."

What this means for a healthcare professional



"I will be confident that I am giving my patients the right advice and support and will be supported by the infrastructure to deliver better care at all times."



Strategic Pillar 4:

Human capability and capacity building

Effective diabetes management requires a multi-disciplinary team involving multiple health care professionals, not just physicians. The role of the diabetes educator, the nutritionist and the podiatrist is as vital as that of the physician.

There are currently insufficient numbers of healthcare professionals trained in diabetes care and patient education to deliver our future diabetes services.

An in-depth healthcare professional survey (SCH, 2015-4, 2015-3) revealed that:

62% of facilities struggled to recruit appropriate levels of staff

46% of facilities reported they have no clear method of recruitment

Through this pillar the strategy will...

- Determine what the right workforce mix looks like.** We will explore where there are currently gaps in the workforce and determine which resources are required to fill those gaps.
- Recruit the right number and type of professionals.** We will establish a specific recruitment process to identify the skill and training requirements for both the current workforce and for newly recruited resources into the diabetes care team.

Partnerships with sourcing organizations will be established nationally to ensure that resources are accessible in a timely way to support the delivery of our care model.

By 2022, Qatar will have enough trained healthcare professionals, community champions, and lifestyle and healthcare counselors to meet the needs of the high-risk and patient populations.

Provide the right healthcare training locally to ensure that we are creating opportunities to develop our own workforce. We will do this through developing national diabetes education curriculums and programs for each type of healthcare professional and community champion required.

We will establish continuing education programs for physicians, nurses, pharmacists, and educators so that people can train to be diabetes experts within the country.

We will also include diabetes training within other curriculums to ensure it is an area that is well understood by all healthcare professionals and other professionals working with patients.

A support network will be built to mentor and coordinate the workforce through education and placement.

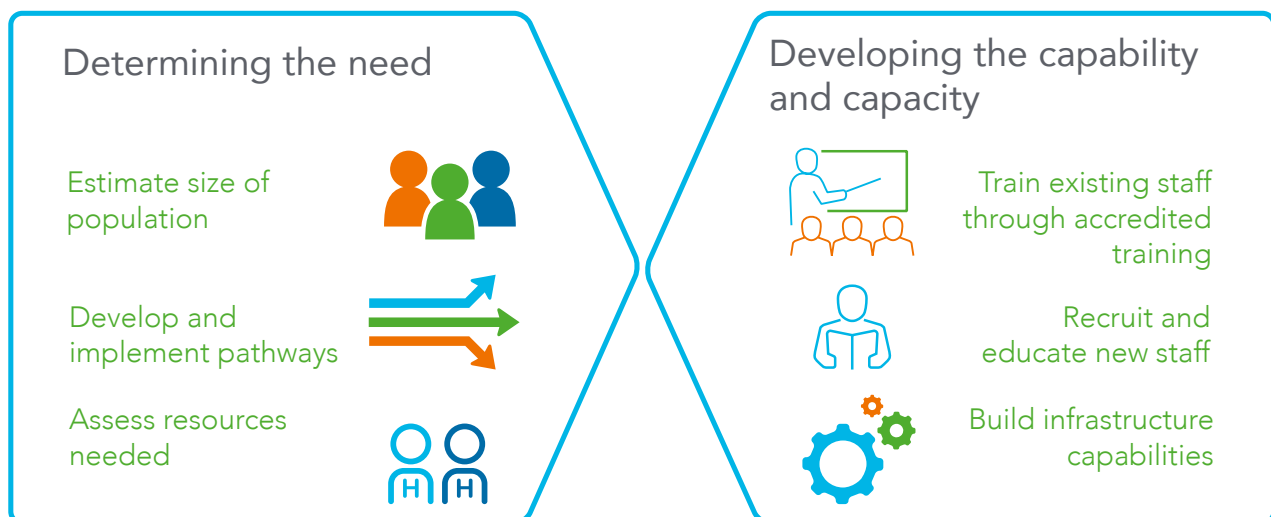


Figure 4: approach to develop the required workforce capability and capacity for the future state

- **Use our existing workforce more efficiently by working together and building coordination capabilities between facilities.** Coordination centers will be set up in some facilities, with staff specifically designated to coordinate care and communicate with patients. In addition, we will set up information hotlines and supporting technology, including websites, mobile apps, WhatsApp services and social media platforms.
- **Monitor how well we are achieving outcomes** to ensure that we are making a tangible impact on people's lives. Success indicators that we will monitor will include:
 - patients accessing the right care at the right place at the right time
 - healthcare professionals providing the right follow-up and referrals
 - patients receiving annual plans and adhering to them
 - healthcare professionals providing full health information, targets and self-management tools to patients
 - wait time, rescheduling frequency, efficiency, and completion time
 - effectiveness of regular reminders, communication frequency, attendance at counseling sessions and patient satisfaction with care and coordination

What this means for a patient



"All the healthcare professionals who take care of me will be able to fully answer my questions about diabetes."

"I will be able to access a diabetes specialist in a timely way when I need to."



Strategic Pillar 5:

Information management

Effective diabetes management may require patients to be followed by different healthcare professionals at different facilities and at different times. Sharing patient information will be key for coordinated care. Additionally, providing patients access to their own health information will support empowerment and self-care.

A number of information management systems have been piloted across Qatar. Currently, users depend on a range of systems to access diabetes information as there is no one place where all information is stored.

Healthcare professionals face various issues when accessing patient information. The public, patients and researchers do not generally have access to national diabetes information at all. An in depth patient and public survey (SCH, 2015-3) revealed that 53% of people would like online access to their health information.

Through this pillar the strategy will...

Establish a new model for information collection and integration. All relevant information collected through care delivery organizations, screening programs, diabetes registries, population data systems and research centers will be integrated into a central system and stored.

In the future we aim for wearables and other devices are to be adopted nationally, so that patients can continuously collect information, which will also feed into the central system. The central system will be able to adapt and integrate with new technology, enabling long term use.

Enable different user groups to connect to the system and access the wealth of information collected. Through the central information system, information will be accessible to healthcare professionals and researchers. In addition, the public will be able to access some of their own health information:

- Introduce user experience studies to gauge whether the system is simple, intuitive and engaging
- Pilot prototypes for portals, mobile apps, websites and user tools
- Define and collect key indicators that evidence success of the system

Put in place the tools needed to analyse diabetes information. Tools and functions will analyze information to provide trends in population health, effectiveness of diabetes education, utilization of care, workforce supply and demand, care coordination management and quality of care.

What this means for a patient



"I will only have to tell my story once."

"I will have access to an easy to use tool that will store all my health and treatment information in one place."

What this means for a healthcare professional



"I will be able to contact my patients directly and will understand where they are in their diabetes treatment pathway."

"I will be able to access my patient's information easily, regardless of which professional or organization gathered information initially."

What this means for a researcher



"I will be able to access Qatar-specific and comprehensive information to support robust and credible research."



Strategic Pillar 6:

Research

Research plays an important role for discovering the causation of the disease and therefore determining the best prevention and management programs. Research is a growing area in Qatar, and there are currently a range of small research pilots taking place across different organizations. Research in Qatar was explored through a healthcare professional and organization survey (SCH, 2015-4) which revealed that many healthcare professionals face barriers when approaching diabetes research initiatives.

Only **38%** of organizations have clear incentives in place for researchers

Only **25%** of healthcare professionals have access to the right infrastructure to enable research

38% of healthcare professionals stated that there is a high administrative barrier blocking them from pursuing research

50% of healthcare professionals stated that there was difficulty in accessing funding for diabetes research

However **63%** of organizations stated that they plan to improve their research infrastructure, illustrating that a need to change is recognized

Through this pillar the strategy will...

- Integrate and connect data to support research.** To enable quality research, diabetes data from multiple sources will be collated and made easily accessible to researchers. This research platform will be made available for both national and international consortia of collaborating researchers will enable analysis of anonymized patient data for clinical research.
- Introduce key national research areas within the National Research Agenda.** A total of 57 areas of data capture are defined in the proposed National Research Agenda to specifically address Qatar's research needs.
- Establish a robust governance process for developing and driving the research agenda.** The Research (RE) implementation team will be responsible for establishing the National Diabetes Research Committee as the governing body for diabetes research.

In collaboration with the Qatar National Research Fund (QNRF), the National Diabetes Research Committee will set and govern the policies and standards for research. The funding from QNRF will drive the research agenda set by the National Diabetes Strategy. Qatar will set specific independent funding to support key strategic areas for research.

The research agenda will include defined processes covering patient applications for clinical research programs and patient consent, and a defined review and approval processes for research requests. Established processes for all aspects of research, including guidelines on carrying out collaborative projects across different organizations and clear working procedures for private initiatives or external partnerships will be introduced to ensure consistency, quality and coordination.

What this means for the public or a patient



"I know that diabetes research in Qatar will be focused on the areas that matter to me."

What this means for a healthcare professional



"I will be able to work collaboratively with professionals from other organizations, and access a wealth of Qatar-specific diabetes data."

What this means for a researcher



"There will be a clear process in place to apply for research funding, and broad research agendas set to guide my interest."

Implementing the strategy

What the strategy will achieve

■ Qatar's National Diabetes Strategy is built around a set of strategic goals, which are to:

- increase public awareness and improve patient empowerment
- prevent occurrence and delay disease progression
- deliver high quality diabetes care
- develop an information technology and diabetes research program

■ The strategy will be implemented at pace in order to see rapid improvements in health outcomes as soon as possible. A set of **early gains** will be achieved by 2018.

- Establish Strategy Implementation Team
- Set the national agenda for awareness and prevention
- Set the national curriculum for patient empowerment
- Define clinical guidelines and pathways
- Develop the Diabetes National Research Agenda
- Develop and start to deliver diabetes-specific continuing medical education
- Commence training on guidelines and pathways for healthcare professionals

Prepare and launch a national screening program in 2018

A set of **medium** term goals will be achieved by 2020:

By 2019	we will launch a national screening program through which all target adult populations will be screened for diabetes by 2020
By 2020	all healthcare professionals will receive continuing education in diabetes care
By 2022	all screened at-risk population and patients will be offered an annual health plan

- Through the implementation of this strategy, we will decrease the incidence of diabetes and complications resulting in better health and quality of life by 2022.
- The implementation roadmap illustrates the timeline, key activities and milestones required to implement the strategy over the next seven years (see Annex 1 for implementation roadmap).

How the strategy will be implemented

The National Diabetes Committee was established in 2013 to oversee the development and implementation of Qatar’s National Diabetes Strategy 2016-2022, supported by a number of teams.



Indicative costings for the implementation of the strategy have been developed through analysis (as detailed in Annex 2).

A set of indicative key performance indicators (KPIs) have been developed to illustrate proposed success measures. These will be monitored throughout the delivery of the strategy and beyond. A full set of performance measures will be developed through the next phase of this program.

This strategy forms part of Qatar’s overarching National Health Strategy. Deliverables within Qatar’s National Diabetes Strategy are closely aligned to wider NHS projects as described in Annex 2.

Conclusion

We believe that the people of Qatar need and deserve the highest quality and person-centered services. As diabetes presents a growing challenge for people's health and wellbeing, rapid and urgent action needs to be taken to address this.

Qatar's National Diabetes Strategy sets out a robust program of change to support us to achieve our future vision of preventing diabetes together

Implementing this strategy does not only rely on strong leadership, clinical oversight and the right resources to support the implementation. We are also putting our faith in the dedication and energy of the people of Qatar to support this transformational program to significantly prevent diabetes and its complications, and improve health and quality of life in the State of Qatar.

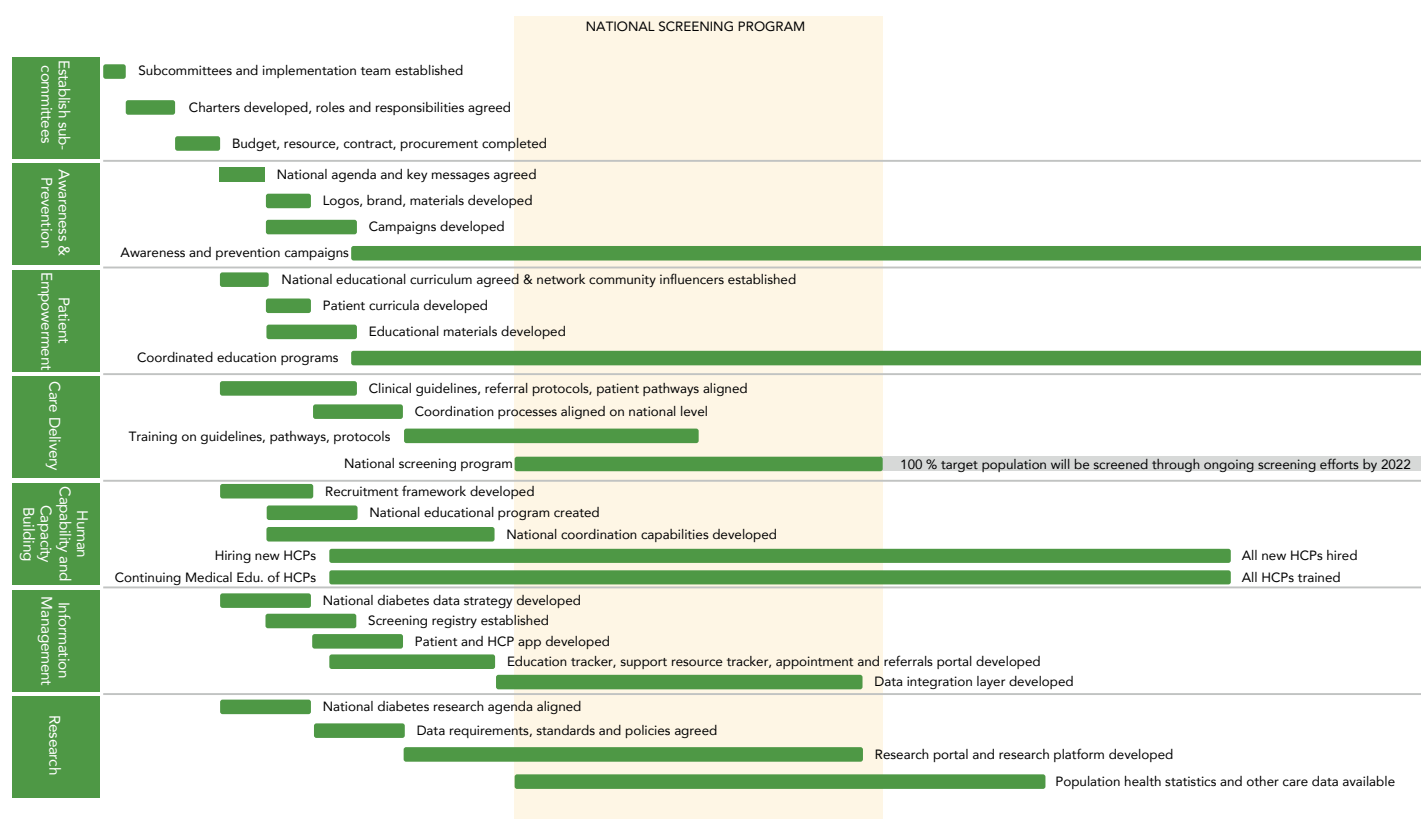
We believe that with the support of the people of Qatar, this ambitious strategy has every chance of success.

Annexes

- Annex 1: Implementation roadmap
- Annex 2: Alignment with other NHS projects
- Annex 3: Acknowledgements
- Annex 4: References

Annex 1: Implementation roadmap

The implementation roadmap illustrates the timeline, key activities and milestones required to implement the strategy over the next seven years.



Annex 2: Alignment with other NHS projects

Deliverables within Qatar's National Diabetes Strategy are closely aligned to wider NHS projects as described in the table below.

A. Diabetes deliverables to precede other NHS project deliverables

- | | |
|---|---|
| <p>1.3 Continuing Care Design
Diabetes to precede pilot of wellness center</p> <p>3.6 National Screening Program
Diabetes, cancer and mental health project to precede national framework</p> <p>4.1 National Workforce Planning
Diabetes project to precede national framework with resource and training needs</p> | <p>6.4 Healthcare Infrastructure Master Plan
Diabetes project will precede pilot for care coordinator</p> <p>2.6 Laboratory Integration and Standardization
Diabetes project to precede resource needs for national screening program</p> |
|---|---|

B. Diabetes deliverables to be assigned to other NHS projects

- | | |
|--|--|
| <p>2.1 Clinical Guidelines
Need to prioritize diabetes and finish by Oct 2016(does not include referral protocol)</p> <p>2.3 e-Health
Data integration layer to be completed by 2019(does not include front-end portals/dashboards/apps)</p> | <p>3.1 Public Health Strategy
Will provide the channels to deliver awareness and prevention messages</p> <p>3.2 Nutrition & Physical Activity</p> <p>7.1 Health Research Governance
QNRF/QNRS developed by 2018</p> |
|--|--|

C. Diabetes deliverables in place by 2016

- | | |
|---|--|
| <p>3.3 Tobacco Cessation
Action plan in place</p> <p>4.2 Design career pathways and ladders
HMC nurse career pathway - Designed and implemented.
PHCC nurse pathway - Ongoing</p> | <p>4.3 Health education plan for National curriculum in Qatar, scholarships abroad and future courses needed</p> <p>5.2 CME/CNE requirements Framework in place</p> <p>6.1 Performance based budgeting Collect diabetes KPIs and targets for performance monitoring</p> |
|---|--|

D. Diabetes deliverables expected to be taken on by other organizations

- | | |
|--|---|
| <p>6.2 Management of Treatment Abroad
Facilities sufficient to serve current patient population</p> <p>SEHA Annual Health Check by end 2017
Diabetes project to recommend adding HbA1c, BP, BMI to annual health check</p> | <p>SEHA Accountable Care and payments
Include outcomes and all healthcare professionals</p> <p>Educating of patient advocates and community champion by QDA
Diabetes project to assign budget for establishing patient advocacy network</p> |
|--|---|

Annex 3: Acknowledgments and contributions

■ We would also like to extend our thanks to the people of Qatar for their input and support through the development of this strategy. Stakeholder engagement consisted of the following:

- 30 interviews with diabetes-specific healthcare professionals
- 21 interviews with stakeholders in senior management positions
- Options analysis workshops, January 2015 (involving 35 attendees)
- Vision workshop, February 2015 (involving 29 attendees)
- Healthcare professional engagement event, April 2015 (involving 66 attendees)
- Patient engagement events, March and April 2015 (86 patients involved)

Annex 4: References

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SCH (2015 - 3)	'Understanding Diabetes in Qatar, Diabetes Patients Research Findings', Qatar Supreme Council of Health, 2015
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SCH (2015 - 5)	'Understanding Diabetes in Qatar', Qatar Supreme Council of Health, 2015
SCH (2015 - 6)	Strategy Implementation Framework, Qatar Supreme Council of Health, 2015
SCH (2015 - 7)	International Best Practice Report, Qatar Supreme Council of Health, 2015
SCH (2015 - 8)	HCP Engagement Event for Developing National Diabetes Strategy for Qatar, April 2, 2015; Qatar Supreme Council of Health, 2015
WHO (2010)	WHO Non-communicable Disease Action Plan, 2013

Send reminders to connect to patients to motivate them

CARE COORDINATOR

WORK

MOSQUE

SCHOOL

COMMUNITY CENTRE

INFLUENCERS

EMPOWER PATIENTS TO TAKE ACTION

An annual plan, diabetes goals and health trackers help patients and doctors manage diabetes

Enable Change

EMPOWERMENT

OUTCOMES

RISKS

PREVENTION

Motivate Action

AWARENESS

Understand prevention, risks and outcomes

Many Channels one message

Public

SETTING DIABETES GOALS

HEALTH STATUS

ANNUAL DIABETES PLAN

JAN-DEC

NATIONAL DIABETES STRATEGY

ASSESSMENT

ANALYSIS

REPORT

INFORM STRATEGY

PREVENTION CAMPAIGN

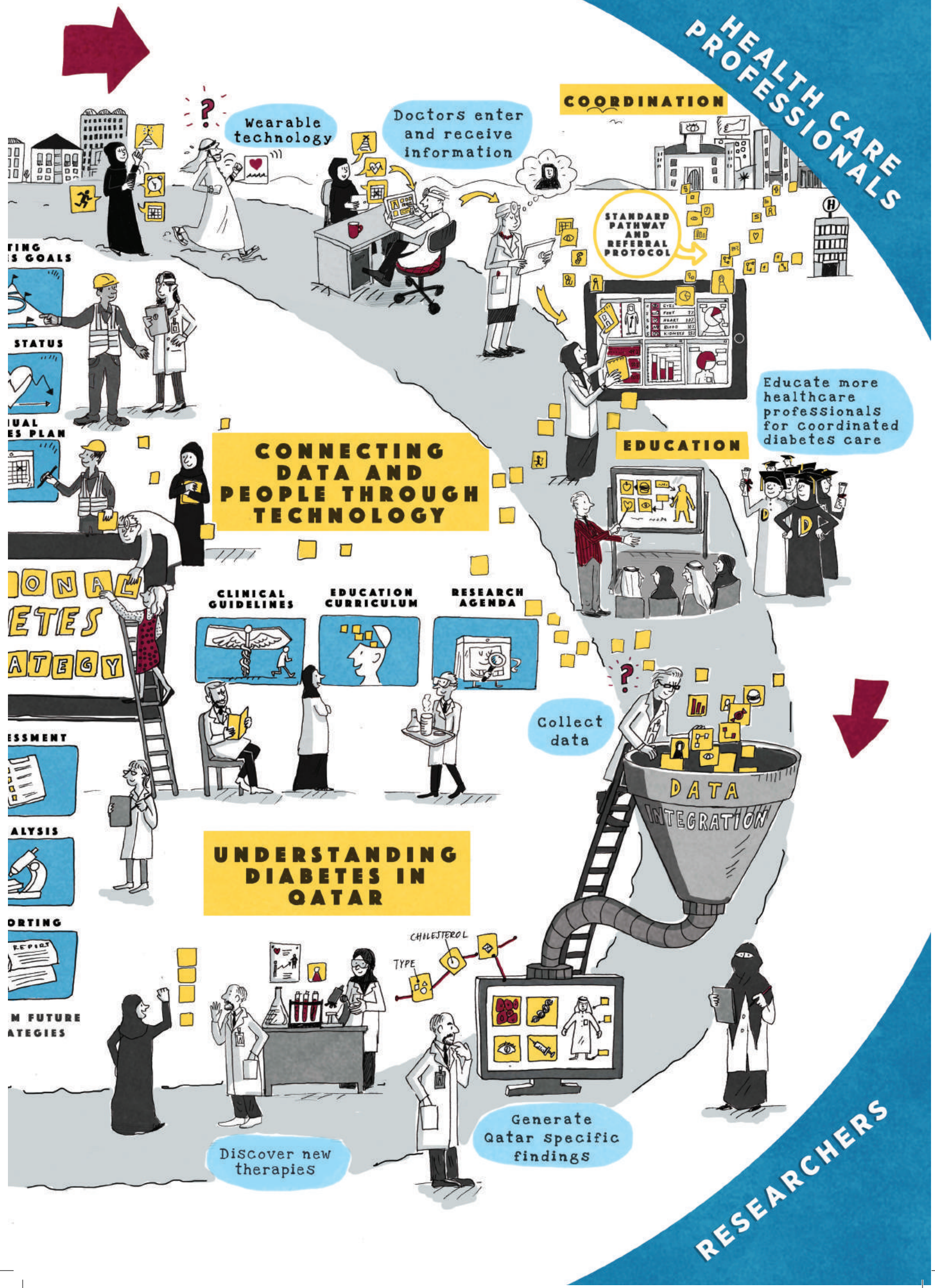
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AWARENESS CAMPAIGN

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