

# Diabetes: Transforming Lives Through Technology



## EXECUTIVE SUMMARY

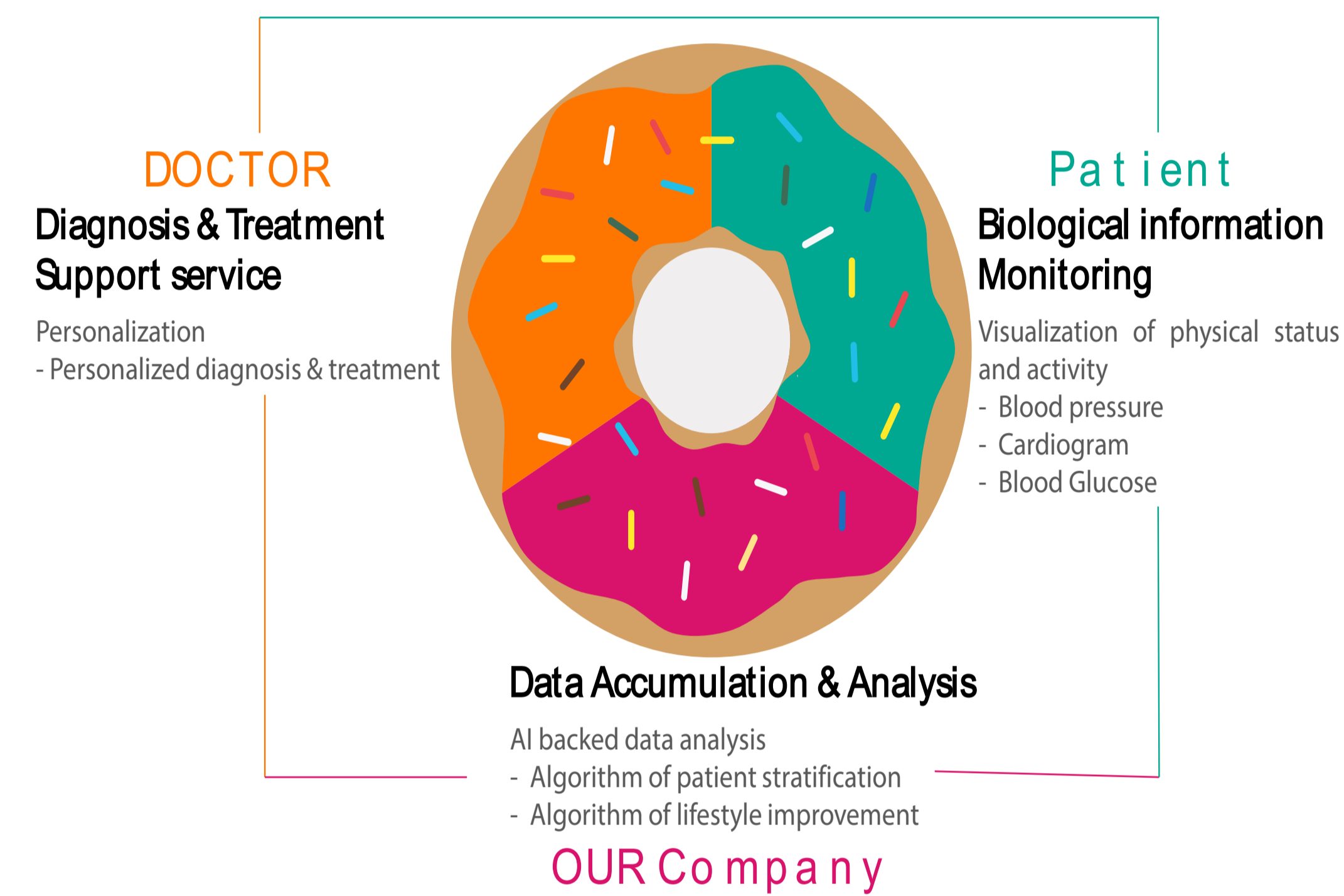
India, a country of hopes and dreams. A nation of believers and thinkers. A place of youngsters but still we are fighting with devastating health issues which are growing with extensive growth rates. Some of these diseases are so ruinous that the detriment caused by them is boundless. Indian Prime Minister on 15th August mentioned that still in India, despite availability of health insurances, claims the out of pocket expenses are being done by 66% of the population.

The concern of increasing diabetic patients in India is already raising its voice. India representing 49% of the world's diabetes burden is one of the 6 countries of IDF SEA region. This project has design proposals for one of the biggest epidemics in the healthcare field. The goal of this project is to discover the design opportunities in order to re-imagine the experience of a young type 2 diabetes patients.

In India with an estimated 72 million cases in 2017, a figure expected to almost double to 134 million by 2025, diabetes is a condition in which the body becomes resistant to the insulin produced by the pancreas and cannot manage the blood glucose levels. Treatment varies based on the severity of the condition, healthy diet, exercise, oral medications and in extreme cases, insulin injections. It can be delayed or prevented through a healthy lifestyle. It is generally hereditary, but an unhealthy lifestyle can also cause Type II diabetes. The project was about understanding the needs of Type - II diabetics and finding opportunities for design intervention. By conducting interviews with 2 experts and 12 diabetics, the following problems were identified, and regular monitoring of blood glucose levels was chosen as the area of intervention.

As a probable solution of this mammoth healthcare issue we raise our bits on a diabetes monitoring Kiosk. It is a blood glucose monitoring kiosk that has to be installed in semi-public spaces like offices, educational institutes, and residential societies. It makes the process of monitoring easy, convenient, safe and economical. Regular monitoring of blood glucose levels is essential for controlling diabetes. A packet containing a test strip, lens cover and a cotton pad to clean the fingertip is dispensed by the kiosk. The kiosk has to be refilled with packets daily and used consumables have to be disposed of as medical waste. We as Indian had learned a statement which is " sarve Bhavantu Sukhinh Sarve santuh Niramaya" which means everyone should be happy, everyone should be healthy, we through our Kiosk dream to have a healthy India.

## OPERATIONAL VALUE CHAIN

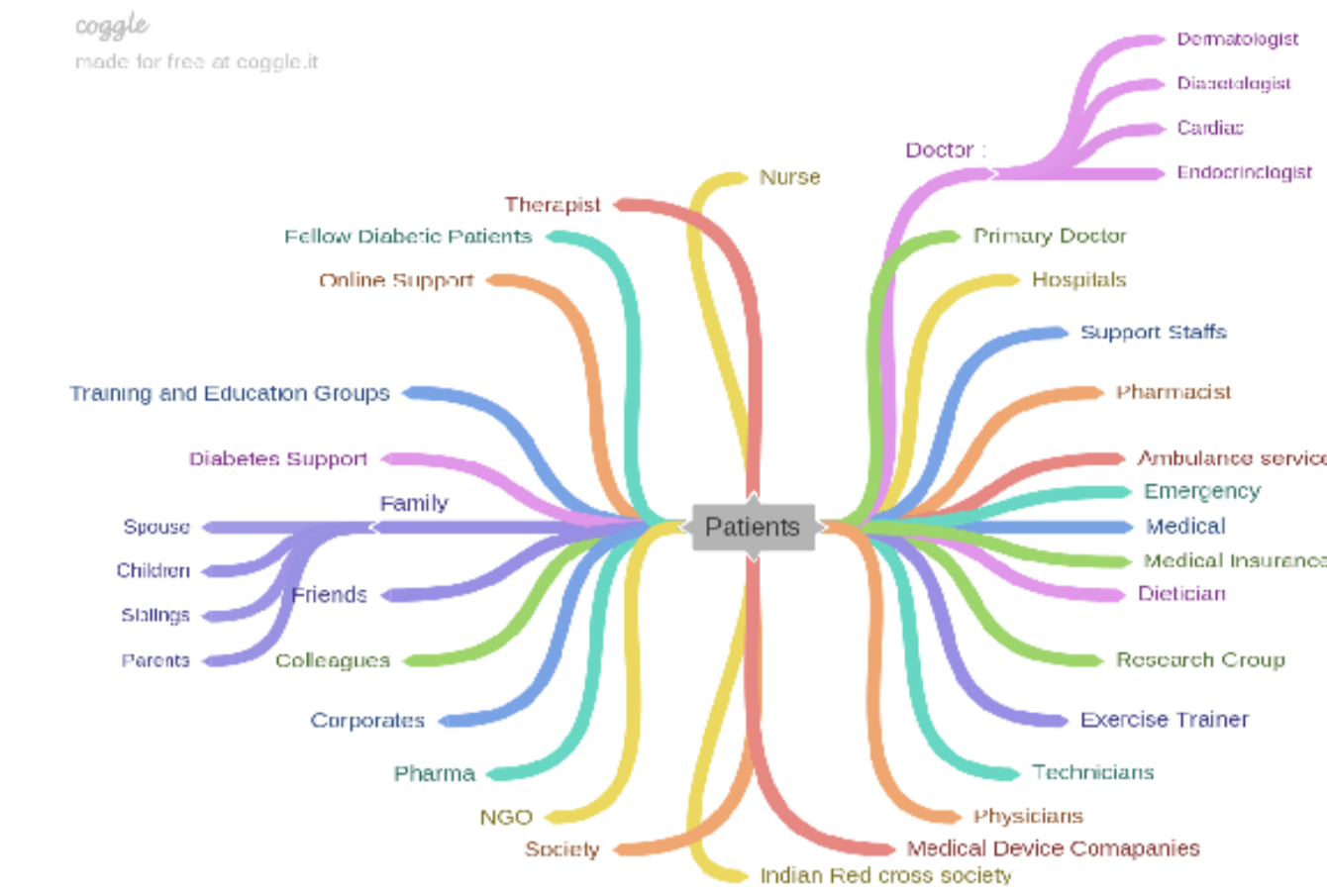


## BUSINESS CANVASS MODEL

<b>Key Partners</b> <ul style="list-style-type: none"> <li>Public Institutions,</li> <li>Medical Stores</li> <li>Glucometer and test strip manufacturer</li> <li>Biomedical waste Disposal,</li> <li>KIOSK manufacturer</li> <li>Society Owners</li> </ul>	<b>Key activities</b> Kiosk uses a laser beam to prick the user's finger for blood sample collection. A disposable lens cover is used to cover the laser opening for hygiene. A packet containing a test strip, lens cover and cotton pad to clean the fingertip is dispensed by the kiosk. The kiosk has to be refilled with packets daily.  <b>Key resources</b> <ul style="list-style-type: none"> <li>Software Development</li> <li>Kiosk Infrastructure provider</li> <li>Test Strip vendor</li> <li>Raw material vendor</li> <li>Staffing agency for nurses</li> <li>Lenses Vendor</li> </ul>	<b>Value proposition</b> <ul style="list-style-type: none"> <li>Affordable Glucose testing</li> <li>Periodic Glucose monitoring</li> <li>On-the-go check up</li> <li>Hygiene</li> <li>Affordability</li> <li>Accessibility to mass audience</li> <li>Premium product with additional modalities at basic price.</li> </ul>	<b>Customer relationship</b> <ul style="list-style-type: none"> <li>Doctor Recommendation</li> <li>Diabetes health clinic</li> <li>Diabetes health centre</li> <li>Word of Mouth</li> <li>Advertisement – YouTube and Print (Health magazines and Newspaper)</li> </ul>	<b>Customer segment</b>  In India with an estimated 72 million cases in 2017, a figure expected to almost double to 134 million by 2025, India representing 49% of the world's diabetes burden is one of the 6 countries of IDF SEA region. The goal of this project is to discover the design opportunities in order to re-imagine the experience of a young type 2 diabetes patients.
<b>Cost Structure</b> <ul style="list-style-type: none"> <li>Health Kiosk manufacturing</li> <li>Software development and maintenance</li> <li>Daily consumables</li> </ul>		<b>Revenue Stream</b> <ul style="list-style-type: none"> <li>Sale of software solution to Doctors/Clinics</li> <li>Glucose testing</li> <li>In-App purchases</li> <li>Mobile advertisement</li> </ul>		

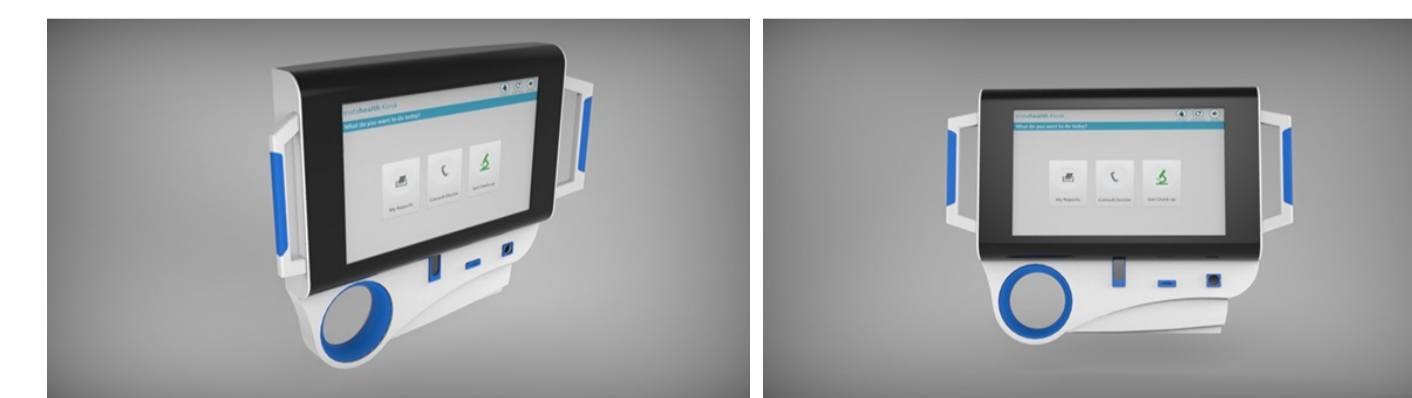
It is a process where a firm identifies its primary and support activities that add value to its final product and then analyze these activities to reduce costs or increase differentiation. It represents the internal activities a firm engages in when transforming inputs into outputs. Value chain analysis is a strategy tool used to analyze internal firm activities. Its goal is to recognize, which activities are the most valuable (i.e. are the source of cost or differentiation advantage) to the firm and which ones could acompetitive advantage.

## STAKEHOLDER



## IDEATION

In India with an estimated 72 million cases in 2017, a figure expected to almost double to 134 million by 2025. Through our research we found regular monitoring of Glucose level as problem. The project was about understanding the needs of diabetic patients and finding opportunities for design intervention. Emphasized articulation is on regular monitoring of blood-glucose levels as thus this was chosen as the area of intervention through a blood glucose monitoring kiosk that has to be installed in semi-public spaces It makes the process of monitoring easy, convenient, safe and economical. Regular monitoring of blood glucose levels is essential for controlling diabetes. India representing 49% of the world's diabetes burden is one of the 6 countries of IDF SEA region needs a special attention on the prevention of diabetes.



## WHY SHOULD INVESTOR INVEST IN YOUR IDEA?

The Business Model Canvas breaks your business model down into easily-understood segments. By digging into these elements of your company, you can recognize and act on areas that can be improved. It also reveals clear paths on which to build your organizational innovation strategy. It helps you communicate your goals to your team. It helps communicate to clients why they should do business with you. It helps pull into focus what your business does and how it will continue to do it - successfully - into the future

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## NEED ANALYSIS

The project was about understanding the needs of diabetic patients and finding opportunities for design intervention. Emphasized articulation is on regular monitoring of blood glucose levels as thus this was chosen as the area of intervention. Also, the emphasis was given to reduce the applicability of lancing device through which further the cost can be reduced

## FEASIBILITY & BENEFITS

- Total market size - 72 million cases in 2017, almost double to 134 million by 2025
- Painless method
- Affordable diagnosis of more than seven health parameters
- Pay-per-use
- The kiosk has to be refilled with packets daily and used consumables have to be disposed of as medical waste.
- The patients usually don't have a glucometer as monitoring needs to be bi-weekly, monthly or quarterly depending on the severity and the test strips that come with the glucometer expire before they can be utilized. The inference from the user study was that most such diabetics are very irregular with their monitoring and often forget their scheduled tests.
- Periodic time frame monitoring, to check the progress

## GROUP MEMEBRS

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