Safe, warm , well, connected

Louise Rogerson Howz co-founder with Alan, Howz customer

howz

Data sources

Smart Home

Hub

Socket (+ range extender)

Motion, temp, light

Door, temp

Button

Vibration, temp

Smoke

White labelled from OEM

Many other devices available e.g. RFID, keypad flood, humidity, C0

Zigbee 3.0 2.4 GHz

Smart Meter

Electricity

Water

Mobile device

Medical devices

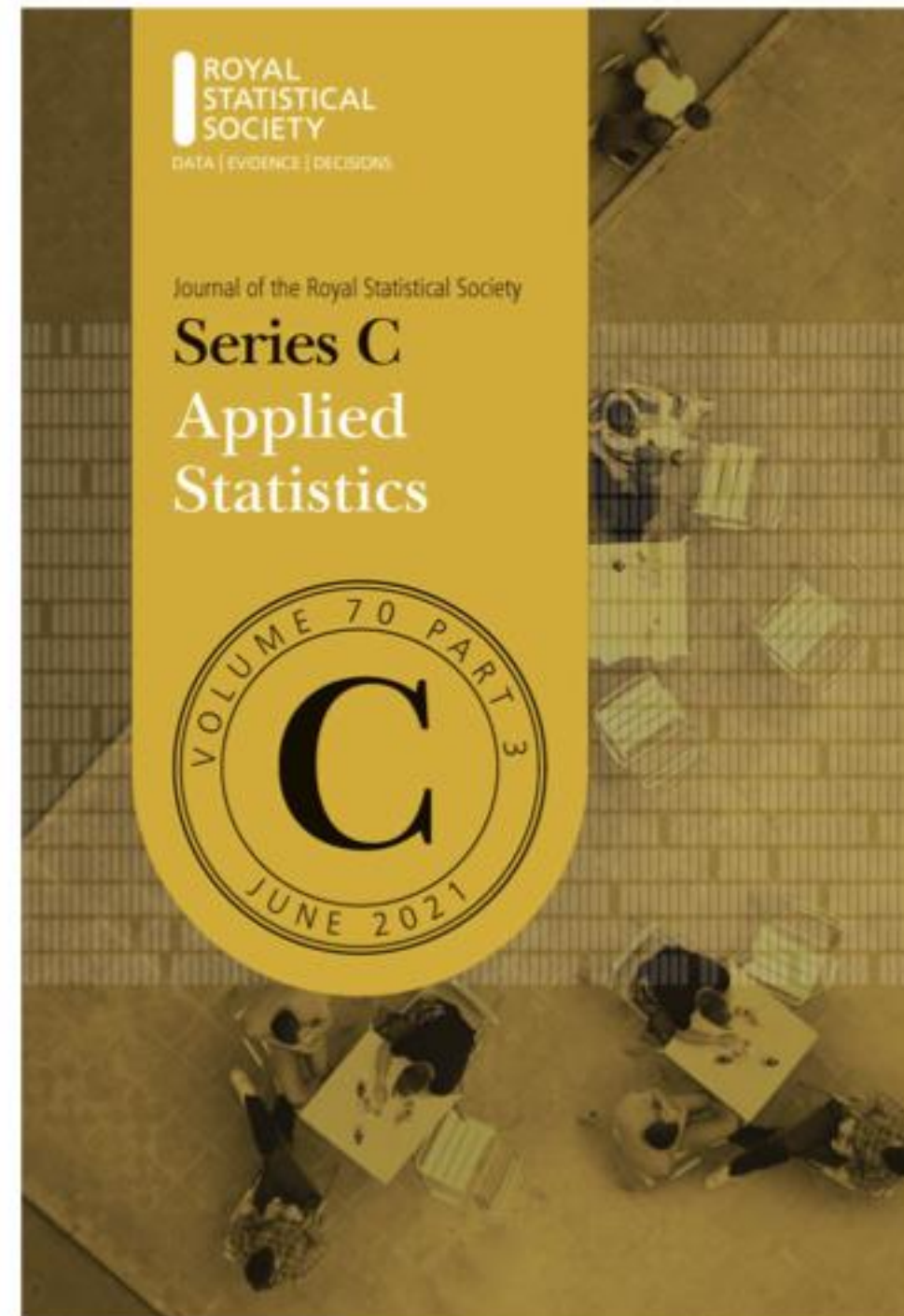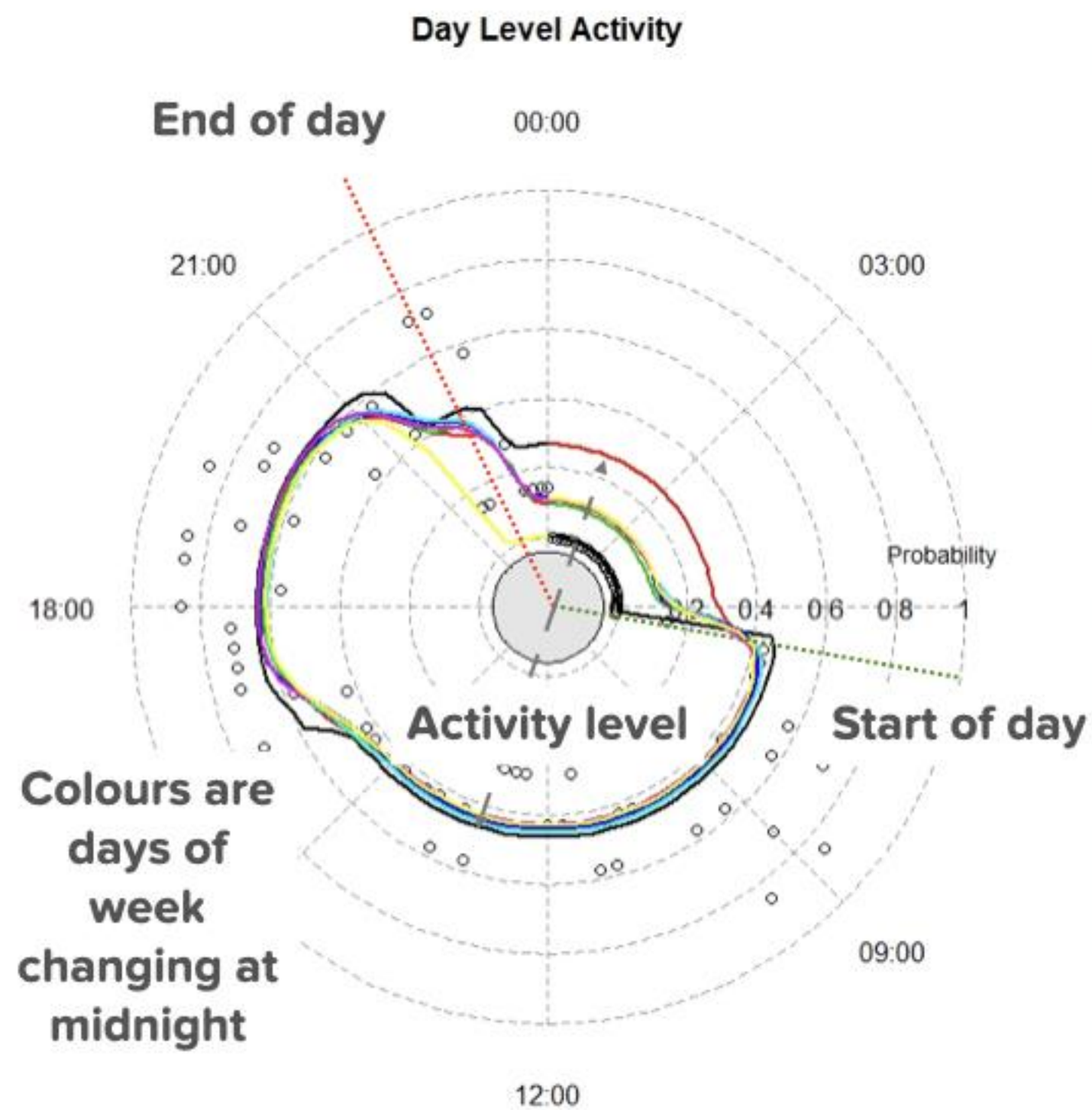Pulse Oximeter

Thermometer

Scales

Blood Pressure

howz

Our core algorithms enable us to scale

Bayesian Circular changepoint algorithm used to detect daily routine, set baselines for automated alerts.

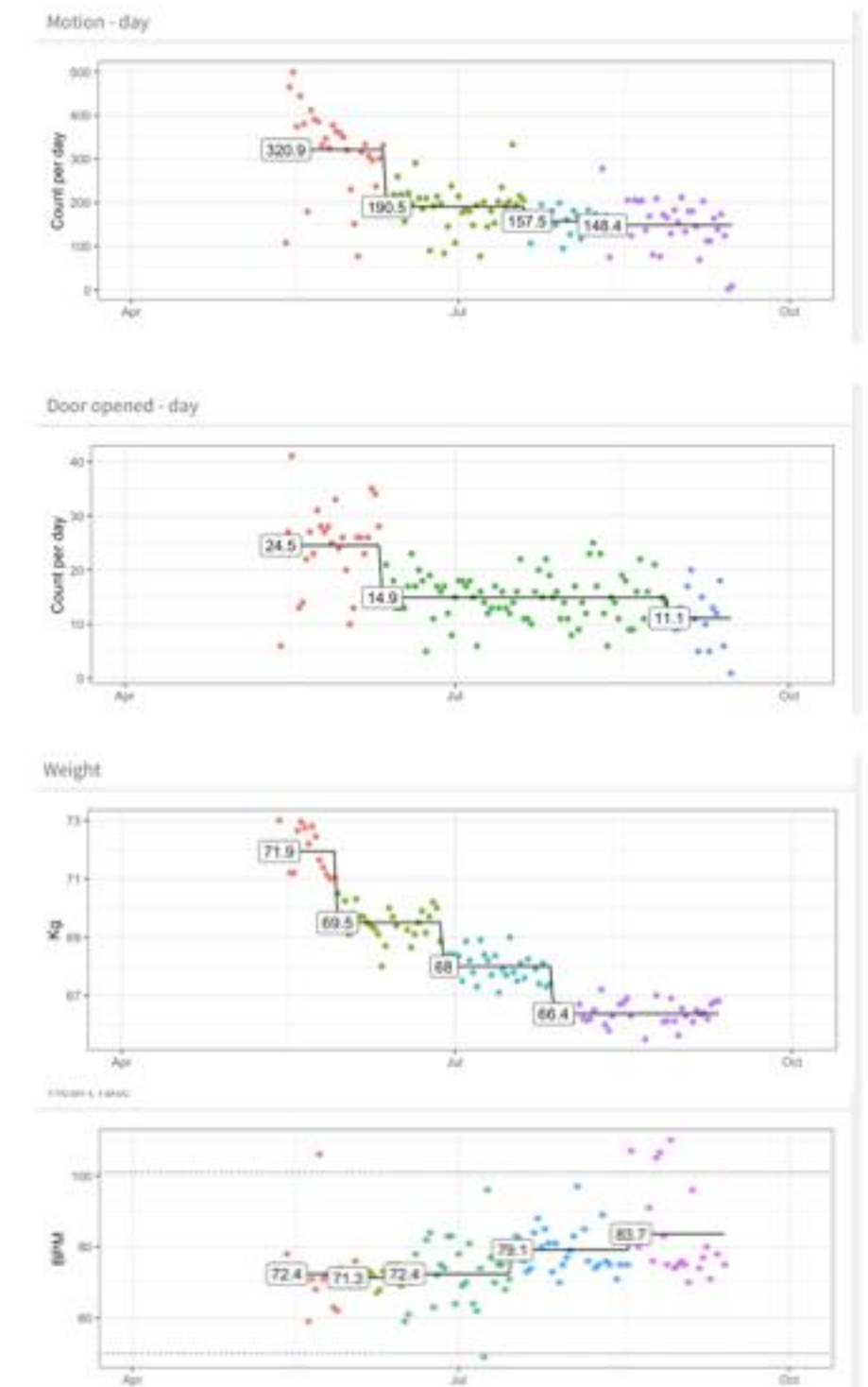

Linear changepoint algorithm used to detect shifts in baseline, indicating health issue and/or need to change alert settings.
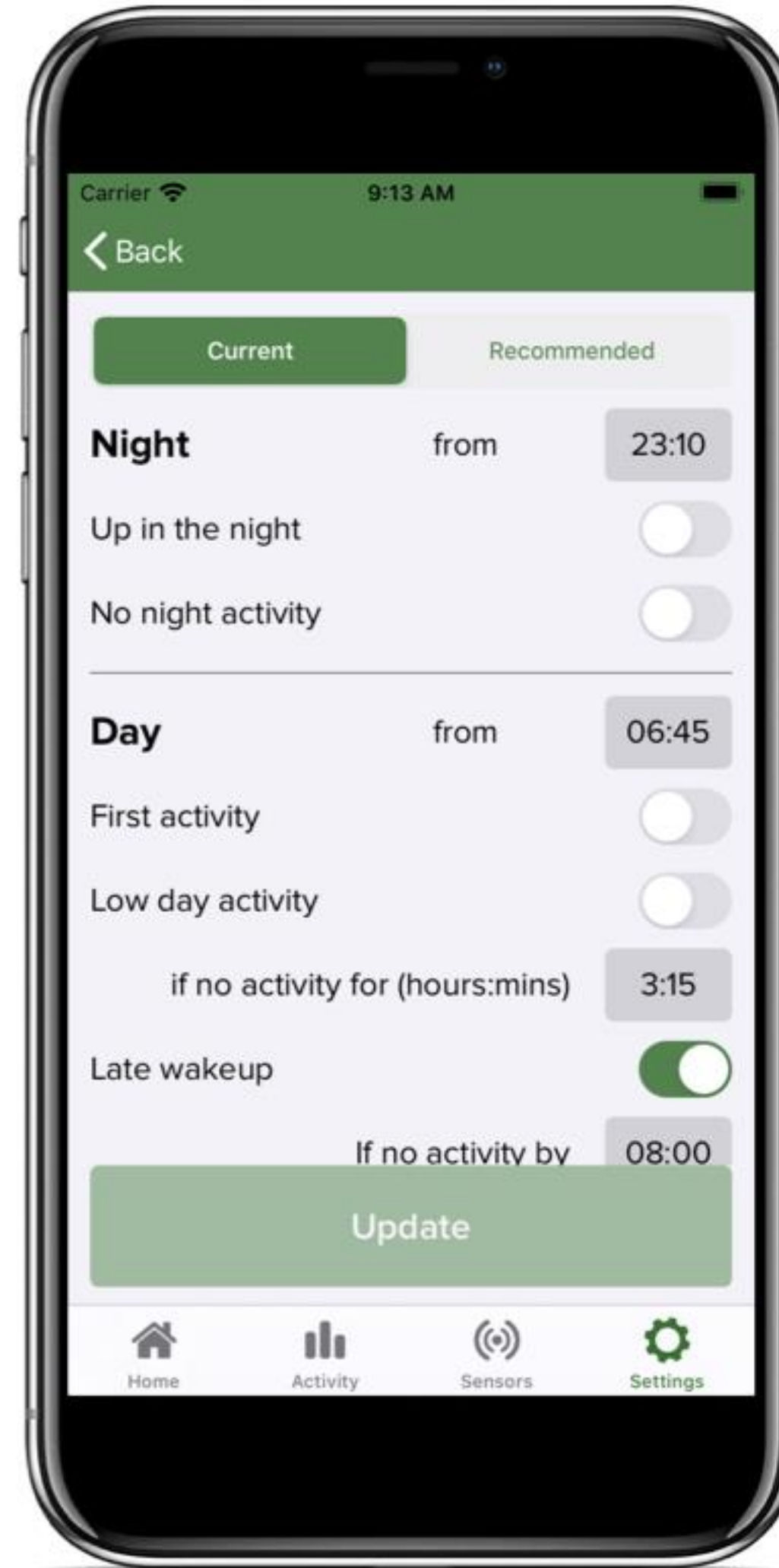
howz

Mobile app

Shows periods of activity in last 12 hours. Green dots show how long before low activity notification.
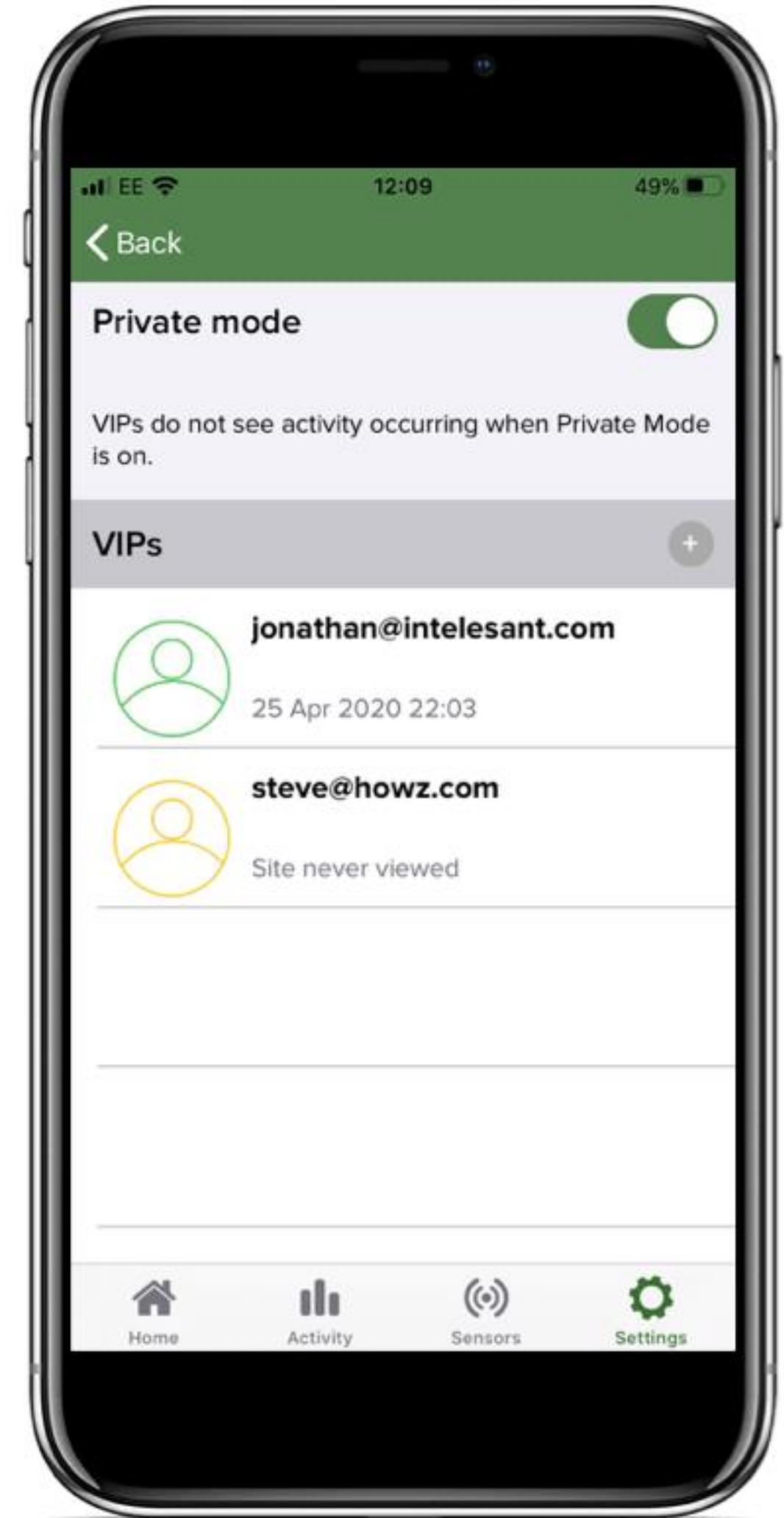
See current status on all data sources

Day's routine from machine learning that sets framework of notifications

Controls family access and shows when they last looked at data

Screen 1 (Home):

howz
☁14°C

Fri 22 May 2020

Movement detected
09:33

Clock dial numbers: 23 24 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Home | Activity | Sensors | Settings

Screen 2 (Sensors):

09:37   73%

Mum's house
22 May 2020 09:27

Blood Oxygen Sensor
96.0 %
21 May 2020 12:22

Blood Pressure
Blood pressure: 145/90 mmHg.
13 May 2020 11:32

Hallway
Movement detected between 08:5...   23°
22 May 2020 09:27

Kettle
Kettle used for 1 minute and 7 seco...
21 May 2020 11:59

Kettle
No data
No activity yet

Office
The office closed   23°

Home | Activity | Sensors | Settings

Screen 3 (Settings):

Carrier   9:13 AM

‹ Back

| Current | Recommended |

Night   from   23:10

Up in the night

No night activity

Day   from   06:45

First activity

Low day activity

if no activity for (hours:mins)   3:15

Late wakeup

If no activity by   08:00

Update

Home | Activity | Sensors | Settings

Screen 4 (Settings - Private mode):

12:09   49%

‹ Back

Private mode

VIPs do not see activity occurring when Private Mode is on.

VIPs

jonathan@intelesant.com
25 Apr 2020 22:03

steve@howz.com
Site never viewed

Home | Activity | Sensors | Settings

© Copyright Howz 2021

howz

Interoperable

Open API

Push to Alarm Receiving Centres e.g.
Astraline (UMO), Dementia Research Institute

howz

Key relationships

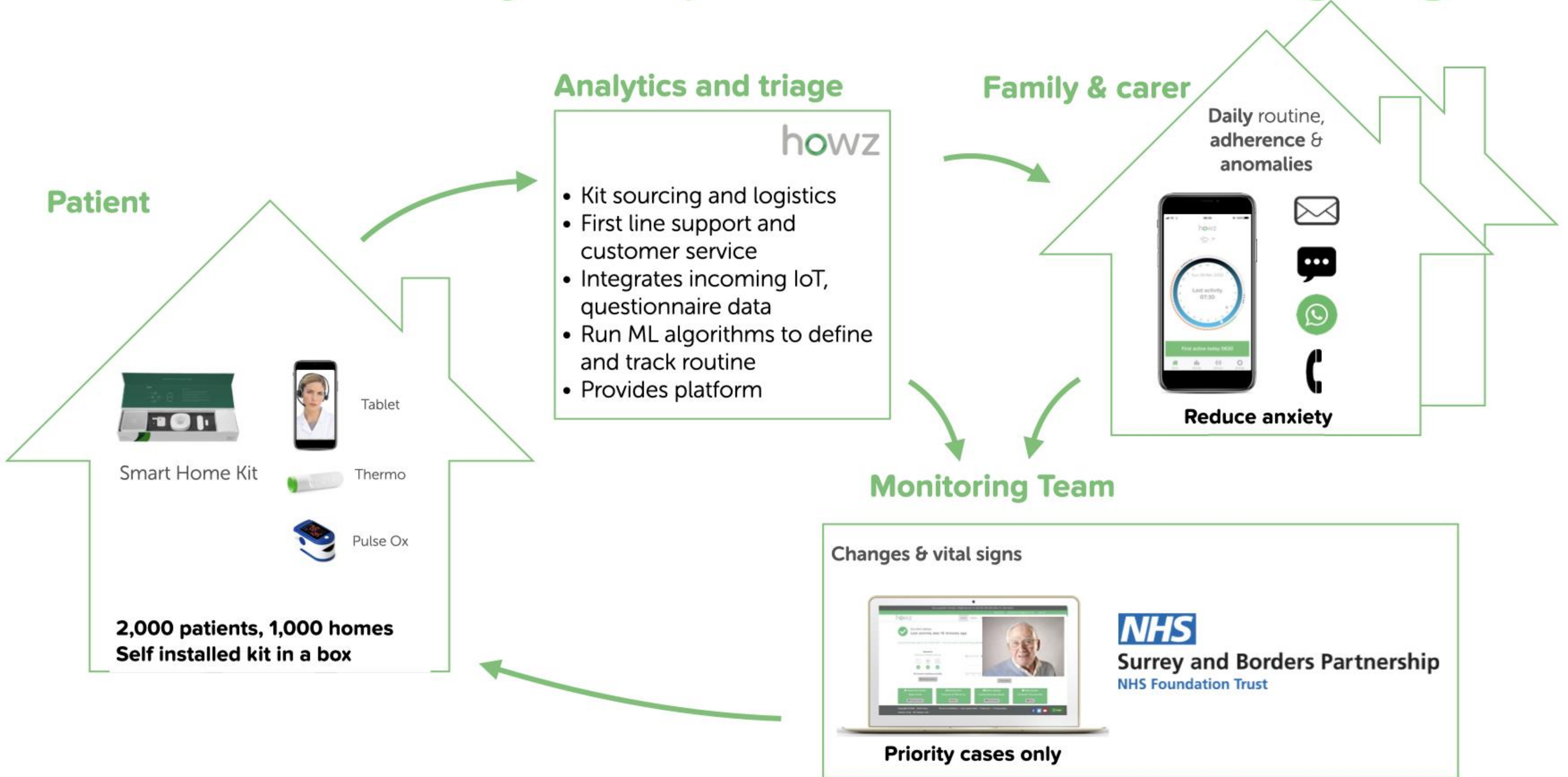**Research funding**

Accelerators

Health and social care

Energy

In Surrey we are supporting over 600 NHS dementia patients and carers

howz

COVID-19: Family and professionals working together

Patient

Smart Home Kit

Tablet

Thermo

Pulse Ox

**2,000 patients, 1,000 homes
Self installed kit in a box**

Analytics and triage

howz

- Kit sourcing and logistics
- First line support and customer service
- Integrates incoming IoT, questionnaire data
- Run ML algorithms to define and track routine
- Provides platform

Family & carer

Daily routine, **adherence &
anomalies**

Reduce anxiety

Monitoring Team

Changes & vital signs

**NHS
Surrey and Borders Partnership**
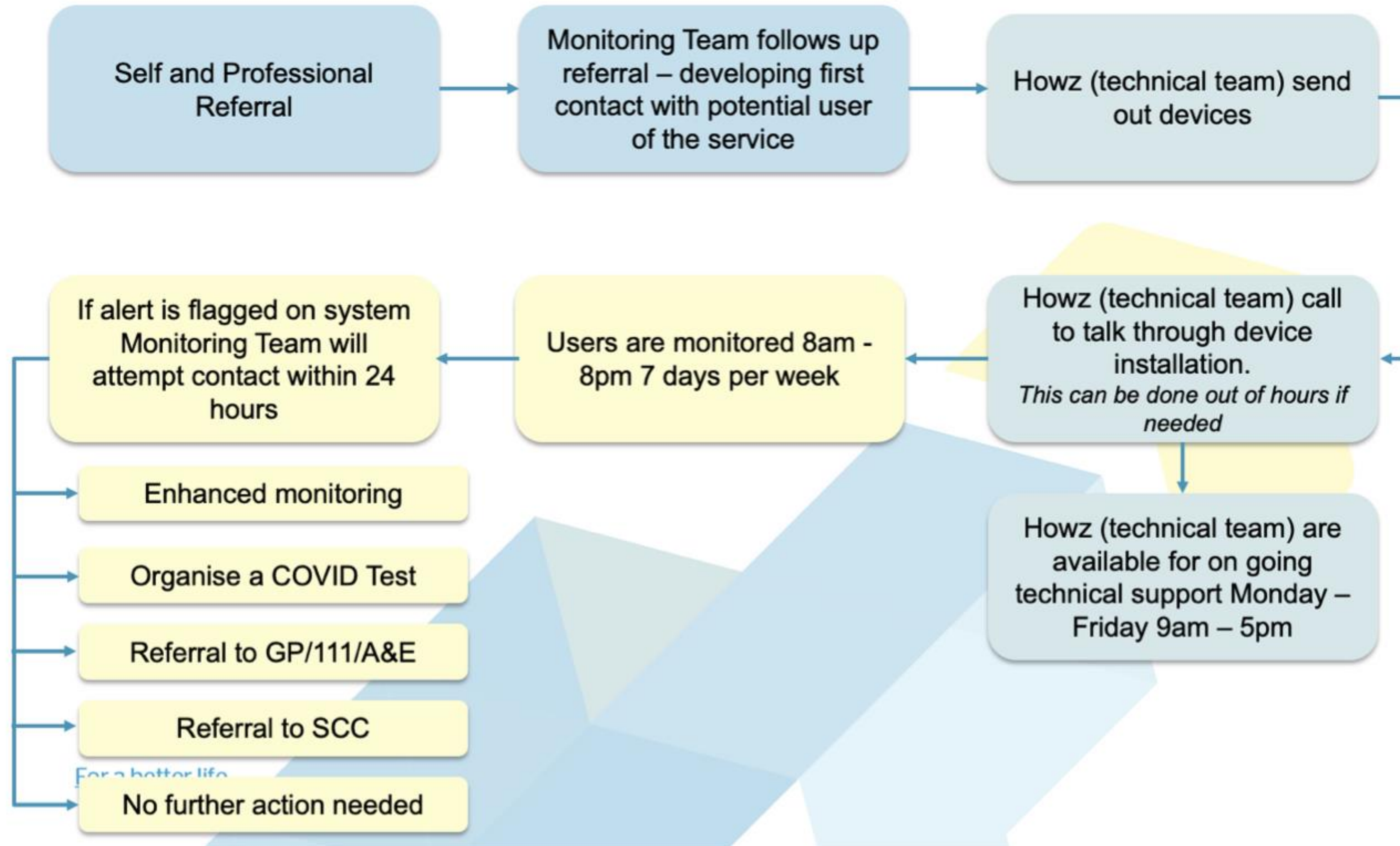NHS Foundation Trust

Priority cases only

howz

How does the TIHM Monitoring Service work?

❯ Digital devices installed in homes: thermometer; oximeter; tablet; door sensor, movement sensor; smart plug

❯ Health data collected and analysed(body temp, pulse, blood oxygen saturation, activity in the home)

❯ Health alerts flagged by technology on digital dashboard and followed up by Monitoring Team

❯ Monitoring Team clinically led.

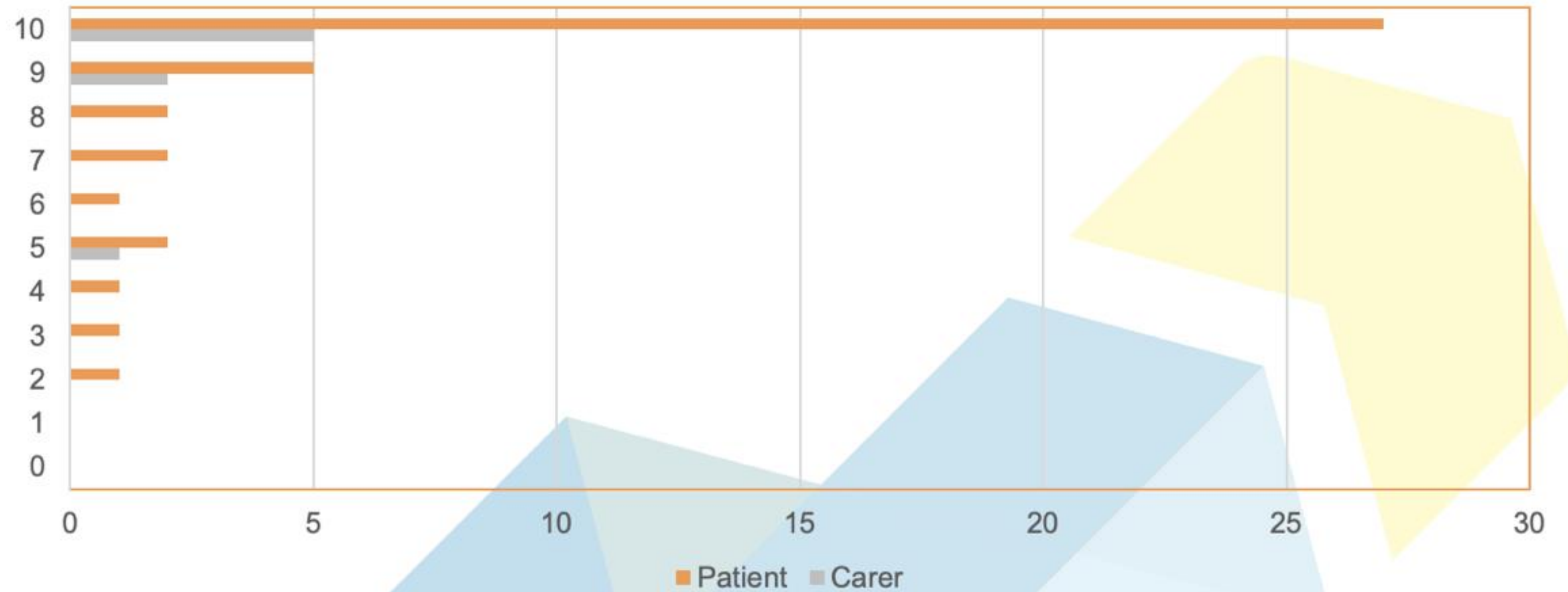❯ Liaison with social care teams, 111, A&E. Coronavirus testing organised, if necessary

For a better life

howz

Detailed Process Map

NHS
Surrey and Borders Partnership
NHS Foundation Trust

Self and Professional Referral → Monitoring Team follows up referral – developing first contact with potential user of the service → Howz (technical team) send out devices

↓

If alert is flagged on system Monitoring Team will attempt contact within 24 hours ← Users are monitored 8am - 8pm 7 days per week ← Howz (technical team) call to talk through device installation. *This can be done out of hours if needed*

↓

- Enhanced monitoring
- Organise a COVID Test
- Referral to GP/111/A&E
- Referral to SCC
- No further action needed

Howz (technical team) are available for on going technical support Monday – Friday 9am – 5pm

For a better life

howz

How likely are you to recommend service (0 – not at all likely, 10 - extremely likely)

Testimonials

❯ CH, who is 74, lives in Bramley and cares for her husband Russell, who is 83, and has Alzheimer's disease:

❯ "I think it's amazing. I find it very simple to use, I usually take the readings early in the morning. It's nice to have a safety net. If something did go wrong, somebody will call you and that's a nice feeling to have. It's also reassuring that the Service is monitoring my health too."

❯ JB, who is 74, lives in Frimley and cares for his wife, Jeanette, who is 73, and has Vascular Dementia and Alzheimer's Disease:

❯ "I'm very pleased with the response I have received from the Monitoring Team who are very professional. As far as I'm concerned, this equipment is great and I've had no problems at all. It's reassuring how quickly the Team responds if there is a concern about a reading and I'm pretty impressed."

For a better life

howz

Summary

Self install is viable and desirable

Human contact remains essential to be clinically safe

Customer support needs to be delivered by specially trained staff

howz

Thank You

Louise and Hazel Rogerson

louise@howz.com