

Population Health Profiling

2021



FOREWORD

Greetings !

Primary Health Care Corporation (PHCC) published its 5-year Corporate Strategic Plan (CSP) in 2019, outlining its priorities and aspirations for the next five years. This was an important step in the Corporations' development, and it serves as a promise to the people of Qatar and our client population to continue to strive to be better.

PHCC conducted the first health needs assessment (HNA) for its registered population in 2020 encompassing quantitative and qualitative components. The findings demonstrated that the prevalence of non-communicable diseases and their subsequent risk factors and communicable diseases notifications varied across the three regions that the primary health care centers are geographically distributed in. It provided an understanding of PHCC target population perception of the services provided by PHCC and push and pull factors for seeking the provided services. Hence, understanding the patterns of diseases in the local population and their perception of the services provided by PHCC enabled PHCC to set clear objectives to work towards improving the health conditions of its target population.

In 2021, PHCC conducted a second health needs assessment expanding on the above and further examining new conditions and risk factors such as Cancer prevalence; COPD & Asthma; and childhood obesity.

As we approach the end of PHCCs current strategic plan and in preparation for developing a new evidence-based strategy deriving from better understanding of the population health needs and assessing their health demands, PHCC conducted a new comprehensive Health Needs Assessment.

This report will inform decisions and act as a guiding tool for preparing a comprehensive evidence based new PHCC corporate strategic plan. It will assist the organization in identifying issues of greatest concern allowing us to then make decisions to commit resources to those areas, thereby making the greatest possible impact on health outcomes for our community.

I hope you will find the information presented in this report valuable and informative.



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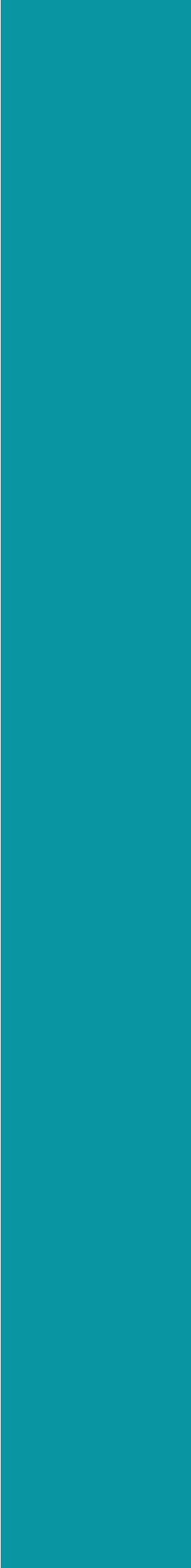

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INTRODUCTION

INTRODUCTION

Qatar has a dynamic population. In 2019, it was reported that within the total population of 2,666,938 (August 2019) (1) there were ninety-four different nationalities residing in Qatar, with 10% of the population being Qatari (2). Qatar's expat population is fluid. This can make planning for services such as health care challenging, however much of Qatar's strategic focus is on the local population as the long-term residents of the country and where the greatest impact on health spend and future planning can be made.

Population growth has been at a steady incline due to the number of projects requiring manpower leading up to the World Cup 2022. However, projections beyond 2022 show a significant drop in population numbers following the World Cup. Between 2022 and 2027 it is predicted that the population numbers will reduce by approximately 20% (1).

Qatar's socio-economic profile is difficult to evidence due to lack of data on rates of employment and

average income. However according to the National Qatar Health Report, 99% of males and females aged 15 to 24 were literate and the overall net primary school enrolment was ninety-four per 100 school aged children, both male and female (3) (4).

The recent demographic and epidemiological data demonstrates that populations tend to live longer and with higher disease burden worldwide (5). The Sustainable Development Goals (SDG) set out by the United Nations General Assembly in 2015 to be achieved by the year 2030, outline several initiatives, one of which aims to address health inequalities across the globe. SDG 3: Good Health and Wellbeing seeks to ensure healthy lives and promote well-being for all at all ages (6).

Qatar has already made significant progress in contributing to SDG 3 through the delivery of its first National Health Strategy (2011-2016) and the National Primary Health Care Strategy (2013-2018).



The NPHCS 2013-2018 has made further contributions to ensuring infant and maternal mortality rates are kept low including the establishment of Well Baby clinics which consist of regular checks ups, vaccination campaigns, health education and awareness raising programs. Maternal health has also been improved through the implementation of a Well Woman clinic including antenatal and post-natal care services (7).

Qatar's Second National Development Strategy (2017-2022) is expected to focus on healthcare, one of eight priority sectors which will be integrated into sector projects, including the delivery of its newest National Health Strategy 2018-2022 which has a strong focus on primary care as the gateway to all other health care services.

The nationally led programs to establish Integrated Care across the health sector will make great strides in ensuring patients with chronic disease and multiple NCDs will experience a greater coordination of care and better patient outcomes (7).

Primary Health Care Corporation (PHCC), the main primary care provider in Qatar is serving 1.6 million individuals throughout a network of twenty-eight primary health care centres covering the country in three main regions- northern, central, and western (8). The services range from preventive services such as disease screening, immunization, and lifestyle counselling to therapeutic services for long-term conditions, antenatal, and urgent care for all age groups. In addition to that, PHCC provides general dental services, pharmacy, and laboratory services. (9)

In 2020, PHCC conducted the first health needs assessment (HNA) for its registered population that encompassed quantitative and qualitative components. The quantitative part included data for all PHCC registered population with a valid Health Card between the 1st of September 2018 and the 31st of August 2019. The findings of HNA 2019 demonstrated that the prevalence of noncommunicable diseases and their subsequent risk factors and communicable diseases notifications varied across the three regions that the primary health care centers are geographically distributed in (10).

Additionally, it provided an understanding of PHCC target population perception of the services provided by PHCC and push and pull factors for seeking the provided services. Hence, understanding the patterns of diseases in the local population and their perception of the services provided by PHCC will enable the Primary Health Care Corporation to provide a clear set of objectives to work towards improving the health conditions of its target population (11).

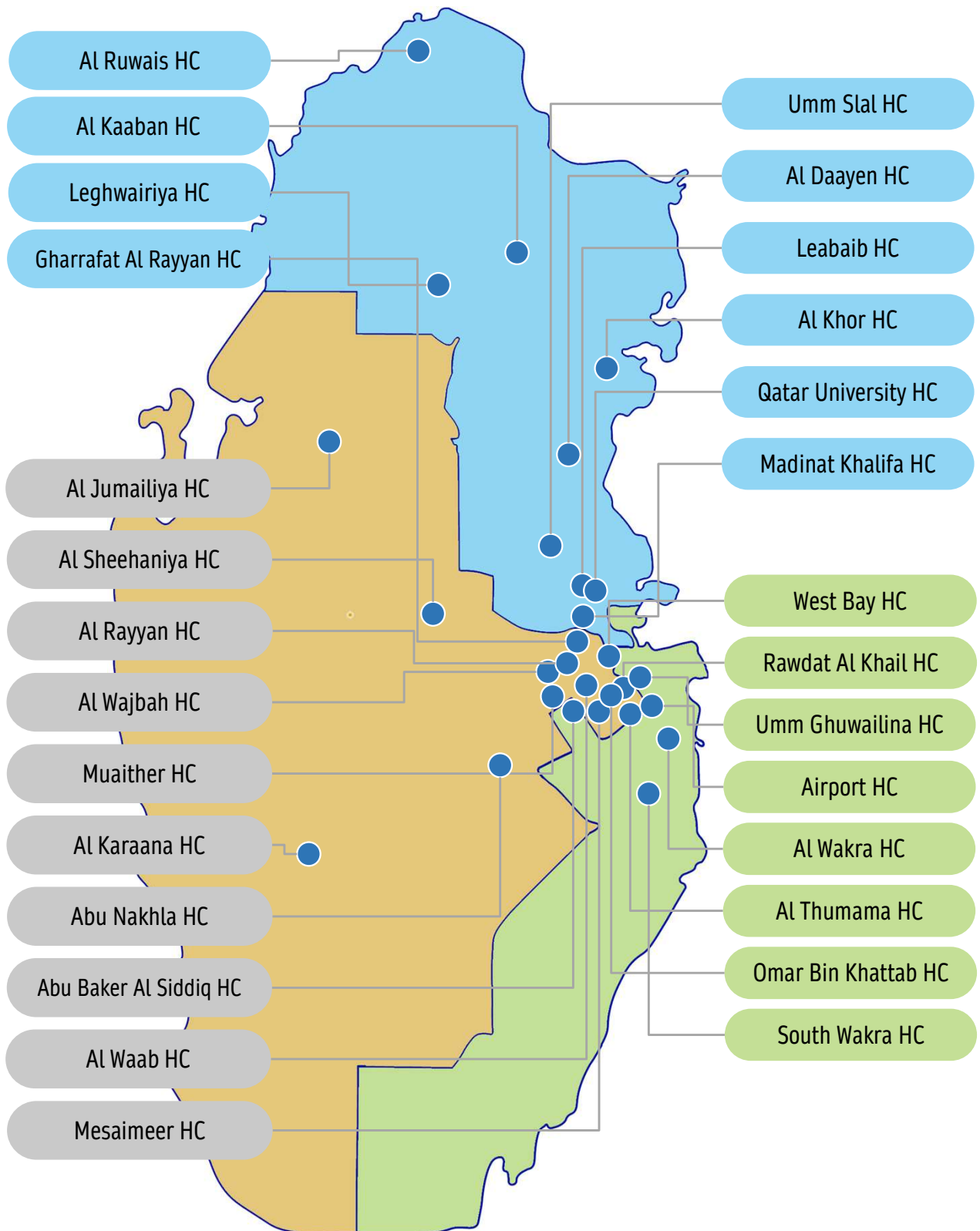
In 2021, PHCC conducted a second HNA for all PHCC registered population with a valid Health Card between 1st of January 2020 and 31st of December 2020.

The HNA 2020 was restrictive to the quantitative component and adopted the same quantitative methodology of the first HNA. The HNA 2020 examined new conditions and risk factors such as cancer prevalence, COPD & Asthma, and childhood obesity.

Primary Health Care Corporation current strategic plan will end in 2023. The preparation to develop a new strategic plan will commence at the end of 2022. In order to develop an evidence-based strategy deriving from better understanding of the population health needs and assessing their health demands, in addition to considering their perception of the current services provision, PHCC will conduct a comprehensive HNA covering all these elements to be utilized as a guiding tool for developing a comprehensive evidence based new PHCC corporate strategic plan.

The Health Needs Assessment (HNA) - Population Health Profiling aims at providing a better epidemiological understanding of PHCC targeted population health status and burden of diseases. The HNA - Population Health Profiling plays an integral part in the overall planning cycle, informing both strategic planning process and future investment decisions. The insight provided by the HNA will enable PHCC to better plan future health services and health programmes to ensure the best health outcomes for all the people in the State of Qatar.

PHCC REGIONS AND HEALTH CENTERS



Nb: This map is only for representational purpose and not to scale

Central Region	8	Northern Region	10	Western Region	10
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Three new health centres - Al Mashaf, Umm Al Seneem and Al Sadd - are scheduled to be functional in 2022-23



OBJECTIVES

OBJECTIVES

1. Provide up-to-date information for assessing the situation of children and women
2. Assess the prevalence of chronic non-communicable diseases among the population registered at primary health care facility across Qatar.
3. Provide up-to-date information for assessing the modifiable behavioral risk factors and the metabolic risk factors for developing chronic non-communicable
4. Assessing key biomarkers levels (TSH, Vitamin D) among PHCC registered population
5. Assess the prevalence of depression and anxiety
6. Document the incidence of communicable diseases
7. Understand the impact of PHCC registered population on the services utilization





METHODS

METHODS

An epidemiological assessment was conducted applying cross-sectional approach in which the participants were observed once. The latter approach allows analyzing data from the population or representative sample of the population to provide information on the prevalence of diseases or conditions among the studied population.

Target population

The target population is all persons residing in Qatar and registered at PHCC.

Inclusion criteria

All PHCC registered population with a valid Health Card between 1st of January 2020 and 31st of December 2020.

Exclusion criteria

Registered PHCC patients with expired Qatar residence permit by the 31st of December 2021.

Data collection

Data was extracted electronically from Cerner for all PHCC registered population as of 31st of December 2021 irrespective of their health centers.

The data extraction included all the available information on the non-communicable diseases (diabetes, hypertension, dyslipidemia, depression, and anxiety) for PHCC registered patients as of 31st of December 2021.

Data on Metabolic and behavior risk factors (tobacco consumption, BMI, Lipid profile, and Glucose profile); and the communicable diseases notifications were extracted for all the registered population as of 31st of December 2021 but based on their last visit in the last 12 months (1st of Jan-31st of Dec 2021)

Breast feeding practices, and the z- score for weight-for-age and BMI-for-age was captured during the well-baby clinics visits between the 1st of Jan to 31st of Dec 2021. Data on the clinics' visit demand and diagnoses was extracted for all the visits for PHCC's health centers between the 1st of Jan and 31st of December 2021.

Data Analysis

Descriptive analysis using STATA 14 was applied to calculate proportion of diseases and condition against their target population.

The burden of non-communicable diseases (diabetes, hypertension, dyslipidemia, cancer, Asthma and COPD, depression, and anxiety) was assessed by using the diagnosis field excluding gestational diabetes and hypertension divided by population at risk (population aged 18+).

Metabolic and behavior risk factors, and other biomarkers (TSH, Vitamin D) was assessed by using the latest available value captured in the system between 1st of January 2021 and 31st of December 2021 for the whole of PHCC registered population.

Breastfeeding practices were evaluated based on the mothers' responses to the breastfeeding embedded questionnaire in CERNER at their visits to the well-baby clinics at 4 months and 6 months of the infant's age.

Childhood obesity was assessed based on the Z-score weight for age and BMI for age captured in the system based on the last available visit between the 1st of Jan and 31st of Dec 2021. Obesity for children and adolescent aged 5-19 was identified by body mass index (BMI) > 2 standard deviations above the WHO growth standard median. (12)

The top communicable diseases notifications were reported by their number, their percentage of the total notification, and by their incidence per ten thousand to their respective target population age-group and nationality.

The results were provided as per the total registered population at PHCC health centers inclusive of all the geographical regions and as per the three geographical regions that PHCC health centers are distributed to accordingly.

For impact of registered population on the services utilization analysis, the yearly all-cause of health

centers visits in person and virtual between the 1st of January 2019 and the 31st of December 2021 have been analyzed.

The services utilizations were categorized into three main groups PHCC business as usual services, and COVID-19 related services, and the virtual/telemedicine services that were introduced due to COVID-19. The COVID-19 services at PHCC were focused on COVID-19 testing and vaccination services. PHCC business as usual services were categorised into primary care core services (family medicine, dental services, maternal services); preventative services (well-baby/immunization services, wellness services, smoking cessation, NCD annual health check called SMART check, colorectal cancer screening, and breast cancer screening); additional services (home care, ophthalmology, ENT, dermatology, pharmacy, and laboratory services). In the analysis we presented the volume of virtual and in person visits.

The comparison of the services utilization were conducted using the utilization figures of PHCC business as usual services between 1st of January and 31st of December 2019 as a reference year and then calculated the absolute difference in the utilization figures per service between 1st of January and 31st of December for 2020 and 2021, respectively.

The percentages of services utilization change were calculated using the 2019 utilization figures as a reference year per service for all the services in 2020 and 2021.





DEMOGRAPHY

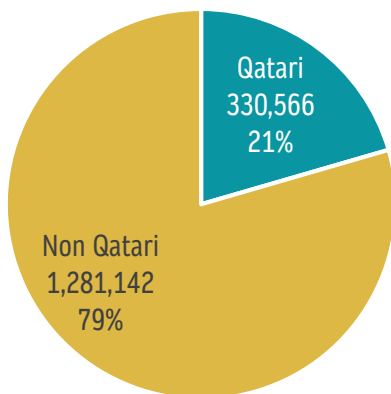
DEMOGRAPHICS

1,611,708
TOTAL REGISTERED PATIENTS

The total population registered at primary health care corporation health center excluding the deceased and the persons with expired residency permit on the 31st of December 2021 point in time was 1,611,708 persons

Distribution by sex

The registered population includes 834,773 (52%) males and 776,935 (48%) females.

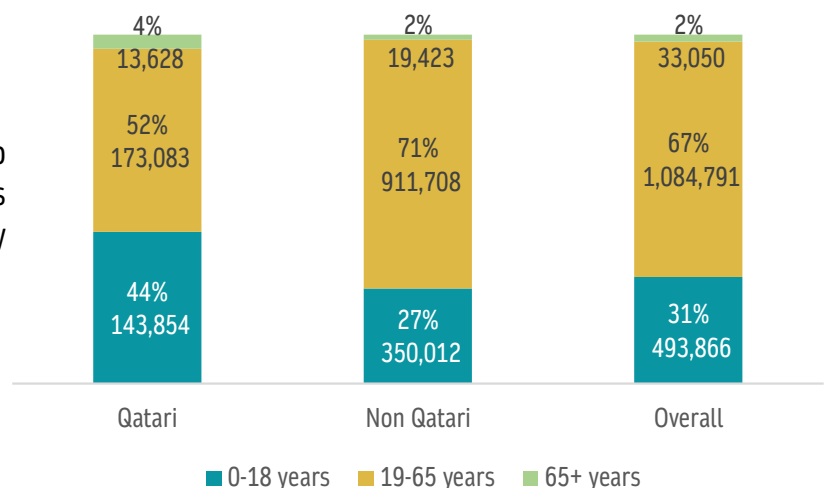


Distribution by nationality

The registered population consisted of 330,566 Qatari and 1,281,142 non-Qatari corresponding to 25.5% and 79.5%, respectively.

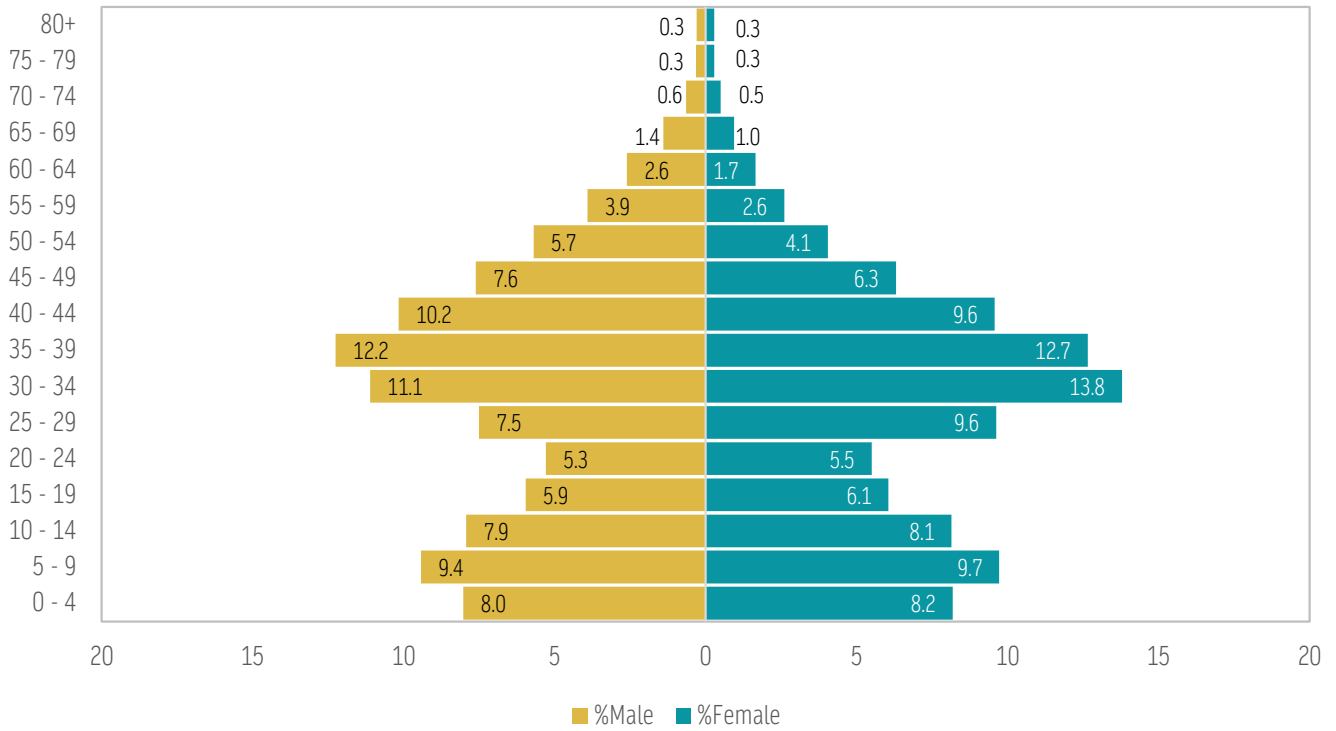
Distribution by age

The registered population was divided into three main groups 0-18, 19-65, and 65+ years to be in-line with Qatar national health strategy age group classification.

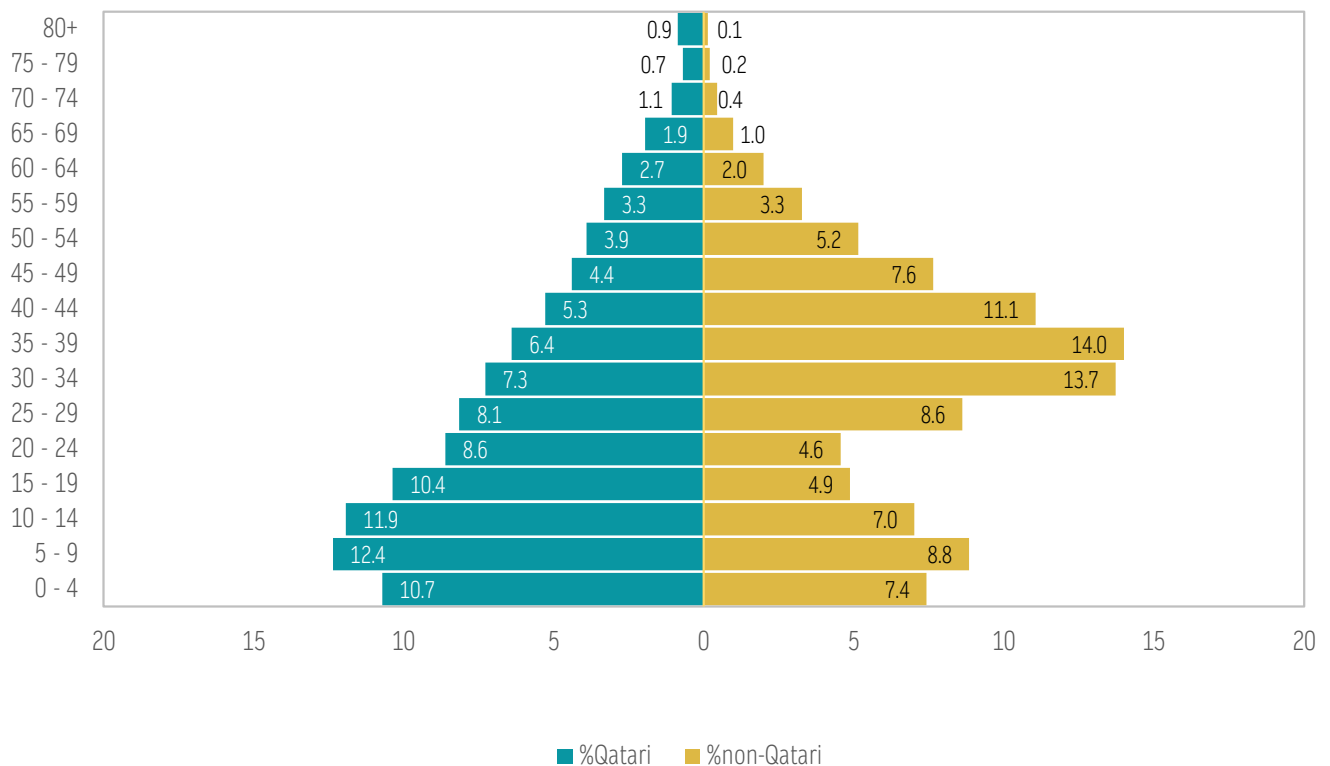


Population pyramid

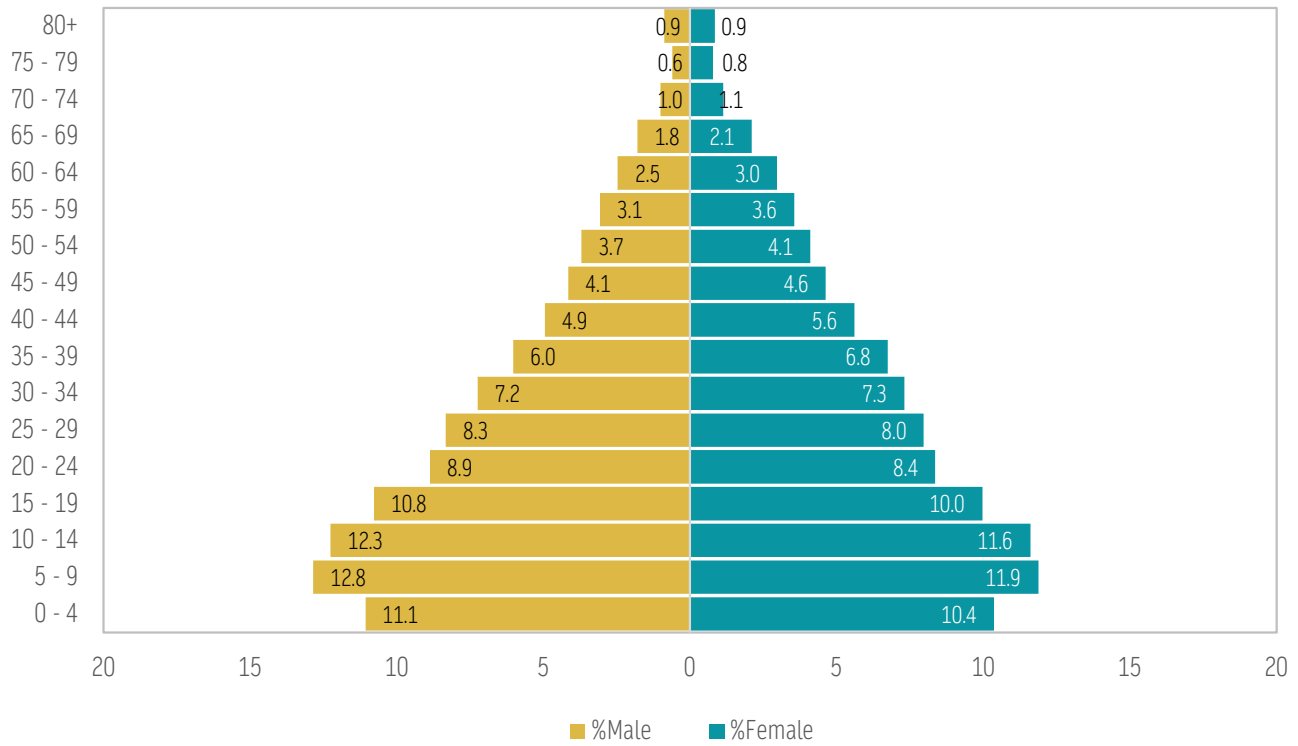
PHCC registered population pyramid by sex



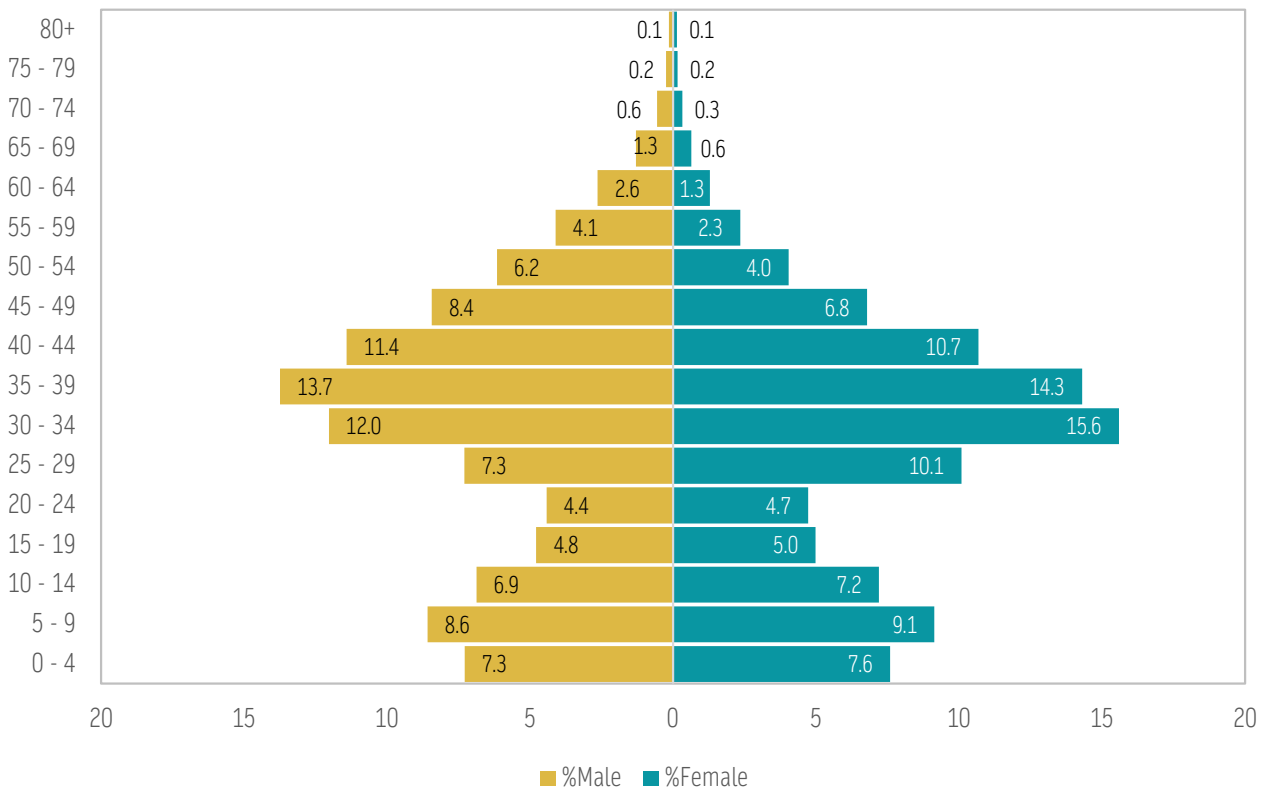
PHCC registered population pyramid by nationality



PHCC registered population pyramid by sex- Qatari population



PHCC registered population pyramid by sex- Non Qatari population



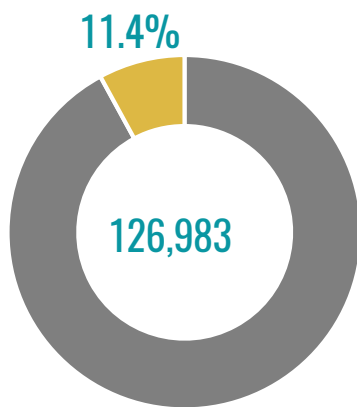


BURDEN OF NON-COMMUNICABLE DISEASES

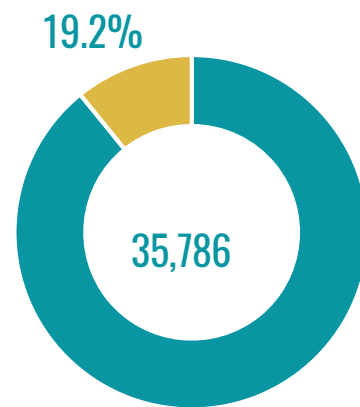
TYPE 2 DIABETES



The prevalence of type 2 diabetes among all PHCC registered population was 11.4% with the highest rate among Qataris at 19.4%.



All Registered Population



Qatari Population

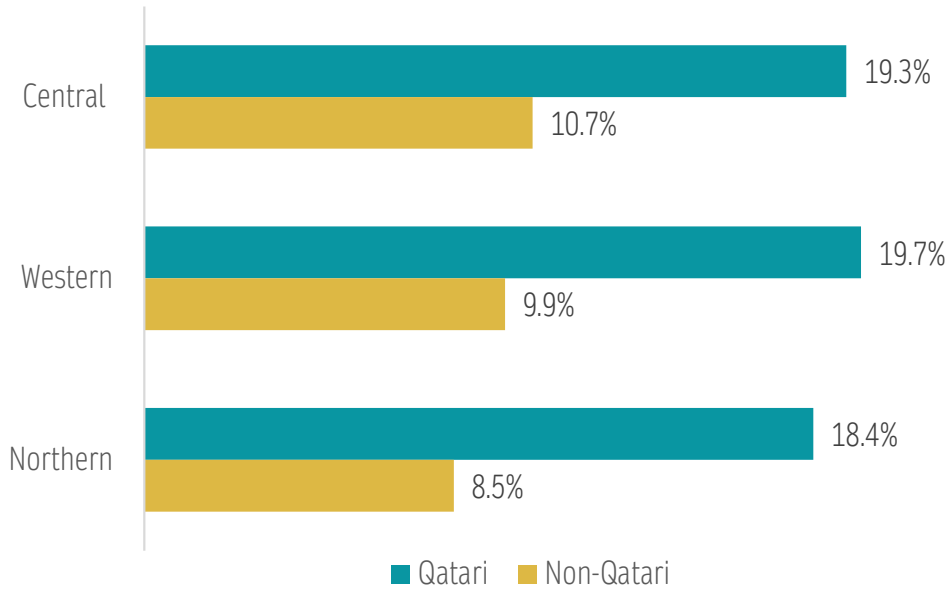
A total number of 126,983 persons (75,605 male, 51,378 female) aged 18+ years were diagnosed with type 2 diabetes excluding gestational diabetes among all PHCC registered population of whom 35,786 were Qataris (15,726 male, 20,060 female) and 91,197 were non-Qataris (59,879 male, 31,318 female).

Prevalence of Type 2 Diabetes among PHCC registered population

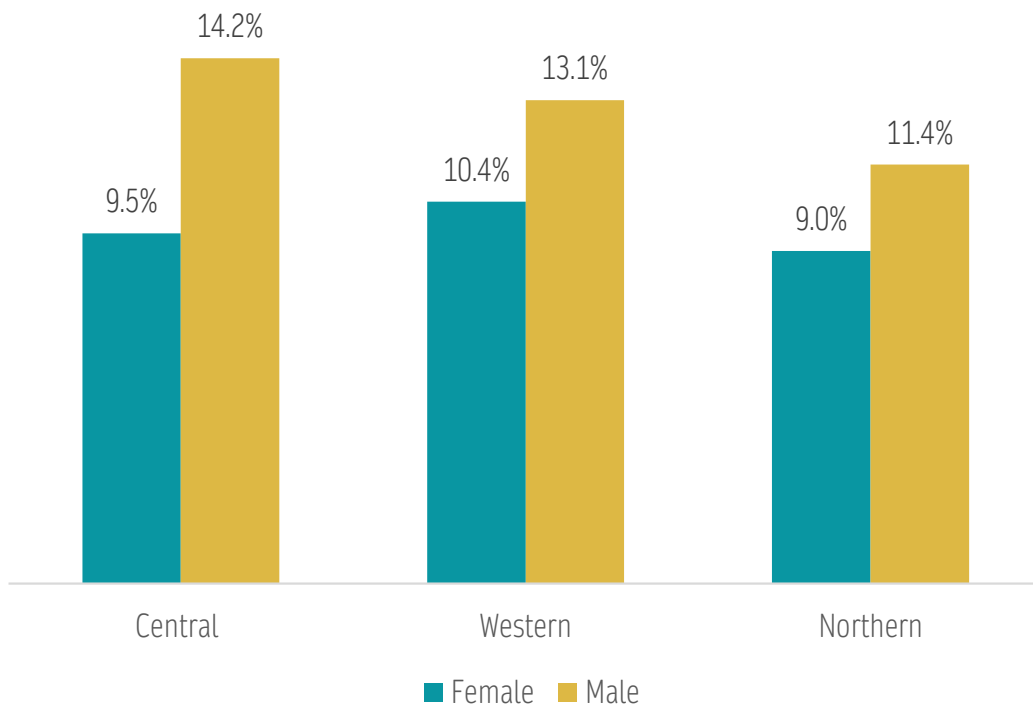
	Both sexes	Female	Male
All nationalities	126,983 (11.4%)	51,378 (9.6%)	75,605 (13.0%)
Qatari	35,786 (19.2%)	20,060 (20.6%)	15,726 (17.6%)
Non-Qatari	91,197 (9.8%)	31,318 (7.2%)	59,879 (12.2%)

PREVALENCE OF TYPE 2 DIABETES BY REGION

Regional prevalence by nationality



Regional prevalence by sex



DIABETIC PATIENTS WITH HbA1c HIGHER THAN 7%



The overall proportion of uncontrolled diabetic patients with Glycated hemoglobin (HbA1c) higher than 7% was 51.5%.

A total of number of 50,516 (27,964 male, 22,552 female) type 2 diabetic patients with HbA1c reading captured between the 1st of January and 31st of December 2021, of whom 15,558 were Qataris (6,139 male, 9,419 female) and 18,411 were non-Qataris (12,690 male, 5,721 female).

Proportion of diabetic patients with HbA1c higher than 7% stratified by sex and nationality

	Both sexes	Female	Male
All nationalities	26,038 (51.5%)	9,939 (44.1%)	16,099 (57.6%)
Qatari	7,627 (49.0%)	4,218 (44.8%)	3,409 (55.5%)
Non-Qatari	18,411 (52.7%)	5,721 (43.6%)	12,690 (58.1%)

Proportion of diabetic patients with HbA1c higher than 7% stratified by age-group and nationality

	All nationalities	Qatari	Non-Qatari
19-39 years	3,395 (47.4%)	736 (41.9%)	2,659 (49.1%)
40-59 years	14,463 (52.1%)	3,185 (46.2%)	11,278 (54.0%)
60 years and above	8,180 (52.5%)	3,706 (53.7%)	4,474 (51.6%)

DIABETIC PATIENTS EXTENDED CARE

INFLUENZA VACCINATION AMONG DIABETIC PATIENTS

Among PHCC registered diabetic patients, 14.6% received their flu vaccine.
(between 1 Jan - 31 Dec 2021)



	Both sexes	Female	Male
All nationalities	18,475 (14.6%)	6,813 (13.3%)	11,662 (15.4%)
Qatari	4,728 (13.2%)	2,398 (12.0%)	2,330 (14.8%)
Non-Qatari	13,747 (15.1%)	4,415 (14.1%)	9,332 (15.6%)

OPHTHALMOLOGY APPOINTMENTS AMONG DIABETIC PATIENTS

Among PHCC diabetic patients, 14.1% received their respective ophthalmology care at PHCC specialized clinics and 8.4 % were referred for their respective ophthalmology care at the HMC.
(between 1 Jan - 31 Dec 2021)



Appointments at PHCC specialized clinics

Referred to HMC specialized clinics

14.1%

8.4%

	Both sexes	Female	Male		Both sexes	Female	Male
All nationalities	17,907 (14.1%)	7,520 (10.0%)	10,387 (13.8%)	All nationalities	10,634 (8.4%)	4,756 (9.3%)	5,878 (7.8%)
Qatari	3,150 (8.8%)	1,937 (12.3%)	5,087 (32.4%)	Qatari	4,022 (11.2%)	2,386 (11.9%)	1,636 (10.4%)
Non-Qatari	14,757 (16.2%)	5,583 (9.3%)	5,300 (8.9%)	Non-Qatari	6,612 (7.3%)	2,370 (7.6%)	4,242 (7.1%)

PODIATRY CARE AMONG DIABETIC PATIENTS

Among PHCC diabetic patients, 0.2% received their respective podiatry care at PHCC specialized clinics and 6.9 % were referred for their respective podiatry care at the HMC .

(between 1 Jan - 31 Dec 2021)



■ Appointments at PHCC specialized clinics

■ Referred to HMC specialized clinics

0.2%

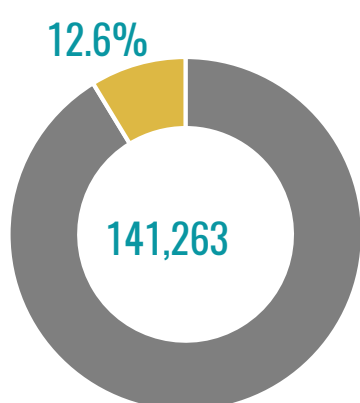
6.9%

	Both sexes	Female	Male		Both sexes	Female	Male
All nationalities	285 (0.2%)	81 (0.2%)	204 (0.3%)	All nationalities	8,711 (6.9%)	4,031 (7.9%)	4,680 (6.2%)
Qatari	121 (0.3%)	40 (0.2%)	81 (0.6%)	Qatari	3,953 (11.1%)	2,246 (11.2%)	1,707 (10.9%)
Non-Qatari	164 (0.2%)	41 (0.1%)	123 (0.2%)	Non-Qatari	4,758 (5.2%)	1,785 (5.7%)	2,973 (5.0%)

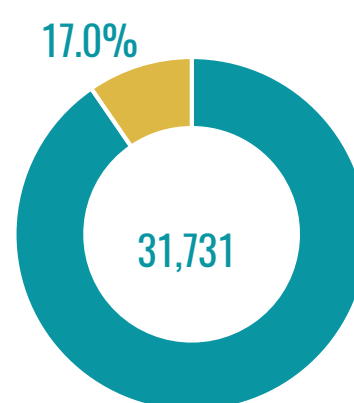
HYPERTENSION



The prevalence of hypertension among all PHCC registered population was 12.6% with the highest rate among Qataris at 17%.



All Registered Population



Qatari Population

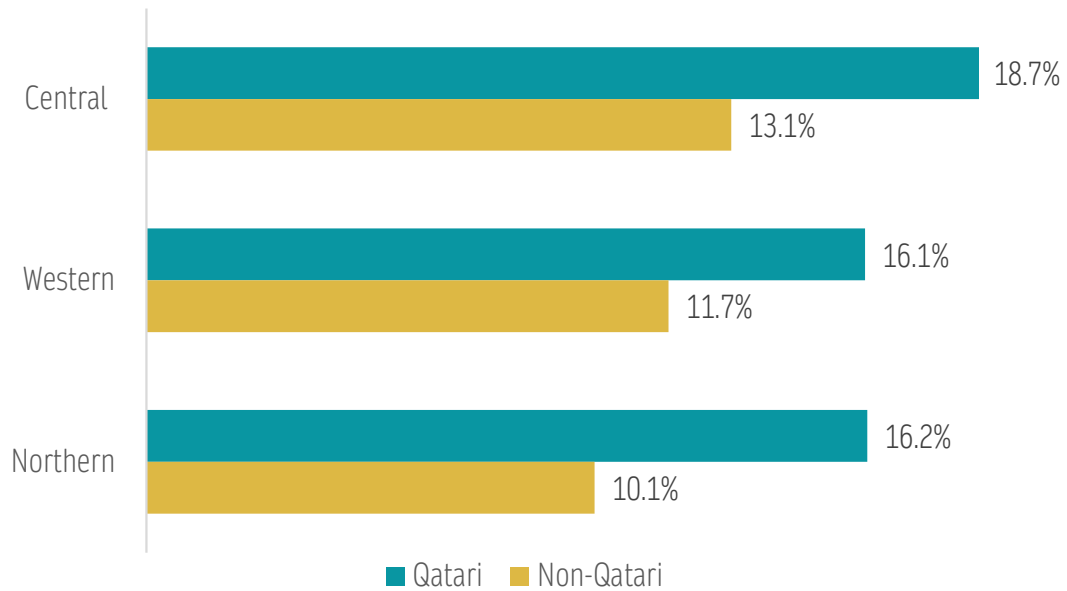
A total number of 141,263 persons (82,659 male, 58,604 female) aged 18+ years were diagnosed with hypertension excluding gestational hypertension among all PHCC registered population, of whom 31,731 were Qataris (14,870 male, 16,861 female) and 109,532 were non-Qataris (67,789 male, 41,743 female).

Prevalence of hypertension among PHCC registered population

	Both sexes	Female	Male
All nationalities	141,263 (12.6%)	58,604 (11.0%)	82,659 (14.2%)
Qatari	31,731 (17.0%)	16,861 (17.3%)	14,870 (16.7%)
Non-Qatari	109,532 (11.8%)	41,743 (9.5%)	67,789 (13.8%)

PREVALENCE OF HYPERTENSION BY REGION

Regional prevalence by nationality



Regional prevalence by sex



HYPERTENSION PATIENTS WITH ELEVATED BLOOD PRESSURE

140/90 mm Hg or higher



The overall proportion of uncontrolled hypertension patients with Elevated blood pressure - 140/90 mm Hg or higher was 48.7%.

A total of number of 108,438 (61,595 male, 46,843 female) hypertensive patients with blood pressure reading captured between the 1st of January and 31st of December 2021, of whom 27,135 were Qataris (12,559 male, 14,576 female) and 81,303 were non-Qataris (49,036 male, 32,267 female).

■ Proportion of hypertension patients with elevated blood pressure - 140/90 mm Hg or higher stratified by sex and nationality

	Both sexes	Female	Male
All nationalities	52,815 (48.7%)	21,256 (45.4%)	31,559 (51.2%)
Qatari	10,828 (39.9%)	5,283 (36.2%)	5,545 (44.2%)
Non-Qatari	41,987 (51.6%)	15,973 (49.5%)	26,014 (53.1%)

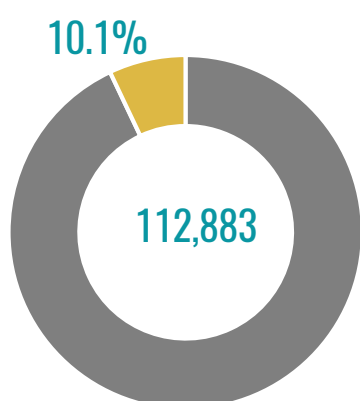
■ Proportion of hypertension patients with elevated blood pressure - 140/90 mm Hg or higher stratified by age-group and nationality

	All nationalities	Qatari	Non-Qatari
19-39 years	6,508 (46.9%)	636 (28.5%)	5,872 (50.4%)
40-59 years	29,697 (49.6%)	4,235 (38.2%)	25,462 (52.2%)
60 years and above	16,610 (47.9%)	5,957 (43.1%)	10,653 (51.1%)

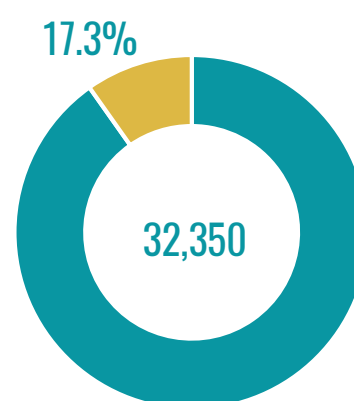
DYSLIPIDEMIA



The prevalence of dyslipidemia among all PHCC registered population was 10.1 % with the highest rate among Qataris at 17.3%.



All Registered Population



Qatari Population

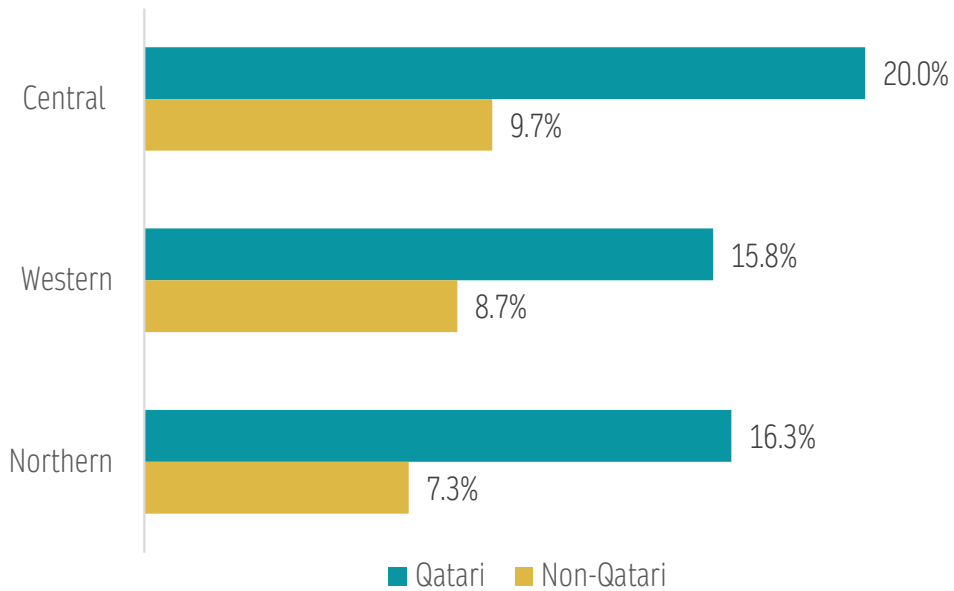
A total number of 112,883 persons (64,605 male, 48,278 female) aged 18+ years were diagnosed with dyslipidemia among all PHCC registered population, of whom 32,350 were Qataris (13,321 male, 19,029 female) and 80,533 were non-Qataris (51,284 male, 29,249 female).

Prevalence of dyslipidemia among PHCC registered population

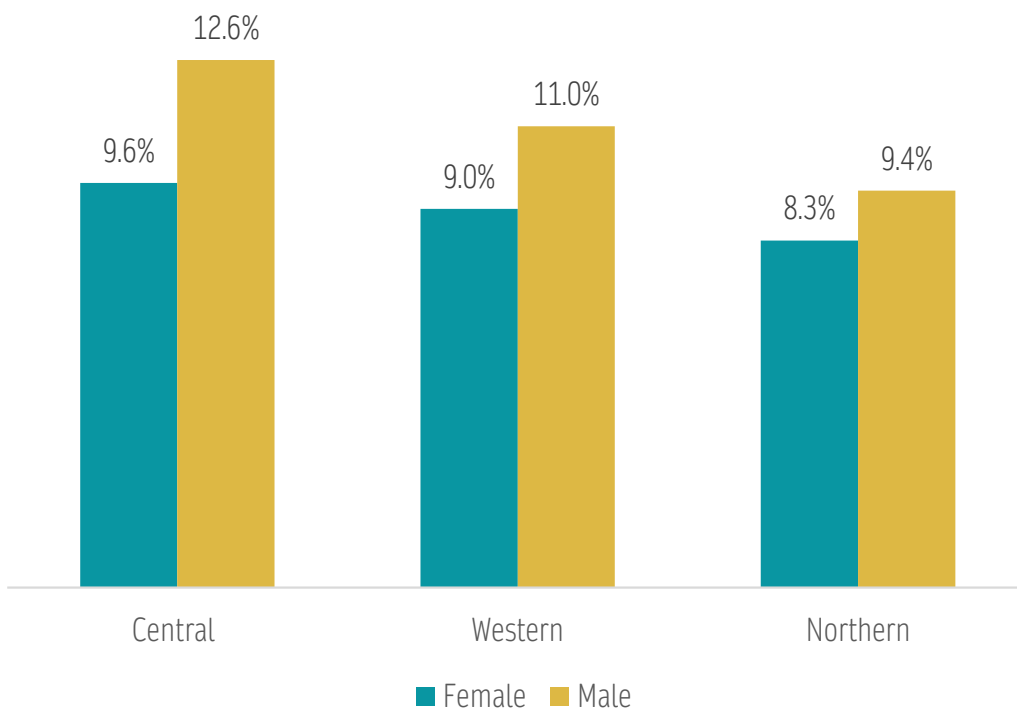
	Both sexes	Female	Male
All nationalities	112,883 (10.1%)	48,278 (9.0%)	64,605 (11.1%)
Qatari	32,350 (17.3%)	19,029 (19.5%)	13,321 (14.9%)
Non-Qatari	80,533 (8.7%)	29,249 (6.7%)	51,284 (10.4%)

PREVALENCE OF DYSLIPIDEMIA BY REGION

Regional prevalence by nationality



Regional prevalence by sex

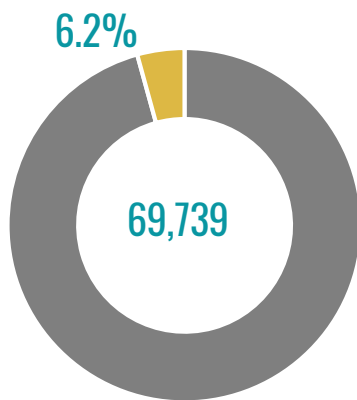


CO-MORBIDITY

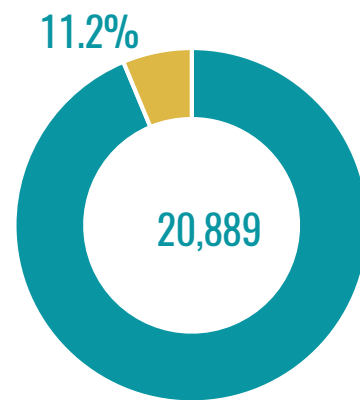
TYPE 2 DIABETES AND HYPERTENSION



The prevalence of co-morbidity (Type 2 Diabetes and hypertension) among all PHCC registered population was 6.24 % with the highest rate among Qataris at 11.19%.



All Registered Population



Qatari Population

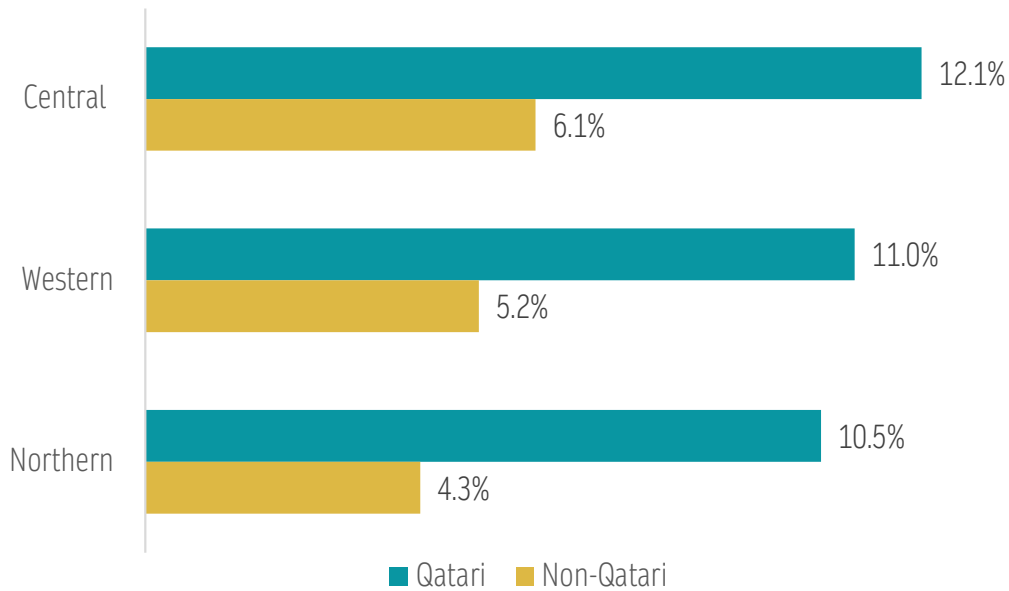
A total number of 69,739 persons (42,234 male, 27,505 female) aged 18+ years were identified with both diabetes and hypertension associated diagnoses excluding gestational ones among PHCC registered population, of whom 20,889 were Qataris (32,786 male, 16,064 female) and 20,889 were non-Qataris (9,448 male, 11,441 female).

■ Prevalence of co-morbidity (Type 2 Diabetes and hypertension) among PHCC registered population

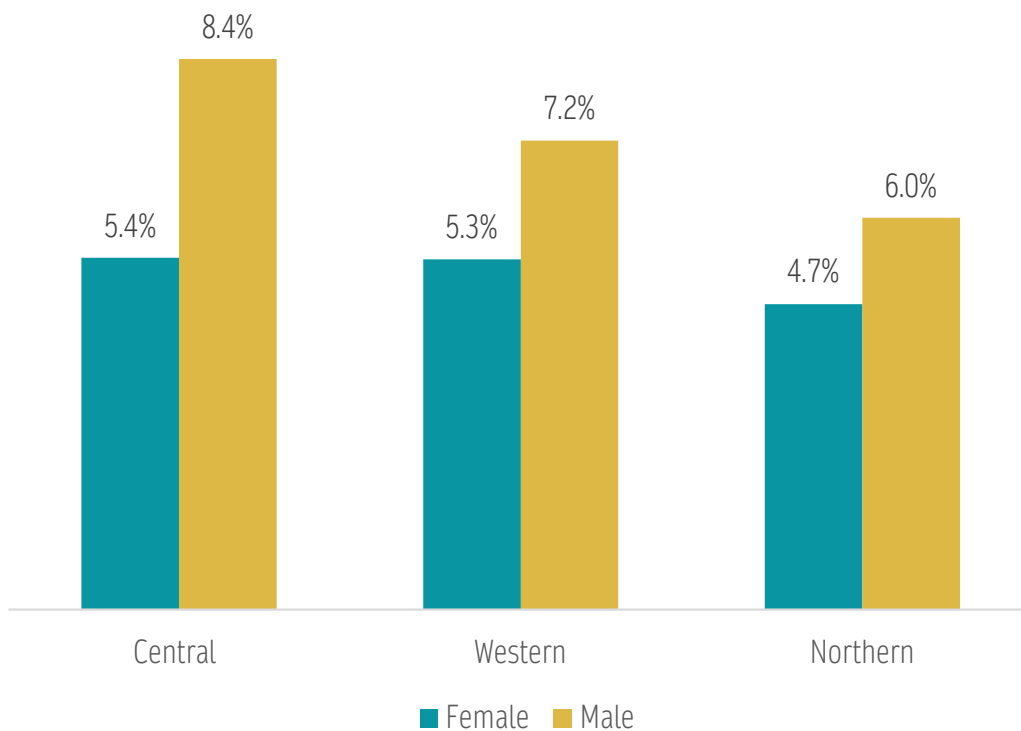
	Both sexes	Female	Male
All nationalities	69,739 (6.2%)	27,505 (5.1%)	42,234 (7.3%)
Qatari	20,889 (11.2%)	11,441 (11.7%)	9,448 (10.6%)
Non-Qatari	48,850 (5.3%)	16,064 (3.7%)	32,786 (6.7%)

PREVALENCE OF CO-MORBIDITY BY REGION

Regional prevalence by nationality



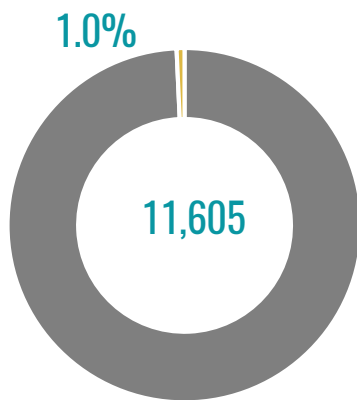
Regional prevalence by sex



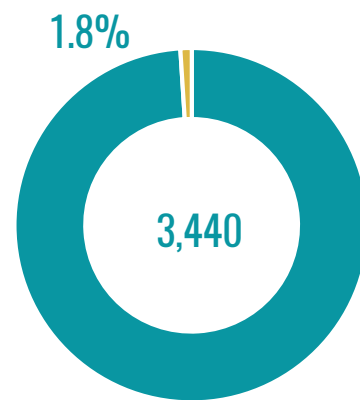
CANCER



The prevalence of cancer (of any type) among all PHCC registered population was 1.0 % with the highest rate among Qataris at 1.8%.



All Registered Population



Qatari Population

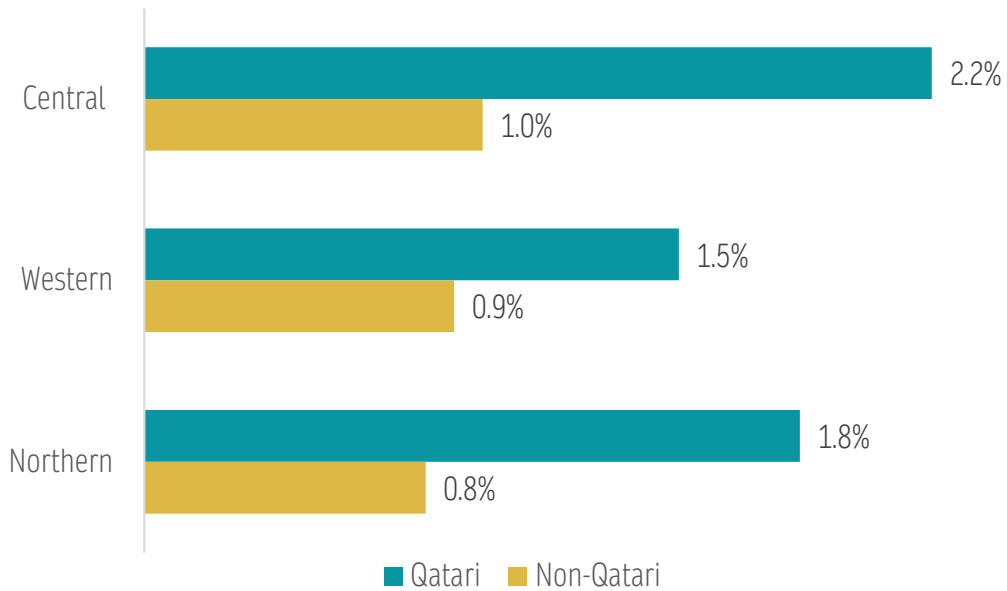
A total number of 11,605 persons (4,825 male, 6,780 female) aged 18+ years were diagnosed with cancer of any type among PHCC registered population, of whom 3,440 were Qataris (1,165 male, 2,275 female) and 8,165 were non-Qataris (3,660 male, 4,505 female).

Prevalence of cancer among PHCC registered population

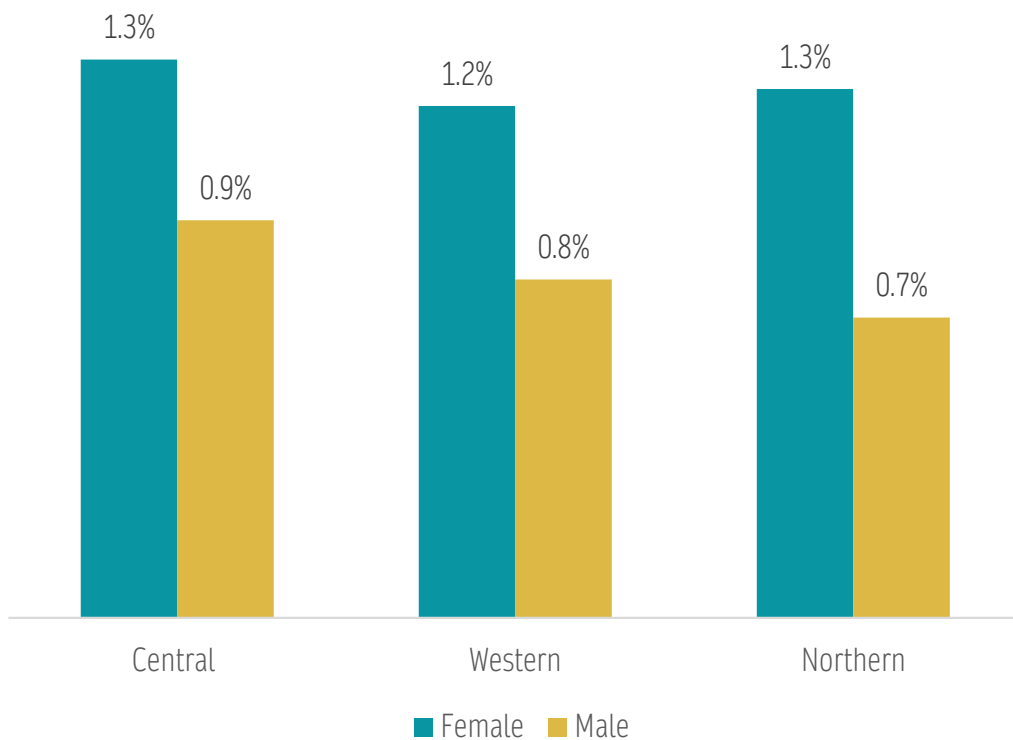
	Both sexes	Female	Male
All nationalities	11,605 (1.0%)	6,780 (1.3%)	4,825 (0.8%)
Qatari	3,440 (1.8%)	2,275 (2.3%)	1,165 (1.3%)
Non-Qatari	8,165 (0.9%)	4,505 (1.0%)	3,660 (0.7%)

PREVALENCE OF CANCER OF ANY TYPE BY REGION

Regional prevalence by nationality



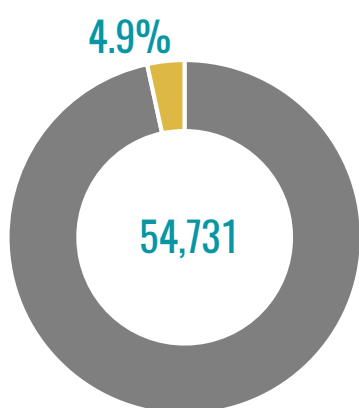
Regional prevalence by sex



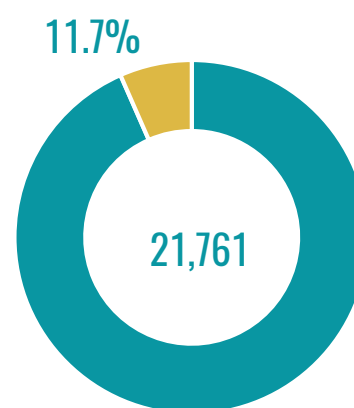
ASTHMA / COPD



The prevalence of asthma and Chronic Obstructive Pulmonary Disease (COPD) among all PHCC registered population was 4.9% with the highest rate among Qataris at 11.7%.



All Registered Population



Qatari Population

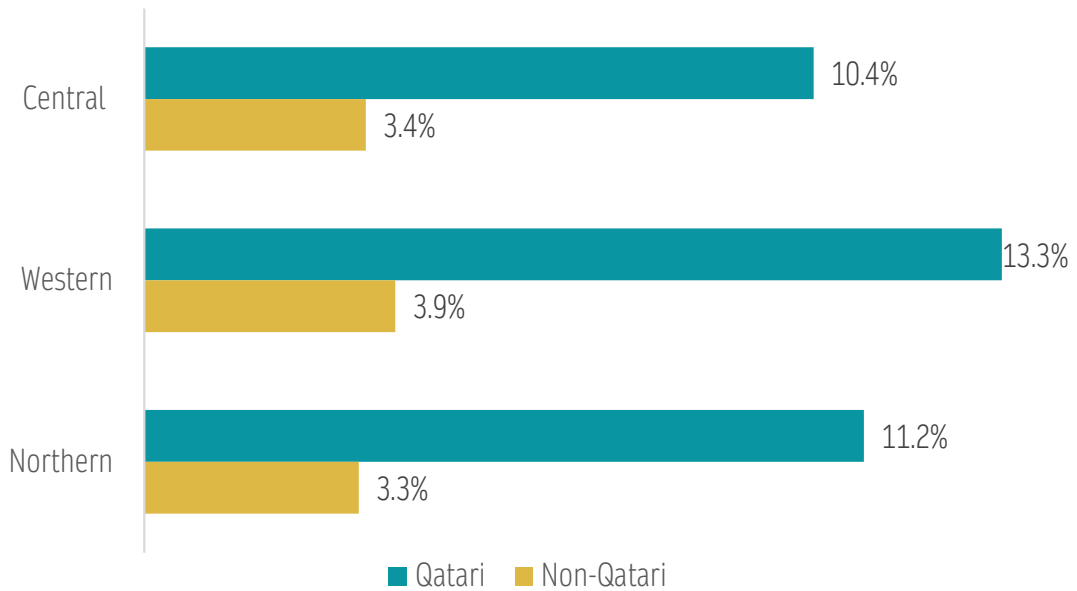
A total number of 54,731 persons (26,179 male, 28,552 female) aged 18+ years were diagnosed with asthma or/and COPD of among PHCC registered population, of whom 21,761 were Qataris (9,624 male, 12,137 female) and 32,970 were non-Qataris (16,555 male, 16,415 female).

Prevalence of asthma and Chronic Obstructive Pulmonary Disease (COPD) among PHCC registered population

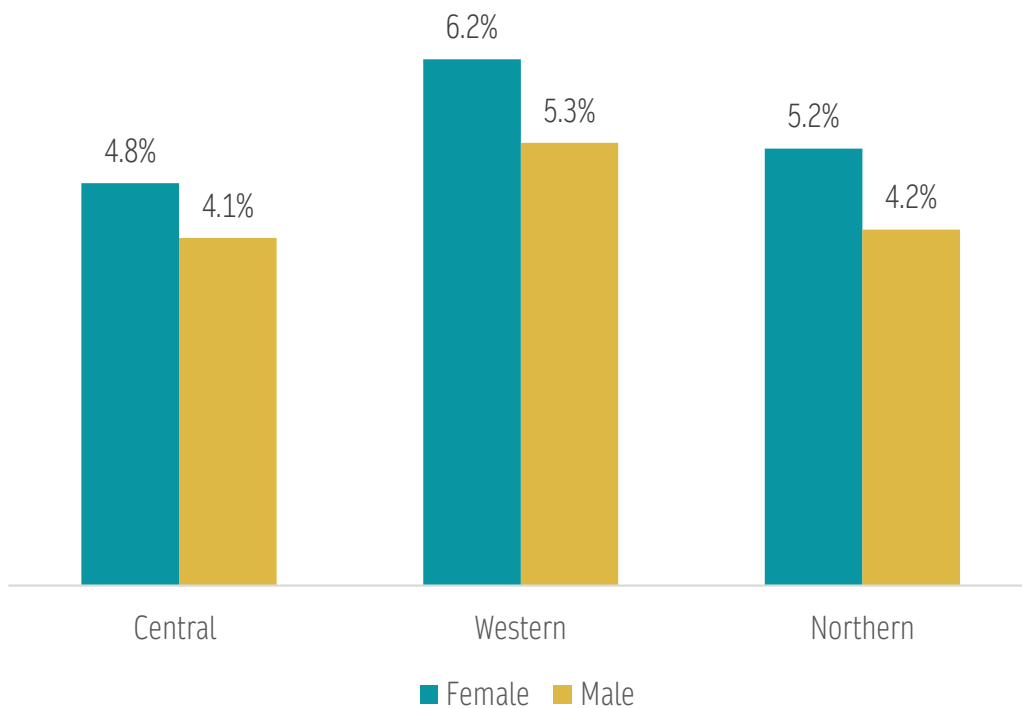
	Both sexes	Female	Male
All nationalities	54,731 (4.9%)	28,552 (5.3%)	26,179 (4.5%)
Qatari	21,761 (11.7%)	12,137 (12.5%)	9,624 (10.8%)
Non-Qatari	32,970 (3.5%)	16,415 (3.8%)	16,555 (3.4%)

PREVALENCE OF ASTHMA / COPD BY REGION

Regional prevalence by nationality



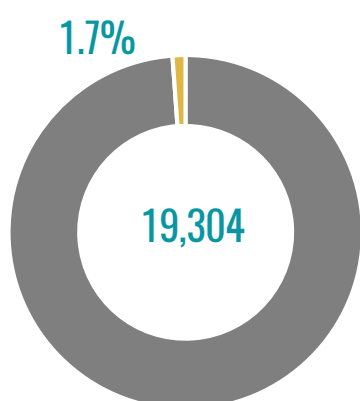
Regional prevalence by sex



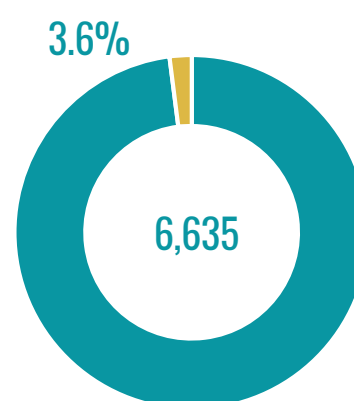
DEPRESSION



The prevalence of depression among all PHCC registered population was 1.73% with the highest rate among Qataris at 3.6%.



All Registered Population



Qatari Population

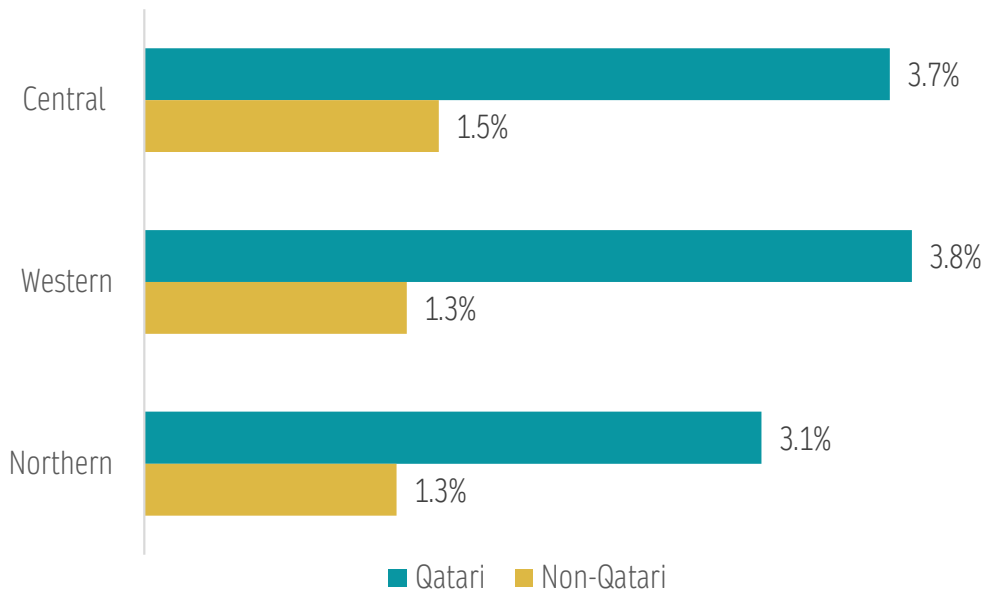
A total number of 19,304 persons (6,947 male, 12,357 female) aged 18+ years were diagnosed with depression among PHCC registered population, of whom 6,635 were Qataris (2,358 male, 4,277 female) and 12,669 were non-Qataris (4,589 male, 8,080 female).

Prevalence of depression among PHCC registered population

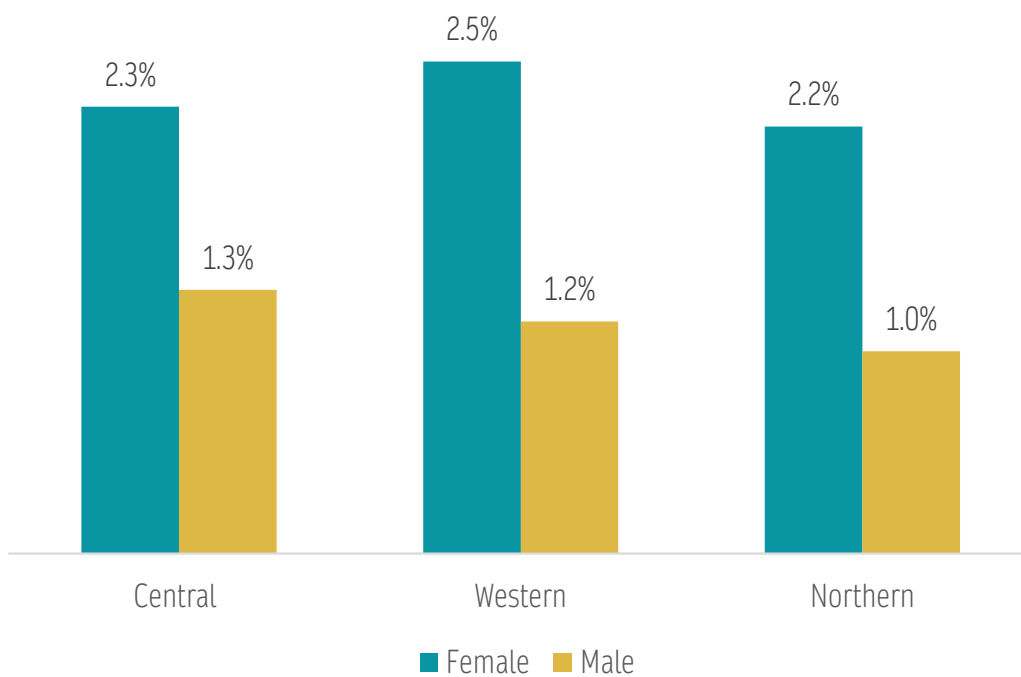
	Both sexes	Female	Male
All nationalities	19,304 (1.7%)	12,357 (2.3%)	6,947 (1.2%)
Qatari	6,635 (3.6%)	4,277 (4.4%)	2,358 (2.64%)
Non-Qatari	12,669 (1.4%)	8,080 (1.8%)	4,589 (0.9%)

PREVALENCE OF DEPRESSION BY REGION

Regional prevalence by nationality



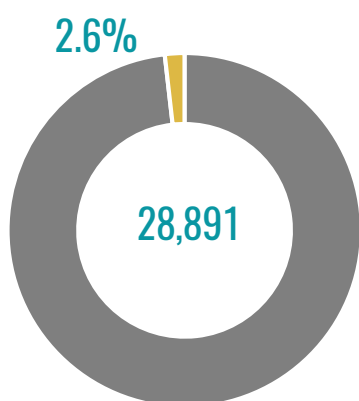
Regional prevalence by sex



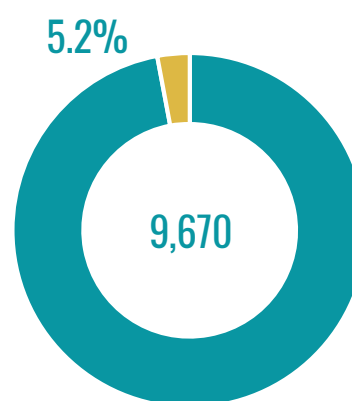
ANXIETY



The prevalence of anxiety among all PHCC registered population was 2.6% with the highest rate among Qataris at 5.2%.



All Registered Population



Qatari Population

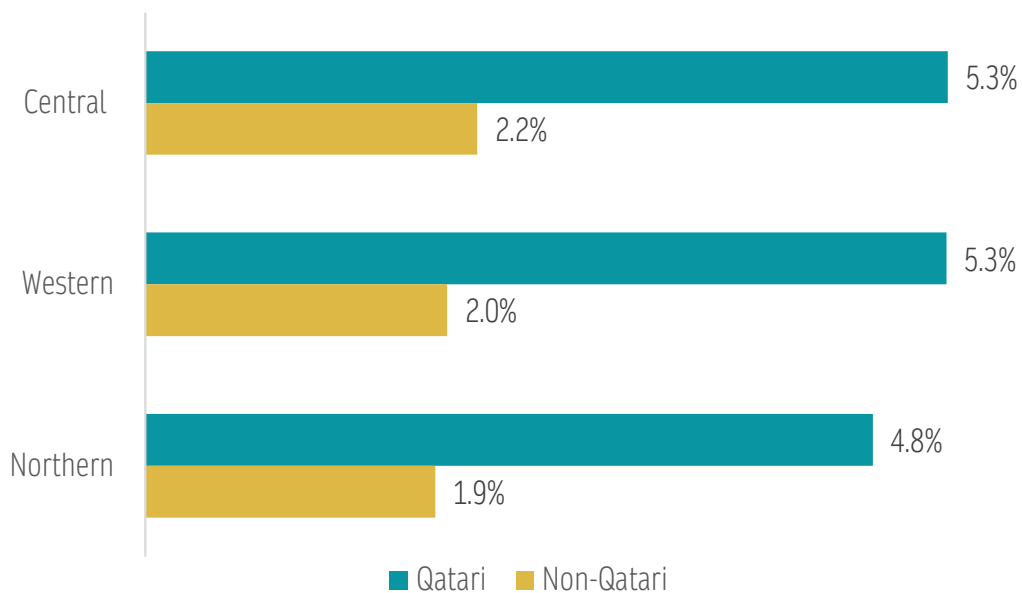
A total number of 28,891 persons (11,648 male, 17,243 female) aged 18+ years were diagnosed with anxiety among PHCC registered population, of whom 9,670 were Qataris (3,790 male, 5,880 female) and 19,221 were non-Qataris (7,858 male, 11,363 female).

Prevalence of anxiety among PHCC registered population

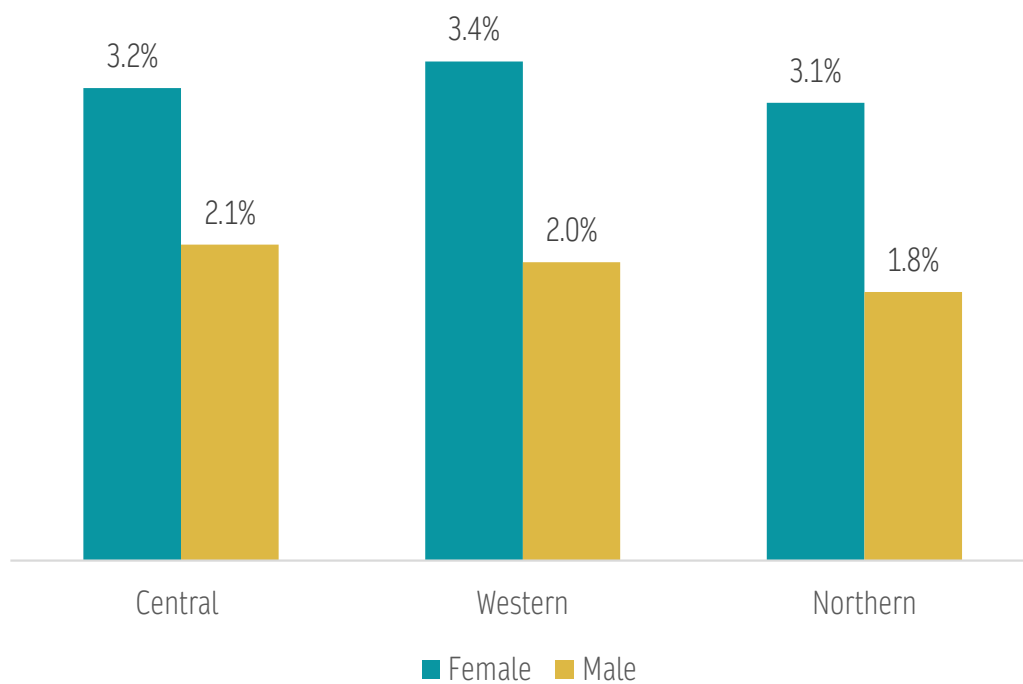
	Both sexes	Female	Male
All nationalities	28,891 (2.6%)	17,243 (3.2%)	11,648 (2%)
Qatari	9,670 (5.2%)	5,880 (6.0%)	3,790 (4.2%)
Non-Qatari	19,221 (2.1%)	11,363 (2.6%)	7,858 (1.6%)

PREVALENCE OF ANXIETY BY REGION

Regional prevalence by nationality



Regional prevalence by sex





PREVALENCE OF NCD RISK FACTORS

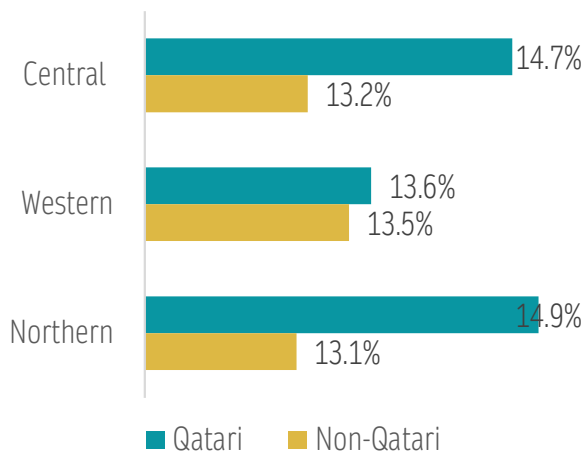
MODIFIABLE BEHAVIORAL
RISK FACTORS 

TOBACCO CONSUMPTION

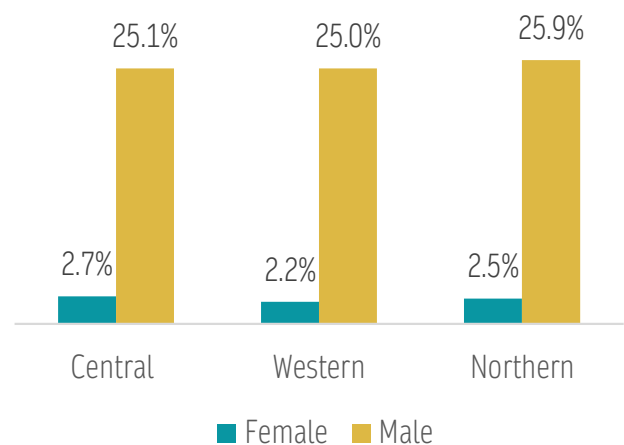
Tobacco consumption rate was higher among Qatari males than that among non-Qataris males at 30.7% and 23.5%, respectively.



A total of 549,422 persons (266,912 male, 282,510 female) had social information related to their smoking behaviour, of whom 144,956 were Qataris (64,675 male, 80,281 female) and 404,466 were non-Qataris (202,237 male, 202,229 female).



Regional prevalence by nationality



Regional prevalence by sex

Prevalence of tobacco consumption among PHCC registered population who had their social information related to their smoking behaviour available (n=549,422)

	Both sexes	Female	Male
All nationalities	74,413 (13.6%)	7,004 (2.5%)	67,409 (25.3%)
Qatari	20,839 (14.4%)	982 (1.2%)	19,857 (30.7%)
Non-Qatari	53,574 (13.2%)	6,022 (3.0%)	47,552 (23.5%)



Smoking Cessation Clinic Visits

3278 patients (734 Qatari, 2544 non-Qatari) visited the Smoking Cessation Clinic between the 1st of January and 31st of December 2021



PREVALENCE OF NCD RISK FACTORS

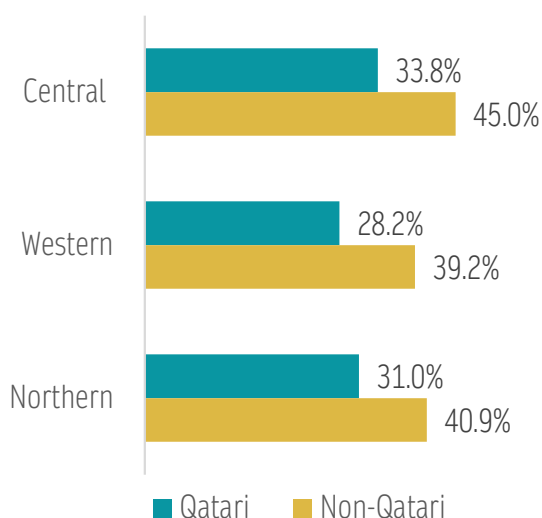
METABOLIC RISK FACTORS 

ELEVATED BLOOD PRESSURE

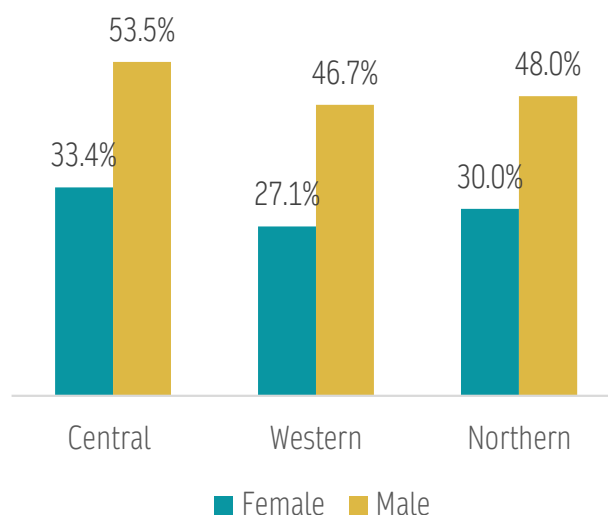
The proportion of persons with elevated blood pressure - 130/85 mm Hg or higher was the highest among non-Qataris followed by Qataris at 41.9% and 30.8%, respectively.



A total of 688,191 persons (332,564 male, 355,627 female) aged 18+ were identified with complete blood pressure measurement, of whom 141,387 were Qataris (64,052 male, 77,335 female) and 546,804 were non-Qataris (268,512 male, 278,292 female).



Regional prevalence by nationality



Regional prevalence by sex

Prevalence of anxiety among PHCC registered population aged 18+ identified with complete blood pressure measurement (n=688,191)

	Both sexes	Female	Male
All nationalities	272,543 (39.6%)	107,733 (30.3%)	164,810 (49.6%)
Qatari	43,581 (30.8%)	18,691 (24.2%)	24,890 (38.9%)
Non-Qatari	228,962 (41.9%)	89,042 (32.0%)	139,920 (52.1%)

OVERWEIGHT AND OBESITY

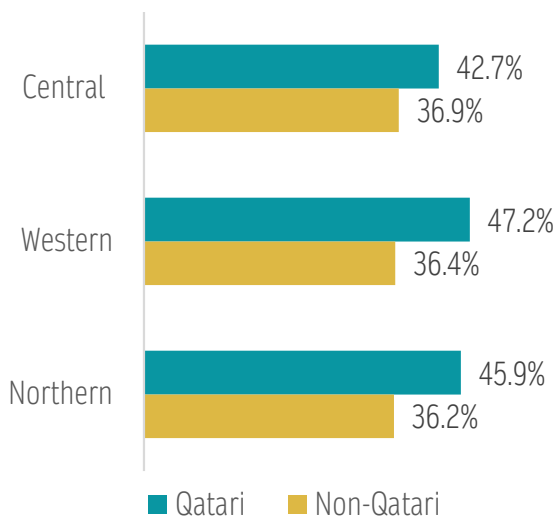
The overall prevalence of obesity was 39.3% with Qataris having higher rate (45.3%) than among non-Qataris (36.5%).



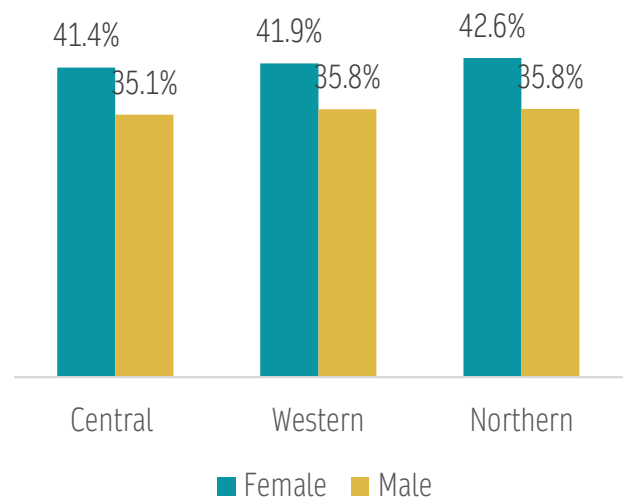
OBESITY



A total of 173,239 persons (70,925 male, 102,314 female) aged 18+ were identified with complete body mass index (BMI) measurement, of whom 54,683 were Qataris (20,678 male, 34,005 female) and 118,556 were non-Qataris (50,247 male, 68,309 female).



Regional prevalence by nationality



Regional prevalence by sex

Body Mass Index (BMI) classifications among PHCC registered population aged 18+ years identified with complete BMI measurements (n= 173,239)

	Both sexes	Female	Male
Underweight BMI <18.5 kg/m ²	3741 (2.2%)	2282 (2.2%)	1,459 (2.1%)
Normal weight BMI 18.5-24.99 kg/m ²	40,782 (23.5%)	24,577 (24.0%)	16,205 (22.9%)
Overweight BMI between 25-30 kg/m ²	60,658 (35.0%)	32,592 (31.9%)	28,066 (39.6%)
Obese BMI 30+ kg/m ²	68,058 (39.3%)	42,863 (41.9%)	25,195 (35.5%)

HYPERGLYCEMIA

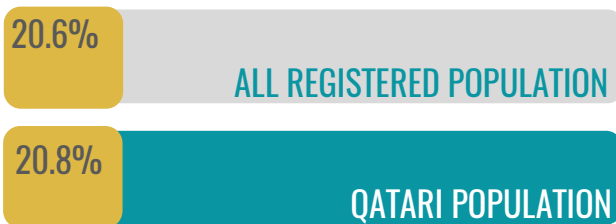
High blood glucose level

The overall proportion of persons with glycated hemoglobin (HbA1c)- 6.5% or higher was 20.6%.

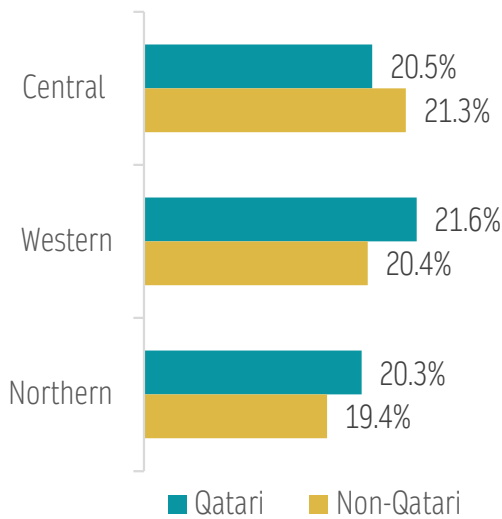
The proportion of pre-diabetics was higher among non-Qataris (26.9%) than that among Qataris (22.6%).



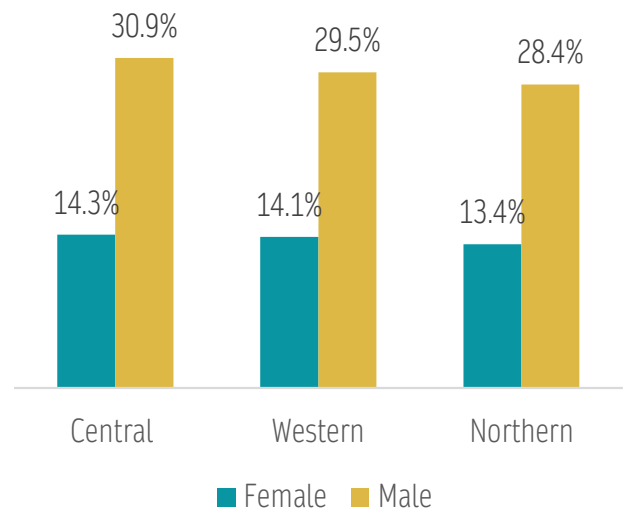
Glycated hemoglobin (HbA1c) - 6.5% or higher



A total of 172,028 persons (72,138 male, 99,890 female) aged 18+ years were identified with glycated hemoglobin HbA1c values captured, of whom 48,202 were Qataris (15,992 male, 32,210 female) and 123,826 were non-Qataris (56,146 male, 67,680 female).



Regional prevalence by nationality



Regional prevalence by sex

Glycated hemoglobin (HbA1c) classification among PHCC registered population aged 18+ years identified with glycated hemoglobin HbA1c values captured (n=172,028)

	Both sexes	Female	Male
HbA1c 5.6% or less	92,447 (53.8%)	62,381 (62.5%)	30,066 (41.7%)
HbA1c 5.7%-6.4%	44,203 (25.7%)	23,532 (23.6%)	20,671 (28.7%)
HbA1c 6.5% or higher	35,378 (20.6%)	13,977 (14.0%)	21,401 (29.7%)

HYPERLIPIDEMIA

High level of blood fats

The proportion of High cholesterol level - Cholesterol >6.2 mmol/L was among all nationalities was 7.4%.

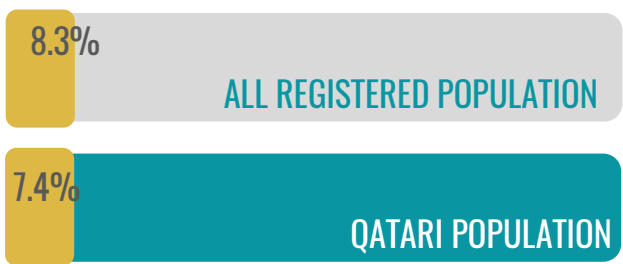
High triglyceride level - 1.7 mmol/L or higher was proportion among all nationalities was 28%.



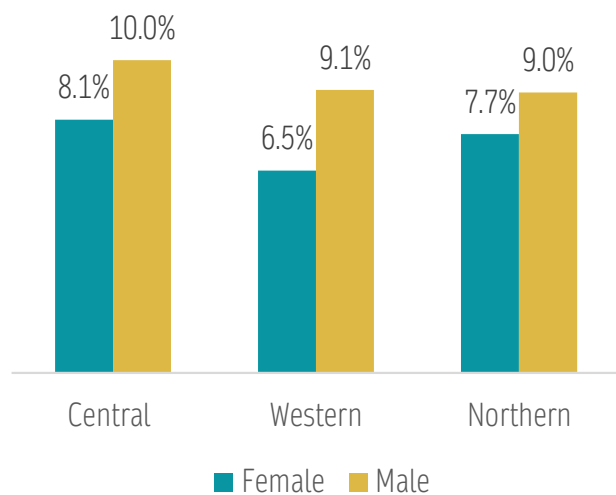
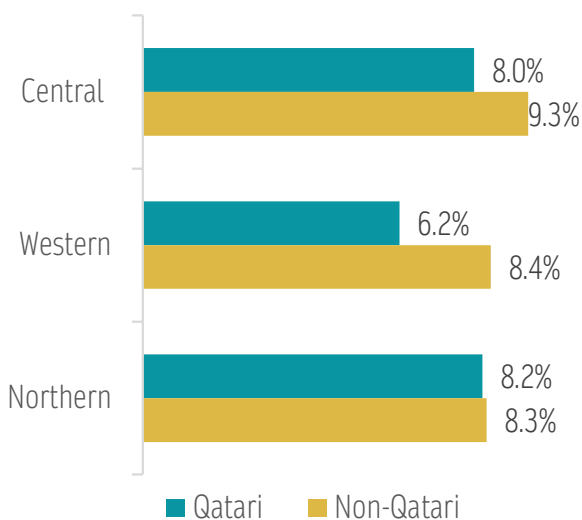
A total of 157,654 persons (72,430 male, 85,224 female) aged 18+ years were identified with cholesterol and triglycerides values captured, of whom 45,495 were Qataris (15,785 male, 29,710 female) and 112,159 were non-Qataris (56,645 male, 55,514 female).

High Cholesterol level

Cholesterol more than 6.2 mmol/L



	Both sexes	Female	Male
All nationalities	13,140 (8.3%)	6,340 (7.4%)	6,800 (9.4%)
Qatari	3,363 (7.4%)	2,058 (6.9%)	1,305 (8.3%)
Non-Qatari	9,777 (8.7%)	4,282 (7.7%)	5,495 (9.7%)



High triglyceride level

Triglyceride 1.7 mmol/L or higher



	Both sexes	Female	Male
All nationalities	44,036 (28.0%)	16,414 (19.3%)	27,622 (38.2%)
Qatari	8,910 (19.6%)	4,723 (15.9%)	4,187 (26.6%)
Non-Qatari	35,126 (31.4%)	11,691 (21.1%)	23,435 (41.4%)

High low-density lipoprotein (LDL) cholesterol

more than 4.11 mmol/L



	Both sexes	Female	Male
All nationalities	12,530 (8.0%)	5,604 (6.6%)	6,926 (9.6%)
Qatari	3,089 (6.8%)	1,722 (5.8%)	1,367 (8.7%)
Non-Qatari	9,441 (8.4%)	3,882 (7.0%)	5,559 (9.8%)

Reduced high-density lipoprotein (HDL) cholesterol

less than 1.04 mmol/L in men or less 1.3 mmol/L in women



	Both sexes	Female	Male
All nationalities	73,485 (46.7%)	40,459 (47.5%)	33,026 (45.7%)
Qatari	16,537 (36.4%)	11,611 (39.1%)	4,926 (31.3%)
Non-Qatari	56,948 (50.8%)	28,848 (52%)	28,100 (49.7%)



KEY BIOMARKERS PREVALENCE

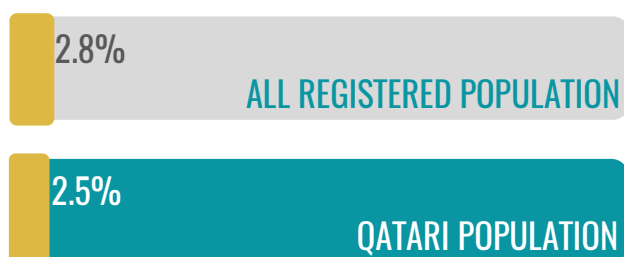
Reduced levels of

THYROID STIMULATING HORMONE (TSH)

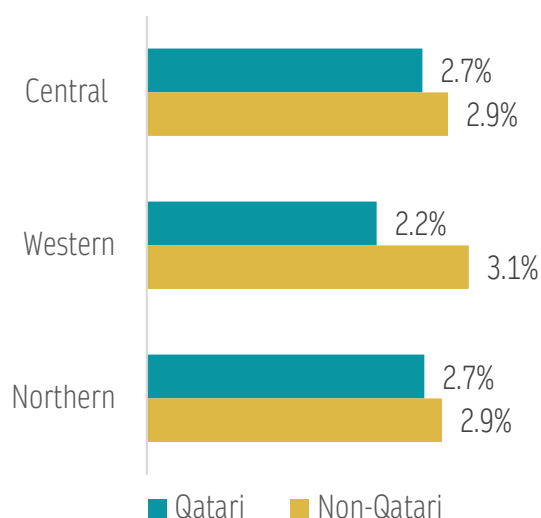
The proportion of reduced TSH level- 0.45 mU/L or less among all nationalities was 2.8%.



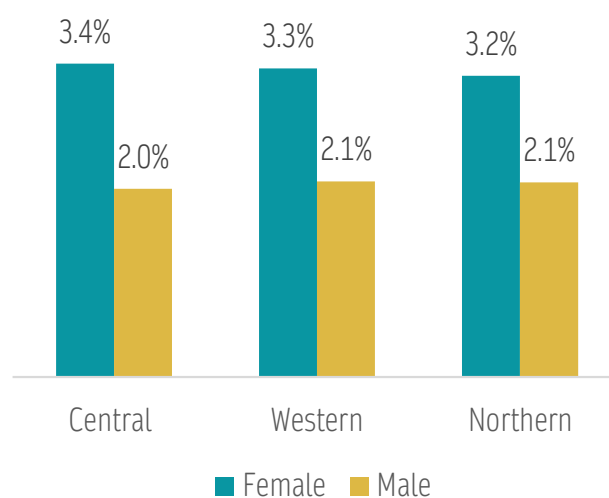
Reduced TSH level Less than 0.45 mU/L



A total of 173,417 persons (65,651 male, 107,766 female) aged 18+ years were identified with thyroid stimulating hormone (TSH) values captured, of whom 48,765 were Qataris (15,223 male, 33,542 female) and 124,652 were non-Qataris (50,428 male, 74,224 female).



Regional prevalence by nationality



Regional prevalence by sex

■ Proportion of reduced TSH level- 0.45 mU/L or less among PHCC registered population aged 18+ years identified with thyroid stimulating hormone (TSH) values (n= 173,417)

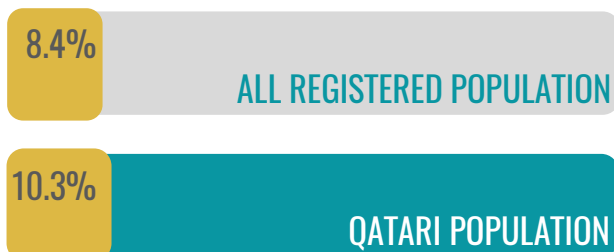
	Both sexes	Female	Male
All nationalities	4,900 (2.8%)	3,550 (3.3%)	1,350 (2.1%)
Qatari	1,219 (2.5%)	950 (2.8%)	269 (1.8%)
Non-Qatari	3,681 (3.0%)	2,600 (3.5%)	1,081 (2.1%)

Elevated levels of THYROID STIMULATING HORMONE (TSH)

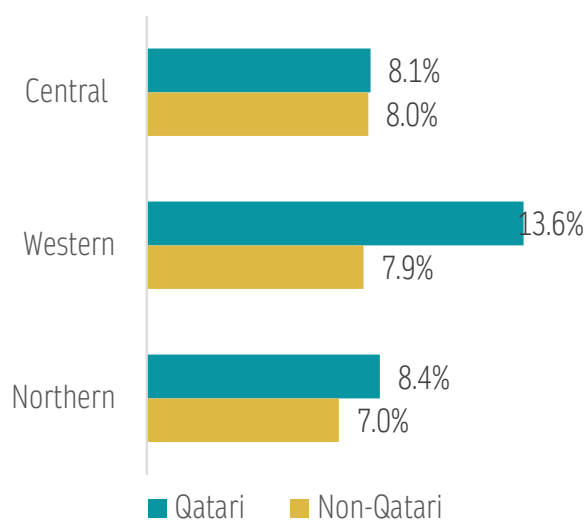
The proportion of elevated TSH level- 4.5 mU/L or more among all nationalities was 8.4%.



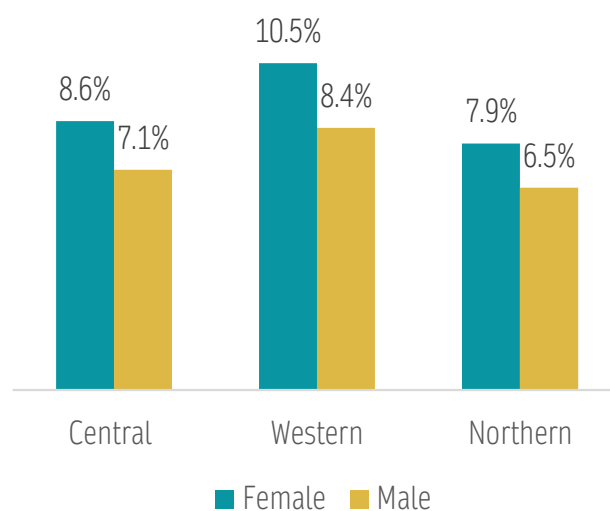
Elevated TSH level More than 4.5 mU/L



A total of 173,417 persons (65,651 male, 107,766 female) aged 18+ years were identified with thyroid stimulating hormone (TSH) values captured, of whom 48,765 were Qataris (15,223 male, 33,542 female) and 124,652 were non-Qataris (50,428 male, 74,224 female).



Regional prevalence by nationality



Regional prevalence by sex

■ Proportion of elevated TSH level- 4.5 mU/L or more among PHCC registered population aged 18+ years identified with thyroid stimulating hormone (TSH) values (n= 173,417)

	Both sexes	Female	Male
All nationalities	14,556 (8.4%)	9,719 (9.0%)	4,837 (7.4%)
Qatari	5,024 (10.3%)	3,559 (10.6%)	1,465 (9.6%)
Non-Qatari	9,532 (7.7%)	6,160 (8.3%)	3,372 (6.7%)

Reduced levels of VITAMIN D

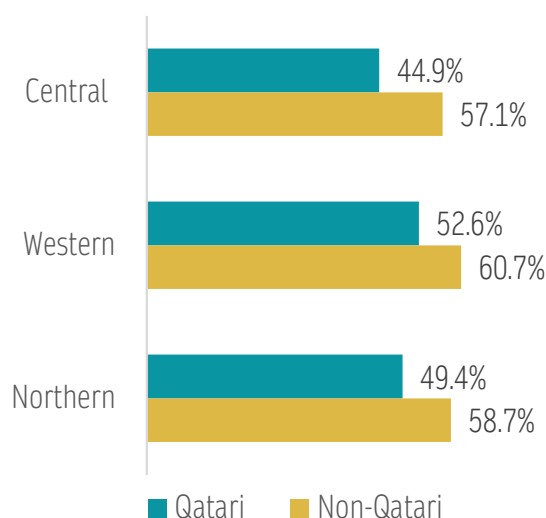
The proportion of reduced level of vitamin D- 20ng/ml or less among all nationalities was 56%.



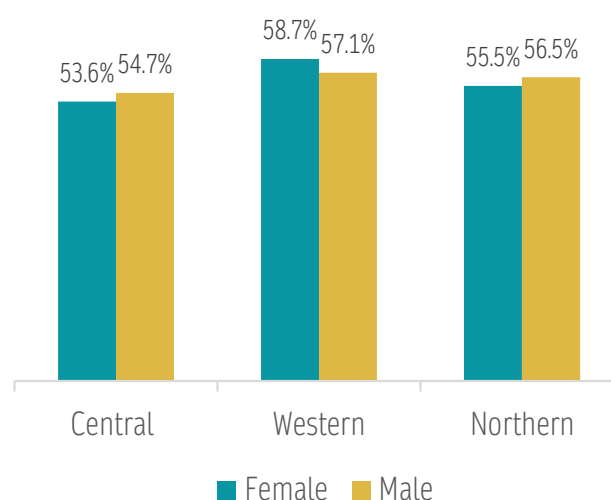
Reduced level of vitamin D 20 ng/mL or less



A total of 171,595 persons (68,541 male, 103,054 female) aged 18+ were identified with vitamin D values captured, of whom 50,131 were Qataris (16,056 male, 34,075 female) and 121,464 were non-Qataris (52,485 male, 68,979 female).



Regional prevalence by nationality



Regional prevalence by sex

■ Proportion of reduced level of vitamin D- 20ng/ml or less among PHCC registered population aged 18+ years identified with vitamin D values (n= 171,595)

	Both sexes	Female	Male
All nationalities	96,008 (56.0%)	57,604 (55.9%)	38,404 (56.0%)
Qatari	24,654 (49.2%)	16,516 (48.5%)	8,138 (50.7%)
Non-Qatari	71,354 (58.7%)	41,088 (59.6%)	30,266 (57.7%)



CHILD AND ADOLESCENT HEALTH

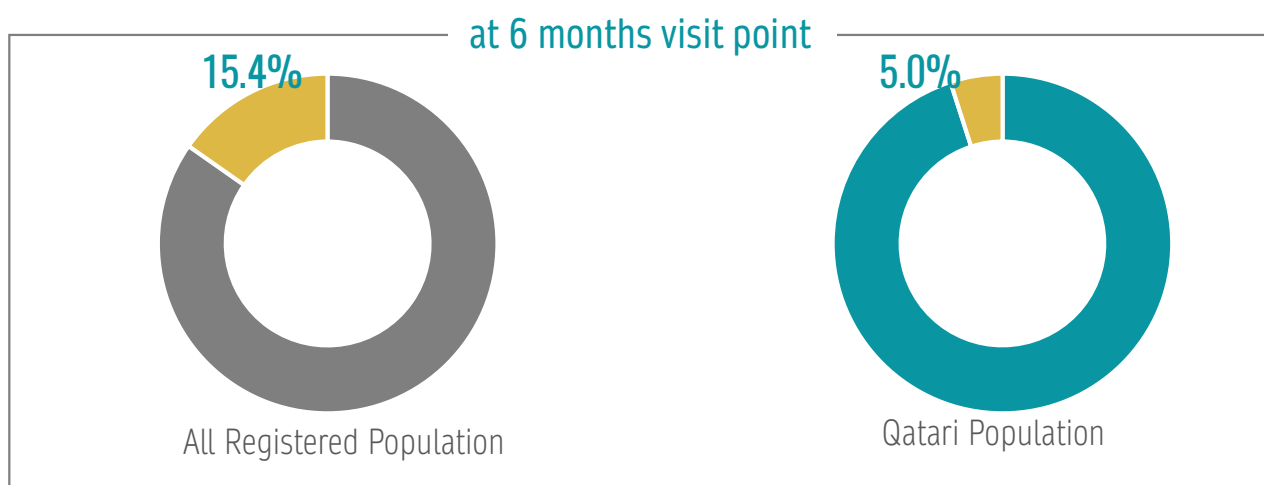
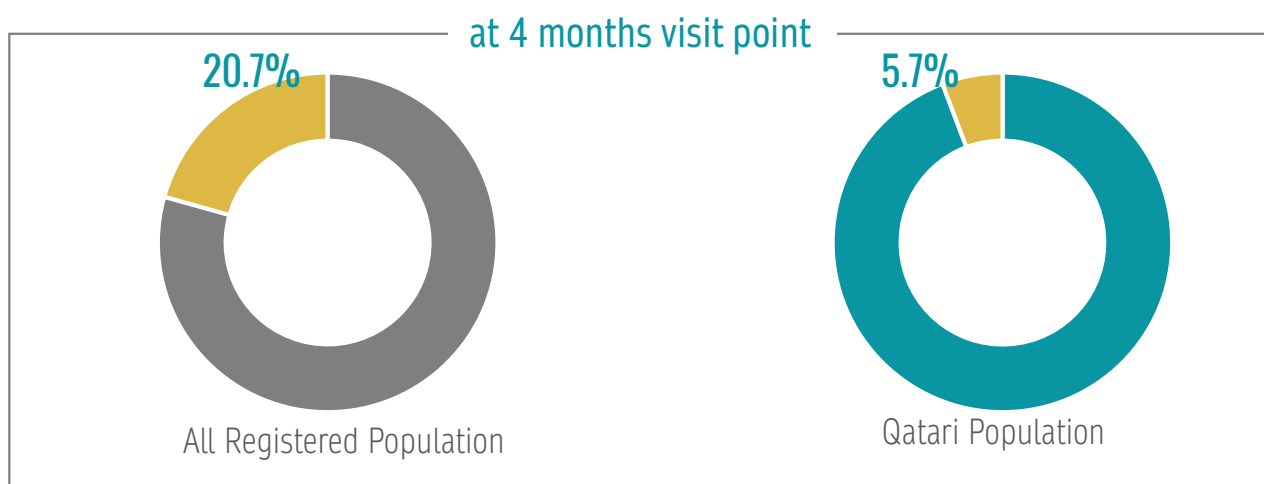
BREASTFEEDING PRACTICES

Exclusive breast feeding at 6 months visit point, among all nationalities was 15.4%, while among Qatari women it was 5%.

Exclusive breast feeding at 4 months visit point, was 20.7% among all nationalities and 5.7% among Qatari women.



A total of 17,568 women (4,352 Qataris, 13,216 non-Qataris) and 2,918 women (682 Qataris, 2,236 non-Qataris) were asked about their breastfeeding practices between 1st of Jan and 31st Dec 2021 at the well-baby clinic visits at the 4-month and 6-month visit point in time, respectively.



OVERWEIGHT AND OBESITY

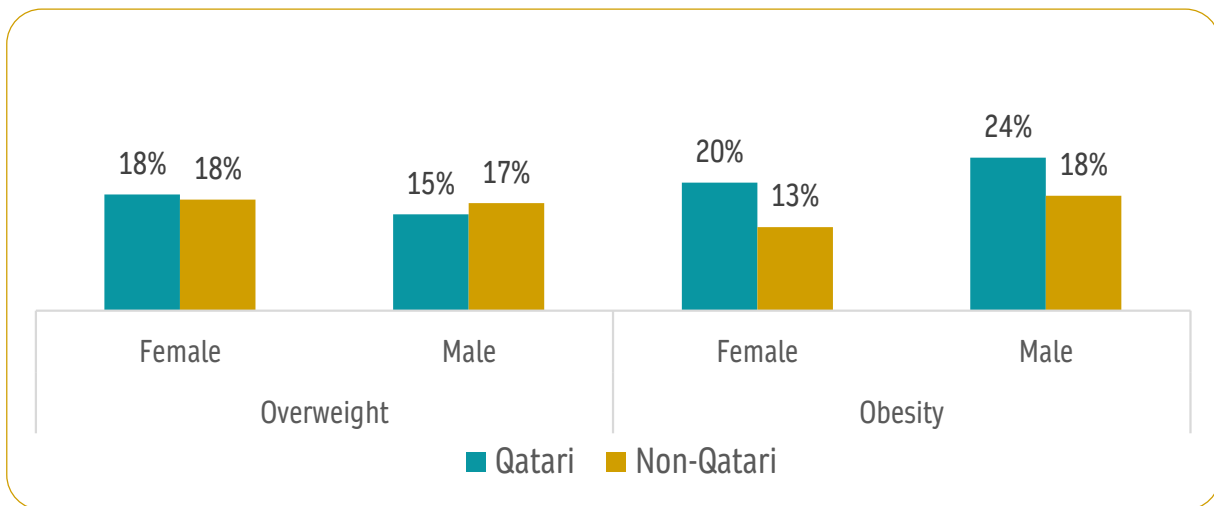
The prevalence of obesity among children aged 5-10 years and adolescents aged 11-18 years of all nationalities were 17.9% and 27.5%, respectively.

The highest prevalence of obesity was observed among Qatari adolescent male aged 11-18 years at 40%.



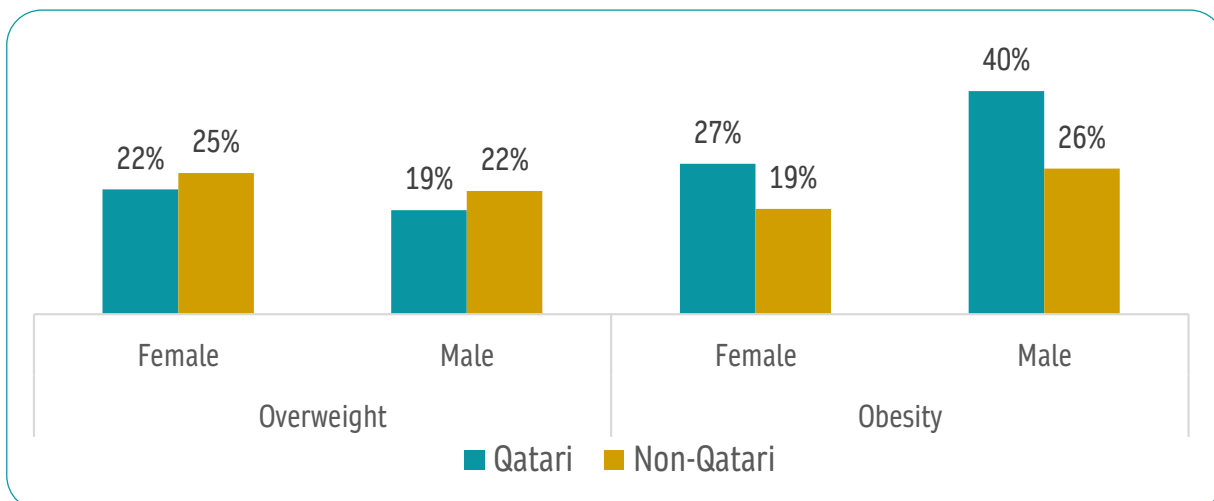
A total of 107,310 child (56,795 male, 50,515 female) aged 5-10 years were identified with Z-score BMI for age value, of whom 33,501 Qataris (18,055 male, 15,446 female) and 73,809 non-Qatari (38,740 male, 35,069 female) between the 1st of January and 31st of December 2021. Data from school health programme was included.

■ Prevalence of obesity among children aged 5-10 years (n=107,310)



A total of 73,663 children and young people (36,326 male, 37,337 female) aged 11-18 years were identified with Z-score BMI for age value, of whom 34,868 Qataris (17,788 male, 17,080 female) and 38,795 non-Qatari (18,538 male, 20,257 female) between the 1st of January and 31st of December 2021. Data from school health programme was included.

■ Prevalence of obesity among adolescents aged 11-18 years (n=73,663)



Children aged 5-10 years

► Overweight (+2SD >Z >+1SD)



	Both sexes	Female	Male
All nationalities	18,456 (17.2%)	9,055 (17.9%)	9,401 (16.6%)
Qatari	5,623 (16.8%)	2,853 (18.5%)	2,770 (15.3%)
Non-Qatari	12,833 (17.4%)	6,202 (17.7%)	6,631 (17.1%)

► Obesity (Z >+2SD)



	Both sexes	Female	Male
All nationalities	19,297 (18.0%)	7,819 (15.5%)	11,478 (20.2%)
Qatari	7,549 (22.5%)	3,150 (20.4%)	4,399 (24.4%)
Non-Qatari	11,748 (15.9%)	4,669 (13.3%)	7,079 (18.3%)

Adolescents aged 11-18 years

► Overweight (+2SD >Z >+1SD)



	Both sexes	Female	Male
All nationalities	16,272 (22.14%)	8,897 (23.8%)	7,375 (20.3%)
Qatari	7,104 (20.4%)	3,800 (22.3%)	3,304 (18.6%)
Non-Qatari	9,168 (23.6%)	5,097 (25.2%)	4,071 (22.0%)

► Obesity (Z >+2SD)



	Both sexes	Female	Male
All nationalities	20,267 (27.5%)	8,389 (22.5%)	11,878 (32.7%)
Qatari	11,648 (33.4%)	4,581 (26.8%)	7,067 (39.7%)
Non-Qatari	8,619 (22.2%)	3,808 (18.8%)	4,811 (26.0%)

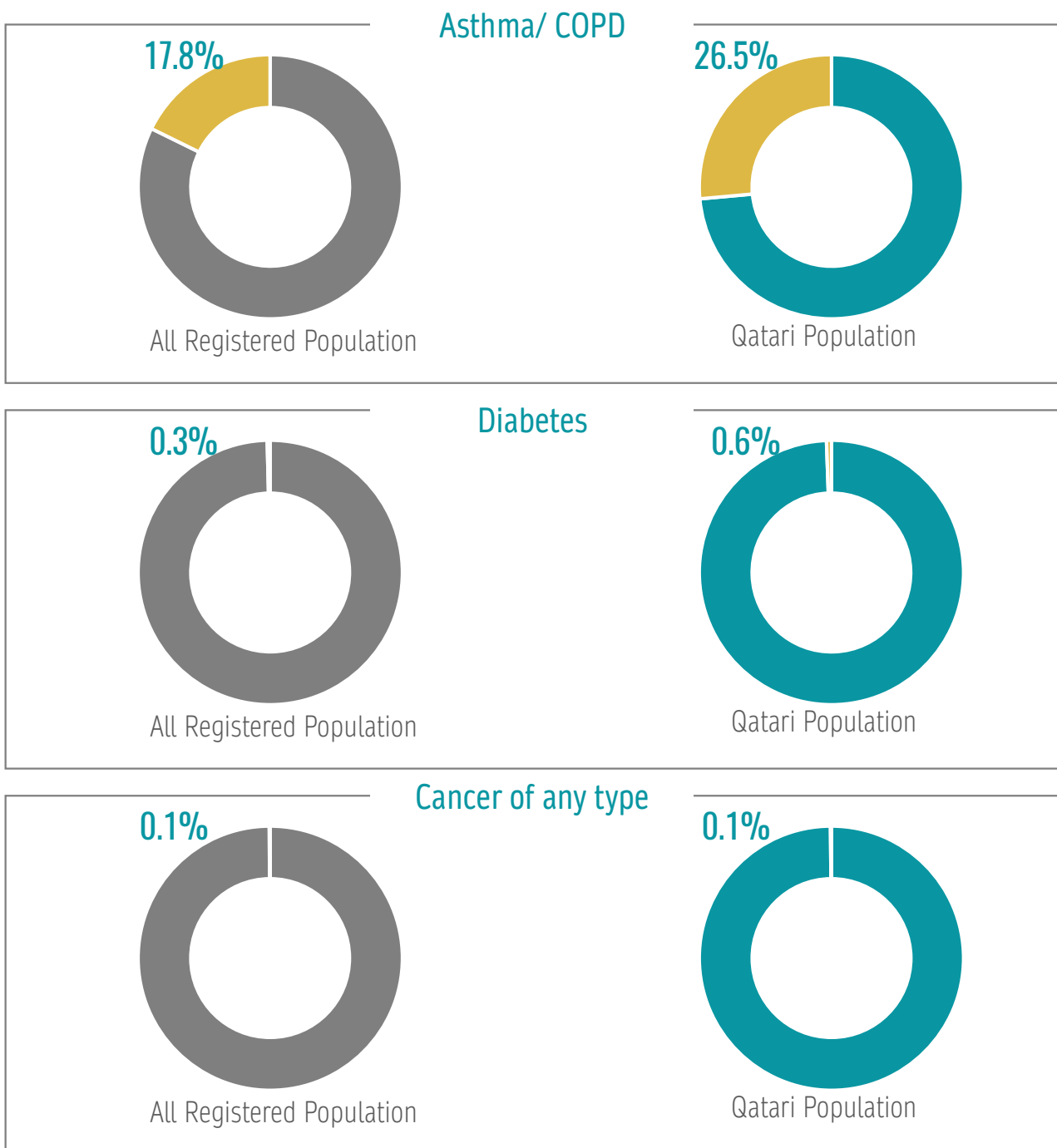
ASTHMA / COPD, DIABETES & CANCER

among children and adolescent aged 0-18 years

The overall prevalence of asthma and COPD among all the children and adolescent across all PHCC registered population was 17.8% with the highest rate among Qataris at 26.5%.



A total number of 87,639 persons (51,470 male, 36,169 female) aged 0-18 years were diagnosed with Asthma and chronic obstructive pulmonary (COPD) among all PHCC registered population, of whom 38,046 were Qataris (22,166 male, 15,880 female) and 49,593 were non-Qataris (29,304 male, 20,289 female).





COMMUNICABLE DISEASES

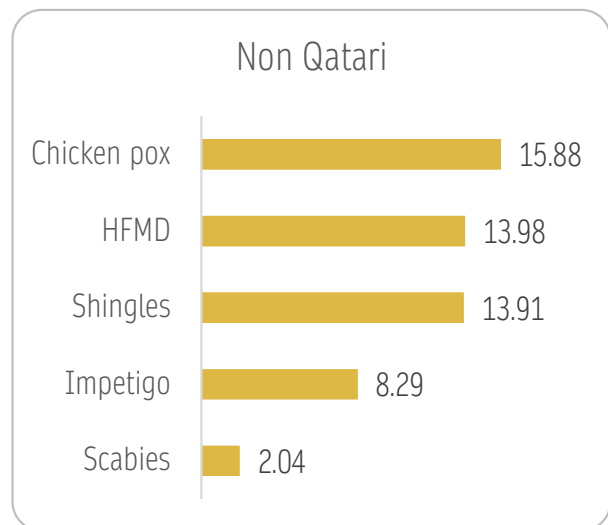
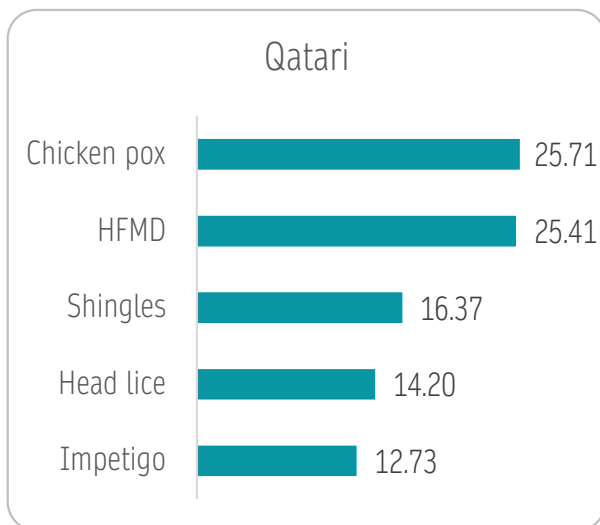
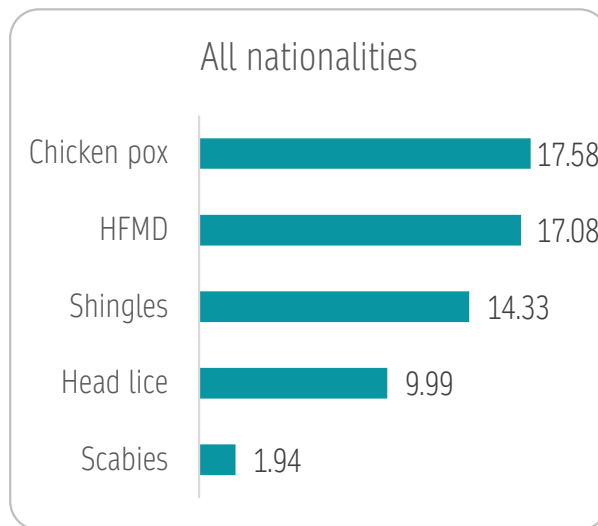
COMMUNICABLE DISEASES NOTIFICATION

Chicken pox notifications had an incidence rate of 25.41 children per 10000 children aged 5 to 9 years old.



A total of 2,497 notifications were received across PHCC health centers between 1st of Jan and 31st of Dec 2021 excluding the severe acute respiratory syndrome coronavirus 2 and flu like syndrome notifications, out of whom notifications for 441 Qataris and for 2,056 non-Qataris.

■ Top five CDC notifications, reported as incidence per 10,000 to their respective target population (n= 2,497)

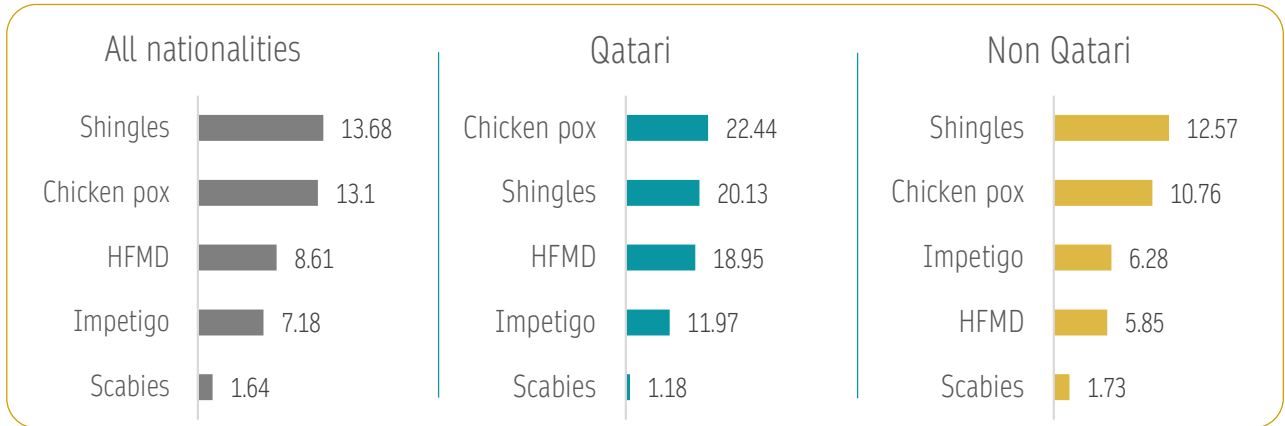


HFMD- Hand foot and mouth disease

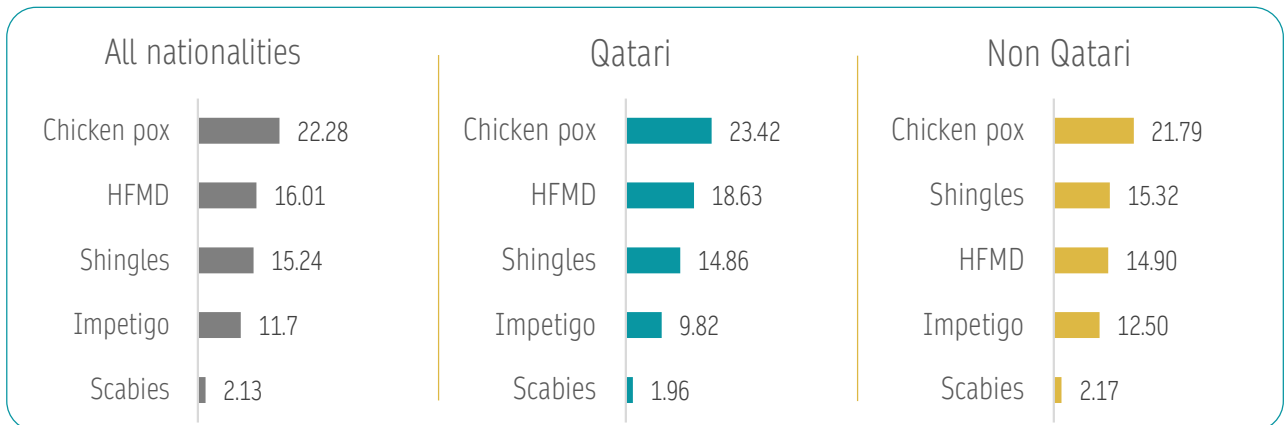
COMMUNICABLE DISEASES NOTIFICATIONS BY REGION

■ Top five CDC notifications region wise, reported as incidence per 10,000 to their respective target population (n= 2,497)

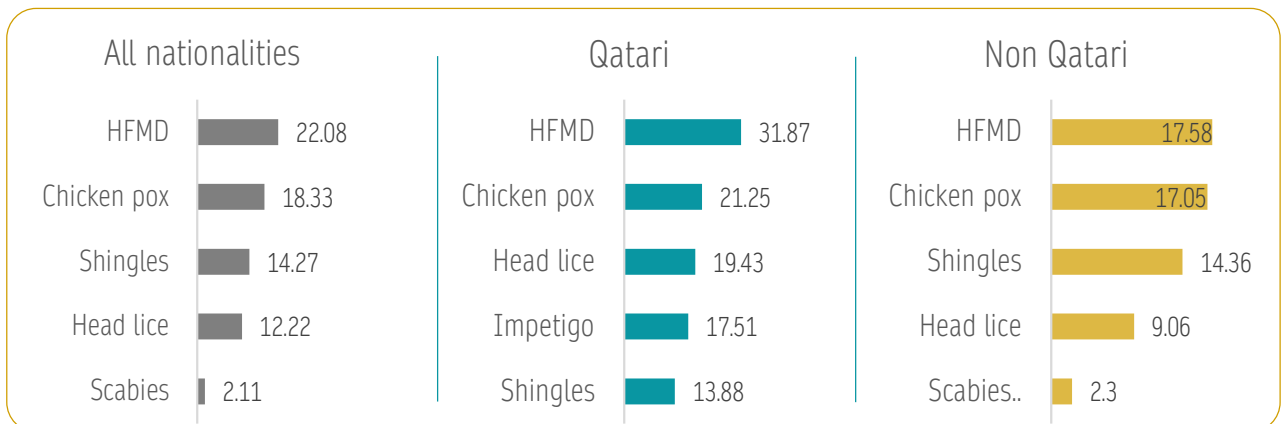
■ CENTRAL REGION



■ NORTHERN REGION



■ WESTERN REGION

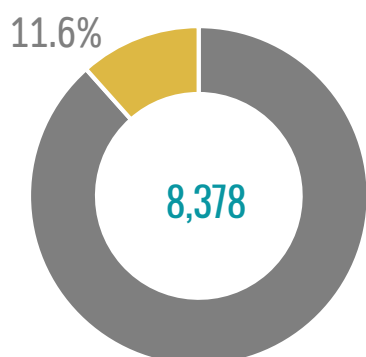


HFMD- Hand foot and mouth disease

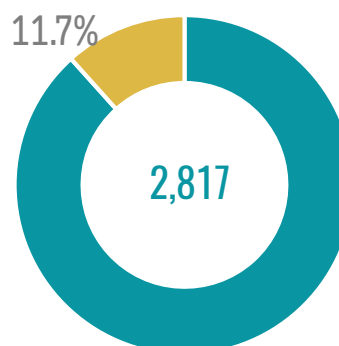
FLU VACCINE UPTAKE AMONG 60+ YEARS

The flu vaccine uptake among PHCC registered population aged 60+ years was 11.6% between the 1st of January and 31st of December 2021.

The highest uptake was among Qatari males (25.8%) while the lowest was among Non-Qatari males (8%).



All patients aged 60+years



Patients aged 60+years- Qatari

	Both sexes	Female	Male
All nationalities	8,378 (11.6%)	2,947 (10.3%)	5,431 (12.4%)
Qatari	2,817 (11.7%)	1,328 (10.1%)	2,817 (25.8%)
Non-Qatari	5,561 (11.5%)	1,619 (10.4%)	2,614 (8.0%)



PHCC SERVICES UTILIZATION

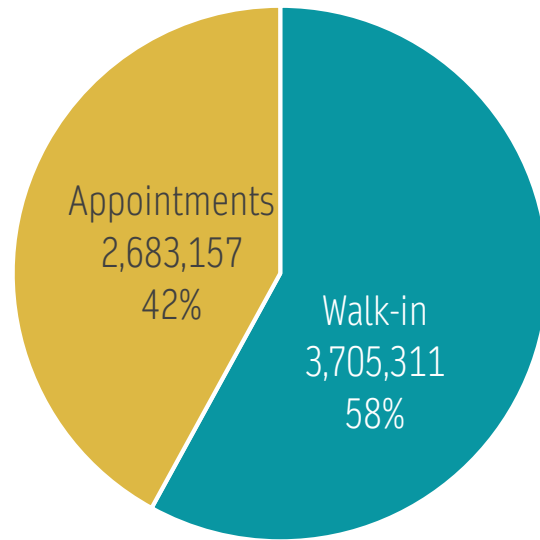
VISITS & APPOINTMENTS

6,388,468

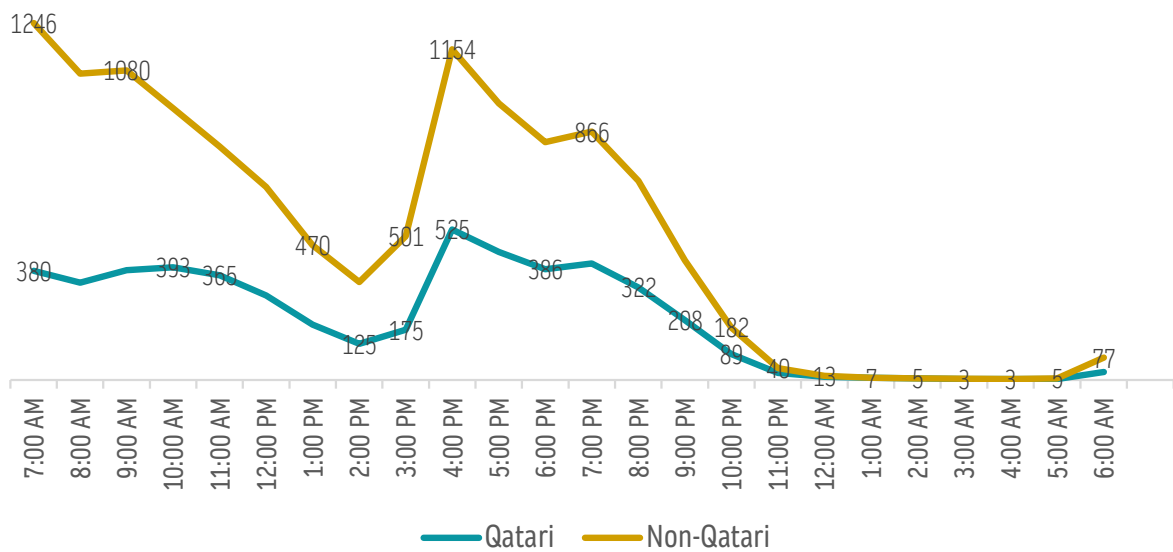
Total visits
All PHCC health centers
1 Jan to 31 Dec, 2021

17,502

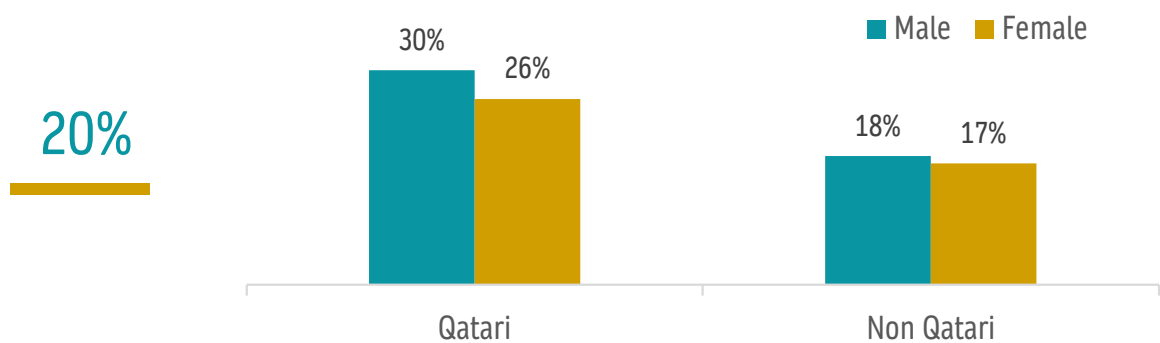
Average visits per day
All PHCC health centers
1 Jan to 31 Dec, 2021



Average number of visits per hour



Rate of no-show visits against total booked appointment

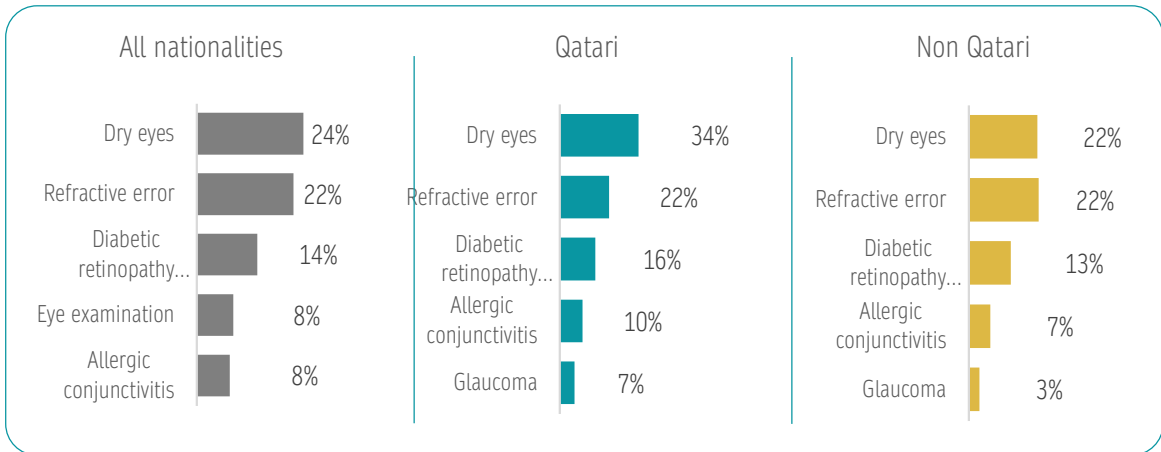


20%

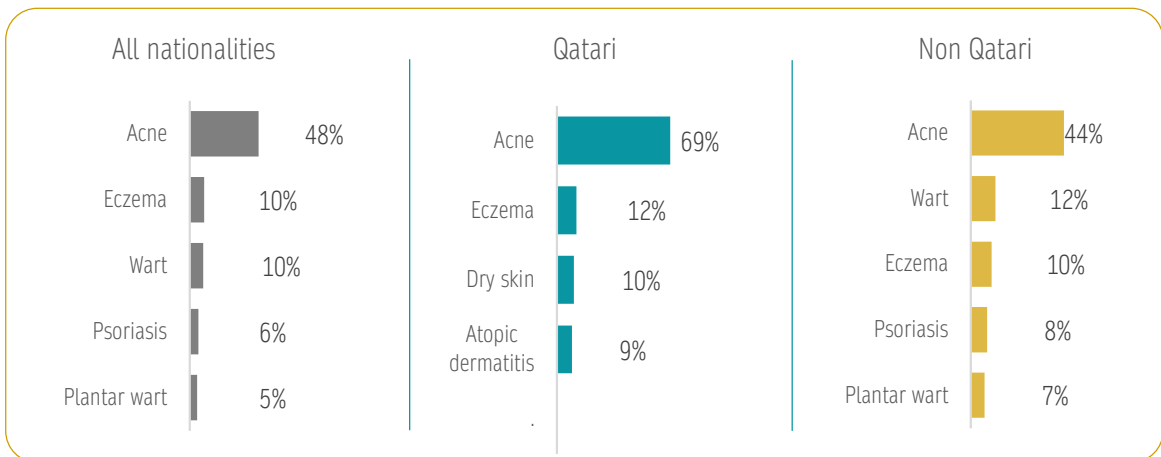
SPECIALTY SERVICES

TOP 5 DIAGNOSIS

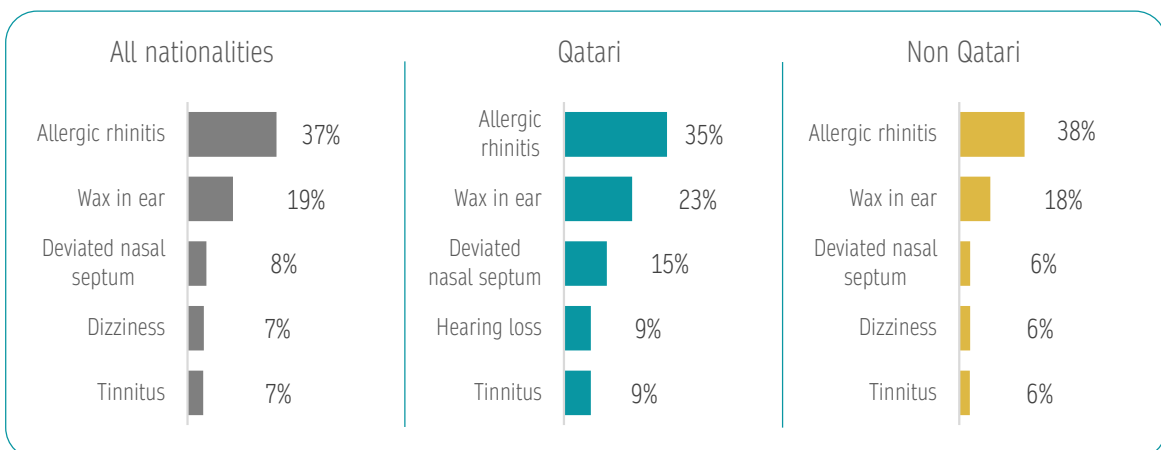
OPHTHALMOLOGY



DERMATOLOGY



Ear Nose and Throat (ENT)





IMPACT ON PHCC SERVICES UTILIZATION

IMPACT ON PHCC SERVICES UTILIZATION

CORE SERVICES

PHCC services endured substantial decrease in levels of utilization in 2020 and 2021, in comparison to 2019 across various services, except for family medicine service which showed a 6% increase in utilization in 2021.



In 2021, the utilization of family medicine services was at 2,492,434 visits with an increase of 6.1% of the utilization in 2019 as a reference year bearing in mind that in 2021 OCIV-19 restriction were still applicable for that time. Dental services utilization in 2021 dropped drastically from its level in 2019. The latter reduction was affected as well by the COVID-19 pandemic and the high risk of infection associated with dental services.

Service category	2019	2020	% change from 2019	2021	% change from 2019
Family Medicine	2,349,295	2,220,951	-5.5% ▼	2,492,434	6.1% ▲
Dental Services	385,155	269,116	-30.1% ▼	288,015	-25.2% ▼
Maternal services	45,905	40,217	-12.4% ▼	44,564	-2.9% ▼

PREVENTATIVE SERVICES

All PHCC preventative services demonstrated a substantial reduction in the services utilization in comparison to their levels in 2019 due to COVID-19 pandemic.

Screening services and due to the COVID-19 pandemic endured a substantial decrease in level of the utilization in 2021 in comparison to 2019 with a decline in utilization of breast cancer screening of 100% in 2021 in comparison to 2019.

Service category	2019	2020	% change from 2019	2021	% change from 2019
Well baby/ immunization services	186,753	167,882	-10.1% ▼	163,038	-12.7% ▼
Healthy lifestyle clinics	120,807	73,764	-38.9% ▼	118,404	-2.0% ▼
Smoking cessation	3,809	2,280	-40.1% ▼	3,286	-13.7% ▼
SMART annual health check	10,211	3,694	-63.8% ▼	2,158	-78.9% ▼
Colorectal cancer screening services	18,868	3,076	-83.7% ▼	8,821	-53.2% ▼
Breast cancer screening services	10,552	2,165	-79.5% ▼	0	-100.0% ▼
Mental health screening services	499,909	848,111	69.6% ▲	1,301,139	160.3% ▲

PRIMARY CARE ADDITIONAL SERVICES

Laboratory services demonstrate a substantial increase in utilization at 148.2% increase in 2021 in comparison to 2019.



Mental health services utilization at PHCC reflected increase in demand through out the years to reach an increase of 134.1% comparing to its level in 2019.

Service category	2019	2020	% change from 2019	2021	% change from 2019
Home health care services	90,336	82,920	-8.2% ▼	83,364	-7.7% ▼
Specialist Ophthalmology services	90,650	64,703	-28.6% ▼	85,924	-5.2% ▼
Specialist ENT services	28,409	22,378	-21.2% ▼	35,146	23.7% ▲
Specialist Dermatology services	26,827	22,033	-17.9% ▼	32,698	21.9% ▲
Pharmacy services	2,399,709	1,923,128	-19.9% ▼	2,293,848	-4.4% ▼
Laboratory services	671,099	992,757	47.9% ▲	1,665,583	148.2% ▲
Radiology services	172,328	137,887	-20.0% ▼	174,261	1.1% ▲
Mental health specialised services	1,301	1,407	8.1% ▲	3,046	134.1% ▲
Home health care services	90,336	82,920	-8.2% ▼	83,364	-7.7% ▼
Specialist Ophthalmology services	90,650	64,703	-28.6% ▼	85,924	-5.2% ▼



CONCLUSION

CONCLUSION

The health needs assessment (HNA) - population health profiling for PHCC registered population as of 31st of December 2021 showed that almost 1,611,708 persons were registered at PHCC health centers across PHCC operational regions (central, western, and northern). The registered population is relatively young with almost 45.5% of them under the age of 18 years. This creates a window of opportunity to provide health promotion and disease prevention measures for behavioural change and nudges at younger age to yield better health outcomes in the long run.

Evidence shows that early interventions addressing the behavioural and metabolic risk factors for noncommunicable diseases (NCD) such as (smoking, obesity and overweight, and lack of physical activity) will provide better health outcomes and reduce the likelihood of developing the NCD conditions.

Burden of NCDs was found to be a concern among the registered population aged above 18 years at PHCC health centers, especially the Qatari population.

The type 2 diabetes overall prevalence was 11.4% among all nationalities with highest prevalence observed among Qataris at 19.2%. The prevalence of hypertension was relatively higher among Qataris than that among all nationalities at 17% and 12.6% respectively. The comorbidity of diabetes and hypertension combined had a prevalence of 6.2% among all nationalities with the higher prevalence among Qataris at 11.2%. Asthma and obstructive pulmonary diseases (COPD) had a prevalence of 4.9% among all nationalities and 11.7% among Qataris.

The prevalence of NCDs metabolic and behavioural risk factors among Qataris was higher than that across the total population registered at PHCC health centers. Tobacco consumption rate among Qatari males was higher than that among non-Qataris at 30.7% and 23.5%, respectively. The overall prevalence of obesity was 39.3% with Qataris having higher rate (45.3%) than among non-Qataris (36.5%).



High blood sugar (hyperglycemia) was found to be high among all the nationalities with an overall prevalence of 20.6%. This affects people with diabetes. Several factors might attribute to hyperglycemia in people with diabetes, including food and physical activity choices, illness, non-diabetes medications, skipping or not taking enough glucose-lowering medication. However, the proportion of persons classified as pre-diabetic defined by HbA1c between 5.7% and 6.4% was 25.7%. The pre-diabetic patients will be the most eligible population to benefit from early interventions with the exercise medicine and healthy lifestyle programmes to halt the impact of developing type 2 diabetes or reduce the medical complications that are associated with uncontrolled type 2 diabetes.

High level of blood fats (hyperlipidemia) which indicates that the body has more lipid fats in it (cholesterol and triglyceride). These can contribute and cause blockages in the blood vessels. Therefore, high cholesterol can trigger risk of a stroke or heart attack. However, lifestyle changes like eating healthier and exercising can lower the cholesterol in addition to the medications if required. Among PHCC registered population the overall prevalence of high cholesterol level- cholesterol >6.2 mmol/l was 8.3%, and high triglyceride level- 1.7 mmol/l or higher was 28.0% among all nationalities. This emphasizes the need for more interventions to adopt healthier eating habits and enhance the exercise culture and practices among PHCC target population.

Low level of vitamin D and vitamin D deficiency can include muscle weakness, pain, fatigue, and depression since vitamin D is needed to ensure that the body is functioning well with strong bones. Among PHCC population reduced level of vitamin D- 20 ng/ml or less was observed among 56.0% of the overall registered population irrespective of nationality. Thus, more interventions are needed to encourage people to get enough of vitamin D through certain food, supplements, and careful sunlight exposure.

Breast feeding practices remained low across all lactating women registered at PHCC health centers with an overall exclusive breastfeeding practice at 6 months of 15.4% among all the lactating women who were asked about their infant feeding practices at their visits at the well-baby clinics. However, exclusive breast feeding at 4 months was higher at 20.7%. This highlights the need to invest more in strategies and plans at the community level to enhance and encourage exclusive breastfeeding especially among Qatari women, who reported the lowest rate.

Childhood and adolescent obesity is a serious problem globally and in Qatar, putting children and adolescents at risk of poor health. Obesity prevalence among children and adolescents aged between 5-10 years and 11-18 years among PHCC registered population was 18.0% and 27.5%, respectively. The highest level of obesity prevalence was observed among Qataris aged 11-18 years at 33.4%. This if not addressed with the effective strategies for behavioural change to adopt more active lifestyle and to enhance exercise and healthier eating habits, will lead to poor health outcomes among the children and adolescent considering that around 45.5% of PHCC population are under the age of 18 years.

PHCC services utilization in 2020 and 2021 were affected by the COVID-19 pandemic following the global trend of primary care services utilization through the pandemic. The delivery of dental services across much of the world have been affected heavily by the pandemic as of March 2020, due to the high infection risk associated with the aerosol generated procedures, such as the use of high-speed drills. This trend was also observed in PHCC dental services delivery where the services utilization was dropped significantly as of 2020.

PHCC preventive services were affected by COVID-19 as well. This reflected on the cancer screening services for breast and colorectal cancer due to the suspension and disruption since the beginning of the COVID-19 outbreak leading to a substantial reduction in the services utilization in 2020 and 2021.

Additionally, The COVID-19 pandemic had an enormous effect on PHCC efforts on screening for non-communicable diseases (NCDs) behavioural and metabolic risk factors through SMART screening which resulted in a decline in the services utilization in 2020 and 2021.

However, the Mental health services at PHCC demonstrated a significant increase in the services utilization during the pandemic. This might be a result of the new strategies that were put in place, including providing teleconsultations and allocating a hotline for people seeking psychosocial support operating 24 hours a day, seven days a week. In addition, communication campaigns were established to encourage the public to utilize of the psychosocial teleconsultation services.

Finally, this report illustrated an understanding of the demography, the burden of NCDs and their subsequent risk factors, the children and adolescent health, and the communicable diseases notifications among PHCC registered population across twenty-eight health centers covering the entire State of Qatar in 2021.

The findings of this report will enable PHCC to enhance and better prioritise its strategic objectives and interventions to work towards improving the health outcomes of its target population. The significance of assessing the health needs rather than the demand is widely acknowledged in health services planning. Therefore, the finding of this report will be integrated into the planning of the new PHCC corporate strategic plan.





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