## HEALTH INFORMATION AND MONITORING AMONG QATARI ADOLESCENTS

2017



UNIVERSITY IN QATAR

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# HEALTH INFORMATION AND MONITORING AMONG QATARI ADOLESCENTS, 2017

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# EXECUTIVE SUMMARY

This report presents the results of the first comprehensive and large-scale investigation of Qatari teenagers' health-information and healthmonitoring behavior. A survey of more than 1,100 Qataris, 13 to 20 years old, conducted in spring 2017, addressed which health issues they are most concerned about, how often they use various types of health monitoring tools and communication platforms to seek health information, how satisfied they are with what they get through these platforms and tools, how much they trust health information channels, and whether they have ever attempted to change their behavior due to health information or digital health tools.

Young people in Qatar still rely heavily on interpersonal sources of health information, including their parents, siblings, friends, and medical providers. Nevertheless, the vast majority of teens also turn to the *internet* for health information. The internet has far eclipsed other media as a source of health information particularly newspapers and radio. Only television can compete, to some extent, with online sources. Finally, *health campaigns* in Qatar do not reach the younger Qatari demographic as often as one would hope.

Many Qatari teens have also turned to digital devices—apps and games—beyond online health information. Health trackers, however, have not gained traction among teens.

The internet most often serves as a tool for additional information about symptoms, treatments and medication. But it is also a pathway for accessing information that could have a negative impact on their health. This is why our study underscores the importance of ensuring that accurate, appropriate, and easily accessible health information is available to teens online. But Qatari teens' naivety when it comes to *posting* about personal health problems is alarming as well—reasons for making sure teens have strong digital health literacy: They need the judgment and skills to know how to assess and deal with the abundance of information they come across online.

# INTRODUCTION

If there is one thing that defines the current generation of teenagers, it is the degree to which they are always "connected"—spending vast amounts of time online and on their digital gadgets, using social media, surfing the web, watching YouTube videos, and using apps of all kinds.

The teenage years are also a time when young people grapple with a tangle of health concerns many uniquely important during these particular years of life. Puberty, hygiene and weight problems: Teens must traverse a landscape replete with significant new health challenges—often while coping with substantial amounts of stress and sleep deprivation.

Qatari adolescents face severe health problems. Qatar has the highest rate of *overweight* boys and young men under 20 years old (34 percent) in the Middle East and in North Africa (Ng et al., 2014). Another serious cause for health problems in Qatar is *smoking*—of cigarettes, but also of shisha. In 2014, according to Qatar's *Hamad Medical Corporation (HMC)*, 37 percent of Qatar's population aged 15 and above said that they smoke tobacco (Doha News, September 2014). And in his study of undergraduate students, Abdel-Khalek (2013) posits that *mental health* problems are also comparatively frequent in Qatar.

Of course, Qatar has taken steps to address these health issues through a variety of national initiatives—from campaigns for a healthier diet to "Step into Health," an app launched by the *Aspire Zone Foundation* in Qatar to help users keep track of their physical activity. Qatar also has invested in measures to convince teenagers to avoid smoking shisha or to quit the habit (Almulla, 2013). As a reaction to the mental health issues in the country, *Qatar's National Mental Health Strategy* was launched in 2013 "to provide the best possible mental health services for our citizens, while changing attitudes towards mental illness" (Supreme Council of Health, 2013). Last but not least, in 2015, *Qatar's Primary Health Care Corporation (PHCC)* and *HMC* started the "Beautiful Smile" program for school children to encourage them to care more about their *teeth*.

But do public campaigns in Qatar actually serve their purpose? And how, if at all, does the immense increase in health-related information on the internet and on social media help Qatari teens find effective health-related information? In addition, more and more health-monitoring devices and health-related mobile applications have become available. Do these technologies aid Qatari youth to monitor and change their health behavior?

Our study is the first of its kind to comprehensively investigate how *Qatari teens* use the internet for health information and how they evaluate it—in comparison to the many other sources that contain health information. In addition, it is the first national survey in Qatar to document teenagers' use of digital technologies for health, such as mobile apps, social networking sites, electronic gaming, and wearable devices.

# LITERATURE REVIEW

So far, little evidence exists about health information behavior in the Gulf region among adolescents:

- Arnott-Smith and Keselman (2015) found that GCC residents of all ages "first seek information from conversations with physicians and hospital personnel, followed by family, friends, and knowledgeable elders and religious leaders in the community" (p. 174).
- Similarly, 93 percent of respondents in Saudi Arabia first expected health information from their physicians (Al Ghamdi & Almohedib, 2011).
  Specifically among Saudi *females, personal* sources of all kinds seemed to be popular (Al Ghareeb, 2009).
- Also, interviews with Qatar Cancer Society (QCS) educators revealed that "the most common information sources about cancer in Qatar originate in advice from friends and family in addition to the patient's physician" (Arnott-Smith & Keselman, 2015, p. 173).

These results could be explained through the Arab world's more *relationship*-based culture, instead of a *rule*-based one (Hooker, 2012). This means that social behavior is more strongly determined by one's family, peers and superiors. In his classic work in 1984, Hofstede found a value system for the Arab world that is characterized, among other features, by masculinity and "power distance," i.e., more hierarchical relationships. These cultural characteristics should indeed make *personal* health communication more successful. Also, a person's power and charisma could count more than their professional expertise.

But interestingly, at least in Qatar, this plausible pattern is not as clear-cut as it looked for Qataris' information behavior specifically about *cancer* (see above). Because for health information *in general*, a representative sample of Qataris in 2016 named *Primary Health Care Centers (PHCCs)* as the most frequently used health information source, followed by family, friends, and then the internet (especially among women and younger Qataris). On the internet, Google was the most popular search tool (Choudhury et al., 2016).

There has only been one study with (some) evidence of how media use and communication channels for health information among young people in MENA countries *develop*. Northwestern University's surveys titled "Media use in the Middle East" (Northwestern University in Qatar, 2013, 2015) show that in 2015, almost half (45 percent) of Qatari internet users aged 18 to 24 years looked up health information (in the widest sense of the term) at least once a day-a sharp rise from 24 percent of that same group in 2013. In 2015, almost half (48 percent) of the same age cohort reported that the "most important source for health information" was websites; 31 percent named face-to-face personal communication, and only six percent mentioned television. Social media followed with five percent.

Not surprisingly, we find more evidence in *Western* countries of the important role of the internet for health communication behaviors and attitudes among teenagers: In the United States, a 2015 national survey of almost 1,200 Americans age 13 to 18 revealed that the internet is used by most adolescents (84 percent) for health information (Center on Media and Human Development, 2015). However, when asked where they got "a lot" of health information recently, only 25 percent named the internet, but more than half (55 percent) their parents. A third of the teenagers (32 percent) mentioned health classes at school and 29 percent doctors and nurses. So, yes, the internet seems an easily accessible first source for health information for U.S. adolescents. However, when it comes to finding more in-depth information, personal sources become more important.

# METHODOLOGY

This report describes the findings of a representative survey of Qatari teens, 13 to 20 years old. It was conducted from April 22 through May 17, 2017 with 1,117 Qatari nationals attending grades eight to ten at 36 independent (public) and international (private) schools. The survey was administered in Arabic by the *Social and Economic Research Institute (SESRI)* staff at Qatar University and used the platform BLAISE. The data were gathered on laptop computers with a research assistant interacting with the participants, solely for the purpose of providing instructions and answering questions. Parental and teen consent were obtained beforehand.

#### Sample design

In this study, the target population includes all Qatari students in preparatory and secondary schools, from grade 8 to grade 12. The sampling frame was developed by SESRI based on a comprehensive list of all public and international schools in Qatar provided by the *Supreme Council* of Education.

Almost 30,000 Qatari students were eligible for the survey. The schools in our sample were selected from the 114 schools with a reasonable number of Qatari nationals. Random systematic stratified sampling was performed to select a representative sample of 43 schools. Seven of those schools refused to participate, which left us with a final sample of 36.

Based on the information about the distribution of genders and grades, schools were divided into relatively homogeneous subpopulations (i.e., strata). Inside each stratum, students were randomly selected following a two-stage sampling process: In the first stage, the school was selected with a probability proportionate to its size. In the second stage, we randomly selected classes in that school. Ideally, all 1,698 students in those classes were supposed to participate in the survey. However, 374 were absent during the time of our survey, and 106 refused to fill in the questionnaire. So, 1,218 students participated.

#### Survey design

Our questionnaire was prepared in several steps. First of all, whenever appropriate, we used questions from the 2015 U.S. study (see above) to make intercultural comparisons possible. The questionnaire covers the following categories of questions:

#### Sources of health information and use of healthmonitoring tools:

- Use of communication channels of all kinds for health information
- Trust in these sources/satisfaction with them
- Criteria for selecting one's sources of health information
- Reasons for/purposes of going online for health information
- Ways of finding health information online
- Encountering specific health campaigns
- Encountering problematic content online
- The role of health classes at school
- Willingness to post health-related questions online
- Use and usefulness of health-related apps, games and health trackers
- Perceived attempts to change one's health behavior due to health information sources and tools

#### Background information about our respondents:

- Health issues that Qatari teens find personally important
- Perceptions of which health issues one's friends care about
- Satisfaction with one's body
- Physical activity and reasons for being active
- Eating behaviors
- Traumatic experiences
- Perceived self-efficacy, i.e., confidence in one's ability to change behavior.

A first draft of the questionnaire was developed and translated into Arabic. Cognitive interviews followed in order to test the validity of the survey questions. The students that participated in these interviews were selected from across the target age/grade range from grade 8 to grade 12. Fourteen females and ten males were interviewed. The interviews were conducted face-to-face and took about 40 to 60 minutes to complete. Openended questions ensured that:

- the final survey included any health issues and information tools relevant to our target group that we had not initially included,
- our questions and response options were understood properly,
- our respondents did not refuse to respond to questions because they were regarded as inappropriate or irrelevant.

Based on the findings of our 24 cognitive interviews, we constructed a revised version of the questionnaire. This version was programmed and tested in a pilot study under real-life conditions through a computer-aided self-administered interview. Thirty-four pretest interviews were completed from two classes at two schools from the two corner grades of our target group grades eight and 12. The respondents were selected to represent the gender and age group distribution of the target population. Based on the results, the questionnaire was modified, but also shortened—to take about 30 minutes to fill in (see the appendix of this report for the final questionnaire).

#### Survey administration

The survey was programmed in BLAISE and administered using laptop computers. The data collection took place between April 22 and May 1, 2017. At the schools that agreed to participate in the study, opt-out consent forms were sent to the parents of eligible student participants. Signed student assent was collected prior to administering the survey. Trained data collectors provided students with laptops and instructions on how to complete the survey.

#### Weighting the data

For the analysis of our data, the sample design is taken into account to ensure that statistical estimates are unbiased and efficient. Particularly, a weighting variable was created for the selection probability of each respondent and for nonresponses. The weights were also calibrated to align our results with population estimates. The "raking" method was used for this calibration to adjust the weights in the sample—so that the proportions of the adjusted weights for certain characteristics (e.g., proportion of students by grades) agree with the corresponding proportions of the population.



#### Table 1 School grade of Qatari national respondents

GRADE	PERCENT
8	19
9	17
10	29
11	20
12	15
Total	100

N = 1,083

#### Table 2 Age of Qatari national respondents

AGE	PERCENT
13	5
14	17
15	22
16	25
17	19
18	8
19	3
20	1
Total	100

### The Sample

In total, 1,218 high school students at Qatari schools were interviewed. 1,117 of them were Qatari nationals—they are the basis of our analyses. Eighty-five percent of those respondents attend an independent (i.e., public/government-owned) high school. The other 15 percent were students from international (private) schools. The Qatari nationals consisted of 49 percent females and 51 percent males. Each of the grades (8 to 12) was represented by at least 15 percent of these respondents (Table 1). Respondents' ages ranged from 13 to 20 years (Table 2), with a median age between 15 and 16 years.

#### Table 3 Health issues important to Qatari teens

Percent who say that each health issue is "very" important to them personally

ISSUE	Qatari teens age 13-20	Qatari girls	Qatari boys	Qataris age 13-15	Qataris age 16-20
Hygiene	87	93	81	91	86
Dental health	76	80	72	79	75
Sleep	69	77	62	69	70
Fitness and exercise	58	55	60	58	57
Diet and nutrition	57	56	58	57	56
Cancer	56	65	47	55	57
Road safety	53	54	55	54	52
Heart disease	-51	59	44	53	52
Diabetes	49	51	40	42	48
Domestic violence or abuse	43	57	30	40	48
Depression/other mental health issue	36	45	28	32	40
Attention Deficit Disorder (ADHD)	32	36	28	28	35
Colds/Flu	30	33	27	28	31
Reproductive health	30	29	32	14	45
Allergies	30	37	23	29	30
Stress or anxiety	29	33	25	27	32
Smoking	29	31	26	24	32
Eating disorders	24	29	19	22	26
Bullying	23	27	18	14	32
Traditional healing methods	21	20	21	22	20
Issues surrounding puberty	21	25	16	9	30
N	1,117	549	565	467	581

Base: Qataris age 13-20.

QATARI TEENS & HEALTH INFORMATION, 2017

### Health Topics Most Important to Teens

What do Qatari adolescents worry about when it comes to their health? To answer this, we asked which health issues are "very" important to them personally. The top health issue cited by Qatari respondents was *hygiene*, followed with some distance by dental health and sleep. Fitness and exercise, diet and nutrition, cancer, road safety, and heart disease are also very important for at least half of our respondents.

Interestingly, only about a fifth of *all* Qatari teens between 13 and 20 said "issues around puberty" were very important to them personally. That changes once we look at younger (13-15 years) and older teens (16-20 years) separately. The older group were more likely than their younger counterparts (at least ten percentage points apart) to say that issues surrounding puberty, reproductive health and bullying were very important to them personally.

Analyzing the data by gender revealed that girls ranked the personal importance of *eight* health issues considerably higher than boys (by at least ten percentage points). Girls were more likely than boys to rank the following topics as "very important" to them personally: domestic violence, cancer, heart disease, depression, allergies, eating disorders, hygiene and sleep (Table 3).

#### Table 4 Health issues important to Qatari teens' friends

Hygiene	72
Dental health	61
Sleep	60
Cancer	50
Diet and nutrition	50
Fitness and exercise	49
Heart disease	48
Road safety	47
Diabetes	42
Domestic violence or abuse	39
Depression or other mental health	34
Smoking	33
Allergies	31
Stress or anxiety	30
Colds/Flu	28
Attention Deficit Disorder (ADHD)	28
Eating disorders	26
Bullying	24
Reproductive health	24
Traditional healing methods	23
Issues surrounding puberty	.21

Base: Qataris age 13-20; n=1,117.

QATARI TEENS & HEALTH INFORMATION, 2017

Perhaps unsurprisingly, Qatari teens' perceptions of which health issues **their friends** care "a lot" about are a close reflection of the issues they find personally significant. Respondents said that the top five health issues of significance for their friends were hygiene, dental health, sleep, cancer, diet and nutrition—followed by fitness and exercise, heart disease, and road safety (Table 4).

#### Table 5 Health information sources used by Qatari teens

Your guardians	79
Friends	76
YouTube	72
Instagram	71
Brothers or sisters	69
Snapchat	69
Doctors/Nurses	68
_eaflets/pamphlets from hospitals	57
TV shows other than news	57
Books	54
A medical website	54
TV news	53
Twitter	50
Health classes in school	49
Wiķipedia	49
Ads on TV	48
Ads online	46
Sahatak Awalan website	43
Billboards	40
Online news articles	39
Online magazine articles	38
Online forums about health information	36
Ads in newspapers	31
Print magazine articles	30
Ads in magazines	29
Print newspaper articles	29
Radio	28
Ads on the radio	26
Facebook	20

### Sources for Health Information

Parents ("guardians") can rest assured that they remain the single most cited source of health information for Qatari teens, followed closely by friends, brothers or sisters, doctors and nurses. All of these are *personal* communication sources. However, three online platforms—YouTube, Instagram and Snapchat—also belong to this top group of health information sources (Table 5).

Still more than half of our respondents also mention leaflets and pamphlets from hospitals, TV news, TV shows other than news, medical websites and books. The least frequently used sources for health information are Facebook, radio, print media, online forums, online magazines, and news articles. Health classes at school are literally in the middle of the rank order, with 49 percent.

Base: Qatari adolescents age 13-20; n=1,117. QATARI TEENS AND HEALTH INFORMATION, 2017



Among Qatari teenagers, **Arabic** is the most popular language to look up health information: More than four-fifths (82 percent) of our respondents use it. Only a little more than a quarter (27 percent) also use English (Chart 1).

#### Chart 2



How often Qatari teens look up health information online

**Using online health searches.** Most Qatari youth look up health information online fairly frequently. More than 40 percent of teens claim to seek health information online at least once a week and a fifth (20 percent) do so daily. Only six percent never look for health information on the internet (Chart 2).

All in all, a large majority of Qatari teenagers is satisfied with the health information on the internet: As many as 82 percent reply "yes" to the question: "In general, are you satisfied with the health information you've gotten from the internet?"

Base: Qataris age 13-20: n=1.117.

QATARI TEENS & HEALTH INFORMATION, 2017



#### How Teens Look for Health Information Online

Search methods. Among the 94 percent of teens who use the internet for health information less than once a year or more, over four-fifths say they "often" start their searches by *googling* a topic. However, it is also quite common for teens to stumble upon health information: Three fourths of Qatari adolescent internet users claim that they come across the information "while browsing." Almost as frequent is "going directly to a specific health website" and "using links from social media." In other words, finding health information through *intentional/active* searches and *accidental* encounters seem to fairly hold the balance (Chart 3).

#### Table 6

#### Social media as a health information source

PERCENT WHO	AMONG		
	Qatari teens age 13-20	Qatari girls	Qatari boys
Have ever used Twitter for health information	50	53	47
Often/sometimes find health information by following links on social media sites	33	40	34
Have ever used another social media site for health information	29	27	31
Have ever used Facebook for health information	20	12	27

Base: Qataris age 13-20; girls n=549, boys n=565.

QATARI TEENS & HEALTH INFORMATION, 2017

## Social Networking Sites as a Source of Health Information

How popular are Facebook, Twitter, or other social media sites (such as Reddit, Instagram, or Tumblr) for finding information or advice on a health topic? Twitter is the most popular among Qatari teens, with half of them saying they use it for health information. Facebook seems to divide the genders—twice as many boys (27 percent) than girls have ever used it for health information (12 percent). Interestingly, a third of all respondents told us that they find health information by following *links* from social media at least "sometimes" (Table 6).



Awareness of health campaigns among Qatari teens

Base: Qataris age 13-20; n=1,117. GATARI TEENS & HEALTH INFORMATION, 2017

#### Awareness of Health Campaigns

Not a single *health campaign* seems to have reached *a majority* of Qatari teens—even though our questionnaire tried to jog their memory by providing them with a list of the most important recent campaigns in Qatar. The most impressive of them was "Kulluna for Health & Safety," an initiative organized by *Hamad Medical Corporation (HMC)* since 2012. This campaign aims to support the *Qatar National Vision* by raising public awareness about various health and safety issues such as heart health and children's safety. However, only a little less than half of our respondents claimed to have encountered it (Chart 4).

"Beautiful Smile" from Qatar's Primary Health Care Corporation—a campaign about dental health—was next. At least more than a third of Qatari teens recognized "Your Healthy Choice," a project under the "Your Health First" or the "Sahatak Awalan" initiative organized by Weill Cornell Medicine-Qatar that aims to encourage healthier food choices, "Qatar Patient Safety Week" by the Ministry of Public Health (MoPH), "Think Pink Awareness Week" about breast cancer and organized by various Qatar Foundation institutes and universities. "Screen for Life" for breast and bowel screenings organized by the MoPH, HMC, National Cancer Program and the Primary Health Care Corporation, and finally -"Early Detection Saves Lives," an initiative by HMC which also aims to raise awareness and educate the community about breast cancer.

#### Reasons Qatari teens seek health information online

for the following reasons



Base: Gataris age 13-20 who use the internet; n=981.

#### Why Young People Look for Health Information Online

For the 94 percent of teens who looked for health information online "less than once a year" or more. the most common reason to do so was to find (additional) information about their own health condition: "to check my symptoms or to find out what was wrong with me" and "to learn how to treat an illness, condition, or injury I had." More than two thirds (69 percent) mentioned at least one of these two purposes. More than half also cited the following reasons for seeking health information online: a school project, to get more information after a doctor's visit, to get information about medications, and simply because a family member or a friend recommended a specific website.

Interestingly, almost half (48 percent) of online health-seekers claim to turn to the internet for health information that they "couldn't talk to their guardians about" (Chart 5).

#### Table 7

#### Seeking information about sensitive health topics

Among Qatari adolescents, percent who say they are very likely to do the following if they had a question about a sensitive health topic:

Talk to your mother about it	35	
Talk to your father about it	25	
Talk to your doctor or nurse about it in person	21	
Talk with your friends about it	20	
Look up the information online	18	
Talk to someone about it on a hotline	8	

Base: Qataris age 13-20; n=1,117.

**QATARI TEENS & HEALTH INFORMATION, 2017** 

However, using online health information as a substitute for one's guardians is put into perspective by the answers to a more forthright inquiry: "If you had a question about a sensitive health topic, how likely would you do each of the following"? Menstruation and depression were presented as examples to our respondents. Here the internet plays a much weaker role, as less than a fifth of our respondents (18 percent) would "very likely" look up a sensitive health topic online. Only eight percent would talk to someone about this type of topic online. In contrast, the most popular source for these kinds of health issues is one's mother (35 percent), followed by other personal sources including fathers, doctors or nurses, and friends (Table 7).

Frequency of exposure to the following types of information online... Percent who have come across this type of information online whether on purpose or not



### Accessing Sensitive and Problematic Information Online

Just as teens can use the internet as a tool for preventive health—e.g. learning how to eat well, stay fit, and reduce stress—it can also expose them (or offer access to) information that could potentially contribute to unhealthy behaviors. Teens who are interested in smoking at an early age or who are engaging in eating disorders may actually *seek out* information that fuels those unhealthy behaviors. Others may simply come across such information when browsing online.

We asked the older Qatari teenagers in our sample (grades 10 to 12) how often they had "come across" certain types of information online (whether on purpose or not) that could contribute to less healthy behaviors. They were explicitly reminded that they could refuse to answer. About a fifth of our respondents found "extreme ways to lose weight" at least "sometimes" on the internet. Less than a fifth admits to have "sometimes" encountered "inappropriate sites" (a veiled expression for pornography), "how to obtain steroids" and "how to obtain cigarettes or shisha." The low figure for the latter (eleven percent) is not surprising: The internet is not necessary to find out how to get cigarettes (Chart 6).

#### Important considerations when using health sources

Percent who say the following are important considerations for them when they use health information sources



### Perceived Quality of Health Information Sources

The most important criteria for selecting sources of health information are *confidentiality* and *convenience* (finding information "easily" and "at a time and place that is convenient for you"). More than three quarters of our respondents name these criteria. Even at the end of our list of possible reasons, there is one more convenience item that is still very popular: not having to see a healthcare professional—but also "not having to rely solely on a doctor telling you what to take/what was wrong with you" (Chart 7).

#### Table 8 Trust in sources of health information

Your guardians	95
Doctors/Nurses	93
Brothers or sisters	87
eaflets/pamphlets from hospitals	87
Health classes in school	83
Books	82
Sahatak Awalan website	80
Friends	78
Online forums about health information	74
Medical website	73
Radio	69
YouTube	68
TV news	67
Snapchat	67
Billboards	66
Ads in newspapers	66
IV shows other than news	64
nstagram	64
Print magazine articles	63
Ads on the radio	63
Ads in magazines	63
Wikipedia	63
Twitter	62
Facebook	61
Print newspaper articles	60
Other social networking sites	59
Online magazine articles	59
Ads on TV	58
Online news articles	57
Ads online	51

Base: Qataris age 13-20; n=1,117.

QATARI TEENS & HEALTH INFORMATION, 2017

We then asked respondents which health information sources they trusted, among the sources they said they use at all. At least half of the users of a given source said they trusted it – this is quite plausible because trust is certainly one of the major considerations when choosing whether or not to use a source for health information. So, it may also be unsurprising that the most trusted sources for health information are (in most cases) also the most often *used* (see above, Table 5): Personal sources like guardians, doctors/nurses, and brothers or sisters top the list again. Only friends rank a little lower than before.

The top group of trusted sources (mentioned by at least three quarters of our respondents) includes leaflets/pamphlets from hospitals, books, and health classes. Interestingly, *Sahatak Awalan* is the only campaign website that is also one of the most trusted sources. It was not used by particularly many teens (see above, Table 5), but it seems that those who do use it for health information, also trust it disproportionally (Table 8).



Our findings clearly show that Qatari teens find online health information useful. For health or medical information specifically on the internet, we had asked about a number of consequences resulting from it in the past twelve months. More than two thirds of Qatari teens agreed with all seven potential results of consulting the internet that we had presented to them. More than three fourths claimed that – based on health information found online – they tried to diagnose a health problem, felt more comfortable with advice from doctors, and sought more information.

Notably, the most common impact of seeking health content online mentioned above is about *information*, as opposed to real *actions* such as contacting a health professional or treating a health problem. But reassuringly, these two 'actions' were still mentioned by more than two thirds of our respondents (Chart 8).

#### Chart 9



Base: Qataris age 13-20; minimum n=983.

QATARI TEENS & HEALTH INFORMATION, 2017

**Posting something about health.** Qatari teens are not particularly reluctant to *post* about health issues online. Privacy concerns do not seem to play a big role for them. While Qatari teens are a little more hesitant to post about health issues on more 'public' social media sites (such as Facebook or Twitter) than on direct messaging services such as WhatsApp, the difference is surprisingly small. Respondents were also more likely to post about a "general health topic that doesn't affect me personally" than to post about "a personal health problem"—but again, there is only an unexpectedly small difference (Chart 9).



\*Video, computer, or mobile game related to health, Base: Qataris age 13-20; n=1,117.

GATARI TEENS & HEALTH INFORMATION, 2017

### Digital Health Tools: Mobile Apps, Digital Games, and Wearable Devices

Digital tools for health information and monitoring are popular: As we know (see above, Chart 2), about nine in ten Qataris have used the internet for health information (94 percent). But using (or at least downloading) mobile health apps also comes close to this impressive figure and over half of Qatari teens play video, computer, or mobile games related to health. However, wearable health trackers seem to be less attractive to teens, with around a third of respondents saying they use them (Chart 10).

#### Chart 11



**Mobile health apps.** Interestingly, however, among the almost four-fifths of Qatari teens who have at least downloaded mobile apps about health, almost half "hardly ever" use them. Only about one fifth said they "often" use their mobile health app (Chart 11).



Fitness and exercise, diet and nutrition, sleep, and dental health are among the top health-related issues that Qatari teens mentioned as being important to them personally—and for their friends (see above, Tables 3 and 4). No surprise, then, that these are also the topics of the apps they download. Qatari teens were also somewhat likely to download apps related to mental health (34 percent) and smoking (28 percent) (Chart 12).

#### Chart 13



We asked our respondents specifically which apps they had downloaded or used from a list of the most widespread apps used in Qatar. There are no unanimously popular ones, however. Even the two top apps only reach 15 and 13 percent of app users, respectively: "Your Health First: Calorie Counter" for nutrition and "Nike + Run Club" for fitness (Chart 13).

#### Chart 14

How helpful were the wearable health trackers you used? Percent who have ever used health trackers and said they were:



**Wearable health devices.** Two-thirds of Qatari teens have never used a wearable health tracker such as a Fitbit, FuelBand or the health-tracking function on a smart watch. A possible explanation for this high number could be that 66 percent of Qatari teens have "ever" used or downloaded fitness apps on their smartphones (see above, Chart 10) and may be using those apps as a substitute for health devices. Interestingly, even the relatively few users of health trackers do not find them really helpful (Chart 14).

#### Types of health-related digital games

Percent who say they have ever played the following types of health-related digital games (among those who play health-related digital games)



#### Games for health

A minority of our respondents (12 percent) said they have "*never*" played a health-related video, computer, or mobile game (see above, Chart 10). These three gaming devices do not vary much in popularity, although *mobile* games are somewhat more widespread than computer and video games (Chart 15).

#### Chart 16



Surprisingly, games about *mental health* issues seem to be the most popular—a third of our respondents claim to have played them. Games relating to health issues that were most important to Qatari teens *personally* — fitness & exercise, smoking, dental health and diet & nutrition (see above, Table 3) follow with a distance. Games relating to those issues all hover between 16 and 21 percent of Qatari teens who have ever played games about health (Chart 16).



Similar to our findings about the helpfulness of health trackers (see above, Chart 14), gamers were also unlikely to find health-related games very helpful: More than half told us that the healthrelated games they played were "not too helpful" at most (Chart 17).

#### Chart 18

#### Types of health classes



### Health Classes at School

Only seven percent of all 13 to 20-year-old Qataris said they had a full health class at school (i.e., a class that was devoted specifically to health topics and lasted for at least a semester or term). Health was covered as part of another class such as biology, or only in one or more special assemblies on health topics, for about a quarter of teens. Almost a third of Qatari teens said that they *never* had any classes or assemblies about health (Chart 18).

#### Table 9 Topics of health education at school

Percent who say each topic was discussed	Among those who took a semester-long health class	Among those who covered health as part of another class or in a special assembly
Hygiene	60	77
Diet and nutrition	58	78
Fitness and exercise	58	78
Dental health	56	70
Road safety	56	65
Smoking	55	71
Cancer	50	57
Diabetes	49	69
Heart disease	49	56
Allèrgiés	48	46
Sleep	41	52
Attention Deficit Disorder (ADHD)	41	44
Depression or other mental health issue	40.	.43
Stress or anxiety	40	46
Colds/Flu	37	57
Domestic violence or abuse	35	40
Bullying	31	28
Traditional healing methods	30	43
Eating disorders	28	46
Issues surrounding puberty	27	29
Reproductive health	24	27
N	79	611

Base: Qataris age 13-20.

GATARI TEENS & HEALTH INFORMATION, 2017

According to the Qatari teens surveyed, the most frequent topics covered in health classes (mentioned at least by half of our respondents) were hygiene, diet and nutrition, fitness and exercise, dental health, road safety, smoking, and cancer. Similar topics were taught to teens who had health covered as part of another class (such as biology) or just in special assemblies—except that now diabetes, heart disease, sleep, and colds/flu were also among the topics mentioned by at least half of our respondents (Table 9).

#### Table 10 Changing health behavior due to health information sources

Your guardians	86
Brothers or sisters	84
Doctors/Nurses	84
Friends	75
Leaflets/pamphlets from hospitals	74
Sahatak Awalan website	72
Health classes in school	72
Books	71
Snapchat	69
Online forums about health information	68
Facebook	67
Print magazine articles	65
YouTube	65
Ads in newspapers	64
Radio	64
Online magazine articles	63
Ads on the radio	63
Twitter	63
Wikipedia	63
Medical website	62
Instagram	61
Print newspaper articles	61
Other social networking sites	61
Ads in magazines	61
Billboards	58
Online news articles	58
TV shows other than news	58
Ads online	55
TV news	55
Ads on TV	54

## Health Information as a Reason for Behavior Change

Have Qatari teens changed a health-related behavior as a result of the health information they encountered? To find out, we presented them with the sources they claimed to have used for health information and asked: "Irrespective of whether you succeeded or not, have you ever tried to change your behavior because of any of the health-related information you've found from each of the following sources?"

Interestingly, none of these sources is really unimportant in prompting teens to attempt to change their health behavior. Even "ads on TV," the least influential source, led more than half of their viewers to try to change their behavior. However, *personal* communication is the most prominent:

"Guardians" (i.e., mostly one's parents), brothers or sisters, doctors or nurses, and friends were said to be the most influential sources. This may not be too surprising, given that these same sources are the most likely to be used *and* trusted by Qatari teens for the purposes of health information (see above, Table 5 and 8 respectively).

However, more than two thirds of respondents also mentioned that traditional media channels led them to try to change their health-related behavior (leaflets/pamphlets from hospitals, health classes in school, books), but online sources as well (the local *Sahatak Awalan* website on health, Snapchat, online forums about health communication and Facebook) (Table 10).

Base: Qataris age 13-20; minimum n=212.

**GATARI TEENS & HEALTH INFORMATION, 2017** 

#### Table 11

#### Attempts to change health behaviors

Among those who said they tried to change a health behavior because of a health information source

Diet and nutrition	80	
Fitness and exercise	79	
Dental health	75	
Sleep	73	
Hygiene	72	
Stress or anxiety	61	
Issues surrounding puberty	61	
Colds/Flu	56	
Depression or other mental health issues	50	
Attention Deficit Disorder/ADHD	48	
Eating disorders	47	
Smoking	40	

Base: Qatari adolescents age 13-20; minimum n=582.

QATARI TEENS & HEALTH IMFORMATION, 2017

What kinds of health-related behavior did teens try to change because of health sources? Most often (and quite plausibly) the behaviors that they tried to change were those that are the most important to them personally (see above, Table 3): diet and nutrition, fitness and exercise, dental health, sleep, and hygiene. Still, more than 50 percent also mention stress or anxiety, issues surrounding puberty, and colds/flu (Table 11).



#### Chart 20

Health-related digital games and changed behavior who tried to change their behavior due to a digital game related to the following topics 100% 91 87 84 80 75 80% 68 66 60% 40% 20% 0% Fitness & amp: Diet & amp: exercise nutrition Dental health Sleep Mental health Smoking Other

Base: Gataris age 13-20 who have ever played a video, computer, or mobile game related to health; minimum n=237.

### Digital Health Tools

Among those who have downloaded a healthrelated mobile app and used a wearable health tracker, a little more than 60 percent said they have tried to change a health behavior because of those health tools. Health-related games were a little less effective: About half of their users mentioned that they have changed their behavior as a result (Chart 19).

For health-related games, particularly popular among Qatari teens (see above, Chart 10), four fifths and more of the gamers tell us that they tried to change the following types of health behaviors, in descending order: fitness and exercise, diet and nutrition, dental health, and sleep. Again, these are health issues that young Qataris are most concerned about personally (see above, Table 3). But mental health (75 percent) and smoking (66 percent) are still very important as well (Chart 20).

GATARI TEENS & HEALTH INFORMATION, 2017

# CONCLUSIONS

Fortunately, the health issues that young Qataris find important for themselves and their friends are still lifestyle ones, as one would assume for this age cohort. They are concerned about diet and nutrition, fitness and exercise, hygiene, and sleep. For older adolescents, issues surrounding puberty and reproductive health were also important. Severe illnesses such as cancer, diabetes, HIV and heart diseases are still not perceived as that worrying among teens.

It is surprising that our respondents are fairly open about their interest in *mental health* information. Mental health problems seem to have been a taboo in Qatar until recently—for example, Qatar's *National Mental Health Strategy* was launched only in 2013 (Supreme Council of Health, 2013).

Despite the fact that the internet offers teens access to an abundance of information on virtually any health topic they could think of, it is heartening that young people in Qatar still rely heavily on interpersonal sources of health information, including their parents, siblings, friends, and medical providers. Even when it comes to sensitive health topics, teens are actually more likely to speak to their parents than to look up information on the anonymous internet.

But to be sure, the vast majority of teens—94 percent—also turn to the *internet* for health information, and one in five claims they look up health information online even *every day*. The internet has far eclipsed other media as a source of health information—particularly newspapers and radio. The internet often functions as a tool for additional or supplementary information about symptoms, treatments and medication, for checking if doctors gave the correct advice, but also for school projects. To some extent, only television can live up to internet sources. So, while the internet is not replacing parents, friends, and doctors; it may be supplementing them. This is why our study underscores the importance of making sure there is accurate, appropriate, and easily accessible health information available to teens online—the information is used, and acted upon, so it had better be good.

Most teens don't seem to explore much beyond what appears when they conduct an online search. So, our survey also highlights the importance of helping teens develop *digital health literacy skills*. Given that three quarters of teens said they "come across" the information they were looking for "while browsing," there seems to be plenty of room for improvement in terms of helping them hone their search skills.

Several government agencies and public health organizations in Qatar (e.g., the Ministry of Public Health, Hamad Medical Corporation, SIDRA, and the Primary Health Care Corporation) have been spearheading teen-oriented efforts on topics such as obesity, tobacco use and dental health. But all recent health campaigns in Qatar have not been as memorable as one would hope. For example, even reminding our respondents of the names of fairly prominent health campaigns did not inspire more than half of our respondents to remember one of them specifically. Qatari teens were most likely to recall the more universal campaign *Kullana for Health and Safety*. But interestingly, the *Sahatak Awalan* website is not used that often—but if it is, it belongs to the most trusted sources on health among Qatari teens.

Many Qatari teens have also gone beyond online health information and turned to digital tools like apps and games. Wearable devices, however, are not particularly popular among teens. Specific health trackers seem not to be needed because apps with similar functions are also built into smartphones.

We do have to be aware that just as teens are using the internet as a source of information and advice for health promotion, it is also a pathway for accessing information that could have a negative impact on their health (e.g., helping them access porn sites and promoting eating disorders). Also, their naivety when it comes to posting personal health problems is alarming. These are even more reasons to ensure teens have strong digital health literacy—they need the judgment and skills to know how to assess and deal with the abundance of information they come across online. Teaching digital literacy skills would seem to be an appropriate part of health classes, so that teens are empowered to search effectively for information on their own, and evaluate it appropriately. Health teachers can also function as guides, helping direct teens to the best sources of information.

# RECOMMENDATIONS

- Health campaigns in Qatar should be improved: All recent campaigns have not been as memorable among young Qataris as one would hope. Even reminding our respondents of the names of specific campaigns did not inspire more than half of our respondents to remember one of them specifically. The more universal campaign Kullana for Health and Safety was most often remembered. But interestingly, while Sahatak Awalan website may not be used that often, it is one of the most trusted sources on health among teens.
- Personal sources of health information and advice should be encouraged, educated and used: Young people in Qatar still rely heavily on their parents, siblings, friends, and medical providers as sources of health information. Even when it comes to sensitive health topics, teens are actually more likely to speak with their parents than to look information up on the anonymous internet.
- It is important to ensure that accurate, appropriate, and easily accessible health information is available to teens online—because the internet has become the most important mediated source. To some extent, only television can live up to internet sources. Internet information is used, and acted upon, so it had better be good.

- Digital tools—apps and games—are popular and should be used as instruments of health information and education.
- *Mental health* problems can be addressed in public health campaigns. Our respondents did not treat mental health as a "taboo" and were fairly open about their interest in mental health information.
- Teens should be helped develop *digital health literacy and search skills*. Many teens don't seem to explore much beyond what appears when they conduct an online search. Also, their naivety when it comes to *posting* about personal health problems is alarming. Teaching digital literacy skills would seem to be an appropriate part of health classes. Health teachers can also function as guides, helping direct teens to the best sources of information.
# REFERENCES

Abdel-Khalek, A. M. (2013). The relationships between subjective well-being, health, and religiosity among young adults from Qatar. *Mental Health, Religion & Culture, 16*, 306-318.

Al Ghamdi, K. M. & Almohedib, A. M. (2011). Internet use by dermatology outpatients to search for health information. *International Journal of Dermatology*, *50,292-299*.

Al Ghareeb, A. A. (2009). The role of health information resources in forming the health awareness of Saudi women: Applied study in Riyadh. *Journal of the Social Sciences 37(2).* 

Almulla, A. (2013). Impact of a school-based shisha use prevention program in Qatar: A pilot study. *Qatar Foundation Annual Research Forum Proceedings: BIOP 069*. DOI: 10.5339/qfarf.2013. BIOP-069

Arnott Smith, A., & Keselman, A. (2015). *Meeting health information needs outside of healthcare: Opportunities and challenges.* Amsterdam: Elsevier.

Center on Media and Human Development (2015). *Teens, health, and technology: A national survey.* Evanston, IL: Northwestern University, School of Communication.

Choudhury, S. M. et al. (2016) How do Qataris source health information? PLoS ONE 11(11): e0166250. doi:10.1371/journal.pone.0166250. Hofstede, G. (1984). *Culture's consequences: International differences in work-related values* (2nd ed.). Beverly Hills, CA: Sage.

Hooker, J. N. (2012). Cultural differences in business communication. In C. B. Paulston, S. F. Kiesling & E. S. Rangel (Eds.), *Handbook of intercultural discourse and communication* (pp. 389–407). Maladen, MA: Wiley-Blackwell.

Ng, M. et al. (2014). Global regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: A systematic analysis for the Global Burden of Disease Study 2013. *Lancet*, *384*, 766-781.

Northwestern University in Qatar (2013). *Media use in the Middle East 2013*. Doha, Qatar: Northwestern University in Qatar.

Northwestern University in Qatar (2015). *Media use in the Middle East 2015.* Doha, Qatar: Northwestern University in Qatar

Northwestern University in Qatar (2017). *Media use in the Middle East 2017.* Doha, Qatar: Northwestern University in Qatar.

Supreme Council of Health, (2013). *National mental health strategy: Changing minds, changing lives 2013-2018.* Doha, Qatar: SCH.

# Appendix: THE QUESTIONNAIRE OF THE STUDY

# **Teens & Digital Health Survey**

# **Demographic questions**

#### 

### [All respondents]

#### [Separate window/page, stand alone; both questions together]

#### How long have you lived in Qatar?

Less than6 months	1
6 months to1 year citizen	2
1 year but less than 2 years	3
2 years but less than 5 years	4
5 years but less than 10 years	5
All my life/i was born in Qatar	6
Don't Know	8
Refused	9

# [All respondents] [Separate window/page, stand alone; both questions together] [Open ended question] [Limit responses from 13-20} What is your age in years?

88	 Don't Know
99	Refused

#### If age = 88 or 99 ask

In what year where you born?

8	 Don't Know
9	Refused

#### [All respondents]

[Separate window/page, stand alone; all both questions together;] [If responding 8-9th or refused, there will be programmer notes in questions applicable asking to not show certain response]

#### What school grade do you belong to?

8th	1
9th	2
10th	3
11th	4
12th	5
Don't Know	8
Refused	9

### [All respondents]

[Numberboxes; range 120cm to 200cm] [Note to programmers: open question, program the question to limit responses to the range provided. It should be in centimeters.]

#### How tall are you?

centimeters

[All respondents]

[Numberboxes; range 30k -230k]

Note to programmers open question, program the question to limit responses to the range provided in kilos.]

How much do you weigh?

kilograms

# **Teens & Digital Health Survey**

# Main Questionnaire

#### [All respondents]

[Separate window/page, stand alone]

# Q1. Please mark the statement that best applies to you. (Mark one response only)

I attend an independent school/government school	_1
l attend an international school./private school	_2
Refused	_9

[All respondents]

[If respondent selected grade 8th-9th, don't know, or refused to answer, do not present option 7, 8, 9]

[All options can be randomized, but 4&5 should always be presented together and 7,8, & 9 should always be presented together. Anchor 22 last.]

[Display options 1-14 in one screen; 15-22 in second screen to avoid scrolling down]

[Other option-' other health topic not mentioned here" open text box; keep with table]

# Q2. Now please tell us how important each of the following health topics are to YOU PERSONALLY:

Not at all important	1
Not too important	2
Somewhat important	3
Very important	4
Refused	9

Depression or other mental health issues	1
Smoking	2
Allergies	
Diet and nutrition	4
Fitness and exercise	5
Eating disorders (such as anorexia or bulimia)	6
Reproductive health	7
Bullying	
Issues surrounding puberty (such as menstruation, acne)	
Hygiene	10
Road safety	11
Stress or anxiety	12
Sleep	13
Dental health	14
Colds/flu	15
Attention deficit disorder (ADHD)	16
Cancer	17
Diabetes	
Heart disease	19
Domestic violence or abuse	20
Traditional healing methods (e.g. acupuncture, herbal medicine, etc.)	21
Other health topic not mentioned here	22

Please Specify what other health topic not mentioned here

[All respondents] [Keep order of items in q2] [If respondent selected grade 8th-9th, don't know, or refused to answer, do not present option 7, 8, 9] [display options 1-14 in one screen; 15-22 in second screen to avoid scrolling down] [Other option-' other health topic not mentioned here" open text box; keep with table] [Marked for deletion pending pilot interview results/total time of survey] Q3. How much do YOUR FRIENDS care about each of the following health topics? Not at all 1 Only a little 2 3 Somewhat\_\_\_\_\_ 4 A lot\_\_\_\_\_ Don't Know 8 Refused 9 Depression or other mental health issues\_\_\_\_\_ 1 2 Smoking\_\_\_\_\_ 3 Allergies \_\_\_\_ Diet and nutrition\_\_\_\_\_ 4 Fitness and exercise 5 Eating disorders (such as anorexia or bulimia)\_\_\_\_\_6 Reproductive health\_\_\_\_\_7 Bullying \_\_\_\_\_ Issues surrounding puberty (such as menstruation, acne)\_\_\_\_\_9 \_\_\_\_\_10 Hygiene\_ Road safety\_\_\_\_\_11 Stress or anxiety\_\_\_\_\_12 Sleep \_\_\_\_\_ \_\_\_\_\_13 Dental health\_\_\_\_\_ 14 Colds/flu 15 Attention deficit disorder (ADHD)\_\_\_\_\_16 Cancer \_\_\_\_\_ 17 \_\_\_\_\_18 Diabetes\_\_\_\_ Heart disease\_\_\_\_\_ \_\_\_\_\_19 Domestic violence or abuse \_\_\_\_\_ 20 Traditional healing methods (e.g. acupuncture, herbal medicine, etc.) \_\_\_\_\_21 Other health topic not mentioned here.\_\_\_\_\_22 Please Specify what other health topic not mentioned here

[Respondents can only select either: 1-4 or 5 or 6]
[Multiple responses possible]
[If choosing "any other type of health class" a open text box should appear below the option; keep with table]
Q4b. Have you ever taken any of the following types of health classes at school? Select all that apply

Health was covered as part of another class, such as biology	_1
We had one or more special assemblies about health issues	_2
I had a class that was just about health for at least a whole semester or term_	_3
Any other type of health class not mentioned here	_4
None of these	_5
Refused	_9

Please specify type of other health class you took not mentioned here

[ If typeclss (q4b) = 5 or 9., Do not ask]

[Keep order of items in q2]

[If respondent selected grade 8th-9th, don't know, or refused to answer, do not present option 7, 8, 9] [present in table, with each participant going through each option and selecting either 1 or 2]

[Other health topic not mentioned here option- open text box; keep with table]

[Display options 1-14 in one screen; 15-22 in second screen to avoid scrolling down]

#### Q5. Which of the following topics were covered in health class?

This topic was covered in health class	_1
This topic was not covered in health class	_2
Refused	_9

Depression or other mental health issues	1
Smoking	2
Allergies	
Diet and nutrition	
Fitness and exercise	
Eating disorders (such as anorexia or bulimia)	
Reproductive health	7
Bully	8
Issues surrounding puberty (such as menstruation, acne)	9
Hygiene	10
Road safety	
Stress or anxiety	12
Sleep	
Dental health	
Colds/flu	
Attention deficit disorder (ADHD)	16
Cancer	17
Diabetes	18
Heart disease	19

Domestic violence or abuse	20
Traditional healing methods (e.g. acupuncture, herbal medicine, etc.)	21
Other health topic not mentioned here	22
Please specify	

[All respondents] [Multiple responses possible] [If they choose other, move on to the next question; no follow up question needed] Q6. What languages do you look up health information in? Select all that apply.

Arabic	
English	2
Other Language(s) not mentioned here	3
Refused	9
State language not mentioned here	

[All respondents]

[Options should be randomized. The position of f & g can change in the list as well, but they should always be presented together, with f presented first, then g.

Anchor ee last]

[Display options 1-14 in one screen; 15-22 in second screen to avoid scrolling down]

[Other option they can select yes/n/r but when choosing open up textbox asking "please specify which other source you get health information from" open text box; keep with table if possible]

[Participants should be able to skip writing something in textbox]

Q7. People get information about health from many different sources. For each of the following sources please indicate whether you have used them at all to get information about health topics.

1

2

3

```
Yes. I use this source
No I haven't used this source
Not Applicable
Refused
                                                                      9
```

- Your guardians а
- b. Health classes in school
- Doctors/nurses C.
- d. Friends
- Brothers or sisters e.
- f. TV news
- Other TV shows g.

(such as talk shows, reality shows, medical or other dramas)

- h. Newspaper articles (print version)
- i. Newspaper articles (online version)
- j. Magazine articles (print version)
- k. Magazine articles (online version)
- I. Radio
- m. Books
- n. Leaflets/pamphlets from a hospital, clinic, or medical practice
- o. Ads online
- p. Ads on the radio
- q. Ads on TV
- r. Ads in newspapers
- s. Ads in magazines
- t. Billboards
- u. Facebook
- v. Snapchat
- w. Twitter
- x. Instagram
- y. YouTube
- z. Wikipedia
- a. A medical website
- b. Sahatak Awalan website
- c. Online forums about health information
- d. Any other social networking site (Reddit, Tumblr, other)
- e. Another source not mentioned here.

Please specify which other source you get health information from

[Note to programmers: all other responses mentioned in q7.Ee "other" should be presented in this question as well.]

[lf q7a-ee=1, ask]

[Note to programmers: this question should only be asked of respondents who chose "yes" (response 1) for any source listed in q7 (q7a-ee).

[Only show the source(s) that the respondent selected 1 (yes) for & present the options in the same order as q7 (which will already be randomized)] [If there are more than 14 options, please make sure 1-14 are displayed in one screen and the rest in a separate screen. This to avoid scrolling down] [Include the response in the "other"-textbox]

# Q10. In general, do you trust health information from each of the following sources?

Yes, I trust_		1
No, I do not trust		2
Refused		9
a.	Your guardians	
b.	Health classes in school	
С.	Doctors/nurses	
d.	Friends	
e.	Brothers or sisters	
f.	TV news	

- g. Other TV shows
  - (such as talk shows, reality shows, medical or other dramas)
- h. Newspaper articles (print version)
- i. Newspaper articles (online version)
- j. Magazine articles (print version)
- k. Magazine articles (online version)
- I. Radio
- m. Books
- n. Leaflets/pamphlets from a hospital, clinic, or medical practice
- o. Ads online
- p. Ads on the radio
- q. Ads on TV
- r. Ads in newspapers
- s. Ads in magazines
- t. Billboards
- u. Facebook
- v. Snapchat
- w. Twitter
- x. Instagram
- y. YouTube
- z. Wikipedia
- a. A medical website
- b. Sahatak Awalan website
- c. Online forums about health information
- d. Any other social networking site (Reddit, Tumblr, other)
- e. Another source not mentioned here.

[Note to programmers: all other responses mentioned in q7.Ee "other" should be presented in this question as well.]

#### [lf q7a-ee=1, ask]

[Note to programmers: this question should only be asked of respondents who chose response 1 for any source listed in q7 (q7a-dd).

Only show the source(s) that the respondent selected 1/yes for

Present the options in the same order as q7 (which will already be randomized)]

[If there are more than 14 options, please make sure 1-14 are displayed in one screen and the rest in a separate screen. This to avoid scrolling down]

[Include the response in the other-textbox]

[If possible do not show empty rows]

[In the red letters it should say "tried to change"]

Q11. Irrespective of whether you succeeded or not, have you ever tried to change your behavior because of any of the health-related information you've found from each of the following sources?

Yes	
No	

No\_\_\_\_ Refused

\_1 2

9

- a. Your guardians
- b. Health classes in school
- c. Doctors/nurses
- d. Friends
- e. Brothers or sisters
- f. TV news
- g. Other TV shows

(such as talk shows, reality shows, medical or other dramas)

- h. Newspaper articles (print version)
- i. Newspaper articles (online version)
- j. Magazine articles (print version)
- k. Magazine articles (online version)
- I. Radio
- m. Books
- n. Leaflets/pamphlets from a hospital, clinic, or medical practice
- o. Ads online
- p. Ads on the radio
- q. Ads on TV
- r. Ads in newspapers
- s. Ads in magazines
- t. Billboards
- u. Facebook
- v. Snapchat
- w. Twitter
- x. Instagram
- y. YouTube
- z. Wikipedia
- a. A medical website
- b. Sahatak Awalan website
- c. Online forums about health information
- d. Any other social networking site (Reddit, Tumblr, other)
- e. Another source not mentioned here.

[Note to programmers: all other responses mentioned in q7.Ee "other" should be presented in this question as well.]

[lf q11 a-ee= 1, ask]

[If respondent selected grade 8th-9th or refused to answer, do not present option 3]

[Note to programmers: if respondent answered (yes/1) for any of the options (a-ee) in q11, present this question. Randomize options]

[In the red letters it should say "yes or no"]

[Other "other health topic not mentioned here "- open text box; keep with table]

[Keep the format of the question as in the other cases, with each of the options appearing in the question box]

# Q12a. Have the changes you just mentioned been related to any of the following health topics?

Yes	1
No	2
Refused	9
Depression or other mental health issues	1

Depression of other mental health issues	
Smoking	2
Issues surrounding puberty (such as menstruation, acne)	3
Diet and nutrition	4
Fitness and exercise	5
Eating disorders (such as anorexia or bulimia)	6
Hygiene habits	7
Stress or anxiety	8
Sleep	9
Dental health	10

Colds/flu	11
Attention deficit disorder (ADHD)	12
Other health topic not mentioned here	13
Please specify the other health not mentioned in the list	

#### [All respondents]

[Question should be viewed by itself]
[In the red letters it should say "how likely"]
13. Now I'd like you to think about sensitive health topics, like menstruation or depression. If you had a question about a sensitive health topic, how likely would you be to do each of the following:

 Not at all likely
 1

 Not too likely
 2

 Somewhat likely
 3

 Very likely
 4

 Don't know
 8

 Refused
 9

- a. Look up the information online
- b. Talk to someone about it on a hotline
- c. Talk to your doctor or nurse about it in person
- d. Talk with your father about it
- e. Talk with your mother about it
- f. Talk with your friends about it

#### [If q7 i, k, o, u, v, w, x, y, z, aa, bb, cc, dd = 1, ask]

[This question should only be asked if they responded to q71(yes) i, k, o, u, v, w, x, y, z, aa, bb, cc, dd, if not skip]

Q16. How often do you look for health information online? Select one

option.	
Every day	1
Every week	2
Every month	3
A few times a year	4
Once a year	5
Less often than once a year	6
Never	7
Refused	9

[If q7 i, k, o, u, v, w, x, y, z, aa, bb, cc, dd = 1, ask]

[This question should only be asked if they responded to q7 1(yes) i, k, o, u, v, w, x, y, z, aa, bb, cc, dd, if not skip]

[Note to programmer: randomize options. Again, you can randomize the order of c/d as long as they are always placed together. J should remain where it is at the end of the list]

[Other option" other reason not mentioned here "- open text box; keep with table]

# Q17. Are any of the following reasons why you have ever gone online to look for health information?

Yes	1
No	2
Refused	9
a.	For a school project
b.	To get more information about something after a doctor's visit
С.	To check my symptoms or find out what was wrong with me
d.	To learn how to treat an illness, condition, or injury I had
e.	To get information about medications
f.	Because I couldn't talk to my guardians about it
g.	My friend recommended I visit a specific website
h.	A family member recommended that I visit a specific website
i.	A health care professional recommended that I visit

j. Other reason not mentioned here.

Please specify the other reason you have gone online to look for health information.

#### [If q7 i, k, o, u, v, w, x, y, z, aa, bb, cc, dd = 1, ask]

Q.19a"In general, are you satisfied with the health information you've gotten from the Internet"

Yes	
No	2
Refused	9

[lf q9 i, k, o, u, v, w, x, y, z, aa, bb, cc, or dd = 1-2, ask] [This question should only be asked if they responded to q9 i, k, o, u, v, w, x, y, z, aa, bb, cc, dd, with [Randomize options - anchor 10 last] [Other "other reason not mentioned here. "Option- open text box; keep with table] Q19b. In general, what are the reasons you aren't satisfied with the health information you've gotten on the internet? (Select all that apply) Couldn't find the answer to my specific question\_\_\_\_\_ 1 The answers weren't relevant to me or my situation\_\_\_\_\_ 2 Too much conflicting or contradictory information from different sources \_\_\_\_ 3 Didn't seem reliable \_\_\_\_ 4

5

6

Turned out to be wrong \_\_\_\_\_

Too vague\_

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I don't have the skills to find answers to my specific question	7
I didn't understand the information (e.g. language was too technical)	8
Took too long to look through all the information	9
Not culturally relevant	_ 10
Other reason not mentioned here	11
Other reason not mentioned here with information you've gotten from the	
internet	_ 12

#### [lf q7 i, k, o, u, v, w, x, y, z, aa, bb, cc, dd = 1, ask]

[This question should only be asked if they responded to q7 1(yes) to i, k, o, u, v, w, x, y, z, aa, bb, cc, dd, if not skip]

[Note to programmers: randomize options; options a & b can be moved around the list, but they should always be presented together. Also, option a should always come before b. ]

# Q20. When you look for health information online, how often do you find it by:

intu it	~ .		1	1		· · · · · · · · · · · · · · · · · · ·
		Never	Hardly ever	Sometimes	Often	Refused
а	Googling it	1	2	3	4	9
b	Searching for it on a different search engine such as Yahoo or Bing	1	2	3	4	9
С	Coming across the information while browsing	1	2	3	4	9
d	Seeing it in an ad online	1	2	3	4	9
е	Going directly to a specific health website	1	2	3	4	9
f	Links from social network sites (Facebook, Twitter, etc.)	1	2	3	4	9

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[All Respondents][Separate window/page, stand alone][Participant should be able to skip this question if they don't write anything]Q22. What is the last health-related website you visited?

[All Respondents]

[Randomize options]

[ red letters in this question should read "have encountered"]

[If choosing "other" a open text box should appear below the option and the question should ask "Any other health campaign not mentioned here. Please specify" ; keep with table]

#### Q23. Which of the following health campaigns have you encountered?

		Yes, have encountered	No, have not encountered	Not Sure/ Don't Know	Refused
a	Your Health Choice by Sahtak Awalan	1	2	8	9
b	Think Pink Awareness Walk	1	2	8	9
С	Screen for Life	1	2	8	9
d	Qatar Patient Safety Week	1	2	8	9
e	Yalla Natural by Sahtak Awalan	1	2	8	9
f	Early Detection Saves Lives	1	2	8	9
g	Be Like Campaign	1	2	8	9
h	Kulluna: For Health and Safety	1	2	8	9
i	Beautiful Smile	1	2	8	9
j	Any other health campaign not mentioned here.	1	2	8	9

Please specify



### [All Respondents]

# [Separate window/page, stand alone]

Q24a: "Would you do any of the following?"				
Yes	1			
No	2			
Refused	9			

a. I would post about a general health topic that does not affect me

personally on social media (e.g. Facebook, Twitter, Instagram, etc.)

- b. I would post about a personal health problem on social media (e.g. Facebook, Twitter, Instagram, etc.)
- c. I would post about a general health topic that does not affect me personally on direct messaging sites (e.g. Snapchat, WhatsApp, Facebook Messenger etc.)
- d. I would post about a personal health problem on direct messaging sites (e.g. Snapchat, WhatsApp, Facebook Messenger etc.)

#### [All Respondents]

[If there are more than 14 options, please make sure 1-10 are displayed in one screen and the rest (11-15 in a separate screen. This to avoid scrolling down]

Q25. The following are things that some young people find important when they are using sources to find information about health issues, like those mentioned earlier. Please tell me whether or not this is important to you

		Yes	No	Refuse
1	Having your confidentiality protected	1	2	9
2	Being able to ask someone face-to-face	1	2	9
3	Being able to get the information at a time and place that's convenient for you	1	2	9
4	Knowing who produced the information	1	2	9
5	Being able to ask specific questions	1	2	9
8	Being able to find the information easily	1	2	9
9	Extensive information	1	2	9
11	Being a substitute to seeing a health care professional	1	2	9
12	Not having to rely solely on a doctor telling you what to take/what was wrong with you	1	2	9

### [All respondents]

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### [Randomize options]

### Q44. To what extent do you agree/disagree with the following statements?

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't Know	Refuse
1	I am able to achieve most of the goals that I have set for myself— whatever they are.	1	2	3	4	5	8	9
2	When facing difficult tasks, I am certain that I accomplish them.	1	2	3	4	5	8	9
3	In general, I think that I can obtain outcomes that are important to me.	1	2	3	4	5	8	9
4	I believe I can succeed at any endeavor to which I set my mind.	1	2	3	4	5	8	9
5	I am able to successfully overcome many challenges.	1	2	3	4	5	8	9
6	I am confident that I can perform effectively on many different tasks.	1	2	3	4	5	8	9
7	Compared to my peers, I can do most tasks very well— whatever they are.	1	2	3	4	5	8	9
8	Even when things are tough, I can perform quite well.	1	2	3	4	5	8	9

# [All respondents]

[Randomize options, anchor 13 last]

["An app related to another health topic "- open text box; keep with table] Q26. Have you ever downloaded or used a mobile app related to any of the following? Yes\_\_\_\_\_\_1

No	2
Refused	31
Mental health issues	1
Smoking	2
Diet and nutrition	4
Fitness and exercise	
Sleep	9
Dental health	10

An app related to another health topic not mentioned here \_\_\_\_ \_\_\_\_13

\_\_1

[If q26 = they answered 1-13, this question is asked, if not skip] [Multi select option] [Randomize options, anchor 8 and 9 last] [Other option "other health-related app not mentioned here is an option, the textbox. Please specify" is now the last option. Textbox keep with table] Q27. Which of the following health related apps have you downloaded or used? Select all that apply. Your Health First: Calorie Counter\_\_\_\_\_ 1 2 Step into Health\_\_\_\_\_ FitBit \_\_\_\_ .3 MyFitnessPal\_\_\_\_\_ 4 MiFit \_\_\_\_\_ 5 Nike + Run Club \_\_\_\_\_ 6 Endomondo \_\_\_\_\_ 7 Other health-related app not mentioned here.\_\_\_\_\_ \_ 8 Don't Know/Don't Remember \_\_\_\_\_9 Refused 10

If choosing other, display this text: Please specify which health related app \_\_\_11

#### [lf a26 = 1-13, ask]

#### [Randomly select one app mentioned in q27. Ask q28-32 for only that app] Q28. How often do you use this health-related mobile app?

Hardly ever	1
Sometimes	2
Often	3
Refused	9

#### [lf q28 = 1-3, ask]

#### [Randomly select one app mentioned in q27. Ask q28-32 for only that app] Q29 How satisfied are you with this health-related mobile app?

Q29. How satisfied are you with this health-related mobile app?	
Not at all	1
Not too	2
Somewhat	3
Very	4
Refused	9

[lf a29 =1-2, ask]

[Randomly select one app mentioned in q27. Ask q28-32 for only that app] [Randomize options, anchor 8 last]

[If choosing "other" a open text box should appear below the option and the question should ask "please specify the other reason why you were not satisfied"; keep with table]

Q30. Are any of the following reasons why you weren't satisfied with this health-related mobile app? Select all that apply.

Yes	1
No	2
Refused	9

Too	k too	much	time	

Too complicated	_2
Got boring	_3
Didn't work right	_4
Didn't do what I thought it would	_5
Too many ads	_6
Other reason not mentioned here	_7
If choosing other, display this text: Please specify the other reason why you	
were not satisfied.	

[lf q29 = 3-4, ask]

[Randomly select one app mentioned in q27. Ask q28-32. For only that app] [Randomize options, anchor 6]

[If choosing "other" a open text box should appear below the option and the question should ask "please specify the other reason why you were satisfied:"; keep with table]

#### Q31. Are any of the following reasons why you are satisfied with this healthrelated mobile app? Select all that apply.

Yes	1
No	2
Refused	g

Helped me track stuff I needed to pay attention to	1
Motivated me	2
Was fun	3
Useful reminders	4
Learned a lot	5
Other reason not mentioned here	6

If choosing other, display this text: Please specify the other reason why you were satisfied:

[lf q28=1-3, ask]

[Randomly select one app mentioned in q27. Ask q28-32 for only that app] [Match response option order in q12]

[If choosing "other" a open text box should appear below the option and the question should ask "other health topic not mentioned already, please specify:" ; keep with table]

Q32. Irrespective of whether you succeeded or not, have you ever *tried* to change your behavior relating to the following health topics because of this mobile app?

Yes	1
No	2
Refused	9
Mental health issues	1
Smoking	2

1

1

2

5

Diet and nutrition	3
Fitness and exercise	. 4
Anxiety	5
Sleep	6
Dental health	7
Other health topic not mentioned here	8
Please specify the other health topic	

#### [All respondents]

#### Q33. Have you ever used any kind of wearable health tracker, such as a FitBit, FuelBand, or the health tracking function on a smartwatch? Yes use one now

Yes, used one in the past but not anymore	2
No, never used	3
Refused	9

#### [lf q33= 1-2, ask]

#### [Stand alone question, alone in the view]

Q34. Irrespective of whether you succeeded or not, have you ever tried to change your behavior because of a wearable health tracker?

Yes	1
No	2
Refused	9

### [lf q33=1-2, ask]

#### [Participants can only select one option]

Q36. In general, how helpful were the wearable health trackers you've used? Select one option.

Not at all	1
Not too	2
Somewhat	3
Very	4
Refused	9

### [All respondents]

[If respondent answer 4 or 9= skip to {q48:satbod}] [Stand alone question, by itself] [Randomize options, anchor 4 last] [Should only be able to choose 1-3 or 4 or 5; its either 1-3 or 4 or 5] Q39. Have you ever played a video game, computer game, or mobile game that was related to a health topic? Select all that apply. Video game on a health topic\_ Computer game on a health topic\_\_\_\_\_ Mobile game on a health topic \_\_\_\_\_ 3 No, haven't played any digital games on a health topic \_\_\_\_\_ 4 Refused\_\_\_\_

[If q39 = 1-3, ask]
[Stand alone question]
[Textbox should allow to list several options/maybe numbering the lines may
work]

# Q40. What health topic or topics were the games you played about? Select all that apply

Mental health issues	1
Smoking	2
Diet and nutrition	3
Fitness and exercise	4
Sleep	5
Dental health	6
Other health topic not mentioned here	7
Please specify the other health topic	

#### [lf q39 = 1-3, ask]

#### [Stand alone question, by itself]

#### Q41. In general, how helpful were the health-related games you played:

Not at all	1
Not too helpful	2
Somewhat	3
Very	4
Refused	9

### [lf q39 = 1-3, ask]

#### [Stand along question, by itself]

Q42. Irrespective of whether you succeeded or not, have you ever tried to change your behavior because of a health-related video, computer or mobile game you played?

Yes	1
No	2
Refused	9

[lf q42 = 1, ask]

[Show response option in the same order as q12a]

[Other option "other option not mentioned here. Please specify"- open text box; keep with table]

Q43.	Did you try	to change	any of the	following	because	of a h	nealth-re	elated
video	, computer,	or mobile	game?					

Yes	1
No	2
Refused	9
Mental health issues	1
Smoking	2
Diet and nutrition	3
Fitness and exercise	4

Sleep	5
Dental health	6
Other health topic not mentioned here	
Please specify the other health topic	

# [All respondents]

[Randomize options]

Q48. Please mark whether you agree or disagree with each of the following statements:

		Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Refused
1	I am satisfied with the shape of my body	1	2	3	4	9
2	I like what I look like in pictures	1	2	3	4	9
3	My weight makes me unhappy	1	2	3	4	9

#### [All respondents]

[Respondent is only permitted to choose one option]

#### [Stand alone question]

#### Q49. When is the last time you saw a dentist? Select one.

Within the past six months	1
Between six months and a year ago	2
One to three years ago	3
Three to five years ago	4
Never	5
Refused	9

#### [All respondents]

[Stand alone question]

[Respondent is only permitted to choose one option only]

Q50. In the past 30 days, how often have you participated in physical activities, such as playing sports, running, working out, taking a dance class, or doing yoga? Select one.

Several times a day	_1
Once a day	_2
Once or more a week	_3
Once or more a month	_4
Never	_5
Refused	_9
	Several times a day Once a day Once or more a week Once or more a month Never Refused

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[lfq50= 1-4, ask]	
[Randomize options]	
[Should only be able to choose one option only]	
[Other option "please specify the main reason not mentioned here" - c	open text
box; keep with table]	
Q51. What is the MAIN REASON you were physically active in the pa	st 30
days? Select all that apply.	
To lose weight	1
To be healthy	2
To look attractive	3
Because my friends are physically active	4
Other reason not mentioned here	5
Refused	_6

Please specify the other main reason you were physically active in the past 30 days \_\_\_\_\_7

# [All respondents]

[Present in grid]

# **NUTRITION QUESTIONS**

	Never	Rarely	Sometimes	Usually	Always	Refused
How often do you eat breakfast?	1	2	3	4	5	9
How often do you eat a meal within 1 to 2 hours before sleeping?	1	2	3	4	5	9
How often do you take vitamin supplements?	1	2	3	4	5	9
How often do you watch the portion sizes of your foods? By portion size we mean how much of a food you choose to eat at one time	1	2	3	4	5	9
How often do you track/ watch/count the calories of the foods you eat?	1	2	3	4	5	9
How often do you eat a meal away from home, or get take- out food?	1	2	3	4	5	9

[All respondents] [Stand alone guestion]	
What types of restaurants do you most frequent go to?	
Fast food restaurants (e.g. McDonald's, Burger King, Pizza Hut)	1
Casual dining restaurants (e.g. Applebee's, Fridays, Buffalo's)	2
Fine dining restaurants (e.g. Edam,, Restaurants in 5 star hotels)	3
Café	4
Refused	9

#### [All respondents]

# Q52. During the past 30 days, how often did you feel

		All of the time	Most of the time	Some of the time	A little of the time	None of the time	Refused
1	nervous?	1	2	3	4	5	9
2	hopeless?	1	2	3	4	5	9
3	restless or fidgety?	1	2	3	4	5	9
4	so depressed that nothing could cheer you up?	1	2	3	4	5	9
5	that everything was an effort?	1	2	3	4	5	9
6	worthless?	1	2	3	4	5	9
7	insecure?	1	2	3	4	5	9

[Display]

The next few questions ask about some things that may have happened to you.

[All respondents]

### Q53. Please tell me if any of these things have happened.

		Yes	No	Don't Know	Refused
1	Were you hospitalized for 2 weeks or more due to extreme illness or injury?	1	2	8	9
2	Was there a major upheaval between your guardians (such as divorce, separation)?	1	2	8	9
3	Did you experience a death of a very close friend or family member?	1	2	8	9
4	Did something happen that scared you so much you thought about it for years after?	1	2	8	9
5	Were you sent away from home because you did something wrong?	1	2	8	9
6	Were you ever beaten up by someone close to you, like a family member or a friend?	1	2	8	9
7	Were you ever sexually abused by someone close to you, like a family member or a friend?	1	2	8	9

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#### [display]

The final questions are sensitive. Please remember that your responses are anonymous and confidential. You can refuse these questions if you prefer.

#### [if respondent selected grade 8th-9th, Don't Know, or refused to answer, do not present option 7, 8, 9] [randomize options, anchor e and f last] [for "option f" follow it with an Open text box; keep with table]

Q54. Sometimes when people go online, they come across information or websites they weren't necessarily looking for. How often, if ever, have you come across any of the following types of information online, whether you were looking for it on purpose or not?

		Never	Only once or twice	Sometimes	Often	Refused
1	Treating/managing mental illness (example: depression, schizophrenia, anxiety)	1	2	3	4	9
2	Extreme ways to lose your weight – that is, how to eat so little you stay extremely thin, or how to throw up so you don't gain weight	1	2	3	4	9
3	How to obtain/use steroids, stimulants, performance enhancement substances	1	2	3	4	9
4	How to get cigarettes and shisha	1	2	3	4	9
5	Innapropriate sites	1	2	3	4	9
6	Any other types of information that would be bad for your health or well- being not mentioned here.	1	2	3	4	9

Please specify the other types of information that would be bad for your health or well-being

#### [All respondents]

QRESULT. Think of all the health or medical information you found on the Internet in the past 12 months. Which of the following did you do, based on that information?

	Yes	No	Don't Know	Refused
Tried to diagnose a health problem	1	2	8	9
Tried to treat a health problem	1	2	8	9
Led you to seek further advice/more information	1	2	8	9
Led you to contact a health care professional	1	2	8	9
Led you to seek support from others	1	2	8	9
Made you more comfortable with the advice you got from doctors or other health professionals.	1	2	8	9
Made you less comfortable with the advice you got from doctors or other health professionals.	1	2	8	9

#### [Display text with question]

The information collected in this survey will be used to learn about what youth in Qatar think about health and the ways they get informed about health topics of all kinds. As mentioned previously, the answers you provided will be kept confidential and will only be seen by researchers working on this study.

### Q: CONTACT

Can we contact you in the future to obtain your opinions on this subject or to participate in a similar study in the future? Yes \_\_\_\_\_\_ No \_\_\_\_\_

1 2

\_\_1

2

Y	$\sim$	S

[If answering yes, ask the following questions, if responding no skip to end of survey]

[Programmer open ended responses for pname, pmail, phone; to be displayed together]

Your Name:

Email:\_\_\_\_

Telephone number:

In case we have difficulty contacting you, we may want to contact you through your parents or guardians. Can you provide us with your mom's contact information.

Yes

[Go to mother's contact information] No

{Skip asking mother's contact information open ended questions} [Programmer open ended responses for mname, mmail, mphone; to be displayed together]

Mother's Name:

Mother's Email:

Mother's Telephone number:\_\_\_\_

Can you provide us with your father's contact information? Yes

[Go to father's contact information] No {Skip asking father's contact information open ended questions and go to end of questionnaire}

[Programmer open ended responses for fname, fmail, fphone; to be displayed together]

Father's Name:

Thank you for completing this survey.

The information you provided will be very helpful.

#### Northwestern University in Qatar

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