



Hub to Cure –  
Rare Diseases Community  
Platform



# *AGENDA*



- **Team**
- **Current Problem**
- **Hub to Cure Solution**
- **Business Model**
- **Financials**
  - Overall Project
  - Phase 1
- **Key Milestones Achieved**

# TEAM & STAKEHOLDERS



***Sandeep Allam***  
Owner & Founder



***Christine Van Marter***  
COO



***Dr. Craig Lammert***  
Partner and Domain Expert



***Shubham Jain***  
Product Owner



***Dr. Raj Vuppalanchi***  
Partner and Domain Expert



***Brad Robbins***  
Infrastructure Director



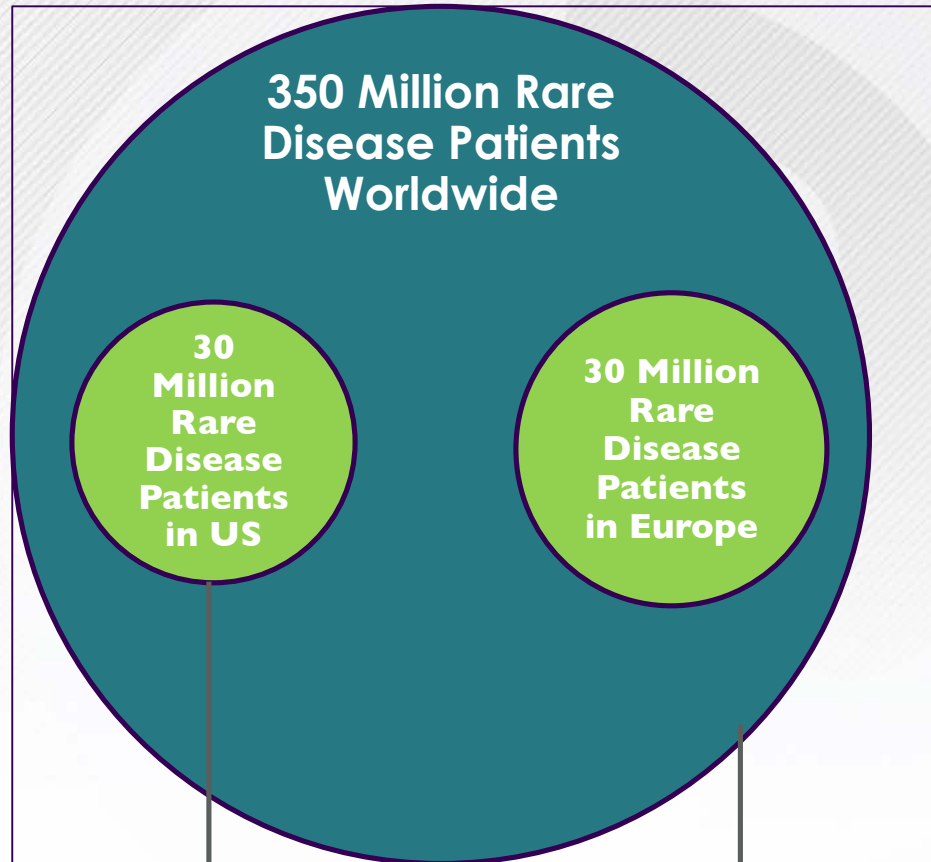
***Harini K***  
Technical Program Manager



***Dr. Vijay Reddy***  
Senior Advisor

# RARE DISEASE STATISTICS

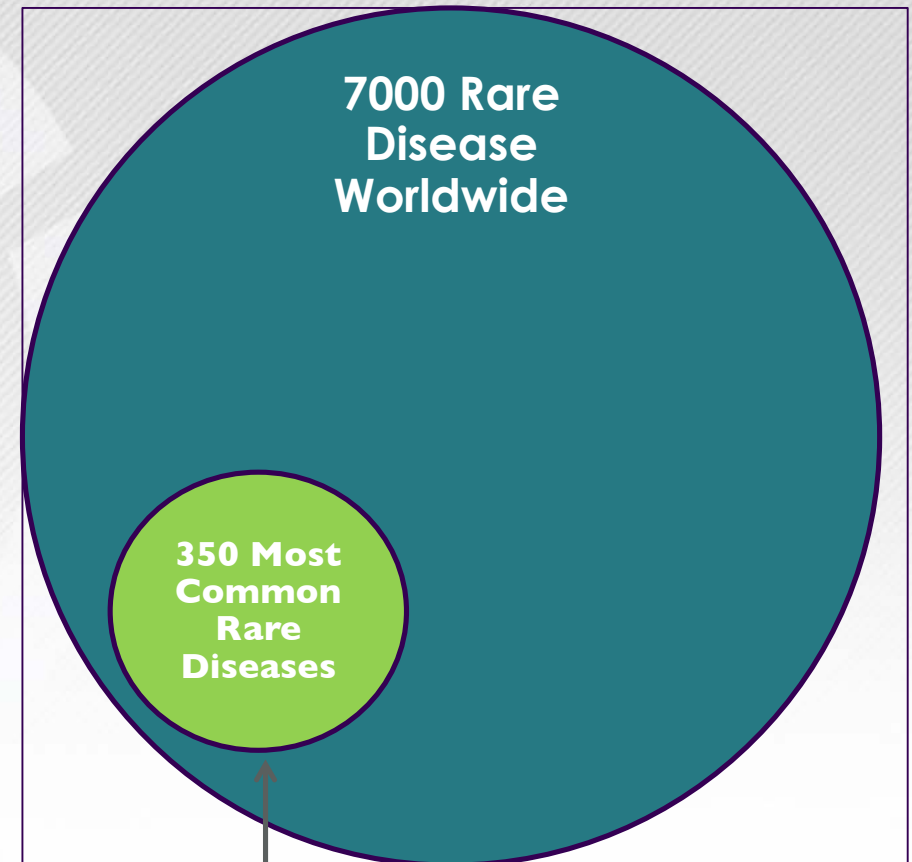
## Patients



1 in 10 Americans

World's 3<sup>rd</sup> most populous country

## Diseases



280 Million patients are affected by a total of **350 Rare Diseases**

Our Target Market

# INITIAL TARGET DISEASE LIST



#	Disease	Category	Patients
1	Autoimmune hepatitis, Primary biliary cholangitis, Primary sclerosing cholangitis, Eosinophilic esophagitis - GI/Hepatology	GI/Hepatology	450,000
2	Idiopathic craniofacial erythema	Blushing	~200,000
3	Marfan syndrome	Congenital and Genetic Diseases; Eye diseases	200,000
4	Polycythemia vera	Blood Diseases; Rare Cancers	185,000

# REALITY NOW - Mrs. Jones Story

## HHT RARE DISEASE

**Mrs. Jones from eastside Indianapolis was referred for abnormal liver scan and concern for liver cancer.**

History of hereditary hemorrhagic telangiectasia (HHT)

Her primary care physician did not have much information on this diagnosis



**She went online and searched on Google, societies like NORD and government websites like NIH, CDC etc.**

Her grandfather had the same diagnosis and used to see an ENT specialist for nose bleeds

She has not met any other patients who have received a similar diagnosis



**Doctor's Assessment plan shows that HHT patients have abnormal liver imaging as part of the clinical syndrome and there is no concern for cancer**

She has not met any other patient with a similar diagnosis

She heard of an expert in California but does not have the resources available to visit him/her



**She has lot of questions and concerns in her mind**

Is there a physician with HHT expertise in Indiana?  
Where can I get new information on HHT?

Are there any new treatment options? I want to meet other HHT patients in Indiana.

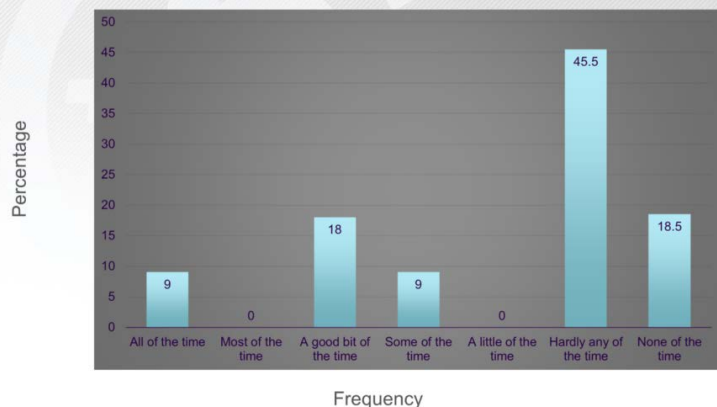
# SUCCESSFUL POC - AIH

- 898 separate posts and 9,759 comments (2016)
- 74 Facebook cases on single AIH disease, average distance greater than 500 miles from Indianapolis
- 400 AIH patients' bio specimens are collected and securely stored at bio-repository

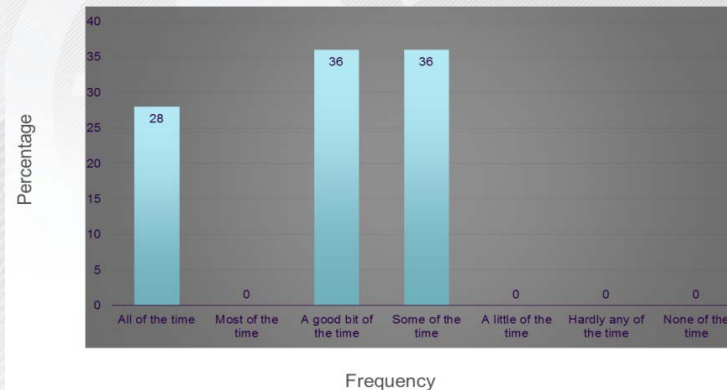


# AIH ANALYTICS OUTCOMES SNAPSHOT

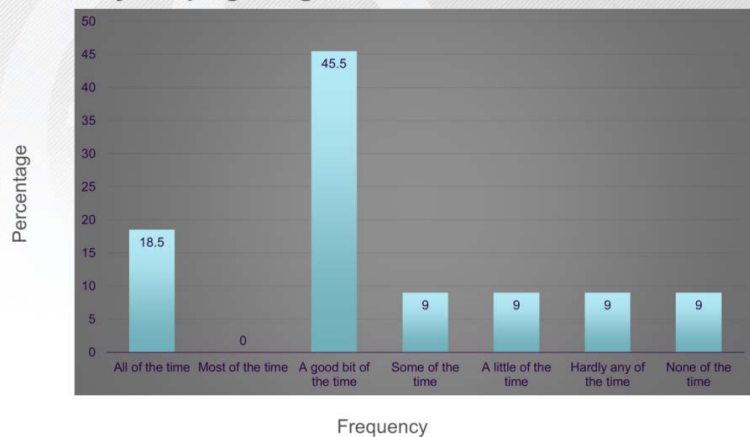
How much of the time during the last two weeks have you felt depressed?



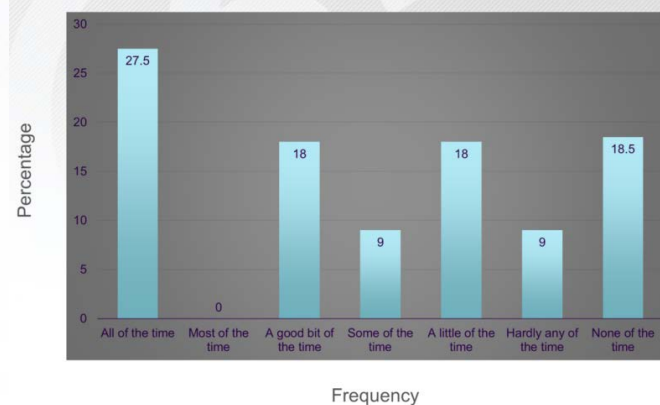
How often during the last two weeks have you felt sleepy during the day?



How much of the time during the last two weeks have you had difficulty sleeping at night?



How often during the last two weeks have you felt anxious?





# HUB TO CURE - COMPONENTS



HTC- A Technology Company

Curated Content

Collaboration – Patient to Patient, Patient to Physician and Physician to Physician

Data

Analytics

Services

Outcomes

- Journal Articles
- Abstracts
- Manuscripts

- Patient Demographics
- Access to Clinical Trial Information
- Insurance information
- Co-morbidities
- Treatment information
- Research suggestions

- On Demand Bio-samples
- EMR Data
- Adverse Events

- Data Access & Analytics

Web Platform

Data & Analytics Platform

Hub-to-Cure Platform

# HUB TO CURE PLATFORM – WEB SOLUTION



## MEMBERS ARE LOOKING FOR:

- Disease specific content (curated)
- Interaction between patient with physician scientist
  - Access to treatment
  - Drive research for unmet needs

# HUB TO CURE - WEB PLATFORM



GLOBAL RARE  
DISEASE PORTAL



NETWORKING BETWEEN  
PATIENTS & DOCTORS



PRIVATE & SECURE



SEARCH MULTIPLE  
RESEARCH DOCUMENTS



ACTUAL BIOSPECIMEN  
PATIENT DATA



CURATED CONTENT  
SPECIFIC TO DISEASE

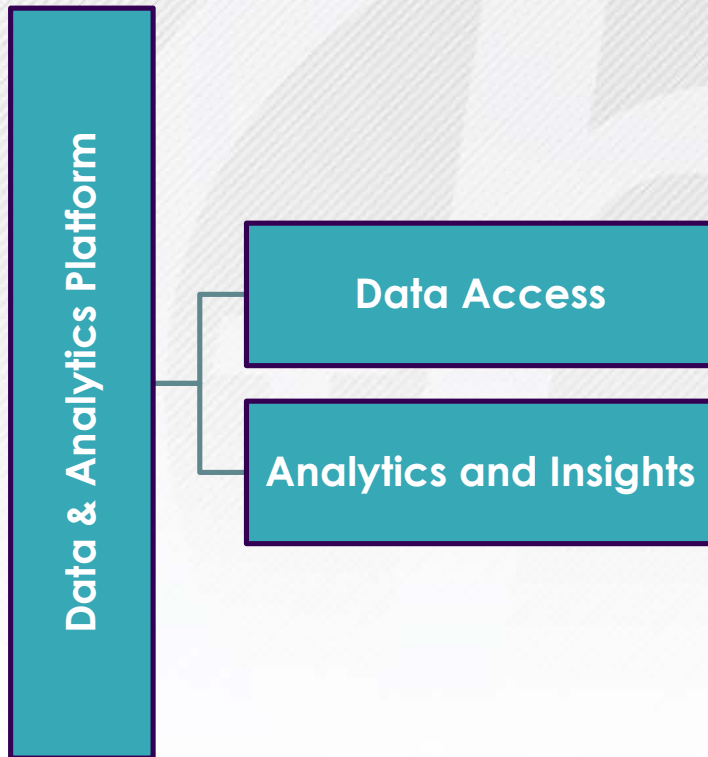
# WEB PROTOTYPE

- Member & PI's Profile
- Disease Specific Community
- Collaboration between Members and Primary Investigators
- Healthcare Events

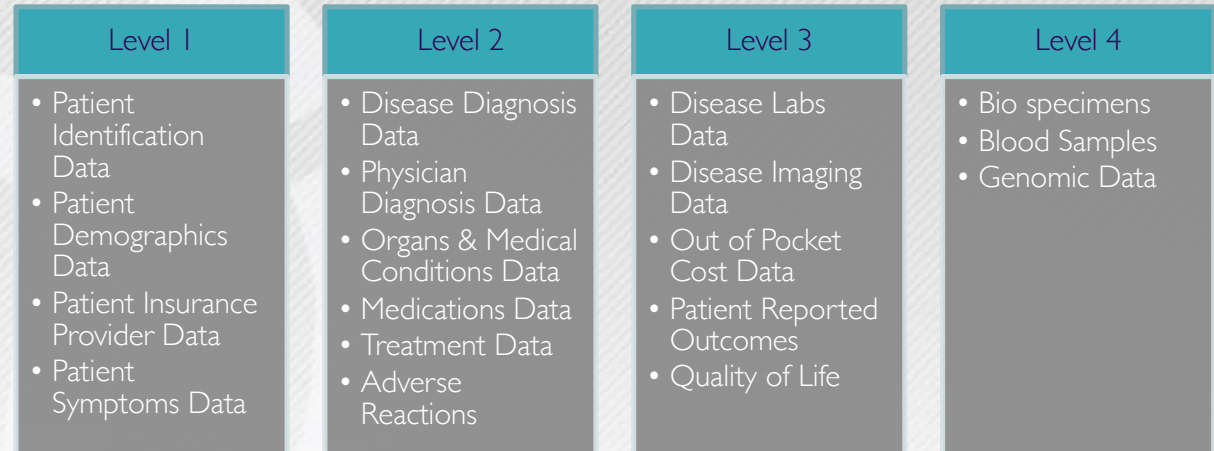
The laptop screen displays the Hub to Cure web prototype. The interface is organized into several sections:

- Header:** User profile for Jane Doe, Hub to Cure logo, and search bar.
- Left Navigation:** Dashboard, My Account, Events, Cure Communities, My Knowledge Base, My Groups, News.
- Main Content:**
  - HTC Spring Cure Conference:** A featured image of a woman stretching in a field.
  - The Wednesday Research Report!**: A post by Admin (08:15 AM) with a "READ MORE" link. The text includes: "Bacon ipsum dolor amet shankle tri-tip salami doner chicken rump. Cow meatloaf boudin, jowl beef corned beef turducken sirloin biltong. Meatloaf bacon t-bone ground round doner Iberian drumstick tongue pork belly jowl chuck ball tip turkey hamburger strip steak."
  - Watch Doctor Scott's Crons Keynote Recap:** A video player with a play button and a "READ MORE" link. The text includes: "Bacon ipsum dolor amet shankle tri-tip salami doner chicken rump. Cow meatloaf boudin, jowl beef corned beef turducken sirloin biltong. Meatloaf bacon t-bone ground round doner Iberian drumstick tongue pork belly jowl chuck ball tip turkey hamburger strip steak."
- Trending Treatment Topics:** A section with a search bar and progress bars for various conditions:
  - Brugada Syndrome: 50/90 Active
  - Polycystic kidney Disease: 47/63 Active
  - Scleroderma: 35/120 Active
  - Autism: 25/25 Active
  - Crohn's Disease: 12/50 Active
  - Ulcerative Colitis: 10/12 ActiveA "VIEW MORE TOPICS" link is present.
- Cure+Pedia:** A section showing 27 ASKING QUESTIONS and 7 ANSWERED QUESTIONS. The first question is "How to make health eating choices?".
- My Hub Activity:** A section titled "OVERALL MONTHLY GOAL REACH" showing a 75% progress bar and a line graph. Below it, a table shows: PIAP Index (+10%), Treatment Actions (+25%), and Feedback (+12%).
- JANE'S RESEARCH GROUP:** A list of members: Harry Roberts (4 min ago), Manik Rathee (5 min ago), and Brad Frost (12 min ago). A chat window for Harry Roberts is open, showing a message from Jane: "Hey Jane Check out this New Article!" (5 min ago).

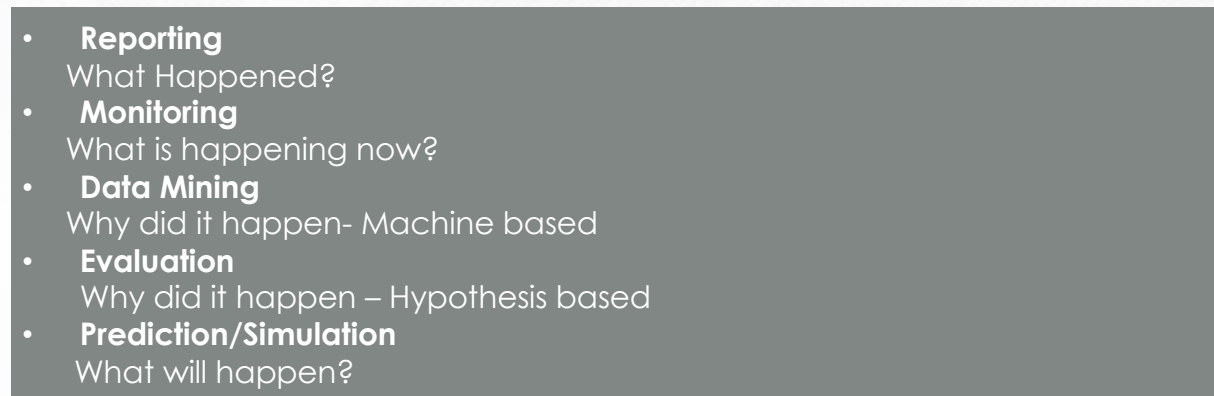
# HUB TO CURE- DATA PLATFORM



## Data Types



## Analytics Types



## Audiences



## **WHY HUB TO CURE & IBRI?**



- New channel to access new dimensions of patient data and ability collect biospecimen (blood/urine, etc.)
- Ability to apply and scale to the IBRI diseases of interest
- Premier technology platform to engage patients in ongoing research
- Dynamic capture of disease state over time
- Speed Innovation

# SCALING FOR POTENTIAL CLIENTS



#	Disease	Category	Patients
1	Monogenic (Rare) Diabetes	Genetic Diabetes	600,000
2	Autoimmune hepatitis, Primary biliary cholangitis, Primary sclerosing cholangitis, Eosinophilic esophagitis - GI/Hepatology	GI/Hepatology	450,000
3	Idiopathic craniofacial erythema	Blushing	~200,000
4	Marfan syndrome	Congenital and Genetic Diseases; Eye diseases	200,000
5	Polycythemia vera	Blood Diseases; Rare Cancers	185,000
6	Chronic Migraine	Migraine	2,000,000
7	Psoriatic Arthritis	Arthritis	1,875,000
8	Pancreatic Cancer	Cancer	600,000
9	Endometriomas	Cancer	3,000,000
<b>Total Patients</b>			<b>~ 9 Million</b>

# SERVICE OFFERINGS – REVENUE SOURCES

## Platform Services

- **Corporate (Sponsorships)**
- **Events (Webinars/Conferences)**
- **Web/ Mobile Advertisement**
- **Premium Features (Ex. Expert Advice)**
- **Platform Subscription/Licensing**

## Data Access & Analytics

### PHARMA

- **CLINICAL TRIAL SITE SELECTION**
- **DRUG EFFICACY**
- **PATIENT REPORTED OUTCOMES**
- **CLINICAL TRIAL RECRUITMENT**

### INSURANCE PROVIDERS

- **COST OF CARE**
- **QUALITY OF LIFE**
- **ADVERSE REACTIONS**
- **OUT OF POCKET EXPENSE DATA**

### RESEARCH INSTITUTIONS

- **BIOSAMPLES**
- **TREATMENTS**
- **LABS**
- **IMAGING**

### HEALTHCARE PROVIDERS

- **SYMPTOMS DATA**
- **MEDICATIONS**
- **DISEASE DIAGNOSIS**
- **PHYSICIAN DIAGNOSIS DATA**
- **RISK STRATIFICATION**
- **PRODUCTIVITY**



# PATIENT DATA ACQUISITION CHANNELS

## Digital Marketing

- Website/SEO
- Social Media(Facebook/Twitter/Public Platforms)
- White Paper

## Physicians

- Clinical Experts with existing patient database
- Physician Scientists with existing patient database

## Events

- Expert Led Patient Centric Conferences
- Seminars
- Education Sessions

## Webinars

- Expert Led Patient Centric Webinars
- Consent Based One to One Expert Advise

## Associations

- NPOs
- Institutions

## Research Groups

- Research Institutions
- Independent Researchers

## Healthcare Providers

- Hospitals
- Labs
- Doctor's Offices

## HubToCure Experts

- Disease Specific Hub to Cure Experts
- Disease Specific Content Aggregators

# DATA BUYERS ACQUISITION CHANNELS

## Digital Marketing

- Social Media(Facebook/Twitter/Public Platforms) Disease specific data only
- White Paper

## Data Snapshot marketing

- Self Service Data Insights
- De-identified data samples Insights

## Indirect Channel Marketing

- Pharma Consulting Companies
- Insurance Consulting Companies

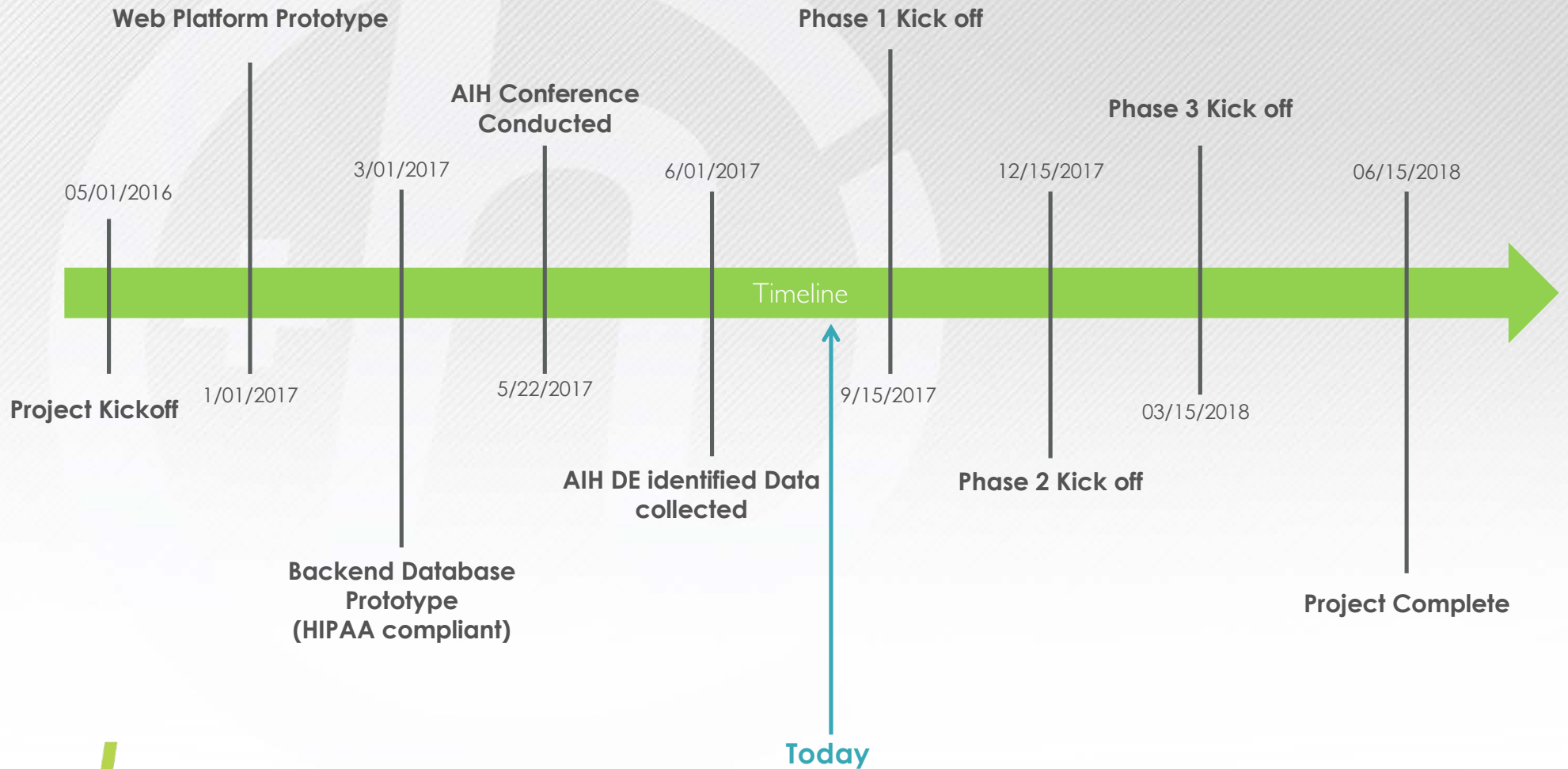
## Partnerships with Researchers

- Academia
- Practitioners
- Researchers

## Cold Calling

- Pharma
- Insurance

# KEY MILESTONES



# CURRENT STATUS vs. NEXT STEPS

## Web Platform

Website is LIVE –  
[www.hubtocure.com](http://www.hubtocure.com)  
Patients are signing up to  
receive the updates

**Next Steps :** Continue building  
the web platform with Patient  
portal and access to diseases  
and other disease specific  
information along with patient  
– patient collaboration and  
patient – physician  
collaboration

## Data Platform

HIPPA secured database in  
place with 400 plus rare  
disease patients data

**Next Steps :** Collect more  
patient data and collaborate  
with physicians to design data  
models to draw insights.

## Data Acquisition

Conducted a two day  
Autoimmune Hepatitis  
Association (AIHA) conference  
for AIH patient Support and  
Education.  
Data collection tools specific  
to AIH are in place

**Next Steps :** In the process of  
partnering with other  
Physicians to support and  
educate the Rare diseases.



**THANK YOU!**  
**QUESTIONS PLEASE!**

# REVENUE PROJECTIONS



Year	Total Cost	Total Revenue	Margin	Patients On Board	Earnings
1	\$900,000.00	\$720,000.00	(\$0.20)	72,000	(\$180,000.00)
2	\$5,500,000.00	\$7,200,000.00	\$0.31	288,000	\$1,700,000.00
3	\$13,000,000.00	\$20,880,000.00	\$0.61	720,000	\$7,880,000.00

#	Disease	Category	Patients
1	Monogenic (Rare) Diabetes – As we are talking to interested parties	Genetic Diabetes	600,000
2	Autoimmune hepatitis, Primary biliary cholangitis, Primary sclerosing cholangitis, Eosinophilic esophagitis - GI/Hepatology	GI/Hepatology	450,000
3	Idiopathic craniofacial erythema	Blushing	>500,000
4	Marfan syndrome	Congenital and Genetic Diseases; Eye diseases	200,000
5	Polycythemia vera	Blood Diseases; Rare Cancers	185,000
6	Chronic Migraine	Migraine	2,000,000
7	Psoriatic Arthritis	Arthritis	1,875,000
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9	Endometriomas	Cancer	3,000,000
<b>Total Patients</b>			<b>~ 9 Million</b>

Initial Target Disease List

Item	Numbers	Comments
Population Space	9000000	
Digitally Active	7200000	
Penetration %	50%	
Patients to be onboarded	3600000	
Conversion Ratio	20%	
Actually Onboarded	720000	
Year 1	72000	10% in year 1
Year 2	216000	30% in year 2
Year 3	432000	60% in year 3
Assumed Value	\$50.00	
Year 1 Asset Value	\$3,600,000.00	
Year 2 Asset Value	\$14,400,000.00	
Year 3 Asset Value	\$36,000,000.00	
Year 1 Actually Realized	\$720,000.00	
Year 2 Actually Realized	\$7,200,000.00	
Year 3 Actually Realized	\$20,880,000.00	

Assumptions

- Short listed based on the estimated prevalence ratio, current physician expertise, market intelligence and industry traction

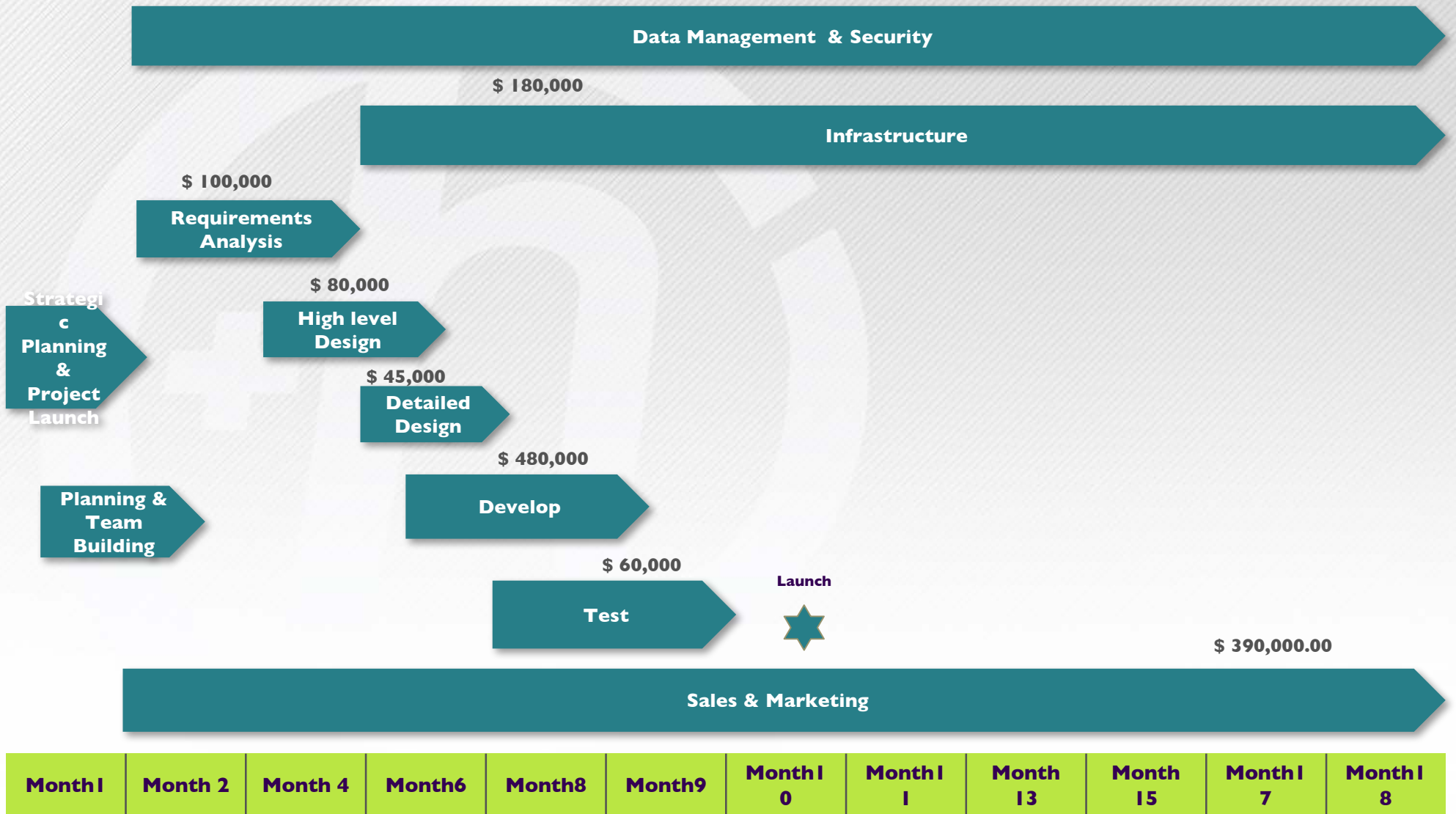
# COST PROJECTIONS – 18 Months



Start Up Costs (18 months)	FTEs	Labor Costs
Sales	2	\$ 240,000.00
Marketing	1	\$ 150,000.00
Software Architect	1	\$ 225,000.00
Software Developers	2	\$ 300,000.00
UX Developer	1	\$ 240,000.00
Infrastructure	1	\$ 180,000.00
Data Management	1	\$ 225,000.00
Security	1	\$ 240,000.00
<b>Total</b>		<b>\$ 1,800,000.00</b>

# FUNDS UTILIZATION 18 MONTHS

\$ 465,000



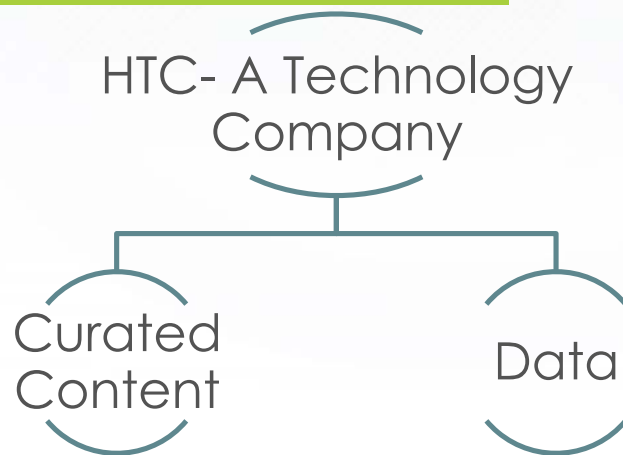
Spread across all the three phases



# PHASE ONE FUNDING

Start Up Costs (6 months)	FTEs	Labor Costs
UI Design/Functional Prototype	2	\$90,000.00
Requirements Analysis	2	\$90,000.00
Development	2	\$150,000.00
Testing/QA	1	\$80,000.00
Content Population	2	\$80,000.00
<b>Total</b>		<b>\$490,000.00</b>

## To Build



## Which Includes

- Research Publications
- Latest Trends
- PowerPoints
- Webinars
- Data Access
- Data Analytics

# Competitors

Company	Type
WebMD	Curated Content
Patients Like Me	Patient to Patient
SERMO	Physician to Physician
Hub-to-Cure	Patient-Physician Patient-Patient Physician – Patient Secure Credible Curated Content
Health Tap	Patient to Physician