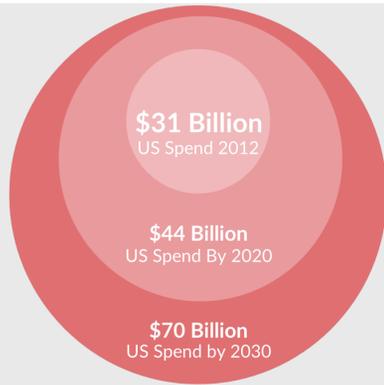


## THE PROBLEM & OPPORTUNITY

- CHF affects 26 million people worldwide & 6 million Americans
- 30% of global hospital readmissions are due to CHF
- Costs will grow with aging populations
- NT-proBNP is a blood biomarker used to reliably detect, diagnose, and evaluate the severity of heart failure.
- 2017 ACC guidelines have upgraded NT-proBNP to a Class-1 recommendation for prognostication<sup>1</sup>.



## JANA CARE'S NOVEL TECHNOLOGIES

**AINA**

Smartphone-based diagnostics platform

Enables home testing

**HABITS**

Digital Platform

Enables personalized disease management to improve outcomes

Aina X1 is both the world's first fingerstick-compatible & mobile connected NT-proBNP monitoring system designed for the prognosis and monitoring of congestive heart failure.

Its unique flexibility allows for fingerstick capillary, venous, or plasma blood samples, and requires no sample preparation.

A wireless cloud connection enables self-calibration and automatic syncing to enable remote, real-time disease management.

**Designed for HF prognosis**

**Fingerstick compatible**

**No sample preparation**

**Self-calibrating**

**Remote dashboard**

**Affordable**

## RESULTS FROM ALPHA TESTING

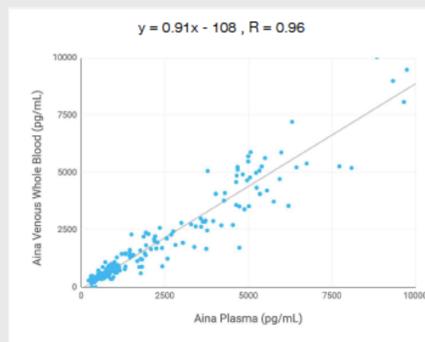
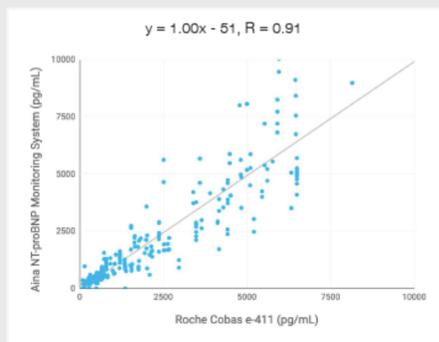
IRB approved studies demonstrate analytical performance with fingerstick, venous whole blood and plasma samples.

### Method comparison

Equivalent performance against the Roche Cobas e-411 analyzer with 291 whole blood samples.

### Matrix comparison

Equivalent performance with direct fingerstick, venous whole blood, and plasma samples.



### Precision

Under 12% CV across the measuring range with whole blood samples.

Whole blood sample level	Mean Value (pg/mL)	%CV
L1	667	7
L2	1251	7
L3	3134	11

## SUCCESSFUL FEASIBILITY STUDY FOR HABITS DIGITAL PLATFORM AT MGH<sup>2</sup>

### Methods and Results:

- 23 patients with HF were randomized to intervention (smartphone with the Habits Heart® App installed and Bluetooth-linked scale) or control (paper education material) groups (53.6% HF with reduced ejection fraction, 71.4% male, 59.5 years of age).
- 9/12 patients used the App regularly and 1/11 control patients retained patient education material by the end of the 6-week follow up period (p-value=0.003).
- Patients in the intervention group averaged more than one daily session of 5-minute duration and 22 weight entries per patient.
- The longer a patient engaged with the App, the greater the improvement in HF knowledge as assessed by AHFKT-V2 (Spearman  $\rho=0.59$ ,  $p=0.04$ ) and quality of life as assessed by KCCQ-12 ( $\rho=0.63$ ,  $p=0.03$ ) scores. Correlation between App use and weight change was  $\rho=-0.40$  ( $p=0.19$ ).

**Conclusions:** Preliminary results suggest the Habits Heart® App is a feasible way to engage patients in HF management.

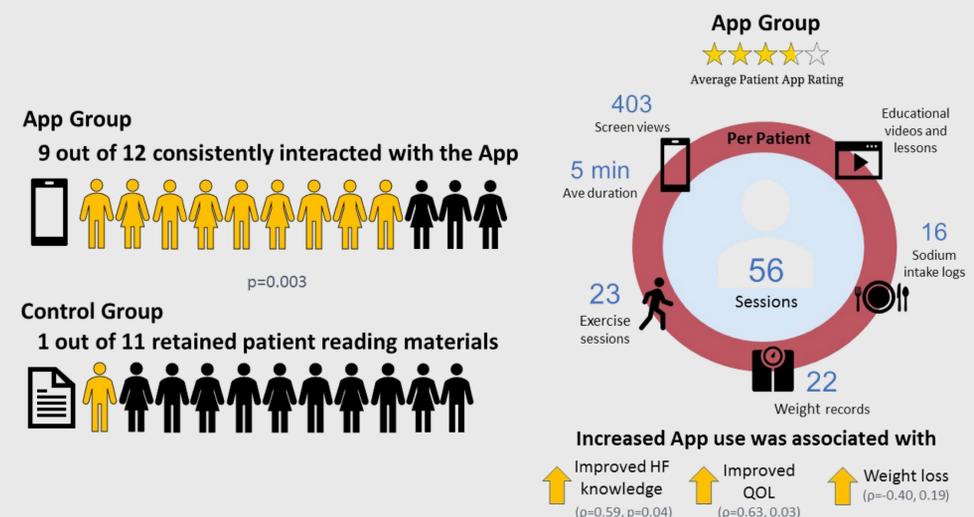


Figure 2b. App feasibility and patient rating: (Graphical Abstract)

## PARTNERS

**Medtronic**

**Biocon**

**SIEMENS Healthineers**

**CIMIT**  
 Consortia for Improving Medicine with Innovation & Technology

**NUH**  
 National University Hospital

**NH Narayana Health**  
 Health for all. All for health.

**Dr. Mohan's**  
 DIABETES SPECIALITIES CENTRE

<sup>1</sup>Yancy, Clyde W., et al. "2017 ACC expert consensus decision pathway for optimization of heart failure treatment: answers to 10 pivotal issues about heart failure with reduced ejection fraction: a report of the American College of Cardiology Task Force on Expert Consensus Decision Pathways." Journal of the American College of Cardiology 71.2 (2018): 201-230.

<sup>2</sup>Wei, Kevin S., et al. "First Experience with Feasibility and Implementation of the Smartphone Habits Heart® App: A Proof-of-Concept Study for Patient Engagement in Heart Failure Management." Journal of Cardiac Failure 24.8 (2018): S76.