

Press Release

Diabetes Prevention Should Focus on Lifestyle Factors

Doha – January 12, 2015: Qatar, along with other countries in the Middle East and North Africa region, has seen an alarming rise in its rate of diabetes in recent years. Today the populations of several gulf state nations, including Qatar, Saudi Arabia and Kuwait, have rates of diabetes nearly three times the global average.

Demographic and lifestyle factors are largely responsible for the increase of diabetes in this region, according to an article appearing in the December 2014 issue of the *Qatar Medical Journal*.

The article, "Prevention of Type II diabetes mellitus in Qatar: Who is at risk?" presents the results of a case-control study conducted at Hamad Medical Corporation Hospital (HMC) to identify the key risk factors for Type II diabetes among Qatar's total population, including Qatari nationals and non-Qatari expatriates. The study was led by a team of researchers at Weill Cornell Medical College in both of its branches in New York and Qatar, as well as physicians at HMC. The work was supported by the Qatar Foundation, the Weill Cornell Clinical and Translational Science Center, and the Biostatistics, Epidemiology and Biomathematics Research Core of Weill Cornell Medical College in Qatar.

"The Qatar National Health Strategy has identified diabetes as one of the high-priority diseases for preventive healthcare, and for good reason," said Principal Investigator and senior author Dr. Alvin I. Mushlin, the Nanette Laitman Distinguished Professor of Public Health in the Department of Healthcare Policy and Research at Weill Cornell Medical College in New York City. "In addition to its direct effect on health and quality of life, diabetes is a cause of conditions such as diabetic retinopathy, kidney failure, cardiovascular disease and associated heart attacks, strokes, and earlier death."

Communications Division WCMC-Q Education City P.O. Box 24144 Doha, Qatar Nesreen Al-Refai

Chief Communications Officer Phone: +974 4492 8650 Fax: +974 4492 8444 nma2005@gatar-

med.cornell.edu



Press Release

Paradoxically, the increase of diabetes and other non-communicable diseases in this region is largely tied to major improvements in economic conditions. This period has seen remarkable improvements in the health infrastructure, a lengthening of life expectancy, an increasingly aging population, and a fast pace of urbanization. At the same time the population has become more susceptible to developing diabetes and other chronic diseases associated with a more "Westernized" lifestyle including calorie-rich diets and reduced physical activity.

"We undertook this study to delineate the risk factors for diabetes in Qatar, to highlight areas for future research, and to make recommendations to lower the prevalence of this disease," said Dr. Mushlin.

The study involved 459 patients with Type II diabetes mellitus (DM) from HMC outpatient adult diabetes clinics, and 342 control patients from various outpatient clinics and inpatient departments at HMC, during the years 2006-2008.

"In our study, Qatari nationality was the strongest risk factor for DM, followed by higher income, obesity, no college education, and no vigorous or moderate exercise," said lead author Dr. Paul J. Christos, Lecturer in Healthcare Policy and Research in the Division of Biostatistics and Epidemiology at Weill Cornell Medical College in New York City.

Since over 80 percent of the population of Qatar consists of expatriates from countries throughout the Arab world, South Asia, and other regions, the researchers also conducted a sub-analysis of only Qatari nationals to see if this group had a different risk factor profile than the population at large.

"Our analyses suggest that eliminating obesity and improving awareness about this disease may reduce DM cases by up to one third for the population at large and up to half for Qatari nationals. Promoting physical activity may reduce DM cases by up almost 10% for the population at large and by over 15% for Qatari nationals," said Dr. Christos.

Communications Division WCMC-Q Education City P.O. Box 24144 Doha, Qatar Nesreen Al-Refai

Chief Communications Officer Phone: +974 4492 8650 Fax: +974 4492 8444 nma2005@gatar-

med.cornell.edu



Press Release

"While, recently, there have been discussions about the role of genetic factors in the rising diabetes levels, our analysis suggests that socio-economic and lifestyle factors are more influential," said study co-author Hiam Chemaitelly, an epidemiologist in the Infectious Disease Epidemiology Group at Weill Cornell Medical College in Qatar. "This should be seen as encouraging," she added, "since many lifestyle factors can be modified."

"This evidence collectively supports a health prevention program focusing on modifiable risk factors such as obesity, diabetes awareness, and physical activity to reduce diabetes among Qatari nationals and non-Qatari expatriates," said study co-author Dr. Laith Abu-Raddad, Associate Professor and Principal Investigator of the Infectious Disease Epidemiology Group at Weill Cornell Medical College in Qatar. "While further evaluation of DM risk factors among the Qatari population (as opposed to the resident population) is important and of interest, these findings highlight the need to focus short-term DM interventions on addressing demographic/lifestyle risk factors to achieve substantial and timely declines in DM levels."

"This study is relevant not only for Qatar, but for other countries in the region as well that have seen similar recent advances in their social and economic status," say the authors. "The findings point to an urgent need to further build up the public health and medical infrastructure to meet the needs of preventing the diseases that are unfortunately associated with this growth."

Additional study co-authors include Dr. Mahmoud Ali Zirie and Dr. Dirk Deleu of HMC.

- Ends -

About Weill Cornell Medical College in Qatar

Weill Cornell Medical College in Qatar is a partnership between Cornell University and Qatar Foundation. It offers pre-medical and medical courses leading to the Cornell University M.D. degree with teaching by Cornell and Weill Cornell faculty and by physicians at Hamad Medical Corporation (HMC) and Aspetar Orthopedic and Sports Medicine Hospital who hold Weill Cornell appointments.

Communications Division WCMC-Q Education City P.O. Box 24144 Doha, Qatar Nesreen Al-Refai Chief Communications Officer Phone: +974 4492 8650 Fax: +974 4492 8444 nma2005@qatarmed.cornell.edu



Press Release

Through its biomedical research program, WCMC-Q is building a sustainable research community in Qatar while advancing basic science and clinical research. Through its medical college, WCMC-Q seeks to provide the finest education possible for medical students, to improve health care both now and for future generations, and to provide high quality health care to the Qatari population.

For more info, please contact:

Hanan Lakkis Media Relations Manager Weill Cornell Medical College in Qatar

Mobile: +974 55536564 Direct Line: +974 44928661 hyl2004@gatar-med.cornell.edu

Communications Division WCMC-Q Education City P.O. Box 24144 Doha, Qatar Nesreen Al-Refai

Chief Communications Officer Phone: +974 4492 8650 Fax: +974 4492 8444 nma2005@qatarmed.cornell.edu