





**Insights for Impact** 

Health Behavior Data Challenge

**Guide.Motivate.Empower** 



- About GOQii Inc.
- Data Collection Methods
- Behavioral Factors Data Collected
- Data and Outcomes provided to CDC
- Data Access, Privacy, Confidentiality and Security



# **About GOQii Inc.**



### **About GOQii Inc.**



Vishal Gondal Founder, CEO ex. Founder – Indiagames











Apps

### **One-on-One Integrated Health & Wellness Ecosystem**



**#1** Wearables Player in India



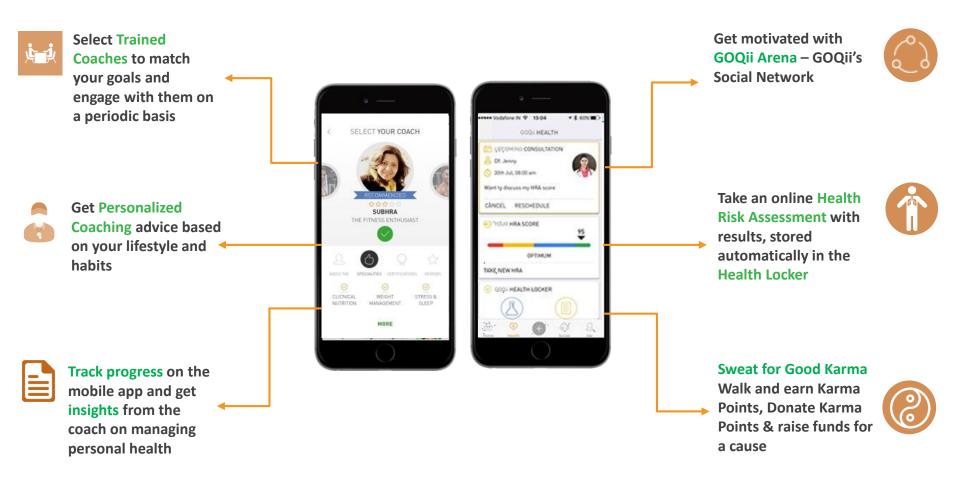
Launched in Oct 2014



Menlo Park, USA Headquartered

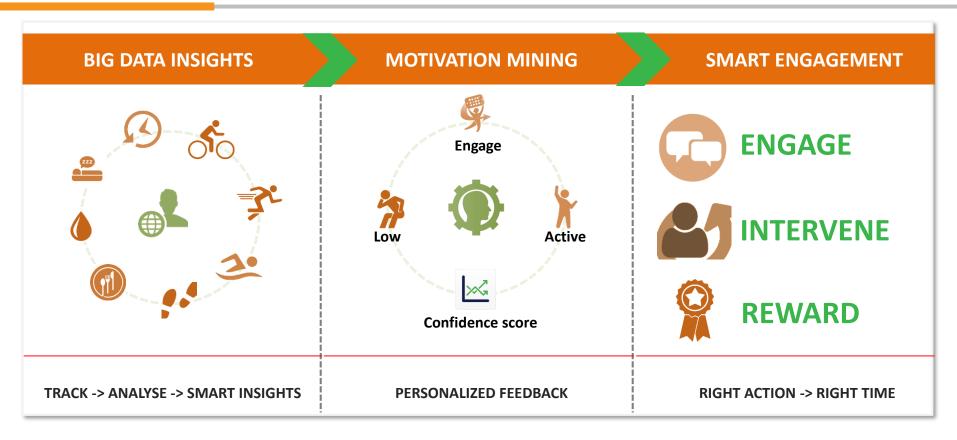
**World's Only Integrated Digital Health Platform** 

### We Have Disrupted The Fitness And Medical Consultation Space With Our Platform





# **GOQii Personalised Coaching– Right Advice At The Right Time**



Predictive, personalized, preventive health & wellness engagement ecosystem helping consumers reach and attain their fitness goals



### **Leading Market Share In India With The Ecosystem Play And Coaching As Differentiators**



Virtual Coaching Platform



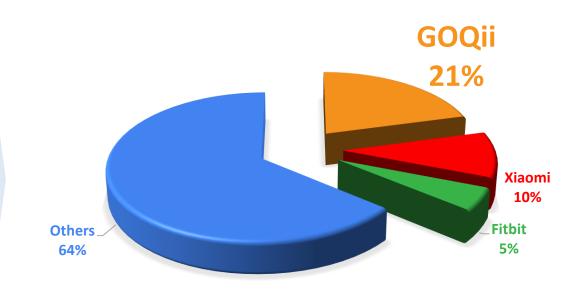
Holistic Health & Wellness Focus



Analytics driven platform



Engagement based, motivation platform



IDC Worldwide Quarterly Wearable Tracker, CY Q1 2017



### **GOQii Tracker Recognized As A Pioneer By Industry Stalwarts - Juniper Research**



- 1. Apple Watch
- 2. Intel's Wearables
- 3. Microsoft HoloLens

4.GOQii

**5.** Google-Tag Heuer Smartwatch

'real' fitness coach who helps to interpret output ...provides motivation & context for the data - which is often lacking in the fitness wearables space"

TOP 5 SMART
WIRELESS DEVICES
DEVELOPMENT
FOR 2015





### Purpose – How GOQii would help CDC?

### Efficient and Accurate data collection

 Real-time and continuous data collection from diverse sources which are validated by sophisticated systems

# Public Health Insights

- Insights from user behavioral and medical data leading to lifestyle diseases, epidemics
- Recommendations for preventive measures

# Make People Healthy

- We would not be just a data collection entity but also would be pivotal in the adoption of healthy lifestyle
- This would be achieved with GOQii Ecosystem



# Why traditional systems fail



User fatigue



Lacks user improvement tracking



facing



Periodic
(Not Real-time)



Sometimes incentive driven

(Not Intrinsic)

### **BRFSS Survey vs. GOQii Methodology**

Would you say that in general your health is—

Please read:

1 Excellent
2 Very good
3 Good

Sometimes incentive driven

Fair



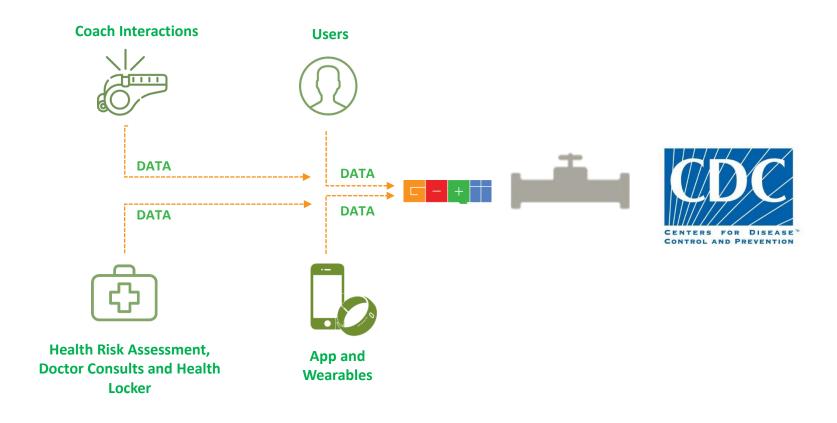
Intrinsic – Self invested by user for his own health

GOQii Aggregated Health Score

**GOQii Methodology Factors BFRSS Survey Data Validation** Not validated Validated and proven with outcomes **Data Collection techniques** Traditional, Objective Modern (App and wearables based), Interactive and continuous Data collection frequency Periodic Continuous - Daily Data collection broadness Based on opinion of user at the Based on a broader data generated over a longer period moment when survey is conducted from wearables, self reporting User response User fatigue User engagement Improvement tracking Lacks user improvement tracking Comes with outcome tracking Outcome driven Outcome Not outcome facing

**Driving factor** 

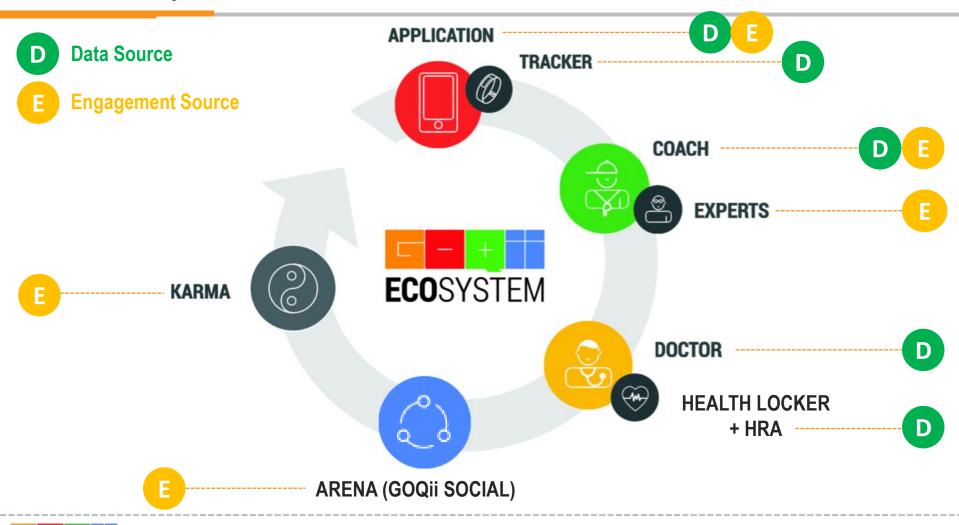
### **GOQii would be Conduit Managing the Data Between Stakeholders**



GOQii will act as the funnel providing insights based on proprietary user data to CDC

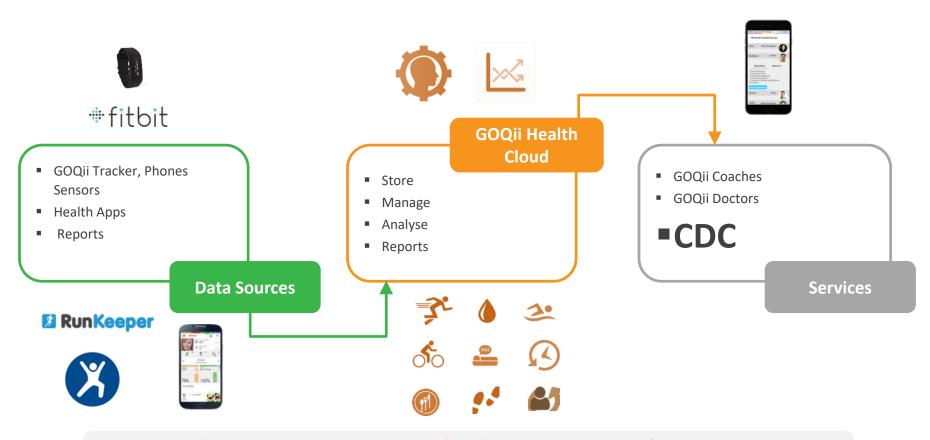


# The GOQii Ecosystem



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### **GOQii Health Cloud- An Integrated Health Data Repository**



GOQii will serve as the single repository for all your health records from the Health Risk Assessment report to Diagnostics reports and make it accessible for GOQii Services



# **Data Collection Methods**



#### **Data collection methods**

- GOQii Tracker
- User reported data in GOQii App
- HRA Health Risk Assessment
- Doctor Consultations
- Health Locker
- GOQii Coaching
- Other Health apps and wearables



### **Data collection methods - GOQii Tracker**



- Monitors activity & sleep data up to +/- 10% accuracy
- Measures Heart Rate
- Displays steps, distance, calories burned, active time, goal achieved, karma points along with time & date
- Notifications including Caller ID, SMS and WhatsApp alerts, Coach notifications etc.
- Integrated USB 2.0 Charger no need for separate charger
- Contactless NFC Payment Enabled
- Tap screen with vertical & horizontal orientations
- Bright Day & Night Visible OLED Screen
- Upto 14 Days Battery Life Charge only once a fortnight
- Low energy Bluetooth
- Discrete Alarm Silently vibrates without impacting nearby people
- Water Resistant
- Secure Locking Watch Strap



### Data collection methods - GOQii App (Android and iOS)

GOQii App helps user to track and analyse his routine, also it acts as one stop for his health and fitness needs

# GOQii App features:

- Coach chat and calls
- Health Journal: Steps, food, water, activity, sleep, habits and mood log
- Doctor consults: Discuss with GOQii Doctors
- HRA Health Risk Assessment
- Health Locker Store and share Health Records
- GOQii Arena: GOQii social community
- Health Content: Blogs







### **Data collection methods - GOQii Health Risk Assessment (HRA)**

- GOQii HRA is Health Risk Assessment questionnaire aimed to evaluate lifestyle and health.
- GOQii coaches and doctors make sure that user completes the GOQii HRA in GOQii app once every month
- HRA provides data on various sections such as Nutrition, Physical Activity, Sleep, Body measurements, Lab parameters, Medical history, Emotional health, Tobacco and Alcohol consumption, Occupational Health, Personal Safety
- HRA provides HRA Score. HRA score as well lab parameters can be compared against each other with every HRA taken



#### **Data collection methods - Doctor Consults and Health Locker**

# **GOQii Doctor Consultations**

- GOQii user can discuss with GOQii Doctor on any health concerns over a teleconsultation
- Generally GOQii users consult about their medical reports, chronic conditions

### **Health Locker**

- GOQii provides users with a secure health locker where you can safely deposit all your reports post the diagnosis.
- The health locker acts as a repository for the user's medical diagnostic history making it readily available to all-coaches, users, doctors on or off the platform, with the consent of the user.



### Data collection methods - GOQii Coaching: What are GOQii Goals and Habits?

- GOQii users work towards health goals together with their coach.
- Goals work as a great insight around what are the problems faced by the users related to health
- GOQii habits are habits given by Coach personalised for user which are healthy to do's for a person
- Habits tracking happens with self reported habit check-ins
- Habit tracking consists of Current streak of habit check-ins, Longest streak of habit check-ins
- Habits can also be customised based on given user demographics, geographies or any other parameters



# **Behavioral Factors Data Collected**



# **Behavioral Factors Data Collected**

	Fitness Tracker	Logs	Habits Check-ins	HRA	Third Party Apps	GPS Based Tracking
Recency of data	Everyday	Every meal time / Activity done	Daily Habit Ticks	Monthly HRA	Third party app sharing from 20+ health apps	
Nutrition	-	Food Log with Food Recognition	E.g. Have Fruits	Questions like – Frequency of high fat intake foods, etc	E.g. Fat Secret	Location of the meals
Hydration	-	Water log	Meeting water target		E.g. Apple Health	-
Activity	Steps, Distance, Active, Heart Rate, Target	Activity log – E.g. Running Intensity & Duration	Meeting Steps targets & Additional Habits – E.g. Do core workout	Questions like – Days of Activity, etc	E.g. Phone sensor, Fitbit	Workout and Activity tracking
Sedentary Behavior	Bouts of inactivity	-	-	Questions like –	E.g. Phone Sensor	Places of being sedentary
Sleep	Quality of sleep – Deep, light and restless sleep, Durations Sleep time Wake up time	Manual Log of Sleep	Meeting Sleep target & Additional habits to help sleep – E.g Keep away electronics Health goal - Sleep	Question like - Trouble sleeping	E.g. Apple Health	-

### **Behavioral Factors Data Collected**

	Fitness Tracker	Logs / App Tracking	Habits Check- ins	HRA	Third Party Apps	GOQii Doctor/ GOQii Coach
Recency of data	Everyday	Every meal time / Activity done	Daily Habit Ticks	Monthly HRA	Third party app sharing from 20+ health apps	Everyday
Stress related data	-	Mood Logs - Morning Meditation Tracking	Stress relieving habits Health Goal on stress	Emotional health tracked through emotion	-	-
Medical Data and Body measurements	Heart Rate	Sickness Logs Weight Logs Waist measurements	-	Most of the medical data are captured through HRA & Health Locker	-	User mentioning to doctor or coach about sickness
Health Seeking behavior	-	Reading Healthy Blogs	-	-	-	Regular Coach interactions Quality Score by Coach



#### **Methods to collect Nutrition data**

#### Method 1: Food log in GOQii App

- User reported Meal tracking in GOQii App
- GOQii meal tracking includes breakfast, lunch, dinner and snacks meal types.
- GOQii meal tracking also comes with food recognition features which makes it easier to log the meals
- It also provides macronutrients data (Carbs, Fats, Protein)

#### **Method 2: GOQii Habits**

User would be having Nutrition habits (e.g. Have fruits everyday) which would be checked-in everyday by
user

#### **Method 3: User reported Monthly HRA**

HRA would be able to collect data about user behavior on Nutrition

### Method 4: User reported food logs from Third Party app integration



#### We do not believe in Calorie Calculation

- Users shouldn't decide basis calorie dense foods vs. less calorie foods
- e.g. Calorie dense foods like healthy nuts and seeds are packed with good fats and antioxidants but are high on calories
- Should focus more on the right amounts of nutrients and establishing the right balance in their meals
- 1200 calories from a balanced diet consisting right amounts of carbs, proteins, fats, micronutrients and fiber is better than 1200 calories from a processed food
- When our body senses an energy/calorie deficit it slows its metabolism in an attempt to conserve energy – Thus a counter effect
- Choosing the right kind of food in right portions and at the right time is what needs to be the focused.



#### Methods to collect Water intake data

### Method 1: Water log in GOQii App

- User reported water intake tracking in GOQii App
- User can set daily water target in GOQii App

### **Method 2: User reported Monthly HRA**

HRA would be able to collect data about user behavior on water intake

## Method 3: User reported water logs from Third Party app integration



### Methods to collect Physical Activity data

#### Method 1: GOQii Tracker Wearable

- Steps tracking, Distance covered via foot, Active time, Heart Rate can be tracked via GOQii tracker
- User can also set Daily steps target in GOQii tracker as well as in App

#### Method 2: Activity log in GOQii App

User reported activity log which consists of activity type (running, swimming etc), intensity, duration

#### **Method 3: GOQii Habits**

User would be having Activity habits (e.g. Do core workout everyday) which would be checked-in everyday by user

#### **Method 4: User reported Monthly HRA**

HRA would be able to collect data about user behavior on physical activities

#### Method 5: Steps and user reported activity logs from Third Party app integration

Method 6: GPS based Activity tracking and workout tracking



### **Methods to collect Sleep data**

#### Method 1: GOQii Tracker Wearable

- Sleep can be automatically tracked via GOQii tracker
- User can set Daily Sleep target in GOQii App
- Sleep data consists of Total sleep duration, Light sleep, deep sleep and restless sleep

#### Method 2: Sleep log in GOQii App

User reported activity log which consists of sleep duration, sleep start time, wake up time

#### **Method 3: GOQii Habits**

 User would be having Sleep habits (e.g. Keep electronics away after dinner) which would be checked-in everyday by user

#### **Method 4: User reported Monthly HRA**

HRA would be able to collect data about physical activities

### Method 5: Sleep and user reported sleep logs from Third Party app integration



### **Methods to collect Sedentary data**

### Method 1: GOQii Tracker Wearable: sedentary data from steps data

GOQii app can estimate sedentary time from daily steps data from tracker and phone sensor

### **Method 2: User reported Monthly HRA**

HRA would be able to collect data about sedentary behavior



#### Methods to collect Stress related data

### **Method 1: User reported Mood Logs**

Mood Tracking on a daily basis in GOQii App

#### Method 2: Meditation Tracking

GOQii app has Guided Meditation which is helpful for stress reduction

#### **Method 3: GOQii Habits**

 User would be having Stress relieving habits (e.g. Meditate, time spent on hobbies) which would be checked-in everyday by user

#### **Method 4: User reported Monthly HRA**

Emotional health tracked by the user



### **Methods to collect Medical Data and Body measurements**

## **Method 1: User reported Monthly HRA**

#### **Method 2: Health Locker**

Medical Data comes from Health Locker

### Method 3: Logs in GOQii App

- Regular tracking of weight and waist
- Sickness log in app

### **Method 4: GOQii Doctor**

Doctor consultation will reveal current illness epidemics



### **Methods to collect Health Seeking behavior**

### **Method 1: Coach Interaction**

Number of interactions with the Coach to work on their health

### **Method 2: Quality Score by the Coach**

Coach will rate the user based the type of interactions

# Method 3: Healthy Blogs reading in app



- GOQii has added lot of engagement building components to which user sticks and continue to follow the healthy regime
- Following are some of the engagement building methods
  - Coach Interactions
  - Arena (GOQii Social Community)
  - Karma



# **Engagement from GOQii Coaching**

#### **GOQii Coach:**

 Every GOQii user gets a Personal GOQii Coach based on his Health Goals. Every day GOQii Coach motivates and guides user to achieve user's health goals.

## **Coach Interaction (chat and calls)**

- GOQii Coaches interact with users every day through in-app one-on-one chat.
- Coaches conducts goal progress call periodically to assess user's healthy lifestyle journey.
- Coach interaction contributes to user engagement in a big way.





### | Qualified | Specialized | Experienced |

Degree / Diploma / Certification in nutrition, physical fitness or sports background

Relevant experience of 2+ years



### **Engagement via GOQii Karma - Get Happier While Getting Happier**





- GOQii's Social Network GOQii Arena is online community of users.
- Arena provides Social Circle of Motivation and brings in engagement
- Arena has features such as friends, social feed, challenges which helps user to stick to healthier habits.
- GOQii Arena will also encourage users to get their friends and family on GOQii, leading to increase in reach and thus more data, more impact, more healthy people



#### Why users would log in GOQii App – How engagement helps

- GOQii App comes with different self reported log features
- GOQii Coaches make sure that user is motivated and informed about the food, activity and sleep logs he is doing
- Also, GOQii Arena keeps user motivated and encourages users to log health activities with social motivation
- Karma provides an additional motivation to the user to give back to society with healthy activities.



# **Data and Outcomes provided to CDC**



# Aggregate data based on

- Gender, Geography (City, State, Country), Age groups, Occupation, Income levels, Education, Marital Status
- Outcome data related to Activity Levels, Nutritional behaviors, Hydration levels, Emotional health, Sleep, Medical Conditions (Acute and Chronic), Family medical history, BMI, Weight, Waist, Tobacco and Alcohol, Personal Safety, Health Seeking behavior



#### **Outcomes from Activity Data**

The wearable and App will give us the data in real time which could be aligned with CDC demographics data to get insights around overall activity levels

Some of data elements are as follows:

- Type of activity % of people doing it, intensity level and enjoyment of Activity,
   Average time
- Amount of MVPA time per day / week / month / year
- Location of MVPA Activity hotspots or the lack of them
- Average Step count and trend daily / weekly / monthly / yearly
- Average Distance covered
- Target completion rate % of users completing their target > 10 days month

#### Some of the initiatives that CDC could do to improve public health

- Location Tracks, Park and areas of exercise available for the users (Decision to improve amenities)
- Events to encourage activity based on the activity that has the most amount of enjoyment - Marathons, Trekking, Zumba etc



#### **Outcomes from Activity Data**

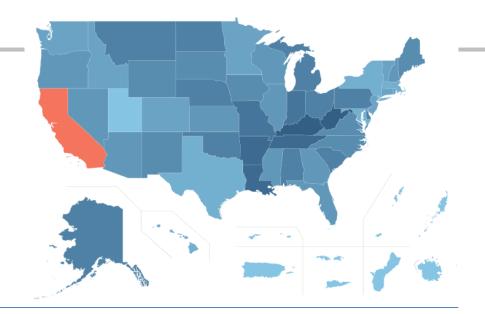
Avg. Daily Step count

5,500

Male - 6500

Female - 4500

Most popular activity – Running Avg. time spent on MVPA – 2 H 30 mins Most Active Time - 7 to 8 PM





#### 6 out of 10

Men are Active with more than 10k steps per day



#### 9 out of 10

Women are highly Active with more than 10k steps per day



Total Steps of City A

**168b** 

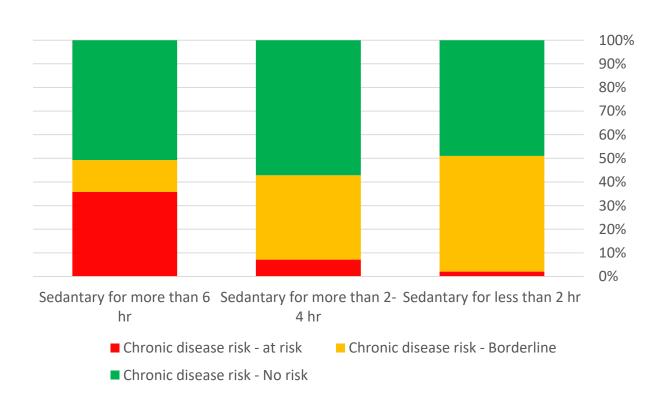


#### **Outcomes from Sedentary Behavior data**

Data around sedentary behavior gathered from app and wearable, some of data would be as following:

- Amount of sedentary behavior time per day / week / month /year
- Sedentary behavior correlated with lifestyle diseases

Avg. sedentary behavior
6 H 30 mins
Male - 5 h 30 mins
Female – 6 h 30 mins
Least Active Time - 7 to 8 PM
Least Active Day - Sunday





#### **Outcomes from Health Risk Assessment data**

The HRA would give us a holistic heath score along with data like medical conditions, diagnostic reports, Social wellness, etc. which would give us a health snapshot of a locality or state as compared to others and aid in driving relevant preventive services.

State - California
Overall Health score - 85
(Optimum)
Healthy Population - 60%
Prevalent Medical Conditions Diabetes, Hypertension
Last comprehensive health checkup - < 1 year (66% of the
population)





#### **Outcomes from Nutrition and Hydration data**

#### Tracking food habits and logs, Some of data would be as following:

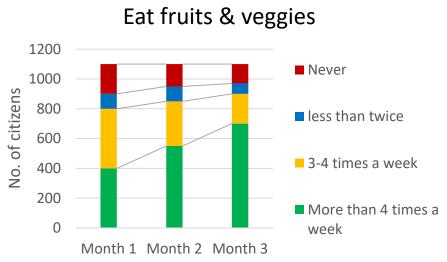
- Correlation of food Habits and medical conditions
- Incidents of unhealthy vs healthy options Time / Day / Week / Month wise
- Which healthy habits are having the most impact on improving lifestyle diseases
- Macronutrients Fat, Carb and Protein Average Daily intake
- Certain Foods Incorporated in Diet Fruit, Sugar, Veggies Average daily intake
- Aggregated meal timings % of users that have meals in different time slots
- Skipped Meal % of users that skip breakfast, lunch and dinner

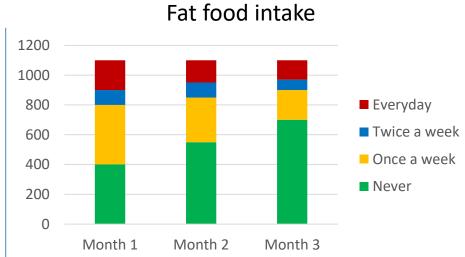
#### Tracking water habits and logs, Some of data would be as following:

- Average Daily Water Intake
- Water trends as per seasonality
- Correlation of water with Temperature
- Target completion rate % of users completing their target > 20 days month



#### **Outcomes from Nutrition data**





Food log text cloud based on frequency

# barbecue beef bread burger cheese cheeseburger french fries Salad sandwich





#### **Outcomes from Sleep data**

Each of these parameters can be given by Age groups, Gender, Geographic Location, Occupational status, some of the data would be following:

- % of users that have health goals around sleep Validated by their average sleep hours
- Average hours of sleep Vs. the Overall benchmark Day / Week / Month
  - Average hours of sleep Deep Sleep, Light sleep and Restless
- The hour that most users sleep and wake us can be taken as the norm
- Sleep Efficiency There are two issues with sleep efficiency
  - % Users that have a disturbed sleep
  - % Users that sleep late and get up late
  - % of users sleeping too much
- Habits that improve sleep effectiveness
- Energy levels % of people that get up with varying energy levels
- Target Completion in Sleep

#### Some of the initiatives that CDC could do to improve public health

Laws to limit Noise levels can be deployed
Various Public Service Employees like Garbage Vans, Construction work can be limited during those times

State - California
Avg. hours of sleep - 6.5 hours
National Average - 7 hours
Population with disturbed sleep - 35 %





#### **Outcomes from Stress data**

Each of these parameters can be given by Age groups, Gender, Geographic Location, Occupational status, some of data would be as following:

- % of users that have health goals around Stress
- % of people that fall in a particular bucket Energetic vs Not Energetic
- Correlation of stress and sleep
- Methods / habits being used to alleviate stress
- Meditation and Yoga Activities done to alleviate stress and time spent- % of Activities of users who are trying to combat stress
- Occupations cause the most stress

#### Some of the initiatives that CDC could do to improve public health

- Work related stress CDC can implement certain policies for businesses to follow around Work hours legislations
- Provide for certain public counselling session in areas where stress levels high
- Stress impacting students and methods of combating stress in schools



#### **Outcomes from Medical and Body Measurement data**

31-40

19%

### Tracking Body measurements, Some of data would be as following:

 BMI levels as per their Age and Gender

## **Demographics** 35% Distribution of age groups and Avg BMIs 51+ 51+ 18-30 15% 10% 25% 41-50 19%

41-50

25%

18-30

52%



31-40

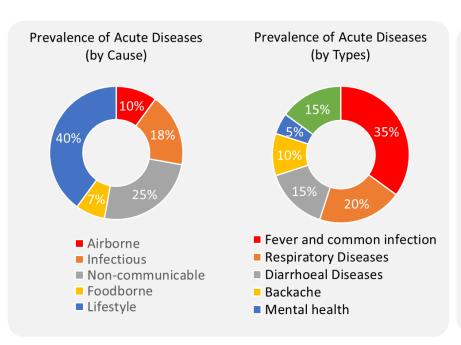
35%

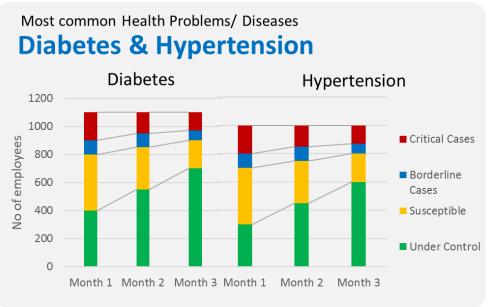
#### **Outcomes from Medical and Body Measurement data**

#### Tracking Medical data, Some of data would be as following:

- Prevalence of Acute diseases (by cause)
- Prevalence of Acute diseases (by types)
- Prevalence of Chronic diseases (by cause)
- Prevalence of Chronic diseases (by types)

- Most common chronic disease
- Changes of medical parameters over time







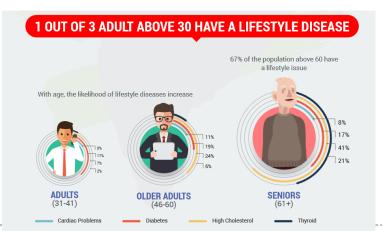
#### **Example: India Fit Report – Annual report with the users in India**

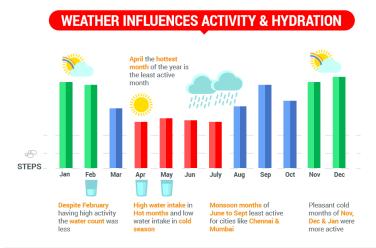
Here is the link to the report shared with the press that was captured by various major publications:

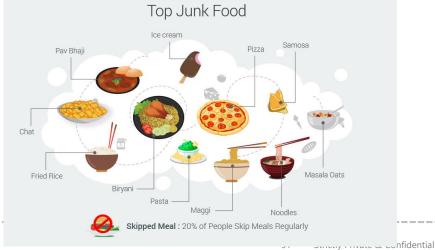
https://goqii.com/india-fit-2017.pdf

#### **KOLKATA IS THE UNHEALTHIEST** Bengaluru Mumbai Ahmedabad Hyderabad Chennai Kolkata

Each city represented – Healthiest to unhealthiest Change in Trend year on year









# Data Access, Privacy, Confidentiality and Security



 GOQii will provide a secure data interface for CDC to access the data



#### **Privacy, Confidentiality and Security**

GOQii has been certified with ISO/IEC 27001 Information Security standard. GOQii has implemented all the required Technical, Physical and Administrative Safeguards and Privacy measures to protect ePHI.

#### **Technical Safeguards:**

- Access Control via username and PINs
- All the ePHI is encrypted when sent and decrypted when received
- Auditing of the all the ePHI activities
- Automatic logoffs

#### **Physical Safeguards:**

- GOQii's all work locations, workstations and mobile devices are secured against unauthorised access.
- Policies and Procedures are devised for workstation use, mobile devices accessing ePHI.



#### **Privacy, Confidentiality and Security**

#### **Administrative Safeguards:**

- GOQii conducts risk assessments and employee training regularly to prevent ePHI breaches.
- GOQii has applied measures which restrict unauthorised third-party access to ePHI.

#### **Privacy measures:**

• GOQii ensures that written permission is obtained from users before their health information is used for purposes such as marketing or research.



## **#BETHEFORCE**

WE BEGIN AN



