

# PROTECT

## Connected Health

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**AIM:** improve patient and community outcomes through excellence and application of innovative virtual care (VC) models and remote automated monitoring (RAM) technologies.



# Postoperative care – the present

## Care provider

- in-hospital patients usually overseen by surgeons
  - who are often busy operating
- after discharge patients typically see physician 3-6 weeks later

## Monitoring

- in-hospital patients typically have vitals checked every 4-8 hrs
- after discharge patients only monitored at next f/u visit



# Cloud DX Connected Health kit



# Virtual care with RAM intervention

- Tablet computer and RAM technology
  - Cloud DX
- Intervention:
  - BP, HR, RR, SpO2, temperature, weight daily for 30 days
  - recovery survey daily for 30 days
  - Nurse video call daily on **days 1-15, every other day on days 16-30**
  - wound photo daily days 1-15, EOD days 16-30
  - Regular medication error detection/correction
  - Escalation of care from nurse to physician





# Patient and Provider Experience

# Patient Experience

Jan 1, 2022-Nov 4, 2022  
(n=552)

The program empowers me to be more active in managing my health

Strongly Disagree / Disagree / Neutral  
7%

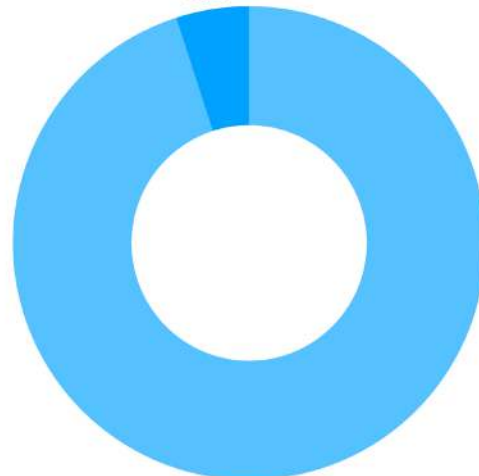


Strongly Agree / Agree  
93%

Nov 5, 2022-Apr 31, 2024  
(n=1172)

While in the program, I felt that my Care Team listened to and respected me as a partner in care

Strongly Disagree / Disagree / Neutral  
5%

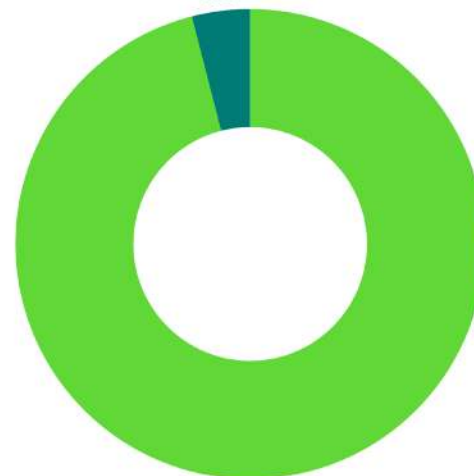


Strongly Agree / Agree  
95%

Jan 1, 2022-Apr 31, 2024  
(n=1724)

I would recommend this program to a friend or family member

Strongly Disagree / Disagree / Neutral  
4%

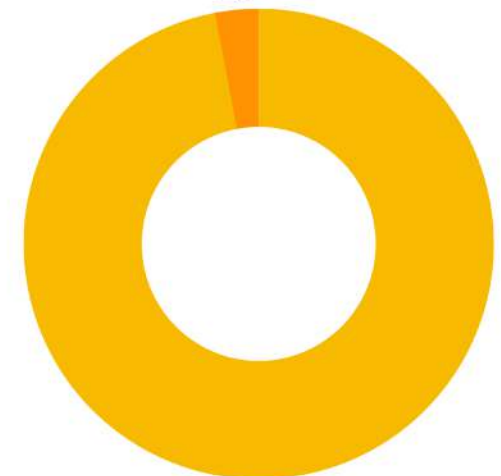


Strongly Agree / Agree  
96%

Jan 1, 2022-Apr 31, 2024  
(n=1724)

Overall, how satisfied were you with the remote monitoring program?

Strongly Disagree / Disagree / Neutral  
3%



Strongly Agree / Agree  
97%

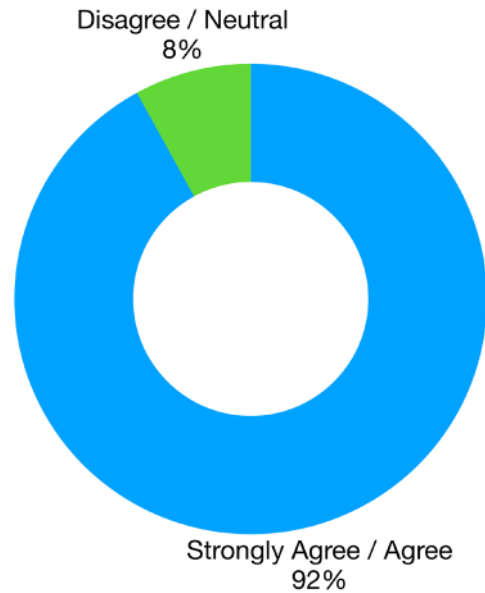
By 'satisfied', we mean the ease and functionality of the solution, quality of information, and services provided.

# Provider Experience

## Referrer, Primary Care and Escalation Team

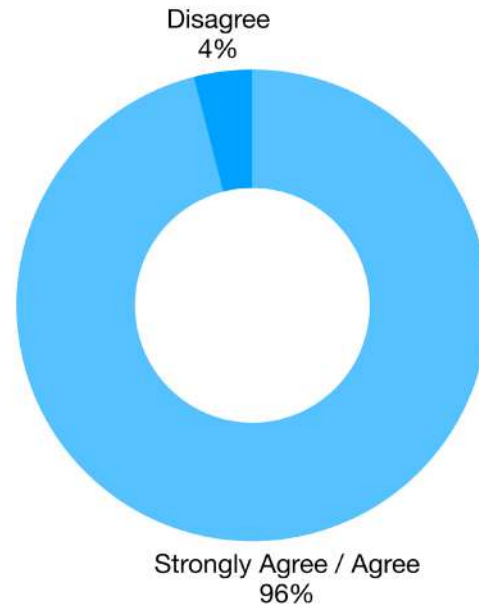
Jan 2022 - Apr 2022 (n=26)

I receive timely AND accurate information from the remote monitoring team to provide care



Jan 2022 - Apr 2022 (n=26)

The remote monitoring program has improved the health of my patients



## Virtual Nursing Team

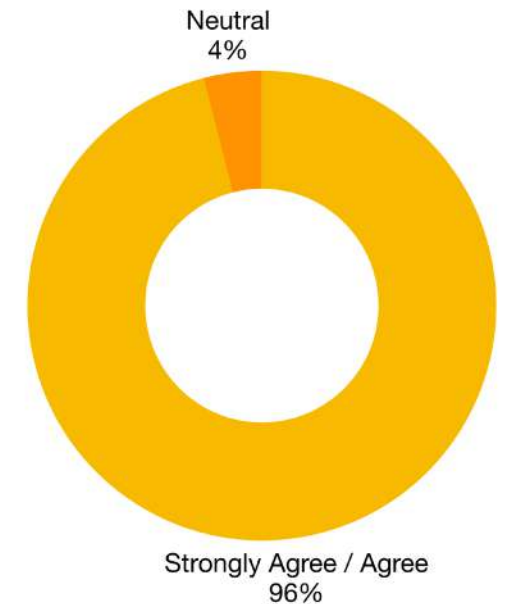
Jan 2022 - Apr 2022 (n=53)

I am confident in my skills to provide care virtually



Jan 2022 - Apr 2022 (n=53)

The remote monitoring program enables me to meet my patient's needs



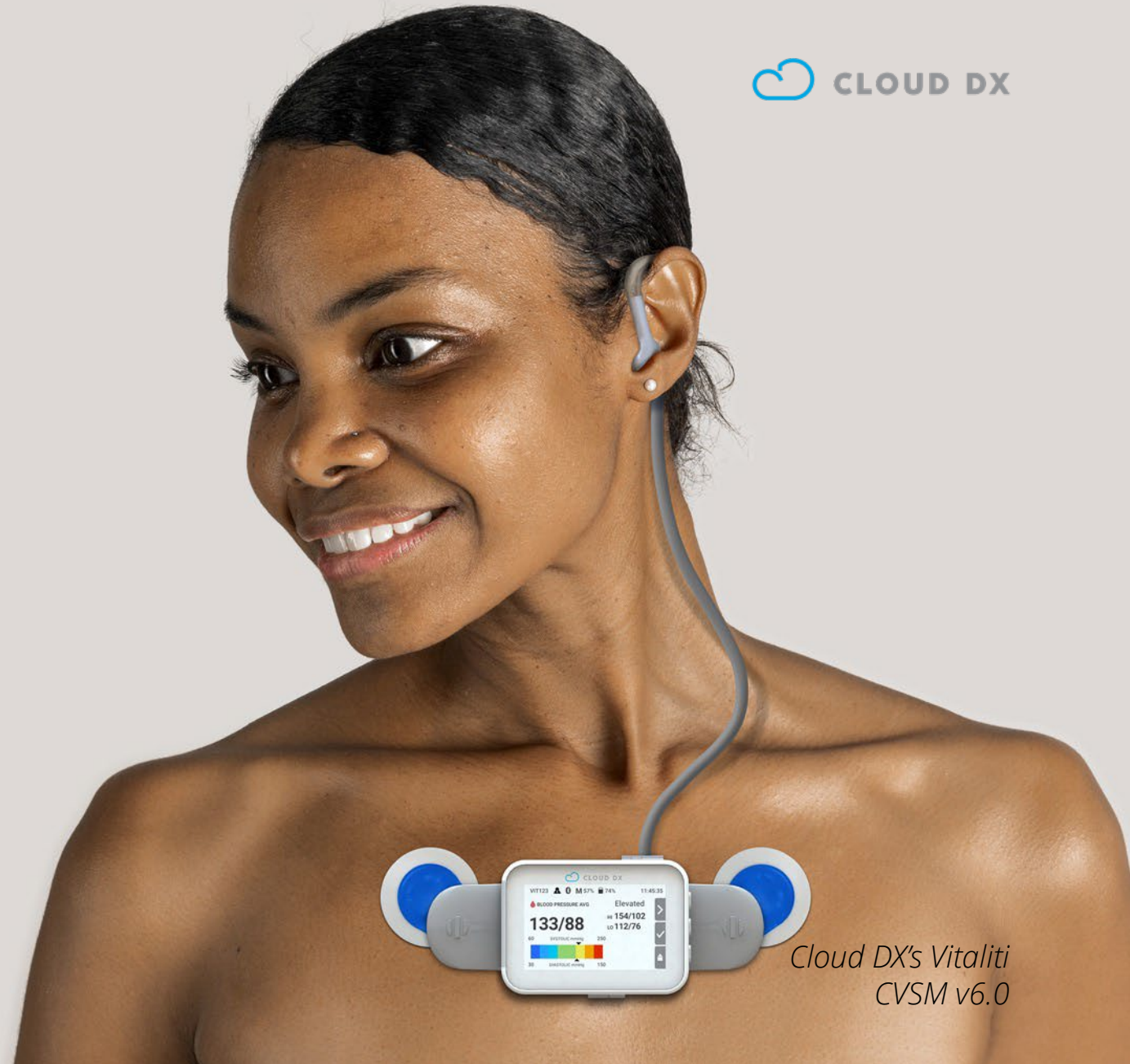
# Novel Infrastructure



## Cloud DX Vitaliti™ Continuous Vital Sign Monitor

(Model: CVSM-1A)

- automated wearable non-invasive wireless vital sign monitor that enables the continuous monitoring of core vital metrics
  - including systolic and diastolic blood pressure, heart rate (ECG), pulse rate (PPG), heart rate variability, core body temperature,
  - blood oxygen saturation, activity index, and respiratory rate.



Cloud DX's Vitaliti  
CVSM v6.0

# Future Directions: VISION 2

- Big Data and Advanced Predictive Modeling
- 20,000 patients undergoing noncardiac surgery for the first 30 postoperative days
- Develop classification models for prediction of major postoperative adverse events
  - Myocardial injury
  - Major bleeding
  - Sepsis
  - Infection

# Future Directions: VISION 2

- Automate labour intensive tasks
- Increase efficiency
- Preserve valuable clinician and patient time
  - e.g., medication error reconciliation, detection of wound infections