

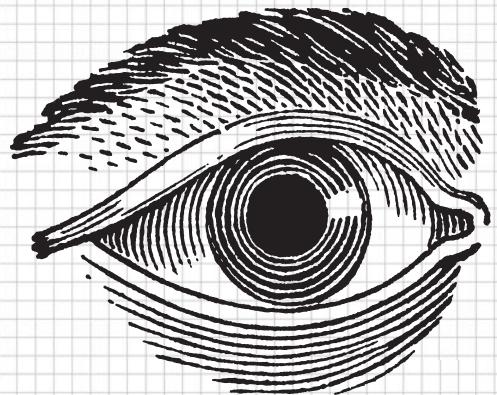


# Arkangel

EXTENDING HUMAN LIFE

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A STORY!



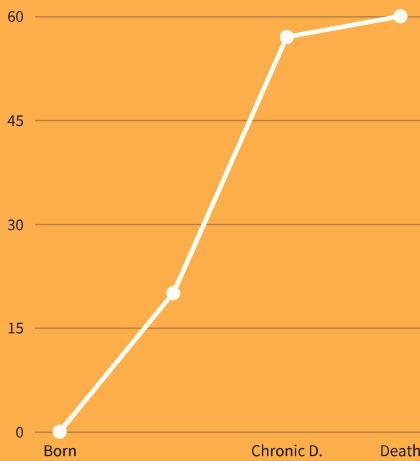
02

4 YEARS AGO

FATHER.  
GRAND FATHER.

STATISTICS OF

## Life



"It could have been different if we could have just noticed earlier"

Stress levels, Obesity, Alcohol intake.



**7/10**  
IN THIS ROOM Will develop  
**ONE CHRONIC DISEASE**

#1  
**CAUSE OF DEATH**

**Arkangel**

WE BELIEVE EXTENDING HUMAN LIFE  
LIES IN OUR HANDS.



EAT  
WELL



SLEEP  
WELL

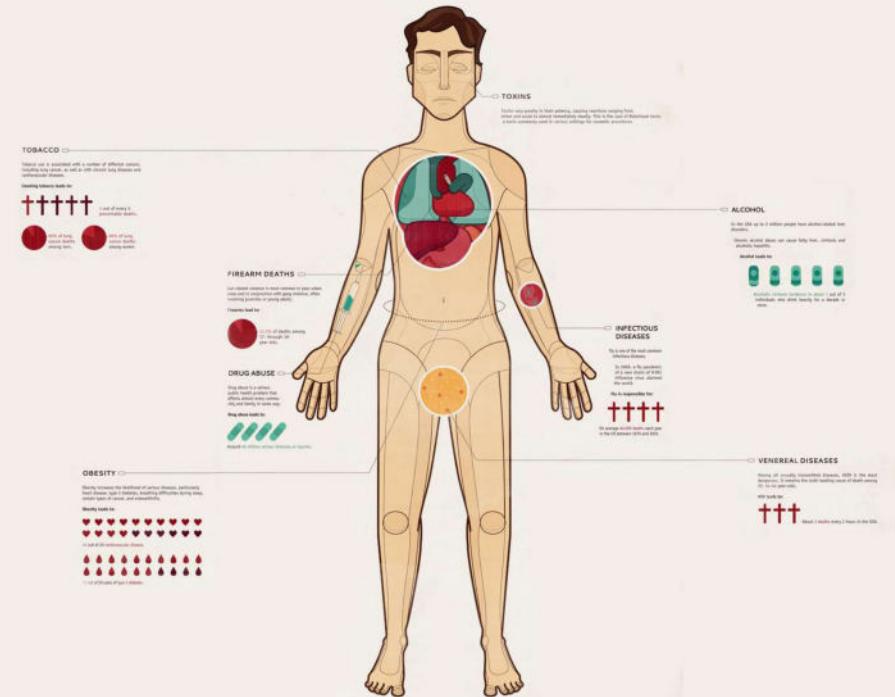
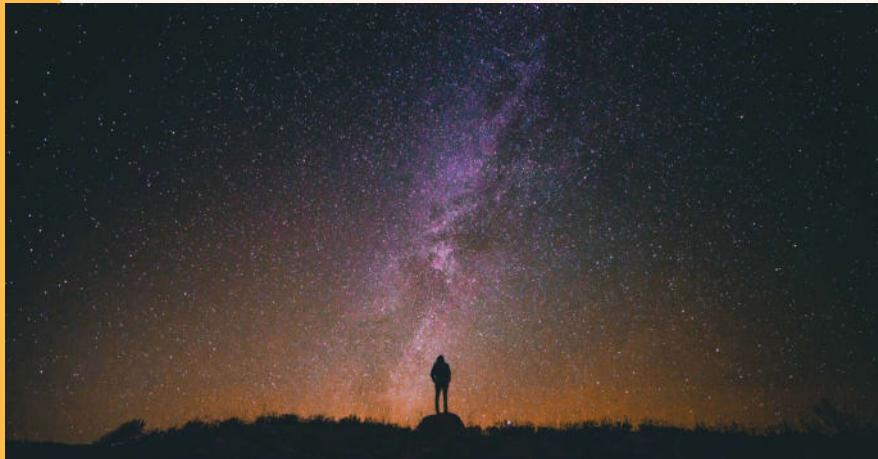


MOVE +



MANAGE  
STRESS





To create a specific program just for you  
Analyzes the interaction among:

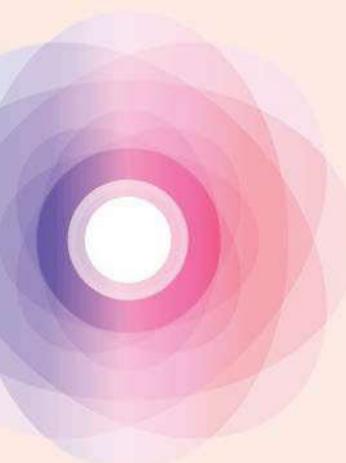


BEHAVIOURAL DATA (37%)

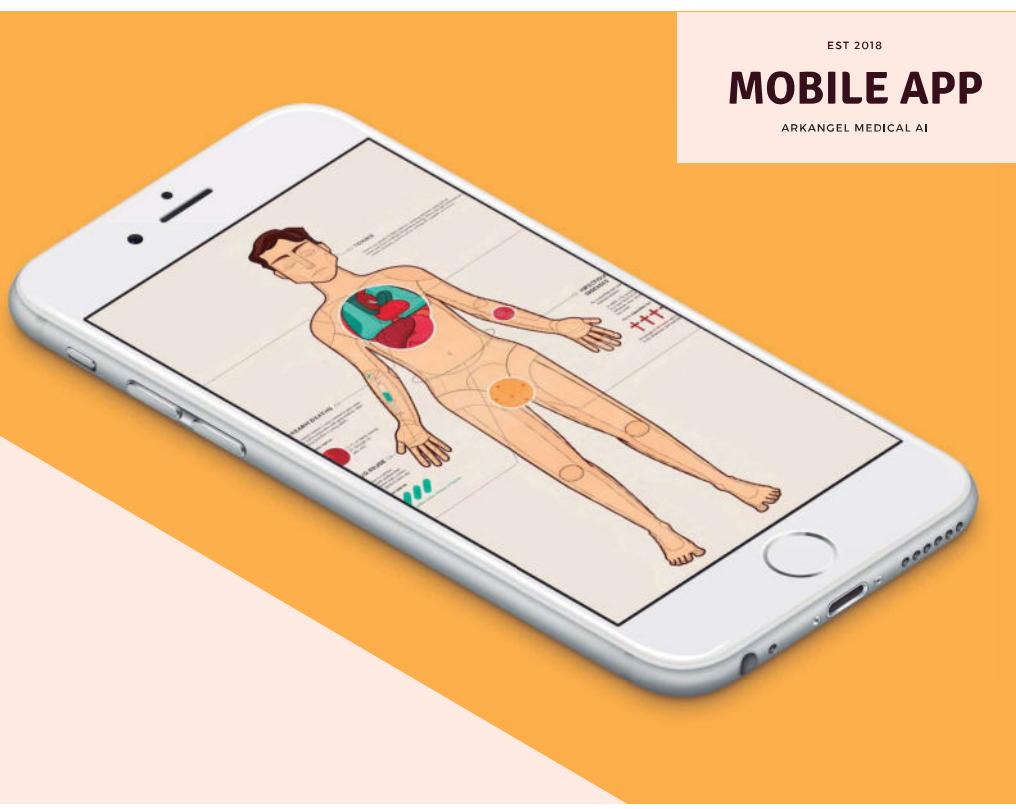
ENVIRONMENTAL DATA (22%)

BIOLOGICAL DATA (20%)

Combined represent 79% of health determinants, NEHI 2013  
Network for Excellence in Health Innovation (NEHI), 2013\*



WHAT IS IT?  
Medical AI



## MOBILE APP

ARKANGEL MEDICAL AI

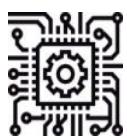
# U.S. CDC

25 YEARS

Published, peer reviewed,  
scientific research:  
Landmark T2 Prevent



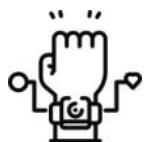
We capitalize on:



Data science



Behavioural Science



Wearable technology

## 4 pillars

### *Food*

Manually tracked

### *Sleep*

Automatically tracked

### *Stress*

Manually tracked

### *Movement*

Automatically tracked



Network for Excellence in Health Innovation (NEHI),  
2013\*



# #7 Cause of death

Diabetes Type II

We are ready!



Our target?  
The largest concentration of prediabetes

The Southern Appalachian area.



## Pricing model?

SUCCESS-BASED

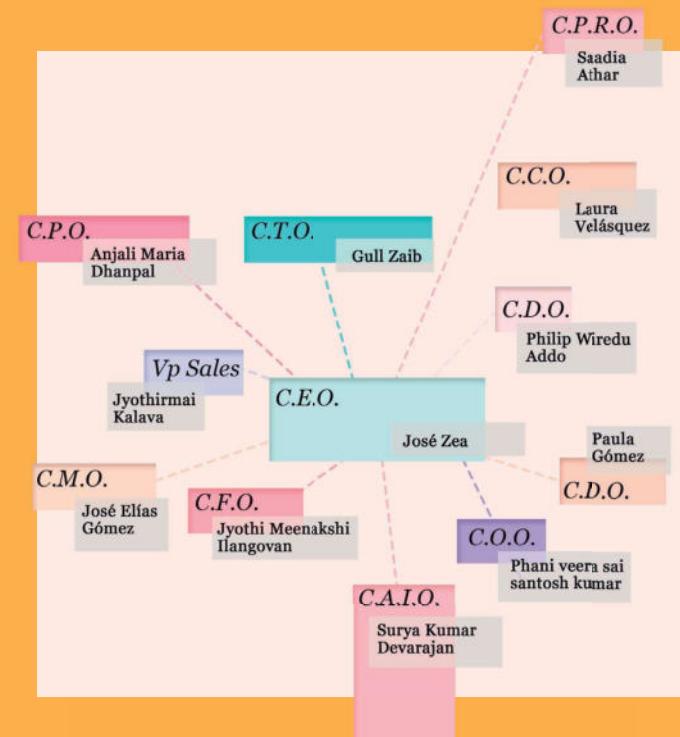
We earn no profit unless we deliver positive outcomes.

You get a full refund minus the administrative cost and taxes if you are diagnosed!

EST. 2018

## TEAM ARKANGEL

Extending human's life

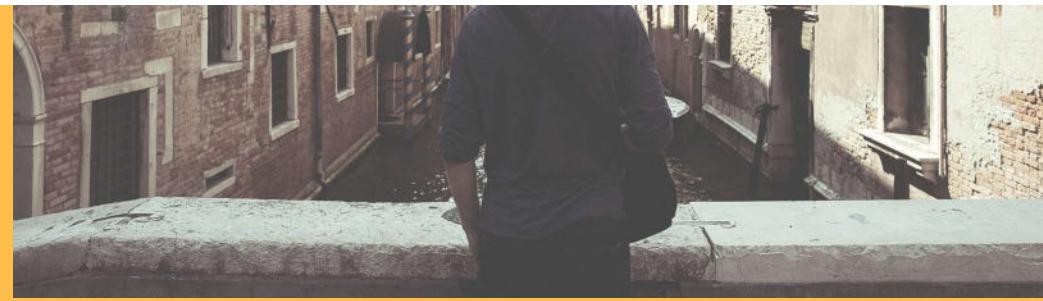




WE ARE AT THE FRONTIER OF A NEW TYPE OF HEALTHCARE



Welcome to Arkangel!



02

# MARKET RESEARCH

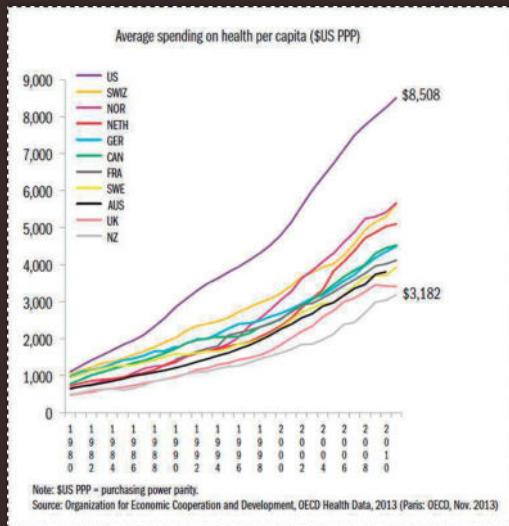
SAADIA ATHAR



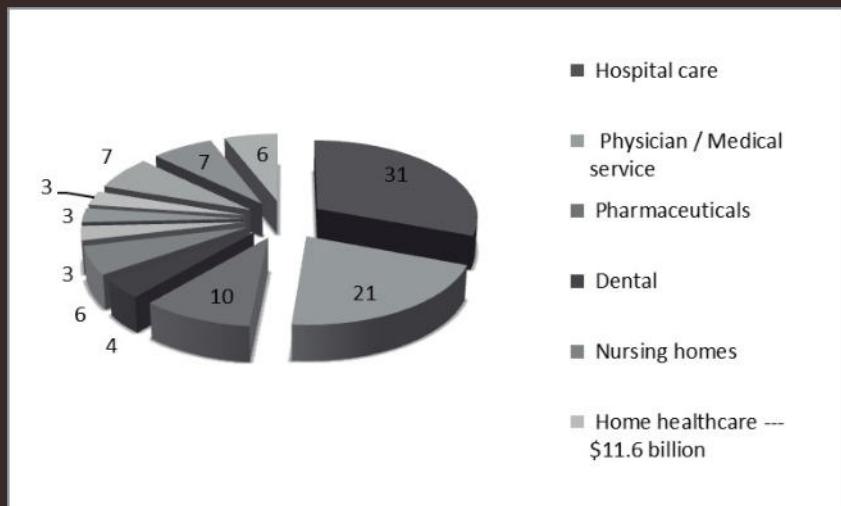
Consider market research whenever you could make a better business decision if you knew what others know.

Market Analysis

# Healthcare in the US



## % Cost of Health care broken down



85% of population has healthcare insurance:



59% through employer or family/parent

28% under governmental programs  
Elderly  
Disabled  
Children Some low income population

9% individually bought

4-11% uninsured (varies)

## Problems in the US healthcare system

- ✓ Doctors in the US are payed double the salary in Europe.
- ✓ Doctors are payed for procedure and not by results.
- ✓ There is not enough space for nurses, psychologist, therapists, pharmacists, etc.



## Consumer motivation:

- Hope for themselves
- Avoid the feared-self
- Ideal life span is **91 years** according to a survey. 38% want life extension treatment, 56% don't.



## Chronic Diseases

### What are the effects?

Chronically diseases are the leading cause of death and disability in the US

Responsible for 7 out of 10 deaths in the US

Can be disabling and debilitated the quality of life of people

45% of the population have at least one chronic disease (133 million)

Kills 1.7 million Americans a year

Every 30 seconds a lower limb is amputated as consequence of diabetes

### What are they?

Ongoing, generally incurable diseases or conditions. Often preventable with early detection, improved diet, exercise, and treatment therapy

### Effects of the healthcare system

- Account for the vast majority of health spending in the US (2 trillion: 2005 it is 3 trillion 2017- find the source)

### Effects of US Employers

- Employers are paying high costs for chronic diseases through increase in health cost

### The future effects:

- By 2025 it will affect 49% Americans (164 million people) – half the population.

Overweight rates keep climbing among children's.

### Preventable problem

eliminating 3 things like - poor diet, inactivity and smoking

80% heart disease  
80% stroke  
80% type 2 diabetes  
40% cancer.

# Diabetes:

## TYPE 1

In a nutshell

- I. Tends to happen very early in age, usually before 20's.
- II. Very few have it in 100 cases of diabetes (an average of 5-7%)
- III. Eliminates the cells that produce insulin and becomes insulin dependent
- IV. It cannot be prevented, it is purely genetic.

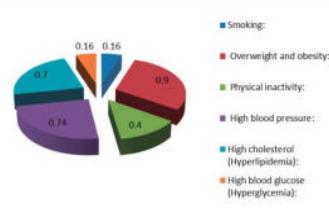
## TYPE 2

- I. Happens a lot in adults
- II. Before it used to happen to 40 years and up, but now with the high levels of obesity it can happen as early as 30y or in some cases with teenagers before 20yr.
- III. 70% of the chances of getting this diseases depends on unhealthy behaviours like:
  - a. Overweight, exercise and food intake

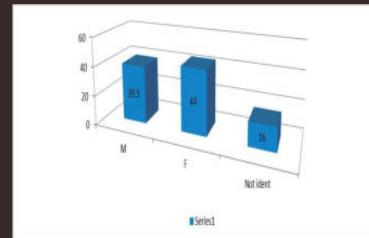
# +100 million people

- Diagnosed: 30.3 million (7.1 million have not been diagnosed yet.)
- Pre-diabetes: 84.1 million (1 in 3 americans)

Risk factors to develop it (percentage of patients diagnosed):

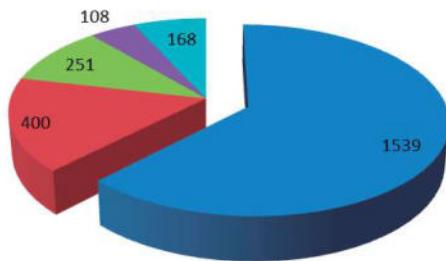


### PRE-DIABETES FACTS:



### DIABETES IN NUMBERS:

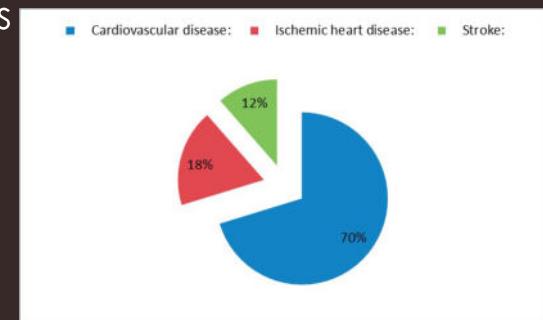
## Risk factors if not treated



- Cardiovascular disease:
- Ischemic heart disease:
- Stroke:
- Amputation:
- Diabetes ketoacidosis

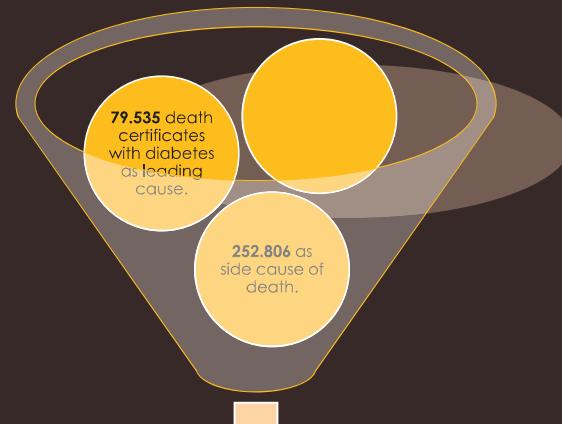
## HOSPITALIZATION NUMBERS:

- 7.2 million people were hospitalized by diabetes



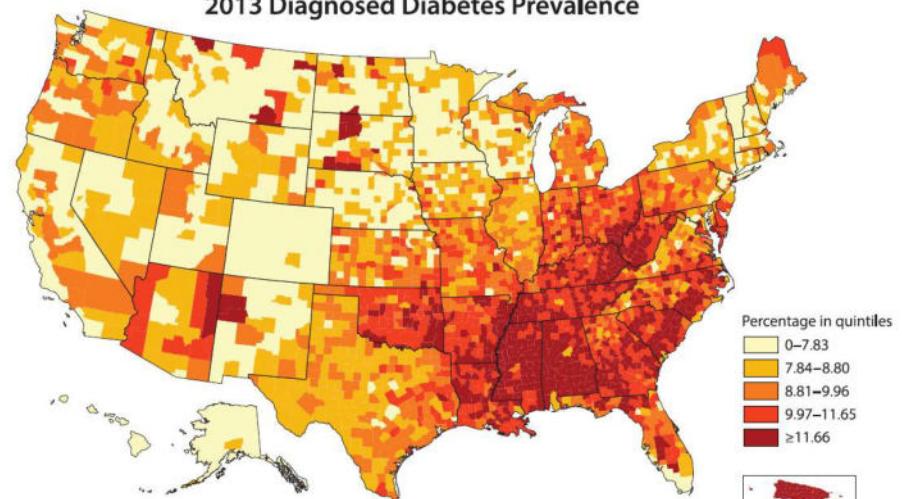
Note: Daily cost of hospital averages at \$2.000

7<sup>th</sup> leading cause of death in USA (as 2015).



332.341 total amount a year

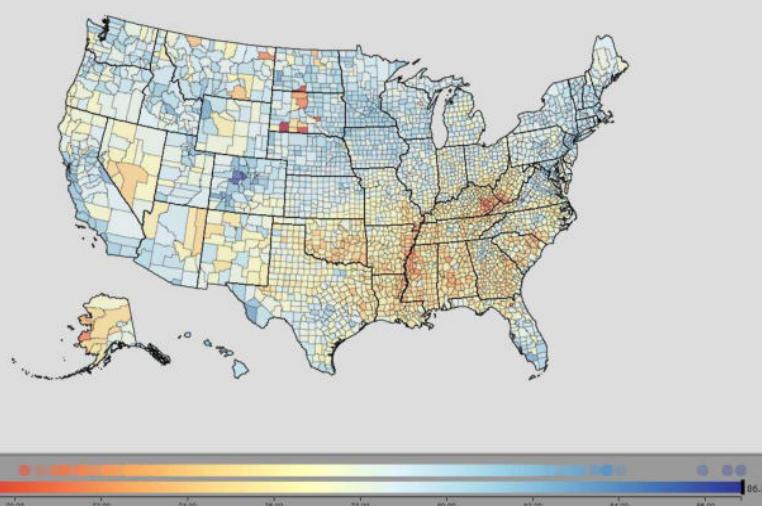
2013 Diagnosed Diabetes Prevalence



Data source: United States Diabetes Surveillance System. <https://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

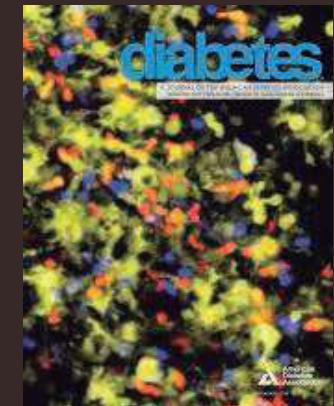
The Southern Appalachian area

Life expectancy at birth, both sexes, 2014



Correlates with less life expectancy in the US (10 year decreased)

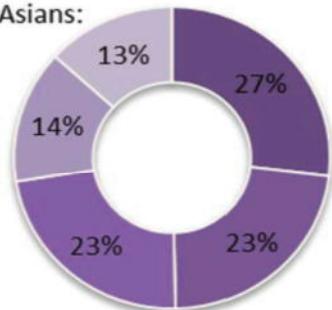
- The 84.1 million people on pre-diabetes can become a \$639 billion expenditure for insurance and the government if not treated.



## Rates of ethnicity

In population diagnosed:

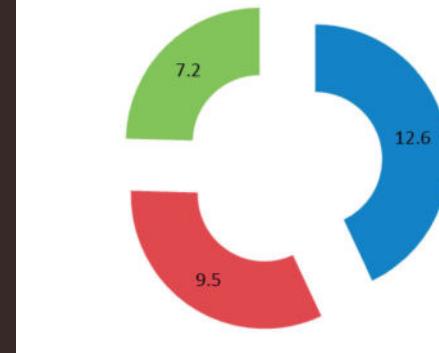
- o American Indians / Alaska natives: 27%
- o Blacks (non-Hispanic): 23%
- o Hispanic: 14%
- o Asians: 13%



## Rates of education

In population diagnosed:

- o No high school diploma: 12.6
- o High school diploma: 9.5
- o More than high school diploma: 7.2



## Target market:

Summary of market analysis

- Gender:
  - Man
- Age:
  - 45-64 years
- Condition:
  - Over-weight and with prediabetes
- Ethnicity:
  - Hispanic
- Level of education:
  - No high school diploma
- Geographic region:
  - US Southern Appalachian Area



03

# COMPETITION ANALYSIS

# COMPETITION

Competition in a business context is either direct or indirect for any start up or established company. Even if you have a product or business service that is completely niche or unique

## We do Competitor analysis

- Competitor analysis is the process by which an organization attempts to further define and understand its industry through identifying its competitors, determining the strengths and weaknesses of these rivals, and anticipating their strategic moves
- What are their strengths? Price, service, convenience, extensive inventory are all areas where you may be vulnerable.
- What are their weaknesses? Weaknesses are opportunities you should plan to take advantage of.
- What are their basic objectives? Do they seek to gain market share? Do they attempt to capture premium clients? See your industry through their eyes. What are they trying to achieve?
- What marketing strategies do they use? Look at their advertising, public relations, etc.
- How can you take market share away from their business?
- How will they respond when you enter the market?



## HOW DO WE FIGHT COMPETITION?

### Direct Competition

 blue mesa

 DIABETES  
CANADA

 omada

## OMADA

Omada, based in California targets market in the southern Part of the United States. It is a digital-tailored preventive program that eliminates diabetes type 2 from people with pre-diabetes. Omada does not manage diabetes, it helps people get out of risk of getting it in the first place because it's cheaper, more effective and the market is much larger. Every participant is supported by a professional health coach and robust social network for feedback, support, and accountability.



## BLUE MESA

Blue Mesa was founded in 2015 and is based in New York. They focus on the same market and does the same as Omada, but they target markets outside the US like Canada and South America. It is still very small compare to the other companies and fairly new and fragile. They are targeting too many markets at the same time. They use Fitbit bands (way too expensive for the service).



## Diabetes Canada.

The Canadian Diabetes Association became Diabetes Canada on February 13, 2017 to shed the light on the diabetes epidemic Canada is facing. It is a registered national charity whose mission includes serving the 11 million Canadians living with diabetes or prediabetes. Diabetes Canada programs include education and services support people living with diabetes in their daily fight to live as well as possible with diabetes. Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada represent the best evidence-based direction for health-care professionals with investments of more than \$125 million in diabetes research since 1975.

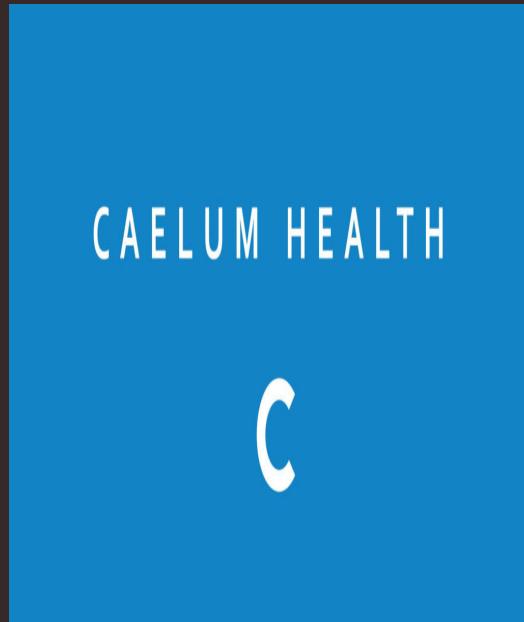


## Indirect Competition



## Caelum Health

Caelum Health develops application software to improve people's health without prescribing drugs. The company through its software helps improve digestive health and IBS - "irritable bowel syndrome," (20% of people in the US has) through physician-recommended diet. It provides behavioural health treatments by providing digital coaching, directory of food, information and lessons, and health tracking solutions. The company was founded in 2016 and is based in San Francisco, California. They are focus



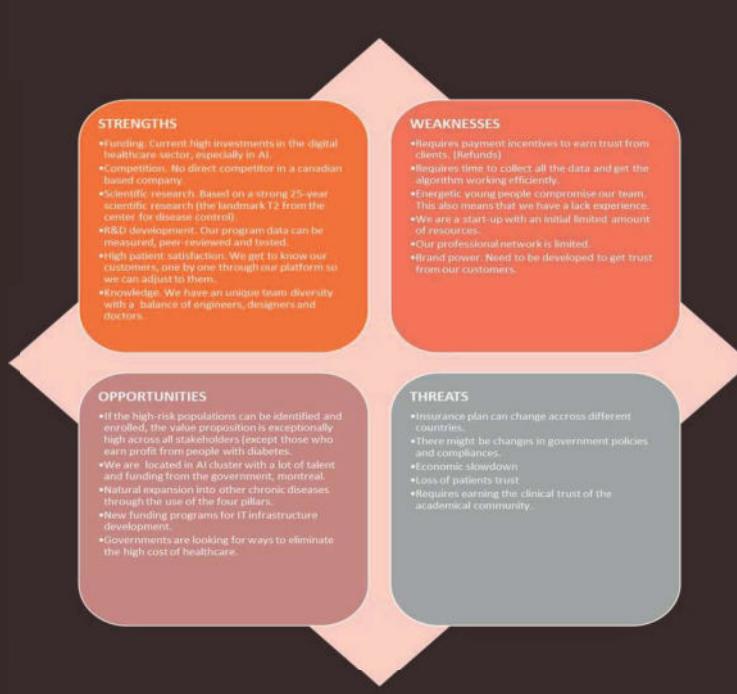
## e TreatMD

eTreatMD is a mobile health startup located in Vancouver, BC. eTreat develop apps that transform smartphones into medical devices. Its mission is to provide the tools to people who are struggling with chronic conditions, such as arthritis and skin conditions, to measure, monitor and manage their own health and wellness.



## We Build Strategies

○ Strategic planning demands realistic and objective assessment. We use the SWOT analysis to discover key internal and external issues and refresh the strategies and tactics of your marketing plan



We have our hands on better technology and close to Innovations as our base of operations is in Montreal which is an AI Hub.

We will Narrow our market for providing better services with lesser prices than any of our competitor thus creating an impulse for attracting clients.

We show better Differentiation with our products with our research and innovation which have better features, performance and efficiency

We make Bold Decisions from research and development to sales and marketing to customer service to build our reputation.

# How are we better?

# 04

## PRODUCT DESCRIPTION

GULL ZAID

### Our Product Includes:

- Jawbone fitness band.
- Wireless scale to automatically track weight.
- Measuring tape to measure body fat index.
- App itself; to log food intake and stress levels.
- Full access to algorithm around the clock.



### Product

It is a program that uses the behaviour data of the user within 4 pillars: sleep, food, exercise, stress levels.

### Structure of program

PRODUCT



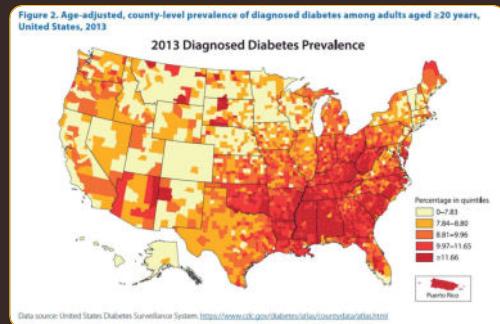
Connecting you with a health coach and an online support team

Each week the person is guided through a lesson on solving one of the four habits

Sending gift to keep the persons on track

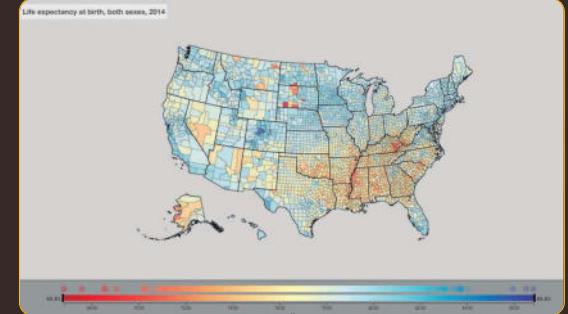
## Diabetes Prevalence:

Figure shows how the prevalence's covers the zone known as the Southern Appalachian Area where the states of Mississippi and Alabama, Louisiana, Arkansas, Tennessee, Kentucky and Missouri are highly affected.



## **Decrease of type 2 diabetes:**

## How life expectancy correlates



# PRICING

# Pricing Strategies

We charge \$2 per day or \$730 yearly.

## Future plans:

Hearth Disease
Cancer
Chronic lower respiratory disease
Accidents
Stroke
Alzheimer's disease
Diabetes
Influenza and pneumonia
Kidney disease
Suicide

# 05

## SERVICES HUMAN RESOURCES

ANJALI DHANPAL

## SERVICES

### CUSTOMER SERVICES



- A 24/7 Customer Service
- Contact us Via Toll-Free Number
- Via Email
- Immediate and effective assistance at all times

### QUALITY ASSURANCE

- Customer feedback is instrumental for the development and improvement of quality of service provided.
- Raising standards of services each day
- Building new strategic plans
- Guaranteeing customer satisfaction



# HUMAN RESOURCES

- A healthy, productive and sustainable workforce is important for the proper functioning of Arkangel to fulfil its mission.
- The Human Resource Department provides a plan to ensure the department has a stable, skilled and committed workforce



## RECRUITMENT AND RETENTION



- Arkangel strives for a robust and professional approach to recruitment and selection, enabling us to appoint skilled individuals attributing to accomplish common business goals.
- The HR department strongly stands for talent acquisition, based on the company requirements

## TRAINING AND DEVELOPMENT



- Arkangel provides developmental programs to help the staff and managers accomplish their targets and to perform safely and competently. Employees are trained particularly in their strong suit to get the best out of each for the highest impact on the business.

# PERFORMANCE AND COMPENSATION

# WORK ENVIRONMENT

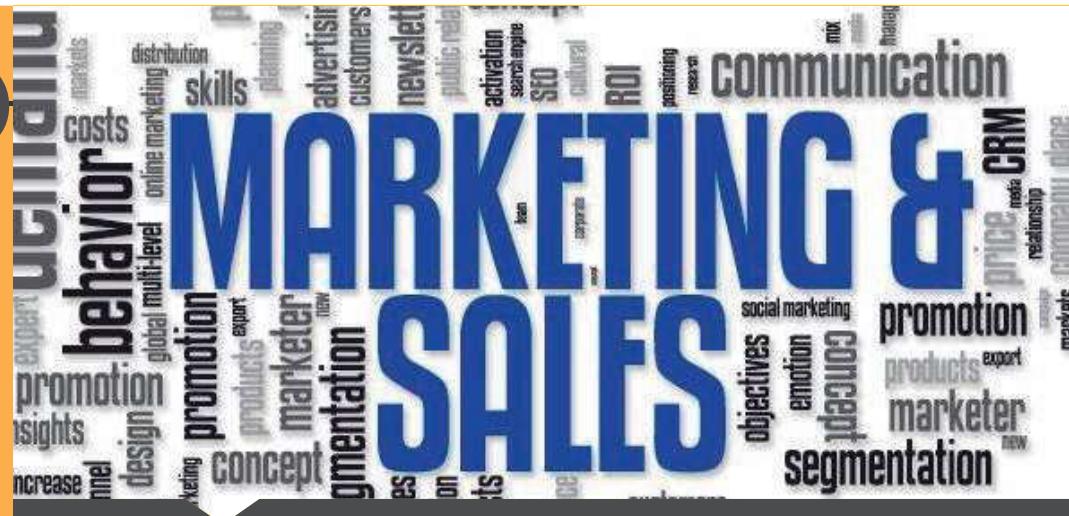


- Our company ensures every employee's performance is appreciated and recognized.
  - Performance appraisals like health benefits, bonus, promotions, etc., are awarded to align and maximize our staff's needs to the goals of the company.
  - A two-way process allowing the employees also to give a feedback to the management.



06

# MARKETING STRATEGY



# Sales and Marketing Strategies

Any business whether it is good, better or best needs the best sales and marketing strategy to improve and make it reach to the people.

## Business growth strategy of Arkangel™

### Our Approach

During the initial years, the significance will be given mostly to the sales and marketing for increasing the awareness of our services and to make it stand out among all other competitors.

It seems that we are stuck in the post war era of the 20<sup>th</sup> century, where diseases were cured only by vaccines. We have got passive waiting for somebody else to take care of us at the very last moment.

It is a program that uses the behaviour data of the user within 4 pillars; sleep, food, exercise, stress levels. We then use machine learning and data science to tailor a specific program that eliminates the risk on getting diabetes type 2 within those same 4 pillars.

We provide all the devices to keep track such as Jawbone Up fitness band (tracks sleep and movement), Wireless scale to automatically track weight, Measuring tape to measure body fat index and our App itself which will take the log food intake and stress levels.



2027

Expand Internationally starting from Canada

2025

Tie up with companies

2024

Arkangel™ reaches 30% of its targets

2022

Arkangel™ reaches 15% of its targets



2018  
Beginning of Arkangel™

### Marketing Strategies:

The "Proactive healthcare" has the greatest existing opportunity in this fast-paced technological world.

Inauguration of our official office and app.

Media

Collaborations

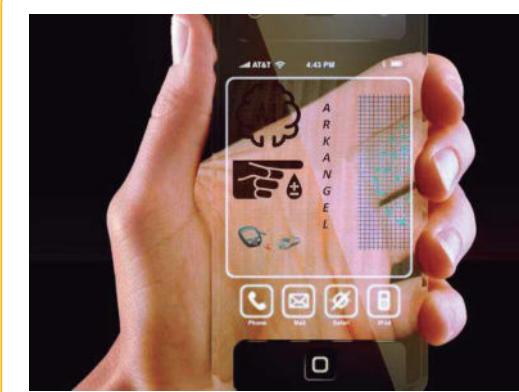
Health Campaigns

Referral Programs



### Marketing Strategies (Arkangel™ App):

We will launch our app officially using playstore/ App store in various mobiles along with opening our official office in Montreal with good local media advertisement.





## Marketing Strategies

We will use all sorts of media such as newspapers, magazines, monthly and weekly advertisements.

### Marketing Strategies (Health Campaigns and referral discounts)

○ Health campaigns will be held in places where people would like to go with their families and their colleagues.

○ We offer discounts when our current customers recommend our product to their friends/family within some time span of subscribing our services or purchasing our products.



## Marketing Strategies (Collaborations)

- Play stores of different operating systems.
- Office promotions to raise Arkangel brand awareness.
- Tie up with various companies (Microsoft, Facebook and Amazon).
- Collaborate with local cafés and pubs for including their workers.
- Contacting housing communities for making the residents aware of Arkangel devices and services.
- Contacting old age homes and orphanages and try to deliver our services for reduced costs by securing funding from the government and other organizations.



## Sales Strategies

Office

Website

App store/Play store

# OPERATIONS AND AI

SURYA KUMAR

## Sales Strategies

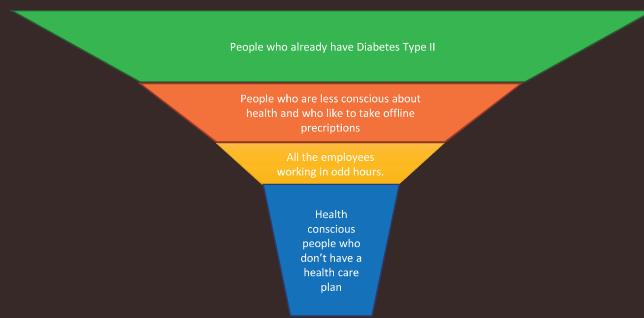
○ We will set up our own office and customer care service by providing twenty-four-hour services.

○ We make our own company website and post our link through some popular social media such as Facebook, twitter, Instagram and so on.

○ Arkangel works mainly through its app activities. So, relatively higher preference will be given to subscriptions.



## Sales Funnel



07

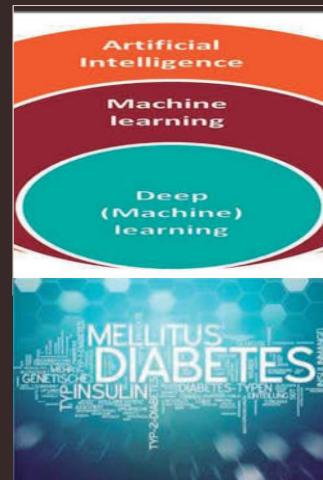


OPERATIONS

- The main goal of Arkangel™ is to prevent Type 2 diabetes thereby satisfying patient's demands.
- Maintaining sufficient capacity to meet demand is one of the greatest challenges of operations management.
- Type 2 diabetes and prediabetes forecasts are generated by analysing health habits of the individuals.
- Marketing and sales forecasts are based on current and expected future conditions.

## INFORMATION TECHNOLOGIES (CONT.)

Our advancing investments in machine learning and deep learning allow us to meet the high expectations of our customers. In this way, we can develop potential technologies to meet the needs. The competences of our workforce, the good adaptability and the performance of our product ensure compliance with the strict standards set by our customers.



## INFORMATION TECHNOLOGIES:

- We have a bunch of Data Scientists who are responsible for collecting the medical history of the people and analyse their historical background and create algorithms to predict their health in the future.
- Our Computer Engineers involve in the development of software and mobile health coach (app) that uses artificial intelligence to prevent chronic disease from happening and can deliver effective interventions for at-risk diabetes patients.
- We purchase smart wearables and develop self-optimizing algorithm to track and predict changes in steps walked, calories burned, sleep pattern, food intake.

## QUALITY CONTROL

- A quality control process is integrated into all parts of development, from collecting data, developing software, integrating our software into the smart wearables and inspecting them and getting the feedback from the patient's usage.
- All the software development process should follow the guidelines of software quality assurance.
- We planned to develop an automated audit management that serve as a great source of information to delve deeper into data with predictive intelligence regarding safety and compliance



## R & D



- A wide variety of functions like heart rate, sleep pattern, number of steps walked etc, have been available through wristbands.
- In future we will expand to include blood glucose levels, pressure levels etc.
- Investment towards advancement in software and technologies should be taken into account to always stay ahead in the competition.
- Separate Multidisciplinary research teams integrated by computer scientists and doctors will be working together mirroring the need of cooperation and inventions in this new topic.

## FACILITIES



- Arkangel™ has office in Montreal, Canada. The company has the adequate manpower and technical resources to cover lot of people.
- Arkangel™ will apply for incubation at the McGill Dobson Centre during the last three quarters of 2018 and will do the official launch in the early 2019.
- With increase in the customers and with higher success rates, we are planning to open further in other major populated cities.
- Supply chain Management involves purchase of smart products, Real time computers, Intelligent ICs, Testing tools, Licences for readymade software tools and materials needed for office environment, security etc.
- We focus on design, R&D, planning, execution, control, and monitoring of supply chain activities with the objective of creating potential software for diagnosis and in the same hand to get profitable successful outcome

## DEPARTMENT AND HEAD COUNTS:

- Arkangel™ has administration, management, legal, finance, marketing, sales, service, Research and Development, quality control and product development departments.
- We have a projection of 30 employees (excluding 9 of us in management) in total for the first year. The company's management philosophy will be based on responsibility and mutual respect.
- The number of employees in each department is conditional to the business in the succeeding years. In future, these 30 employees will grow along with the business to management level and new employees will be recruited.

## CONTIGENCY PLANNING:

- To facilitate the timely response in the event of the disruption of the company's normal business operation and services, Arkangel™ will be actively budgeted towards the contingency plans.
- It ensures the safety of the employees and resumption of the time sensitive activities in the case of any natural disaster, fire or blackouts. Whenever there is any change in the department, the policies and standards are revised to ensure the safety.
- It involves saving accurate and continuous vital records, data backup, off-site storage, Providing alternate sites for business operations.
- Various steps are also taken to avoid Software Piracy.

# 08

## GREEN FOOTPRINT

Our company is devoted to building an environmentally friendly business and to creating healthier products for customers.



## GREEN FOOTPRINT

PHILIP WIREDU AND  
JYOTHI MEENAKSHI

# 09

## FINANCIAL STRATEGY

PHILIP WIREDU AND  
JYOTHI MEENAKSHI

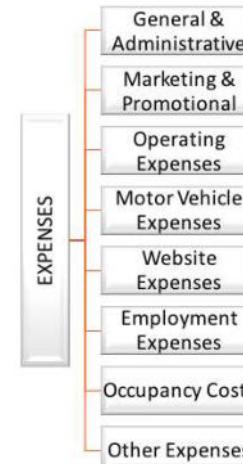


## SOURCE OF FUNDING

- BANK LOANS
- ANGEL INVESTORS
- INDIVIDUAL PARTNERS



## EXPENSES



## EXPENSES FOR THE THREE YEARS

### YEAR 1      YEAR 2      YEAR 3

	YEAR 1	YEAR 2	YEAR 3
General & Administrative	\$ 117,800	\$ 103,800	\$ 103,800
Marketing & Promotional	\$ 38,000	\$ 30,000	\$ 30,000
Operating Expenses	\$ 102,840	\$ 102,840	\$ 102,840
Motor Vehicle Expenses	\$ 226,000	\$ 6,000	\$ 6,000
Website Expenses	\$ 3,600	\$ 3,600	\$ 3,600
Employment Expenses	\$ 530,400	\$ 579,020	\$ 579,020
Occupancy Costs	\$ 468,000	\$ 468,000	\$ 468,000
Other Expenses	\$ 24,000	\$ 24,000	\$ 24,000
<b>TOTAL EXPENSES</b>	<b>\$ 1,510,640</b>	<b>\$ 1,317,260</b>	<b>\$ 1,317,260</b>

## SALES FORECAST ON THE MONTHLY BASIS



# PROFIT AND LOSS STATEMENT

SALES \$ 2 DOLLARS PER USER PER DAY

	Year 1	Year 2	Year 3
<b>TOTAL SALES</b>	\$ 870,050	6,629,183	84,322,433
<b>EXPENSES</b>			
General & Administrative	\$ 117,800	\$ 103,800	\$ 103,800
Marketing & Promotional	\$ 38,000	\$ 30,000	\$ 30,000
Operating Expenses	\$ 102,840	\$ 102,840	\$ 102,840
Motor Vehicle Expenses	\$ 226,000	\$ 6,000	\$ 6,000
Website Expenses	\$ 3,600	\$ 3,600	\$ 3,600
Employment Expenses	\$ 530,400	\$ 579,020	\$ 579,020
Occupancy Costs	\$ 468,000	\$ 468,000	\$ 468,000
Other Expenses	\$ 24,000	\$ 24,000	\$ 24,000
<b>Total Expenses</b>	\$ 1,510,640	\$ 1,317,260	\$ 1,317,260
<b>MONTH NET PROFIT / (LOSS)</b>	<b>\$ -640,589</b>	<b>\$ 5,311,923</b>	<b>\$ 83,005,173</b>

# PROFIT AND LOSS FIRST YEAR



# PROFIT AND LOSS SECOND AND THIRD YEAR



# EXIT STRATEGY

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