

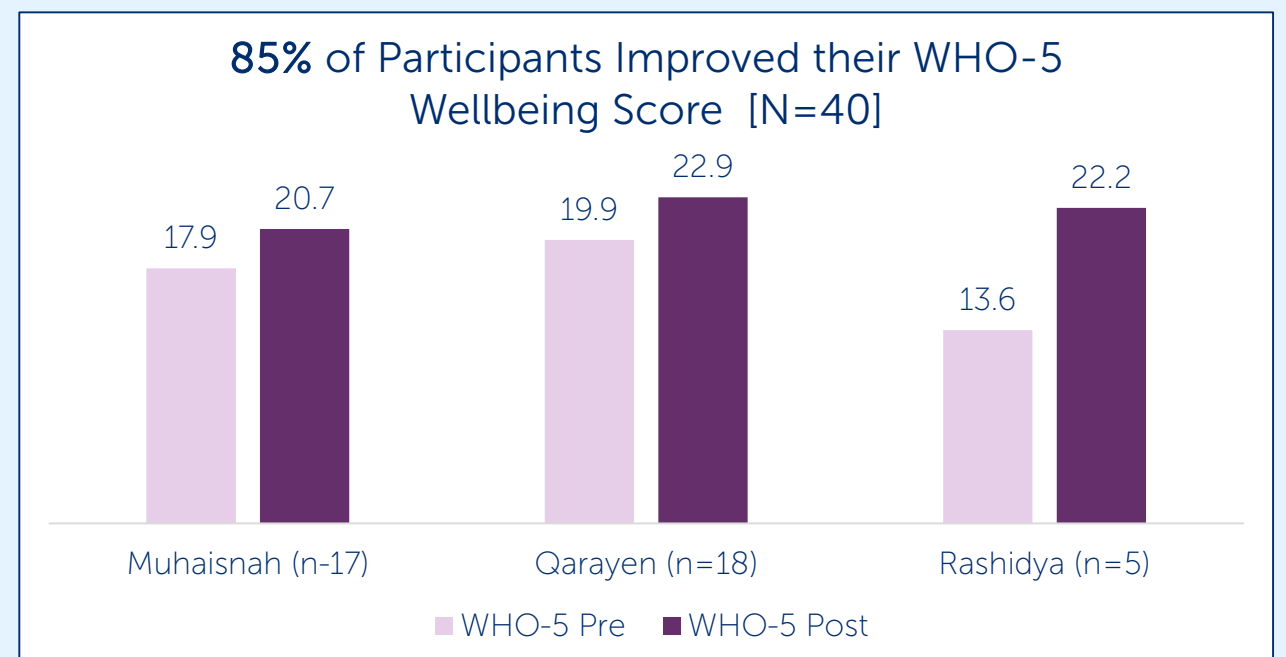
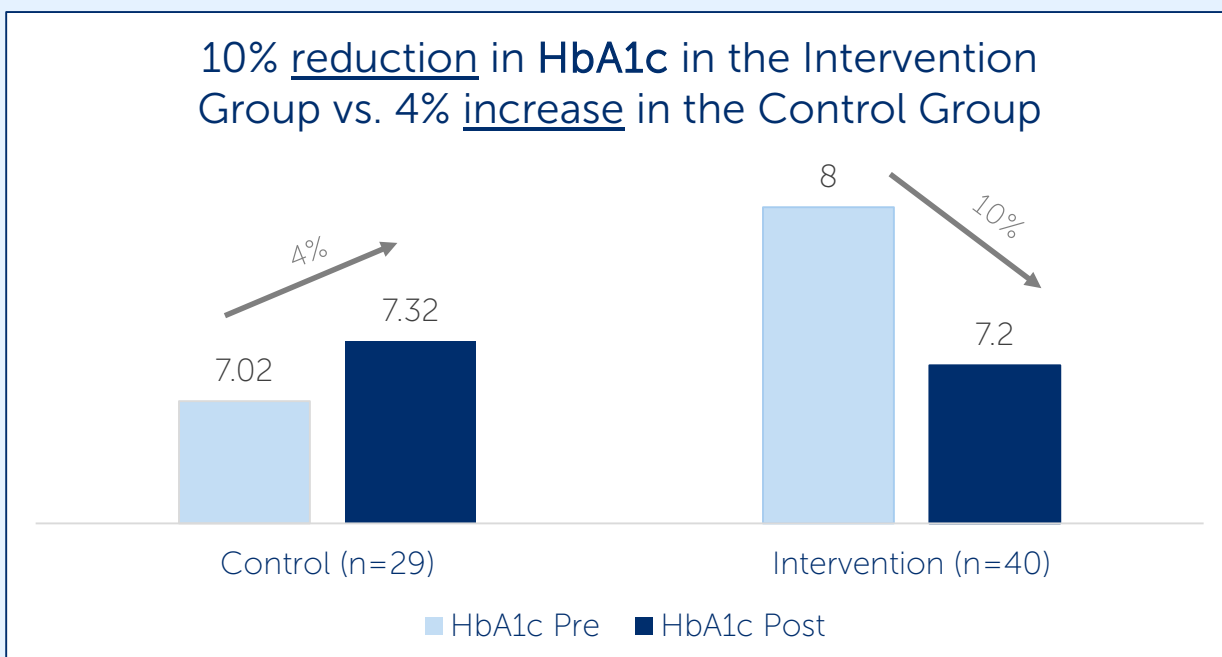
BU-04422. Patient-centered training approach improves diabetes outcomes in the UAE



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Results: 67% of 5 Steps participants improved in both BMI and HbA1c

Seventeen health care professionals trained in the *5 Steps to Self-Care* curriculum, then delivered it to 45 intervention participants across three Emirates (29 in control group). **67%** of participants in *5 Steps* with **both BMI and HbA1c** measurements demonstrated improvements in both, compared to **30%** in the control group. *5 Steps* participants experienced a significant **reduction in HbA1c of 10%** compared to a **4%** increase in the control group (Welch's t-test, $t(45)=2.63$, $p=0.01$). Although not statistically significant, both groups experienced a **slight decrease in weight and subsequent BMI**. For the intervention group, pre and post-tests knowledge results showed that **98% increased diabetes self-management knowledge**, and **85% improved their quality of life** (WHO 5 Well Being Index) at the end of the 10 week program.



Background: UAE has 11.8% prevalence of diabetes as of the 2018 national survey

According to the 2018 national health survey, the United Arab Emirates has 11.8% prevalence of diabetes in the country among adults over the age of 18¹. In addition, the prevalence of obesity is 27.8% and increased blood pressure is 28.8%¹. While great improvements have been made since 2010, continuing to find effective means of preventing new cases and halting the progression of diabetes complications among people living with diabetes in the UAE is a priority of the MOHAP¹.

¹UAE MOHAP website. Media Center, "National Health Survey results officially announced". <http://mohap.gov.ae/en/MediaCenter/News/Pages/2072.aspx>
²IDF Diabetes Atlas – 8th Edition (2017)

Method:

In 2018, Project HOPE partnered with the UAE Ministry of Health and Prevention (MOHAP), to measure the effectiveness of the *5 Steps to Self-Care* curriculum (a diabetes self-management education package) at improving clinical outcomes of people living with diabetes. Individuals **previously diagnosed with diabetes** and receiving treatment **between the ages of 21 and 70 in Dubai, Sharjah, and Umm Al Quwain** were assigned either to an intervention (*5 Steps to Self-Care* program and standard diabetes care), or a control group (standard care only). **Baseline clinical data** was collected at the beginning of the study, and **endline clinical data** was collected 5 months later for both groups (a period that included Ramadan). In addition, baseline and endline **knowledge and well-being data** were collected from pre-post tests among the intervention group.

The intervention group received training in the *5 Steps to Self-Care* curriculum that uses a **patient-centered, interactive, game-based approach with simple language and imagery** for non-health persons and **covers five key components**: 1) "Continuing Education" - understanding physiology and disease progression; 2) "Self-Monitoring: Knowing Your Numbers" - monitor and interpret levels of blood glucose, A1c, body mass index (BMI), blood pressure and lipids. 3) "Nutrition" - manage portions of food groups to balance carbohydrate, protein and fat intake; 4) "Healthy Movement" - make physical activity a regular habit with monitoring of foot health; and 5) "Health Services" - collaborating effectively with health care providers to ensure quality care.

Conclusion: 5 Steps successfully improves health outcomes and diabetes knowledge

The *5 Steps to Self-Care* course **successfully improved health outcomes and diabetes knowledge** among people living with diabetes in the UAE. This study proves that a well-designed, patient self-management education program can change behaviors and clinical outcomes of persons living with diabetes.

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