

**DUBAI HOUSEHOLD HEALTH SURVEY 2009  
PRELIMINARY SUMMARY OF RESULTS RELATED TO EXERCISE AND PHYSICAL ACTIVITY  
NOVEMBER 29, 2010**

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## Background

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This document summarizes key results from the exercise and physical activity section of the Dubai Household Health Survey 2009 (DHHS) and is one of a series of analytical summaries and policy notes published by the Dubai Health Authority using data from the Dubai Household Health Survey.

**About the Dubai Health Authority.** The Dubai Health Authority (DHA) was created in June 2007 by His Highness Sheikh Mohammad Bin Rashid Al Maktoum, UAE Vice President, Prime Minister and Ruler of Dubai. As the strategic health authority for the Emirate of Dubai, the DHA is empowered to set policies and strategies for health in the Emirate and to assure the application of those policies and strategies. His Excellency Qadhi Saeed Al Murooshid is Director General of the Dubai Health Authority.

**About the Dubai Household Health Survey.** The Dubai Household Health Survey (DHHS) is the largest and most comprehensive survey of health and healthcare issues ever carried out in the Emirate of Dubai. The survey, which was conducted in 2009, provides a statistically accurate and representative picture of key health and healthcare variables across all of Dubai's diverse population including nationalities, ages and income groups. Surveyors randomly selected 5,000 households across the Emirate of Dubai – 2,500 of them UAE Nationals – and visited them personally to obtain detailed information on issues from household health expenditure and access to health services to exercise levels, dietary habits, lifestyle diseases and use of medicines. The survey – which had a response rate of 98 percent – also included questions on injuries, mental health and physical capabilities and a detailed module on people's use of and satisfaction with public and private health services in the Emirate. The Survey was designed and led by DHA's Policy and Strategy Department – drawing on in-house expertise from senior staff with experience at the World Health Organization, the World Bank and the Population Council – and was implemented in close collaboration with the Dubai Statistics Center. The design and methodology of the survey were adapted from those used in the World Bank's Living Standards Measurement Surveys (LSMS), the World Health Organization's World Health Surveys (WHS) and the US Centers for Disease Control's National Health Interview Surveys (NHIS).

## Introduction

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This document summarizes key findings of the Dubai Household Health Survey on exercise and physical activity. Respondents were asked the following question:

“Do you do any vigorous or moderate intensity activities, other than those done as part of your work, that cause increases in breathing or heart rate for at least 10 minutes continuously – like running or playing football or other activities such as sports, fitness, leisure, travelling to and from places and recreational activities.”<sup>1</sup>

Respondents were also asked how often and for how long they engaged in such activities during an average week. Results were analyzed against guidelines from the U.S. Centers for Disease Control and the American College of Sports Medicine on the minimum level of exercise required to improve health and reduce the long-term risk of “lifestyle” diseases such as heart attack and strokes. For moderate exercise a threshold of 150 minutes per week was used, i.e. 30 minutes a day for an average of five days per week. For vigorous exercise a threshold of 75 minutes per week was used, i.e. 15 minutes a day for an average of five days per week. Appropriate combinations of moderate and vigorous exercise were also accepted. Results were validated using multivariate regression analysis and other tests of statistical significance.

Data were analyzed for the whole population (Table 1) and specifically for UAE Nationals (Table 2).

**The results below can be interpreted in plain language as “people in Dubai who get enough exercise to keep themselves healthy and reduce their risk of lifestyle diseases such as heart disease and stroke.”**

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<sup>1</sup> Q3023/3026 in the original questionnaire. Vigorous intensity was defined as activities such as running or playing football that cause a *significant* increase in breathing or heart rate; moderate intensity was defined as activities such as brisk walking that cause a *moderate* increase in breathing or heart rate. These definitions draw from guidelines published by the US Centers for Disease Control (Physical Activity Guidelines 2008), the US Department of Health and Human Services, the American Heart Association and the American College of Sports Medicine (AHA/ACSM Physical Activity and Public Health Guidelines 2007).

## Key Findings

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According to the Dubai Household Health Survey,

1. Only 19% of people in Dubai get enough exercise to keep themselves healthy.
2. Men get less exercise than women. Only 17% of men and 25% of women get enough exercise to keep themselves healthy.
3. Exercise levels decrease significantly with age in both sexes but especially in women. Less than 9% of women over 60 years get enough exercise to keep themselves healthy.
4. Among men, Europeans get the most exercise: 28% compared with an average of 17%.
5. Among women, Filipinas get the most exercise: 41% compared with an average of 25%.
6. The relationship between income and exercise is not statistically significant.
7. There is a strong relationship between education and exercise. The more educated a person, the more likely he/she is to get enough exercise to keep healthy.
8. Only 19% of UAE Nationals get enough exercise to keep themselves healthy.
9. There is no gender difference in exercise levels among UAE Nationals. In both males and females only 19% get enough exercise to keep themselves healthy.
10. Exercise levels decrease significantly with age in both sexes but especially in women. Only 5% of UAE National women over 60 years get enough exercise to keep themselves healthy.
11. A worrying result is observed for UAE National men aged 40-59 years. Only 7% of UAE National men aged 40-59 years get enough exercise to keep themselves healthy, raising important questions concerning the future health of this particular group.
12. The relationship between income and exercise is not statistically significant for UAE Nationals.
13. There is a strong relationship between education and exercise among UAE Nationals. The more educated a person, the more likely he/she is to get enough exercise to keep healthy.

**Table 1. Who in Dubai gets regular exercise?**

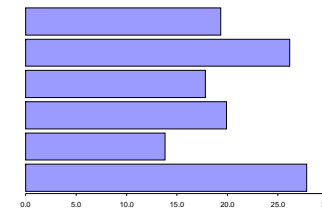
The following tables and charts describe people who report at least 30 minutes of moderate exercise for an average of five days per week or at least 15 minutes of vigorous exercise for an average of five days per week or an appropriate combination of the two – i.e. “people in Dubai who get enough exercise to keep themselves healthy and reduce their risk of lifestyle diseases such as heart disease and stroke.”

Men	%
Yes, vigorous	8.4%
Yes, moderate	9.0%
<b>Total</b>	<b>17.4%</b>

Age	%
18-24	19.1
25-39	19.8
40-59	12.6
60+	14.9



Ethnicity	%
UAE Nationals	19.3
Other Arabs	26.2
Indians	17.8
Filipinos	19.9
Other Asians	13.8
Europe, N. America, Australasia	27.8

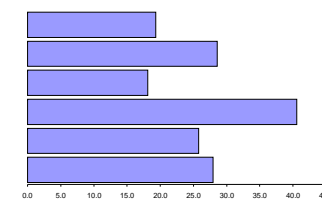


Women	%
Yes, vigorous	7.1%
Yes, moderate	18.4%
<b>Total</b>	<b>25.5%</b>

Age	%
18-24	28.6
25-39	27.5
40-59	22.2
60+	8.8



Ethnicity	%
UAE Nationals	19.3
Other Arabs	28.6
Indians	18.1
Filipinos	40.6
Other Asians	25.8
Europe, N. America, Australasia	28.0



Only 19% of people in Dubai get enough exercise to keep themselves healthy.

Men get less exercise than women. Only 17% of men and 25% of women get enough exercise to keep themselves healthy.

Exercise levels decrease significantly with age in both sexes but especially in women. Less than 9% of women over 60 years get enough exercise to keep themselves healthy.

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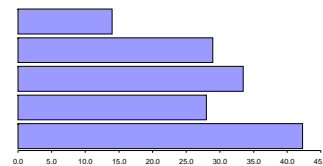
**Table 1 continued. Who in Dubai gets regular exercise?**

These tables and charts continue results from the previous page.

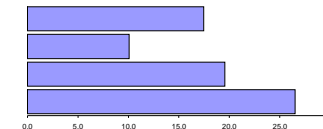
Men	%
Yes, vigorous	8.4%
Yes, moderate	9.0%
<b>Total</b>	<b>17.4%</b>



Income	%
Lowest 20%	14.0
2nd 20%	29.0
Middle 20%	33.5
4th 20%	28.0
Highest 20%	42.3



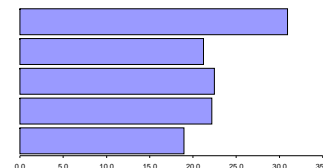
Education	%
Not Educated	17.5
Primary	10.1
Secondary	19.5
University Above	26.5



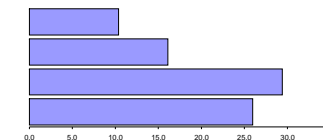
Women	%
Yes, vigorous	7.1%
Yes, moderate	18.4%
<b>Total</b>	<b>25.5%</b>



Income	%
Lowest 20%	30.9
2nd 20%	21.2
Middle 20%	22.5
4th 20%	22.2
Highest 20%	19.0



Education	%
Not Educated	10.4
Primary	16.1
Secondary	29.4
University Above	26.0



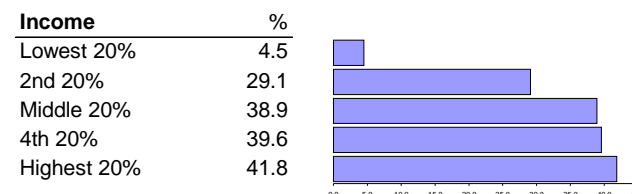
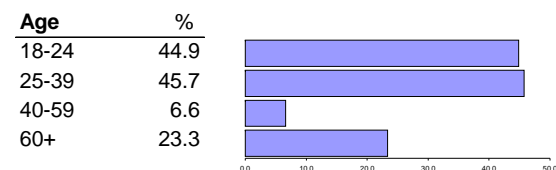
The relationship between income and exercise is not statistically significant.

There is a strong relationship between education and exercise. The more educated a person, the more likely he/she is to get enough exercise to keep healthy.

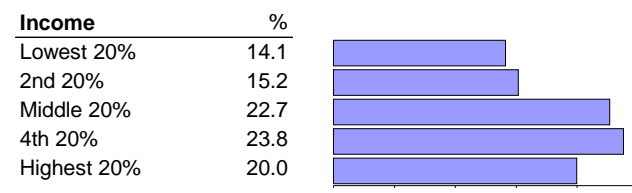
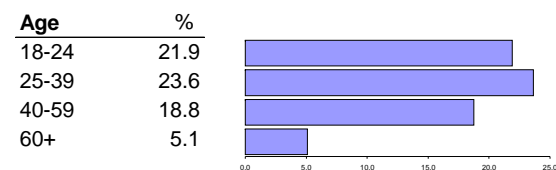
**Table 2. Who among UAE Nationals gets regular exercise?**

The following tables and charts describe UAE Nationals who report at least 30 minutes of moderate exercise for an average of five days per week or at least 15 minutes of vigorous exercise for an average of five days per week or an appropriate combination – i.e. “UAE Nationals who get enough exercise to keep themselves healthy and reduce their risk of lifestyle diseases such as heart disease and stroke.”

Men	%
Yes, vigorous	6.5%
Yes, moderate	12.8%
<b>Total</b>	<b>19.3%</b>



Women	%
Yes, vigorous	4.7%
Yes, moderate	14.6%
<b>Total</b>	<b>19.3%</b>



Only 19% of UAE Nationals get enough exercise to keep themselves healthy.

There is no gender difference in exercise levels among UAE Nationals. In both males and females only 19% get enough exercise to keep themselves healthy.

Exercise levels decrease significantly with age in both sexes but especially in women. Only 5% of UAE National women over 60 years get enough exercise to keep themselves healthy.

A worrying result is observed for UAE National men aged 40-59 years. Only 7% of UAE National men aged 40-59 years get enough exercise to keep themselves healthy, raising important questions concerning the future health of this particular group.

The relationship between income and exercise is not statistically significant for UAE Nationals.

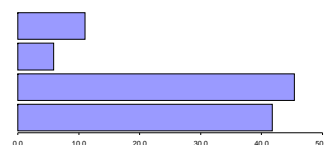
**Table 2 continued. Who among UAE Nationals gets regular exercise?**

These tables and charts continue results from the previous page.

Men	%
Yes, vigorous	6.5%
Yes, moderate	12.8%
<b>Total</b>	<b>19.3%</b>



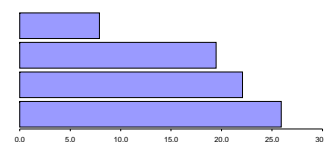
Education	%
Not Educated	11.0
Primary	5.9
Secondary	45.4
University Above	41.8



Women	%
Yes, vigorous	4.7%
Yes, moderate	14.6%
<b>Total</b>	<b>19.3%</b>



Education	%
Not Educated	7.9
Primary	19.5
Secondary	22.1
University Above	25.9



**There is a strong relationship between education and exercise among UAE Nationals. The more educated a person, the more likely he/she is to get enough exercise to keep healthy.**



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For citations or references: Dubai Household Health Survey, Preliminary Summary of Results on Exercise and Physical Activity;  
Policy and Strategy Department, Dubai Health Authority, 2010