

A close-up photograph of a hand holding a stethoscope. The chest piece of the stethoscope is a circular metal mesh, and the InnaMed logo is centered on it. The background is a blurred, colorful geometric pattern in shades of teal, orange, and blue.

# InnaMed

The gateway to personalized health

# Why We Exist

With only one drop of blood required and without having to travel to a lab, our home blood testing device empowers people to check their vitals on a monthly or weekly basis due to its speed and convenience. The ability to regularly track your most important health vitals opens up an entirely new world of understanding in how your body works.

**This device truly acts as a gateway to personal health.**

## Problem

## Solution

1

People often only see problems with their bodies after it has developed, and often too late.

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People can see the signs of problems as they just begin to happen and course correct behavior.

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2

It can be difficult to pinpoint specific reasons to why someone's body is failing

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People can immediately troubleshoot problems due to the small time window in between tests.

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3

Many vitals people do not even think about monitoring because there is no realistic way to do so

People can now measure vitals that gauge health in scientifically meaningful ways, beyond the typical weight, heart rate, and "steps" in current devices

# Initial Target Market – Baby Boomers



## Their Fears

- I've had low energy for the past week, should I visit the doctor?
- As someone with a predisposition to diabetes, it would give me peace of mind to check anytime and make sure I'm okay.
- I have a chronic condition, and I need to constantly monitor my vitamin B12.

## Our Fit

- Through interviews with doctors, they've told us that once elders get sick, their bodies just deteriorate, which puts them at risk of compounding health problems.
- The baby boomer generation is reaching the retirement age.
- Baby boomers are more likely to spend disposable income on a health monitoring device than other age segments.

Baby boomers spend **35% of all disposable income**, the largest in the US (Source: Forrester)

Baby boomers are over 1/3 of the US population

The current US primary care market is at **\$243 billion** and is growing at 4.2%.

The global home healthcare market is expected to reach **\$355 billion by 2020**, growing annually at 7.8% from 2014.



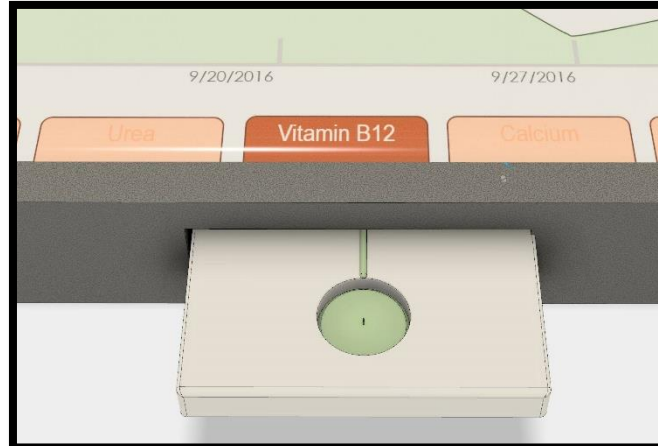
# How It Works

## Step 1



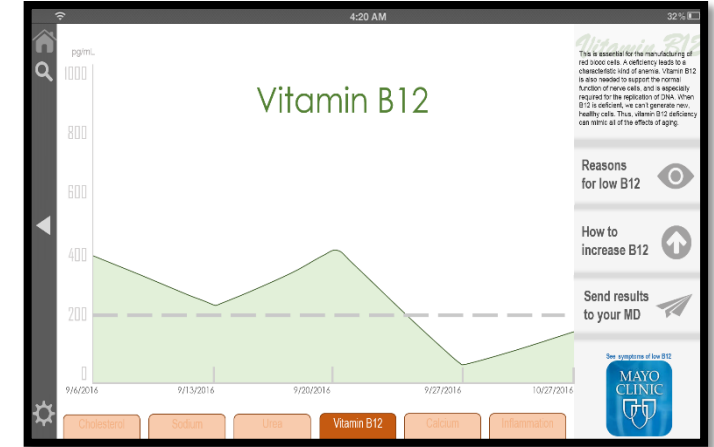
Take a chip from your refrigerator and slot it into the device.

## Step 2



Push the button on the device, which then pricks your finger with a micro needle.

## Step 3



In 5 minutes, check your device or phone application to see your health vitals and how to fix any deficiencies.

While our product is versatile, we plan to initially target the baby boomer generation. Afterward, we plan to make an STD chip compatible with the same device once we've gained initial traction.

# Timeline

- 1** We will have our proof-of-concept prototype completed by mid March in time for summer accelerator program applications
- 2** The FDA has a clear standard difference for approval of any device not residing inside a body (Class 2 biomedical device)  
**9 month approval cycle**  
*(via website)*
- 3** We have learned lessons from Therano's struggles in the creation of our own timeline and the prioritization of activities

**By 3/20**

Fabricate chip with two streams and test cholesterol reaction in chip.

**By 5/20**

Test rest of the reactions in free form

**By 7/20**

Fabricate chip with rest of the 8 streams and test reactions in chip.

**By 8/1**

Completed working prototype with closed measurement and data storage/analysis components

**By 10/1**

Complete refined prototype

**By 1/1/17**

Close funding round, begin initial sales

**By 1/1/18**

Finalize FDA approval process, begin scaling sales

**\*Initial prototype cost: \$300**

Cholesterol Reaction Materials:  
(Already Purchased)  
Cholesterol Oxidase (100 units)  
Potassium Ferricyanide (100 grams)  
Plus Cholesterol Testing Materials:  
(Already Purchased)  
Cholesterol (100 grams)

**\*RISK: Reaction results and chemical lifecycle might affect robustness of initial product capability**

**\*RISK: Complication from multiple streams in device is uncertain**

**\*Projected prototype cost: \$4000**

**\*Goal to raise \$500-\$750,000 to supply initial inventory for sales operations**

# Team

## The **Innovator**



Eshwar is a Penn student with past research in photodynamic therapy at the University of Michigan and in lentiviral vectors at the Perelman School of Medicine. He was the winner of Weiss Tech House Startup Cage Match competition.

**Major: Bio-Engineering**

**Builds the device**

## The **Expert**



Anup is a senior and member of Dr. David Issadore's lab, the pioneering group working on diagnostics using microfluidic technology. His most recent project was smartphone-based optofluidic exosome diagnostic for concussion recovery.

**Major: Biophysics**

**Ensures the science works**

## The **Chemist**



Jonathan is a senior with extensive biochemistry experience needed to understand analyte reactions. He's worked on projects such as Search for neutrinoless double beta decay events in conjunction with SNO+ collaboration

**Major: Biochemistry**

**Nails the chemistry**

# Mentors

**David Bell**

**Seed Investor: Jet.com,  
Warby Parker**  
Commercialization Mentor

**Pitou Devgon**

**VC Partner, CEO of  
Velano Vascular**  
FDA Process Mentor

**Robert Town**

**Chief Economist and Co-  
Founder, Picwell, Inc.**  
Business Development  
Mentor

**David Issadore**

**Founder of Penn  
Microfluidics Lab**  
Microfluidics Technology  
Mentor