

The largest diabetes prevention mHealth program in the world.

Overview

Arogya World has completed mDiabetes, a Commitment made at the 2011 Clinton Global Initiative (CGI) Annual Meeting. With this groundbreaking effort, Arogya World has reached more than one million people from all over India with text messages in 12 languages about diabetes and its prevention, and has tested the program's effectiveness in bringing about behavior change known to prevent diabetes.

mDiabetes was designed and implemented by Arogya World in partnership with Nokia Life. Other partners include Emory University, Johnson & Johnson, Aetna, Biocon and Ipsos.

The Scientific Rationale For mDiabetes

Sixty-plus million Indians live with diabetes and one million die from it each year. Indians get the disease an average of 10 years earlier than counterparts in the West, often in their 30s and 40s. If untreated, diabetes can lead to heart disease, blindness, amputations and kidney failure.

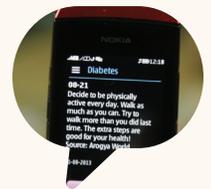
And mobile phones are widely used in India, throughout different geographic regions and socio-economic backgrounds. There are said to be about 900 million cell phone subscribers in India.

Importantly, the WHO emphasizes that approximately 80% of heart disease and diabetes, and 40% of cancers can be prevented through healthy lifestyles such as avoiding tobacco use, eating healthy foods and increasing daily physical activity.

mDiabetes Design

mDiabetes has been designed as a population-level nationwide public health intervention using mobile technology to establish health behaviors known to prevent diabetes.

The program has been successfully deployed in a large population. In 2012, Nokia Life helped Arogya World recruit 1,052,633 persons who opted-in to receive mDiabetes text messages. Messages were provided free to the consumers twice a week for six months. Participants came from all over India and a variety of socio-economic backgrounds.



Arogya World developed the 56 text messages with Emory University in late 2011, based on science and behavior change theory, and then, with Ipsos, consumer-tested them in simulated conditions as well as in the real world. Arogya World then refined the messages, adapting them culturally for Indian audiences based on consumer feedback and review by its Behavior Change Task Force. Nokia Life provided the translation and transmission infrastructure, and transmitted more than 56 million mDiabetes text messages to the consumers throughout 2012.

Arogya World assessed program effectiveness by comparing responses of 950 consumers, based on telephone interviews, before and after they received the messages, and also by comparing them with the responses of a similar number of consumers who did not receive mDiabetes messages. Detailed analysis of program effectiveness is ongoing.

Results

First effectiveness results from mDiabetes are encouraging. Consumers' awareness of diabetes and its complications increased, and promising trends in behavior change were noted: an 11% increase in daily exercise, a 15% increase in the intake of 2-3 servings of fruits a day, and an 8% increase in 2-3 servings of vegetables a day. The self-reported data are statistically significant.

Consumer Testimonials

Consumer reactions have been generally positive and show how mDiabetes has impacted people's lives. A video with consumer reactions was shown at the 2013 CGI Annual Meeting.

“ Earlier my father [who has diabetes] did not go for his walk regularly and was not careful about his diet and weight. I now make him go for a walk every day, have added more healthy food items to his diet and made him aware of the problems of diabetes. This program helped me gain a better understanding of diabetes, which I use to help my father have a better life.”

Karthik, a 29-year-old working professional from Tamilnadu.

“ Based on the messages I have read, I made lifestyle changes such as eating healthy food, doing exercise regularly, and have also understood the means and methods to maintain my blood sugar levels. These messages have helped me improve the quality of my life.”

Vettrivel, a 58-year-old diabetes patient.

“ Because of this program, I now plan to visit a doctor to have a health check up for all family members. I also plan to go for a morning walk.”

Rohaith Lal, a 21-year-old baker.



Next Steps

Once effectiveness is fully established, scale-up of the program to reach and help millions more in India is a planned next step. Arogya World is seeking funds to make this happen. Expansion geographically to other countries, in partnership with global health organizations, governments and private sector partners, is also being explored. Finally, finding ways to appeal to consumers with a diabetes prevention 'app', with graphics and video-rich content on diabetes and its complications, including stroke, heart disease, kidney failure etc., is also being pursued. We believe mDiabetes can be a core part of the chronic disease prevention model for the developing world.

About Arogya World

Arogya World (www.arogyaworld.org) is a global health non-profit organization, committed to changing the course of chronic disease, one community at a time. Arogya means 'good health' in Sanskrit and denotes living life without disease. The organization believes deeply in prevention and is implementing programs for diabetes prevention through lifestyle changes in schools, workplaces and the community, in India. To further advance this work, Arogya World India Trust has been set up in Bangalore.