



# Diabetes Prevention Program

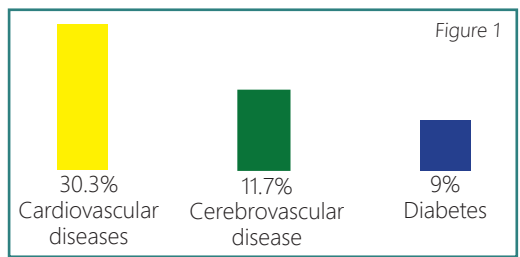
A HEALTHIER YOU

# Background on Diabetes in Palestine

Non-communicable diseases are on the rise in Palestine and contribute significantly to premature death and reduced healthy life expectancy. NCDs are the major causes of mortality and morbidity for Palestinians; responsible for **66%** of all deaths in 2017. As shown in Figure 1, cardiovascular diseases, and cerebrovascular disease are the leading causes of death; and diabetes are a major contributing factor of such diseases. Studies also show that a leading risk factor to diabetes is obesity, sedentary lifestyle, and bad eating habits. Moreover, one out of four people in Palestine are at high risk of diabetes due to the above mentioned risk factors. To add to the burden, NCDs account for a significant proportion of referrals and have substantial financial implications for patients and the Palestinian health sector.

## Overview

The diabetes prevention program will help the participants at high risk to reduce it by taking steps that will improve their overall health and well-being. They will learn about healthy eating and the importance of being active, and learn how to maintain a healthy life style. The goal is to lose weight 5-7% of total body weight and be more physically active.



Studies also show that diabetes prevalence for adults aged **25** or more in Palestine was **9.7%** in 2000, increasing to **15.3%** in 2010. The increase in prevalence will be as high as **21%** by next year and **25%** by 2030. This epidemiological transition poses a huge challenge to the Palestinian health system. A recent study also showed that **30%** of refugee women are overweight, **39%** are obese, and **7%** are extremely obese. It is proven that a **2.8%** reduction in diabetes prevalence could be achieved only if obesity trends start to decline by **5%** in a 5-year period. Moreover, if obesity prevalence is reduced by **35%** in 10 years, diabetes prevalence might decrease by **20%**. Because of this, the primary prevention through life style modification marks the best investment in the curtailment of this disease in Palestine.

## Objective

To reduce the risk of the on-set development of T2DM among program participants (**150 pre-diabetic refugee women**) through lifestyle adjustments focusing on nutrition and physical exercise.

## Diabetes Prevention Program

Juzoor, in cooperation with Bank of Palestine and UNRWA, started a pre-diabetes prevention program in Palestine. Juzoor worked closely with UNRWA clinic staff members to identify and contact the pre-selected women participants. All the participants went through a full screening process and completed all the necessary tests at the UNRWA clinics. This program is being implemented on the national level with strong partnerships with stakeholders within the Palestinian health system. It is a unique program as it delays/prevents the onset of diabetes by doing lifestyle modification.

Since the first phases of the program reflected positive outcomes, the partners decided to take it a step further by upgrading to other areas to ensure sustainability of the project by developing a phone application that will be accessible to all participants even after the completion of the project. The application will contain physical activity videos, healthy recipes, weight tracker which will be connected to Juzoor's data system.

To enhance outcomes on a national level, the partners are committed to expanding this initiative to reach other areas in Palestine to help reduce/prevent the epidemic of diabetes.

## Combating Diabetes through Exercise and Healthy Eating

The program focuses on specific parameters to maintain the Lifestyle Modification, including:

- ✓ Healthy eating habits
- ✓ Physical exercise
- ✓ Weight
- ✓ Body Mass Index (BMI)
- ✓ Hemoglobin A1c (HbA1c)

## Quotes from the Beneficiaries:

"I feel much lighter and I can breath better now!"

"I do not suffer from joint pain any more, and I sleep much better now."

"I am so happy that I have two hours a week to take care of myself. In the past, I always neglected myself because I was always so busy taking care of my family."



Through the program, the participants learn how to:



EAT HEALTHY



CHANGE THEIR LIFESTYLE



MANAGE STRESS



BE ACTIVE



STAY MOTIVATED



BE POSITIVE

WHO?

Pre-diabetic or high-risk refugee women

Where?

In four refugee camps in the West Bank

When?

The program started in April 2019 and will be ongoing over the next three years.

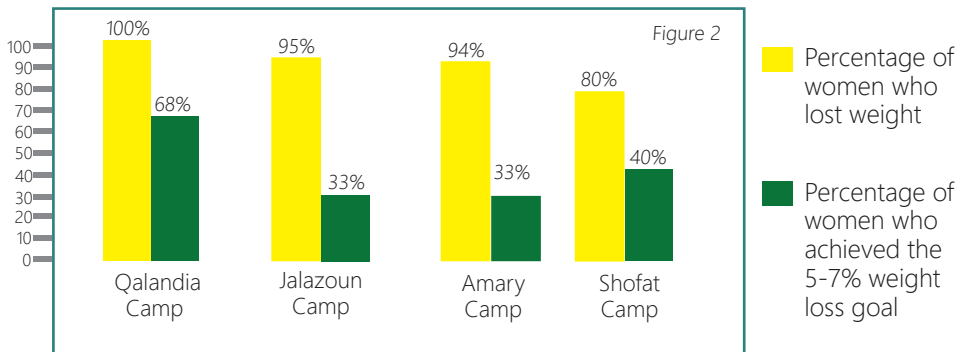
How?

Trained lifestyle coaches facilitate a small group of participants in learning about healthier eating, physical activity and other behavior changes. The three year long program consists of 16 sessions.

## Outcomes of the First Phase of the Program:

This program has been carefully designed to help the targeted women change their lifestyle. To ensure positive outcomes, the lifestyle coach in each camp keeps track of the participants weight, fitness activities, and what they eat. Shown below in figure 2 are the weight loss percentages per camp. The yellow bars indicate the percentage of women who lost weight during the 14 weekly core sessions. The green bars show the percentage of camp women who have actually achieved the 5-7% weight loss goal by week 14.

The women are working together to help each other reach their goals to develop healthier eating habits, lose weight, and be more active. It is expected that all the participants will reach the 5-7% weight loss goal by the end of the program in 2022.





**Core Sessions.** The women participate in a 14 week two hour session about nutrition to improve their knowledge and practices of healthy eating. The second hour includes physical activity exercises for stress relief and fat burn. These sessions were adapted from the National Diabetes Prevention Program to suit the Palestinian context.



**Fitness Exercises.** The participants go for a walk together in a playground in each camp to complete the required 150 minutes of physical activity per week.



**Follow-up sessions.** After the completion of the 14 core sessions, Juzoor conducts monthly follow-up sessions with the participants. It is a two-hour session per month throughout 6 months for 3 years. During the first hour, a lecture on nutritional subjects is presented. During the second hour, the floor is open to the participants to discuss any questions /concerns they may have.



**Healthy Cooking.** Participants explore tips on food preparation, recipe modification and meal planning.



To encourage the participants, after the completion of each phase the women are acknowledged for their hard work and persistence.



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