



# pulseMobile

DESIGNED & DEVELOPED BY  
**MINDFUL HEALTH**

# Meet the Mindful Health Team



**Chris Fernandez**  
Team Leader



**Olivia Rice**  
Lead UX/UI Developer



**Nick Glattard**  
Lead Hardware Developer



**Geoff Cohen**  
Lead Customer Developer



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Advisor & Mentor



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Hardware Developer



**Jared Buckner**  
Lead Software Developer

A Venn diagram consisting of three overlapping circles. The top circle is labeled 'EHR' and 'Electronic Health Record'. The bottom-left circle is labeled 'CHF' and 'Congestive Heart Failure'. The bottom-right circle is labeled 'ACA' and 'Affordable Care Act'. The circles overlap in the center and at the intersections between pairs of circles.

**EHR**

Electronic Health Record

**CHF**

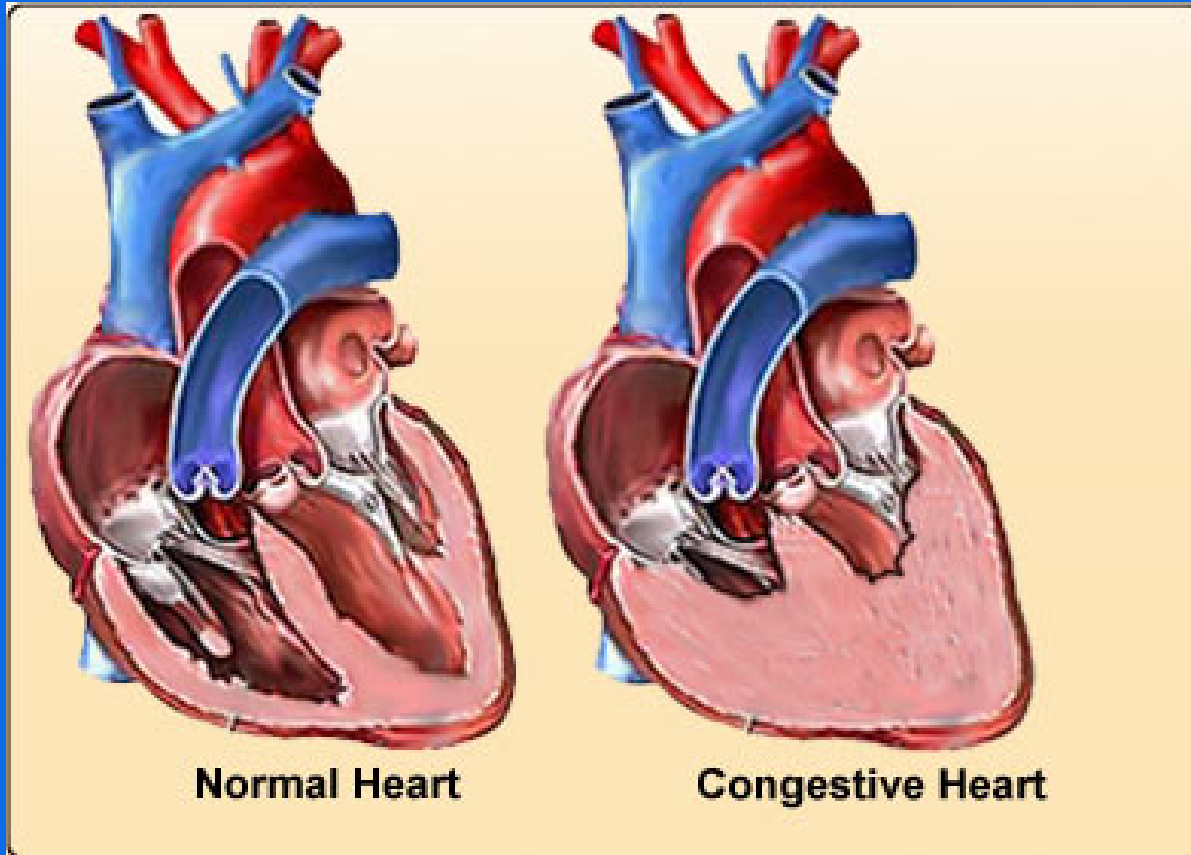
Congestive Heart Failure

**ACA**

Affordable Care Act

# CHF

## Congestive Heart Failure



**EHR**

Electronic Health Record

**Current  
Process**

**CHF**

Congestive Heart Failure

**ACA**

Affordable Care Act

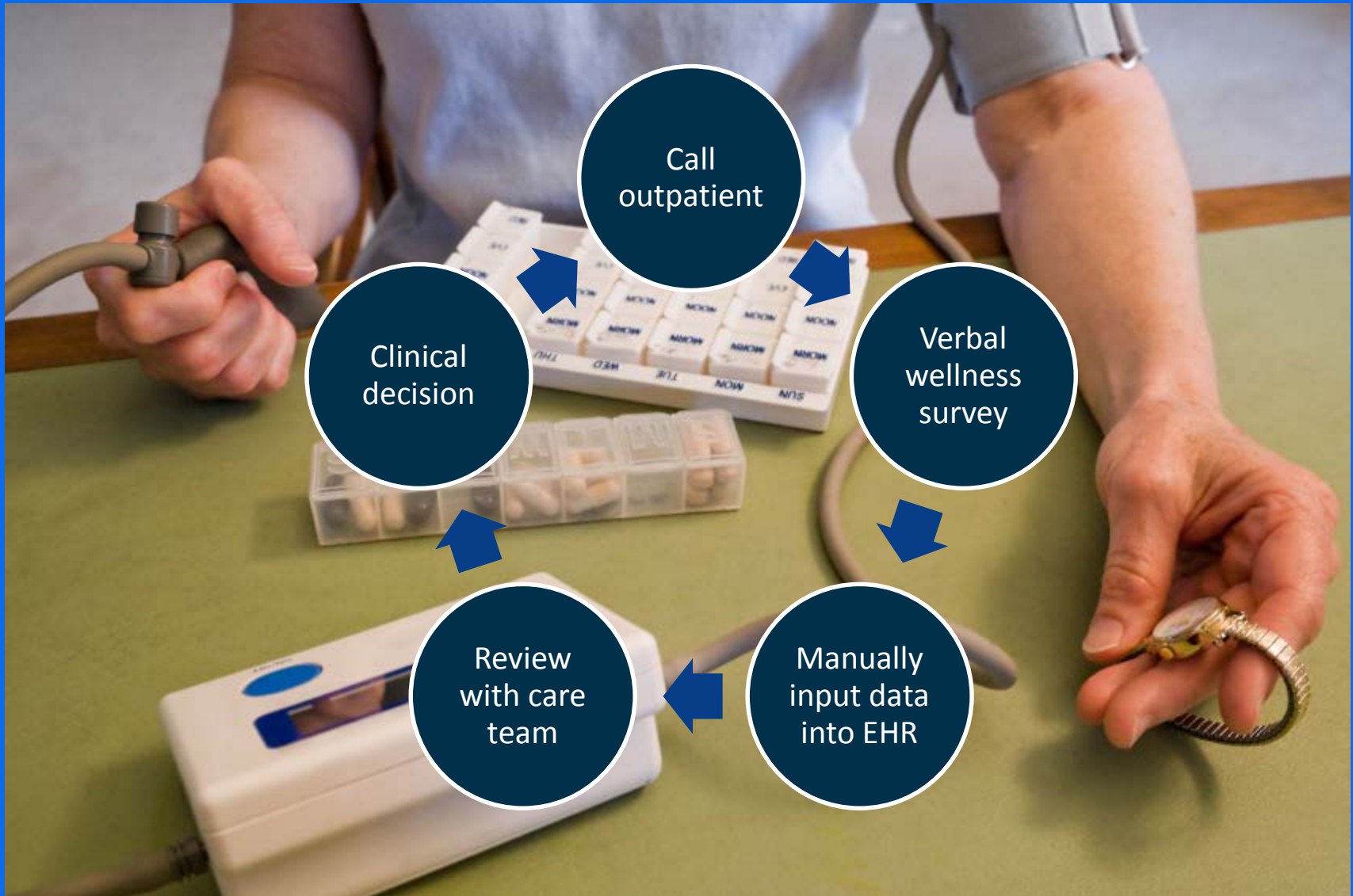
Most 30 day readmissions are *fully avoidable*,  
yet they still occur frequently

1 in 12 patients  
are readmitted  
within 30 days  
of discharge

Annual cost of  
30 day  
readmissions:  
**\$16.3 billion**

30% of adults  
did not follow  
up within 30  
days of release

# Lack of patient compliance cripples current process



**EHR**

Electronic Health Record

**Current Process**

**CHF**  
Congestive Heart Failure

**RRA**  
Readmission Reduction Act

**ACA**  
Affordable Care Act

The diagram consists of three overlapping circles. The top circle is labeled 'EHR' and 'Electronic Health Record'. The bottom-left circle is labeled 'CHF' and 'Congestive Heart Failure'. The bottom-right circle is labeled 'ACA' and 'Affordable Care Act'. The intersection of the top and bottom-left circles is labeled 'Current Process'. The intersection of the top and bottom-right circles is empty. The intersection of the bottom-left and bottom-right circles is empty. The central intersection of all three circles is labeled 'RRA' and 'Readmission Reduction Act'. The background is blue with white lines on the left and bottom right.

Electronic Health Record

**Current  
Process**

**CHF**

Congestive Heart Failure

**RRA**

Readmission  
Reduction  
Act

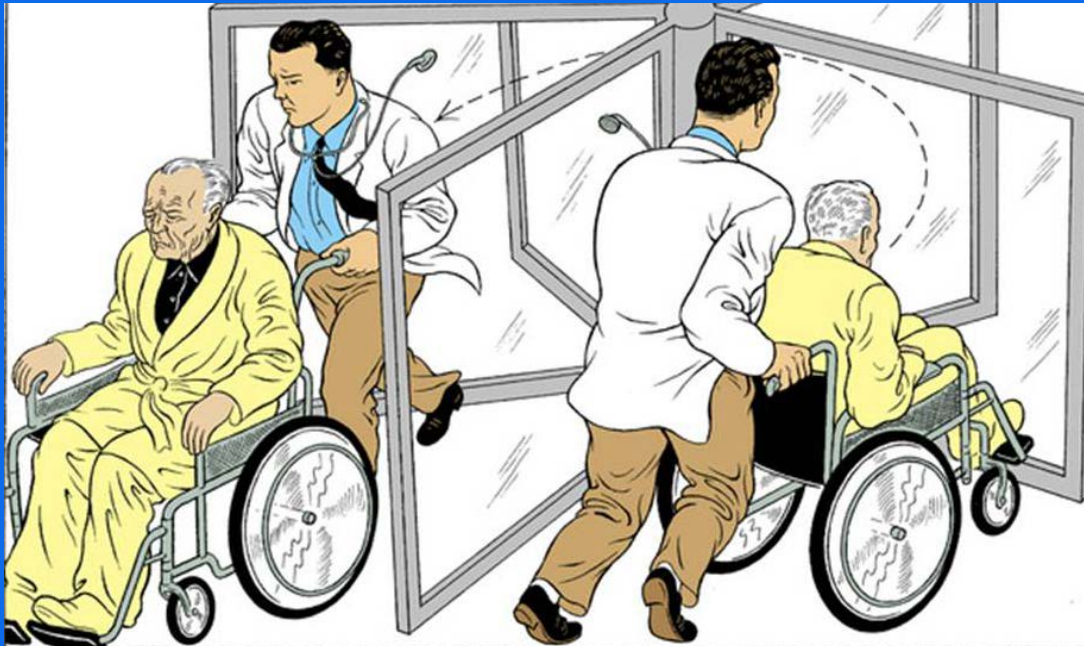
**ACA**

Affordable Care Act



# Readmission Reduction Act (RRA)

- Medicare levied **\$227 million** in fines in 2013
- 2,225 hospitals had reimbursements reduced
- 87% of major teaching hospitals
- Targeted at CHF, heart failure, and pneumonia



**EHR**

Electronic Health Record

**Current  
Process**

**Telehealth**

**CHF**

Congestive Heart Failure

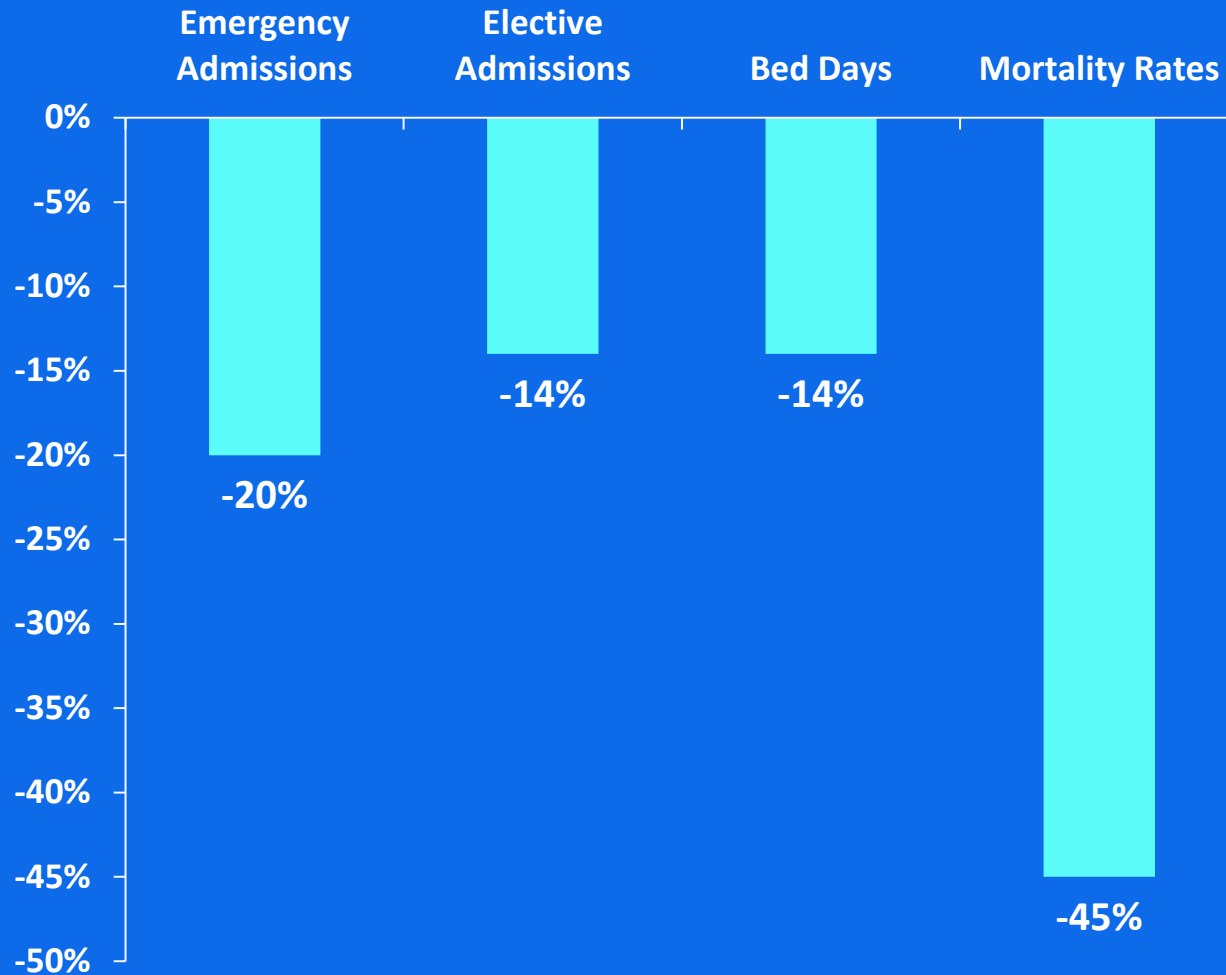
**RRA**

Readmission  
Reduction  
Act

**ACA**

Affordable Care Act

# Average % change in hospital admissions in *limited* telehealth group vs. control



- UK study involving + 6000 participants
- Even *limited* telehealth has shown a huge benefit

**EHR**

Electronic Health Record

**Eliminate Compliance  
Problems**

**Overcome EHR  
Integration Barrier**

**MINDFUL  
HEALTH**

**CHF**

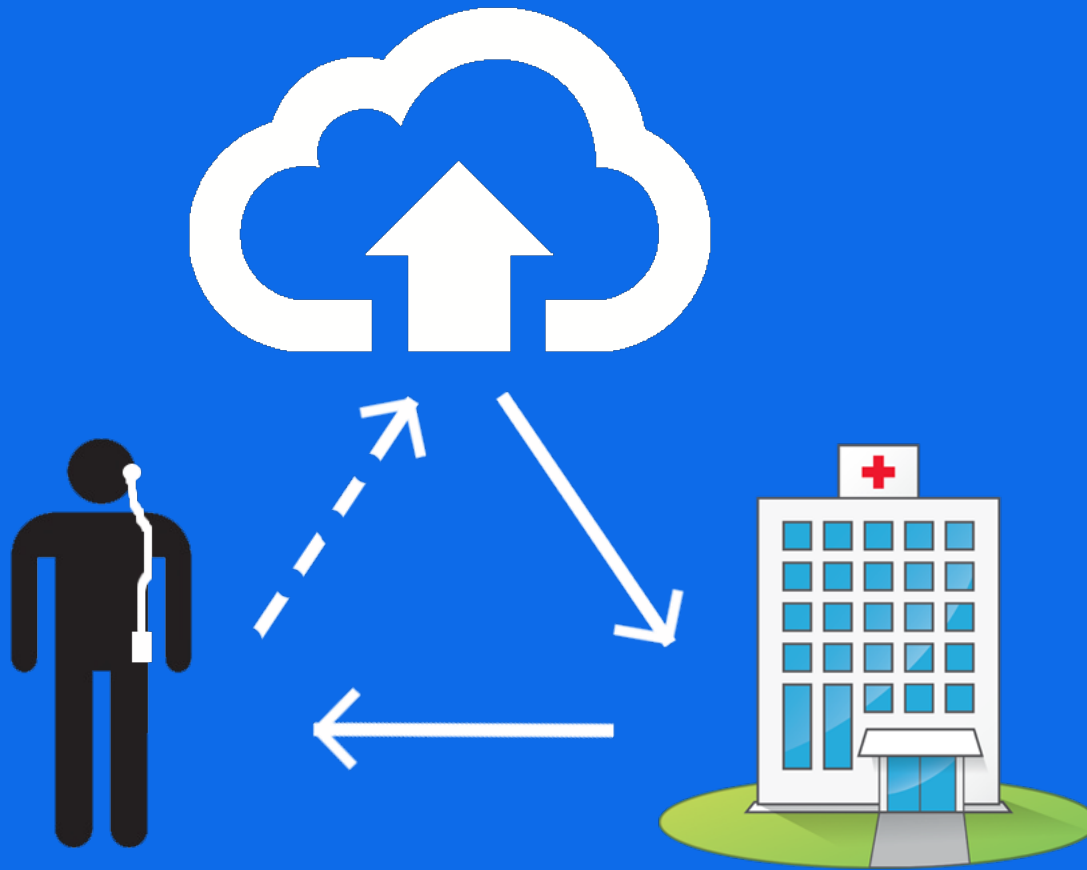
Congestive Heart Failure

**ACA**

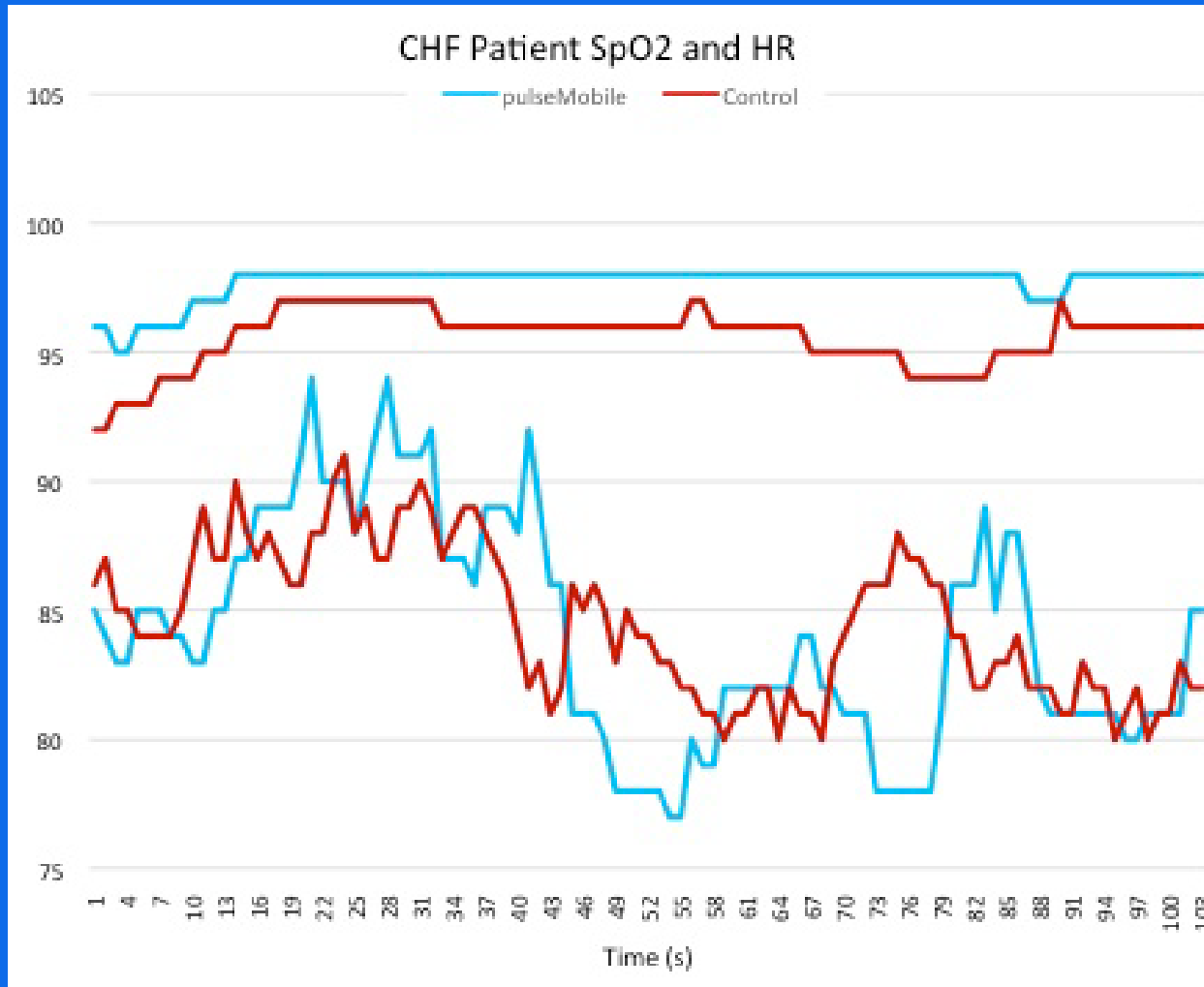
Affordable Care Act

**Minimize readmissions  
and RRA penalties**

# Introducing pulseMobile

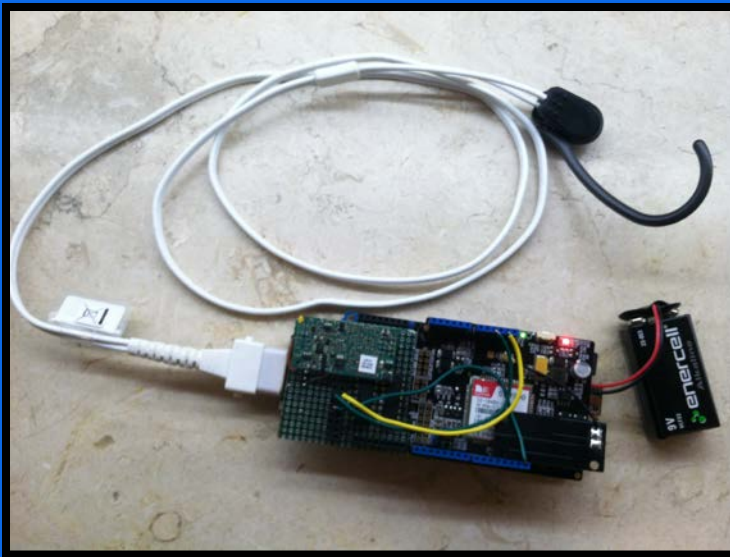


# Pulse Oximetry Fundamentals



# pulseMobile Device

- Out of sight, out of mind form factor
- Fully automated cloud connectivity
- Clinical grade data, in high volume and velocity



# pulseMobile Software

- Fluid workflow integration via EHR updates
- Accessible from any desktop, tablet, or mobile device
- Leverage vital and trend analytics for deep condition insight

The screenshot displays the 'Mindful Health Dashboard Overview' interface. At the top, the header includes 'MINDFUL HEALTH' on the left and navigation links for 'Profile', 'Settings', 'Sign out', and 'Home' on the right. Below the header, the main content area is divided into several sections. On the left, there is a 'Patient Management' sidebar with links for 'Bob Johnson', 'Alex Smith', 'Chris Carson', and 'Jeff Anderson'. The central area features four horizontal progress bars representing patient status: 'Care team on staff: 4' (blue), 'Green patients: 8' (green), 'Cautionary patients: 6' (orange), and 'Critical patients: 2' (red). Below these bars are two large action cards: 'Manage Patients' (with subtext 'Add patients, remove existing patients, and more.' and a 'Manage Patients' button) and 'Manage Care Team' (with subtext 'Configure care team memberships and profiles.' and a 'Manage Care Groups' button). At the bottom, there are three utility boxes: 'Recent user activity' with a 'Review Activity' button, 'Physician on staff: Dr. Robertson' with a 'Contact Now' button, and 'Questions? Contact Mindful Health' with a 'Contact Us' button. The footer includes a 'Contact' link and the text 'Signed in as crfernandez@example.com'.



# Go To Market Strategy

# Software-as-a-Service

Life-saving Technology



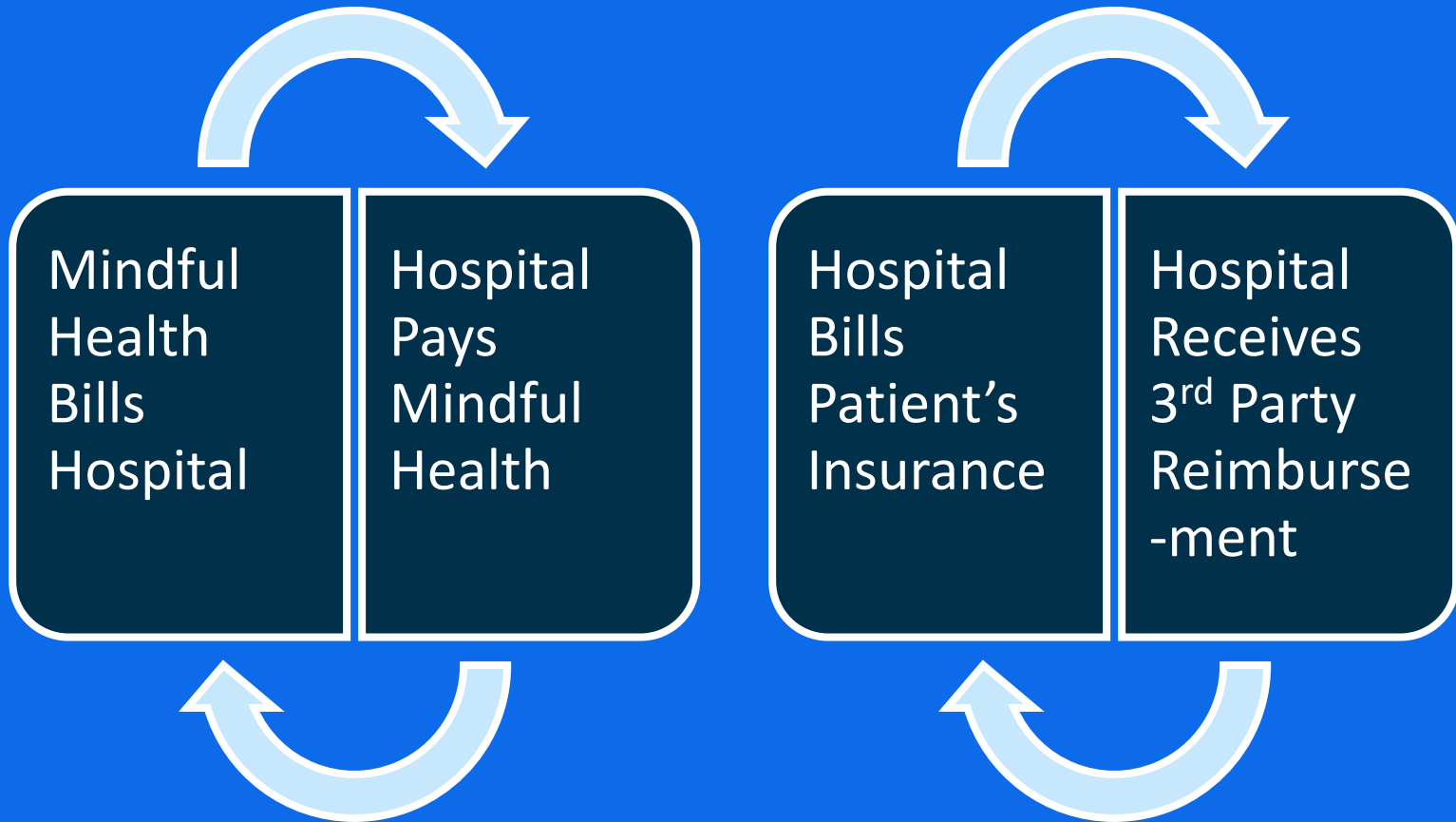
&

Cost Reduction

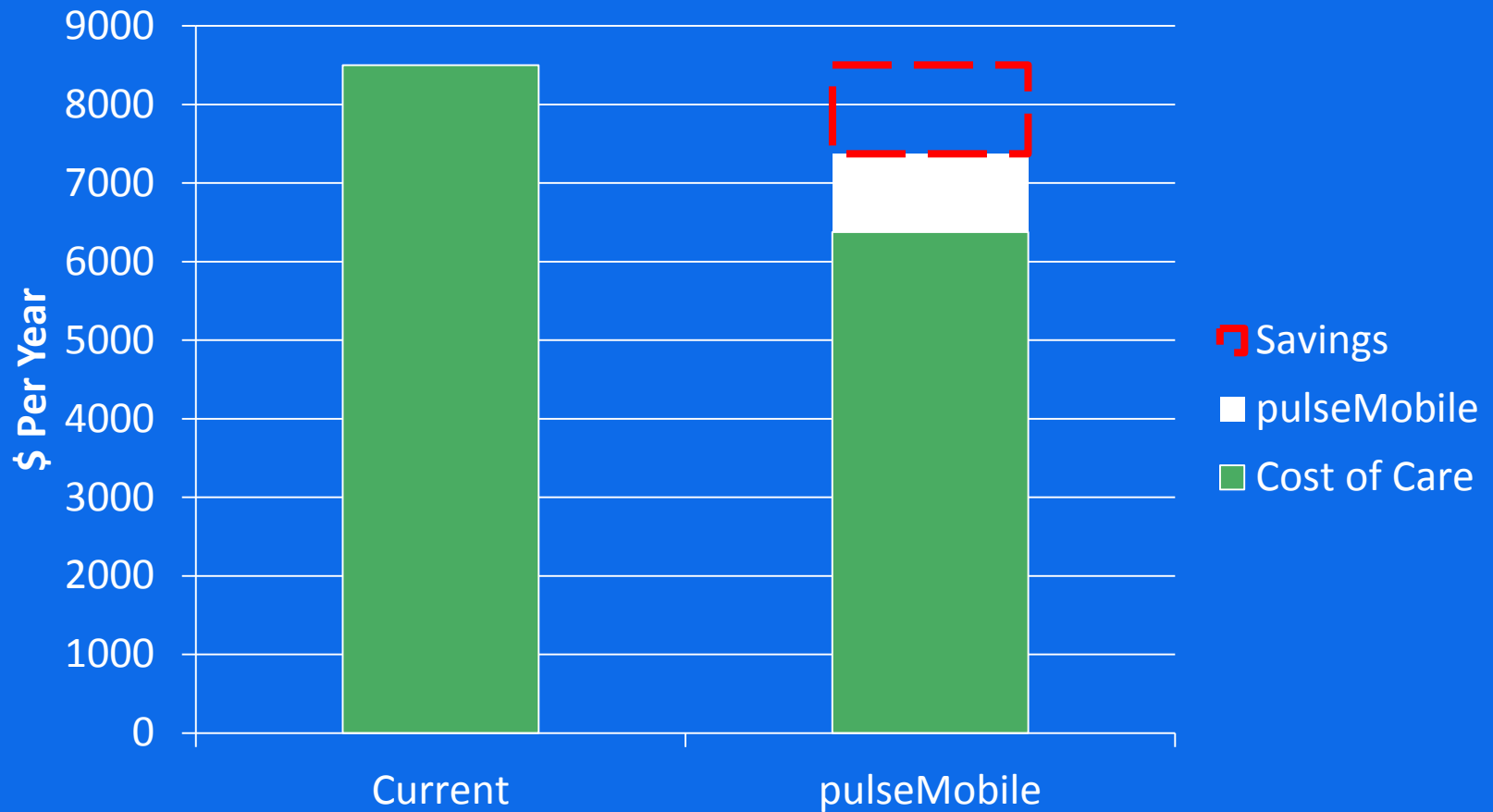


\$80

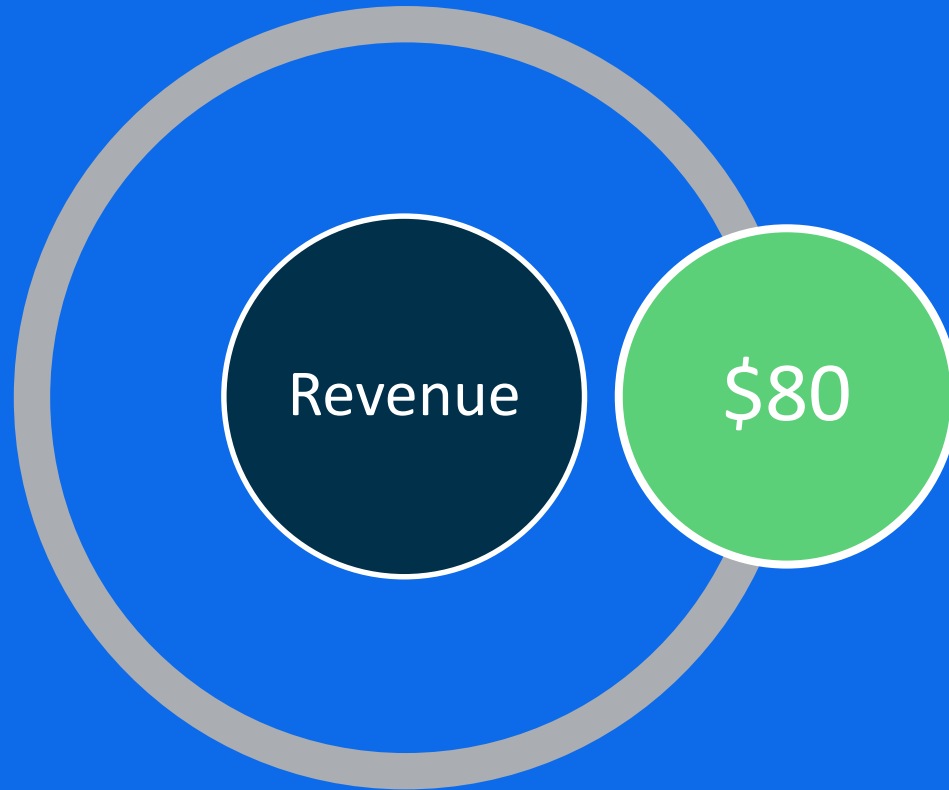
# Hospitals Pay Mindful Health



# Cost of Caring for a CHF Patient



\$80 Per Month



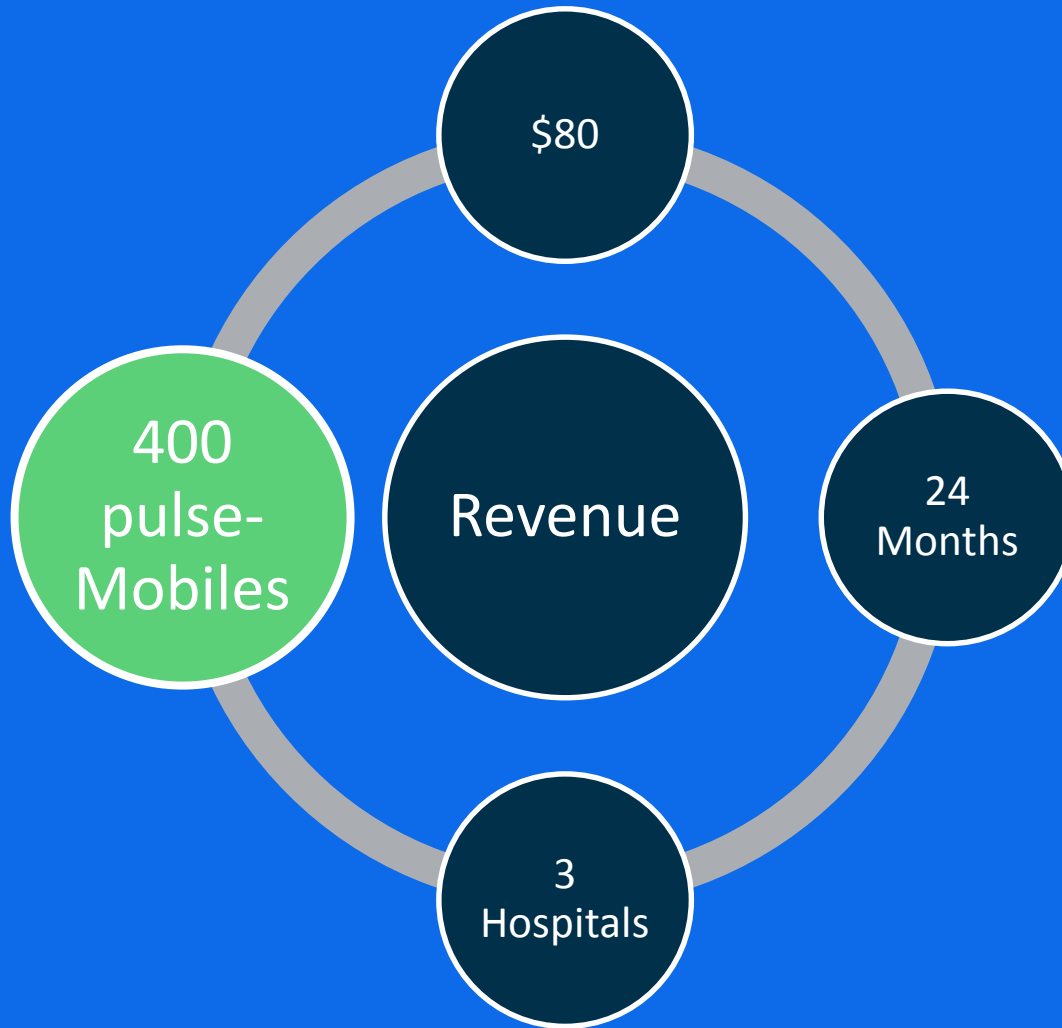
# 24 Months Per Patient



# 3 New Hospitals Per Year



# 400 pulseMobiles Per Hospital





# Revenue During Year 3 Operations



# Product-Market Fit

	<b>Patients &amp; families</b>	<b>Healthcare providers</b>
<b>Key assumption</b>	Patients will wear the device	Top 5 pain-point for hospitals
<b>Validation test</b>	Serve in-home caregivers as first customers	Secure hospital pilot study
<b>Pivots</b>	Same technology, different package	Pediatric quick-response applications

# pulseMobile

*Value*





Thank you for listening!

WE WOULD BE HAPPY TO ANSWER ANY  
QUESTIONS YOU MAY HAVE

# Appendices

# Barriers to Entry

## Government Regulations

- FDA 510K
- HIPAA

## Intellectual Property

- Signal Processing Algorithm

## Barriers to Entry

## Competitive Response

- EHR Players
- Medical Device Players

## Insurance Reimbursement

- Health Technology Approval

# Why not Bluetooth?



- Patient compliance
- Target audience is 65+ in age
- Bluetooth transmission not reliable for clinical grade data
- Limited transmission range
- Eventually make the device Wi-Fi, Bluetooth and cellular network enabled

# Race to Market Costs

## High Cost – Low Variability

- Participant recruitment and monitoring

## Variability

## Low Cost – Low Variability

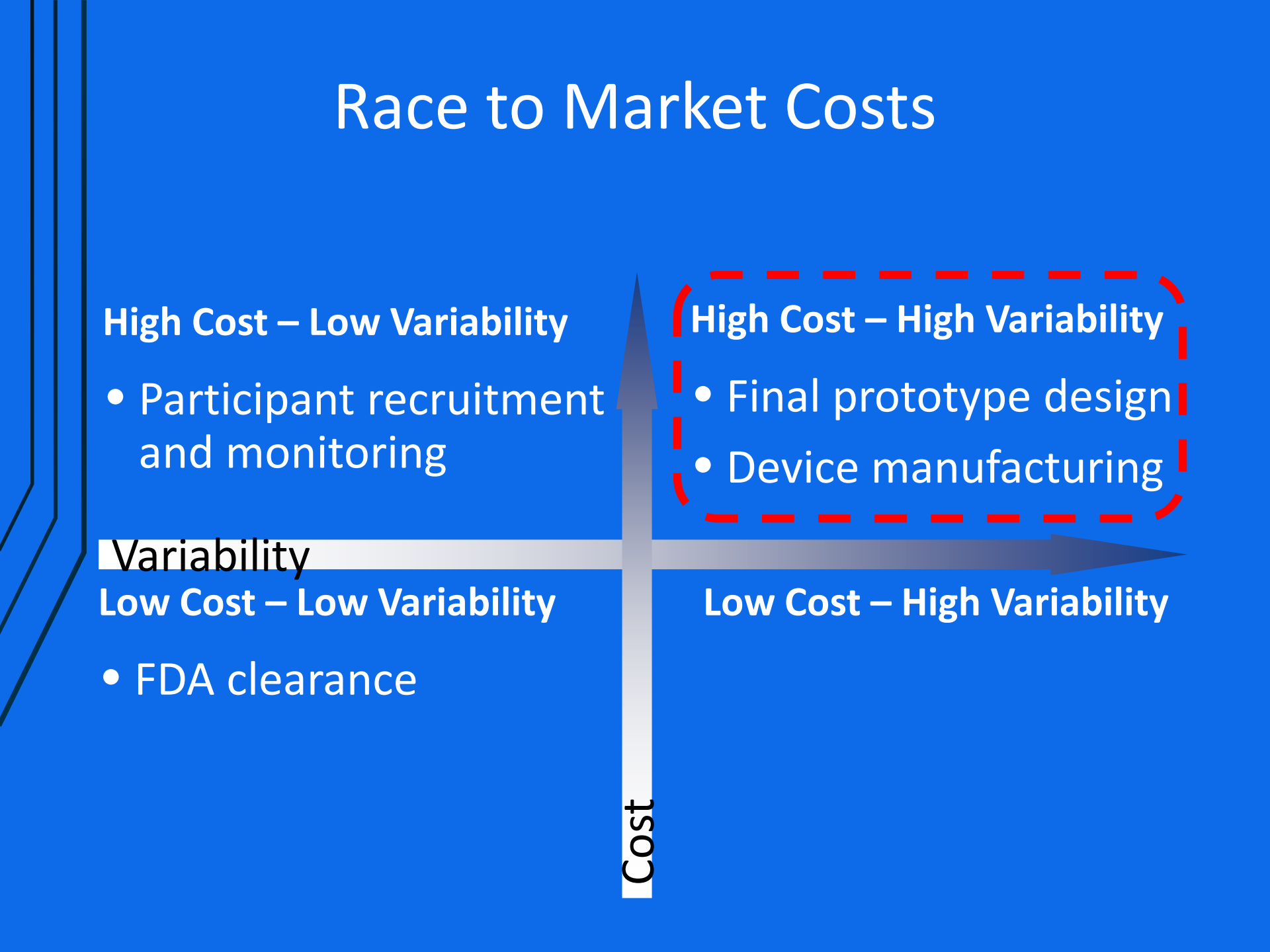
- FDA clearance

## High Cost – High Variability

- Final prototype design
- Device manufacturing

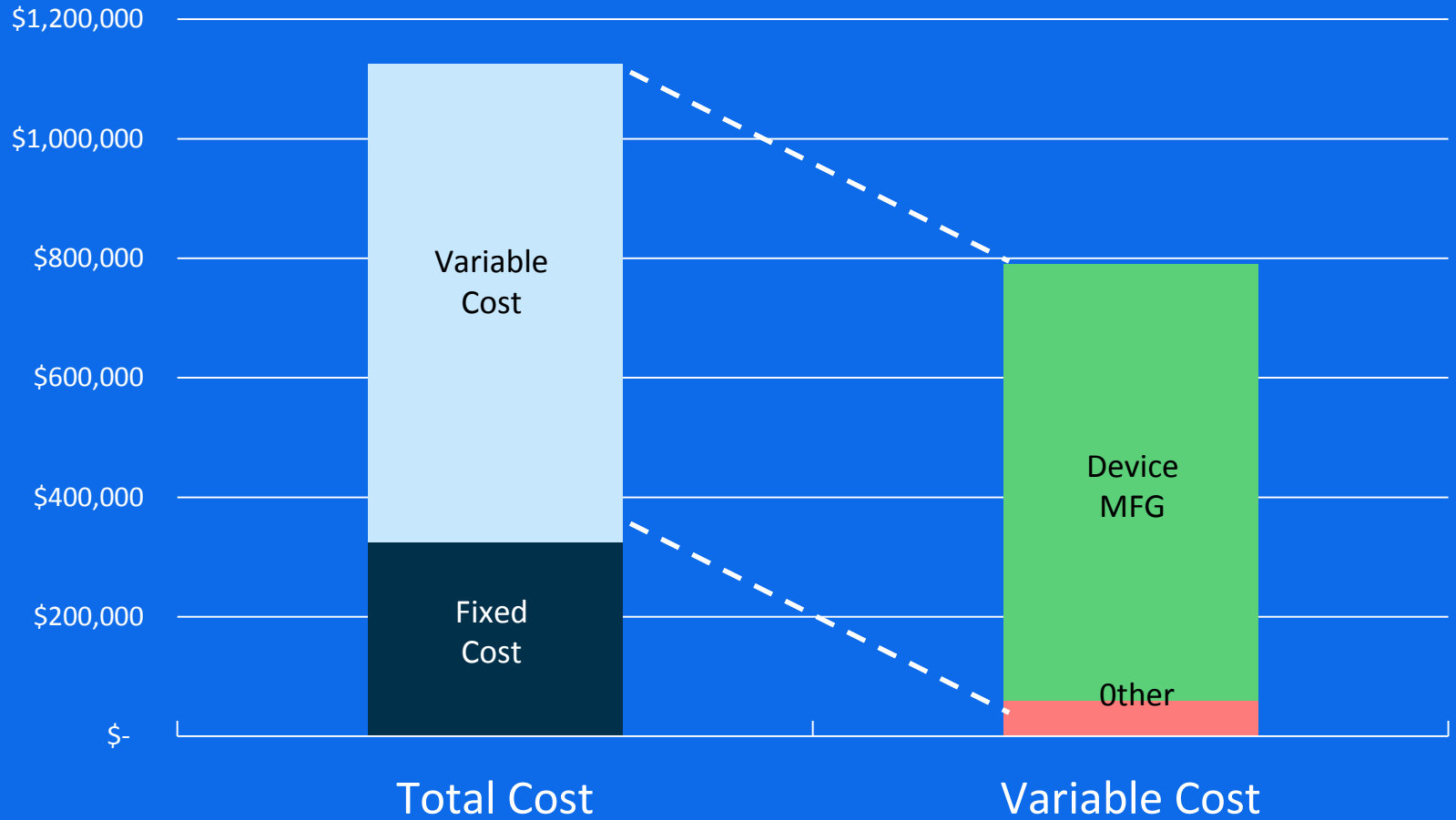
## Low Cost – High Variability

Cost



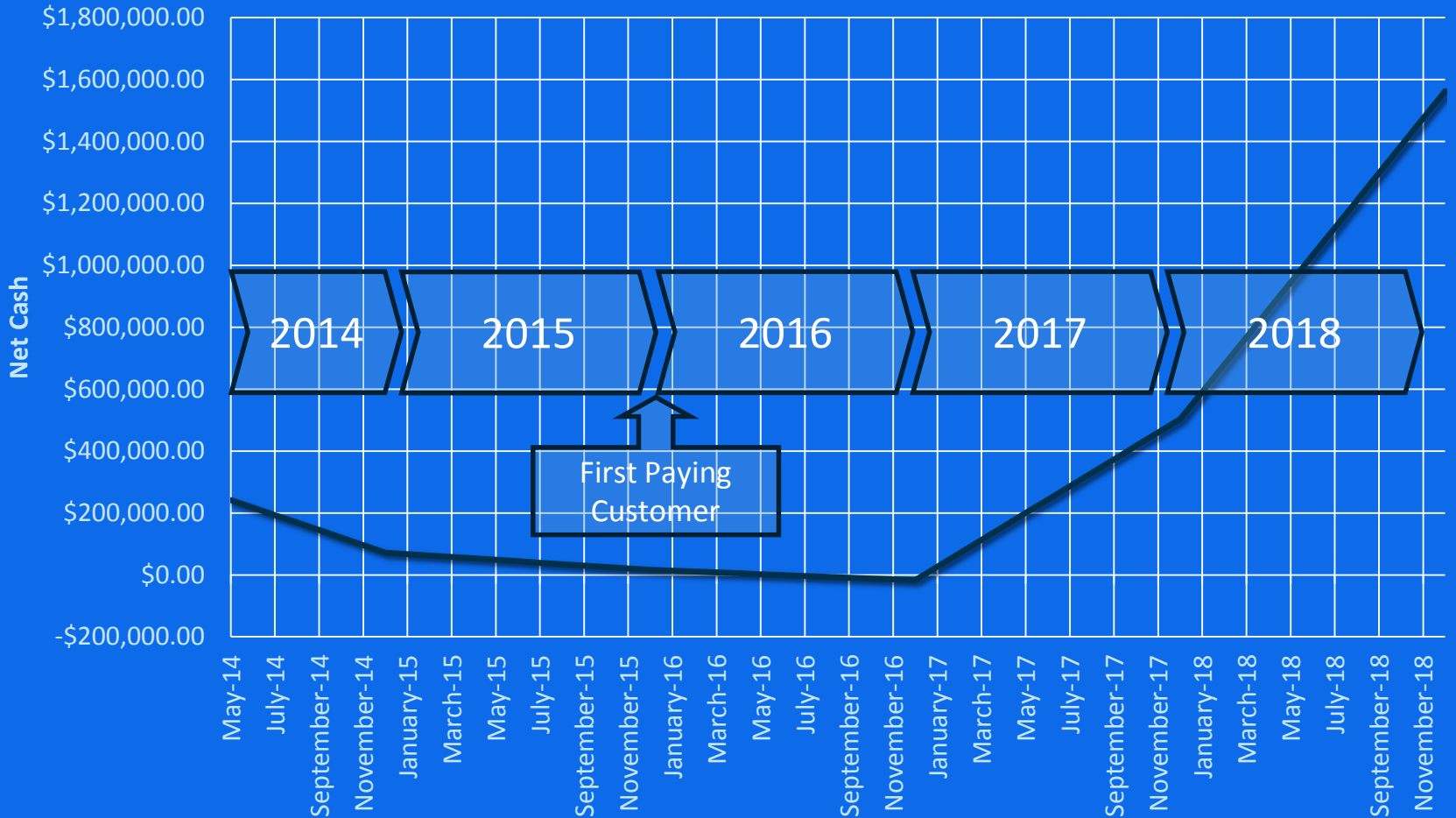


# Cost Structure

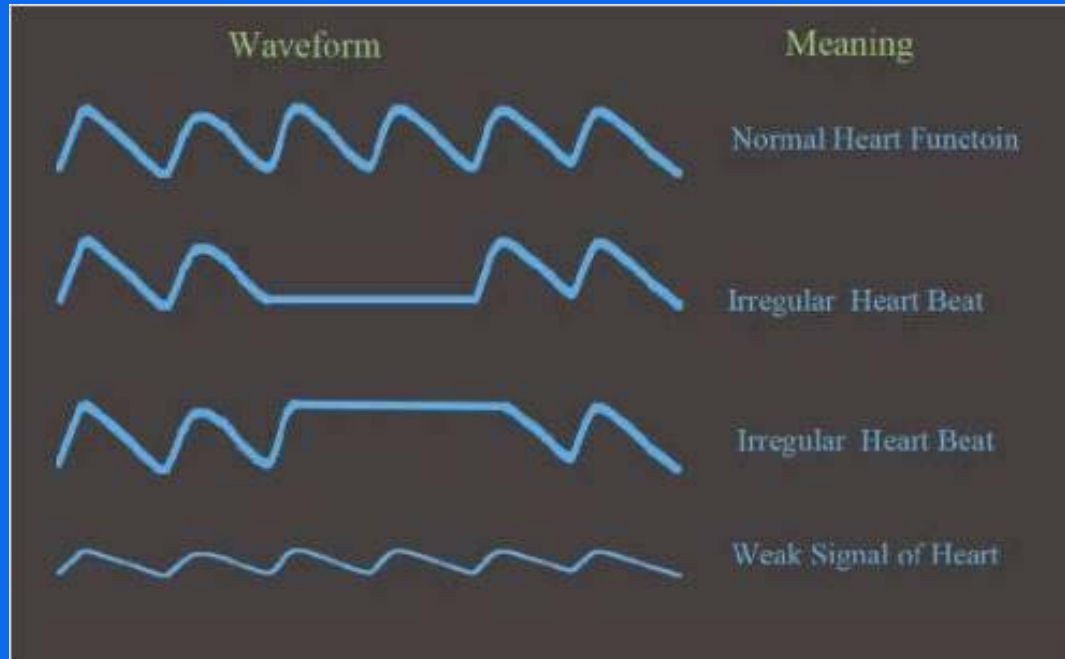


# Financial Return

## Net Cash Flow



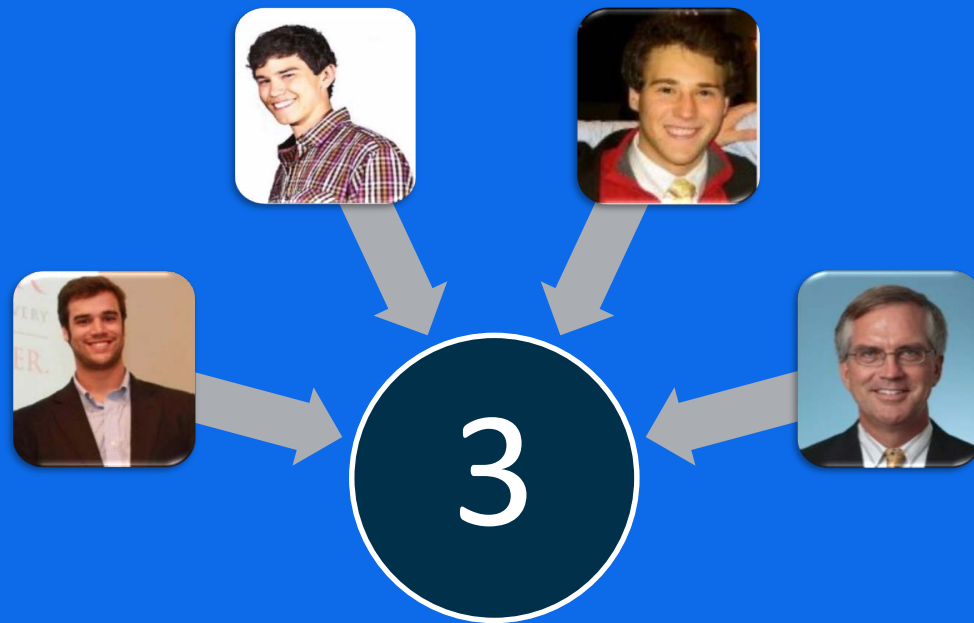
# Continuous pulse oximetry monitoring allows clinicians to recognize 'drift'



- Poor heart rate control
- Acute bradycardia
- Onset atrial fibrillation
- Pulmonary edema
- Obstructive respiration patterns
- Sleep apnea

# Revenue Model Appendices

# New Hospitals Per Year



# pulseMobiles Per Hospital

$$\frac{1,000,000 \text{ Hospitalizations}}{5000 \text{ Hospitals}} \times \frac{2 \text{ Years}}{\text{Patient}}$$

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$$= 400 \text{ pulseMobiles}$$

# Market Size $\cong$ \$3 Billion

