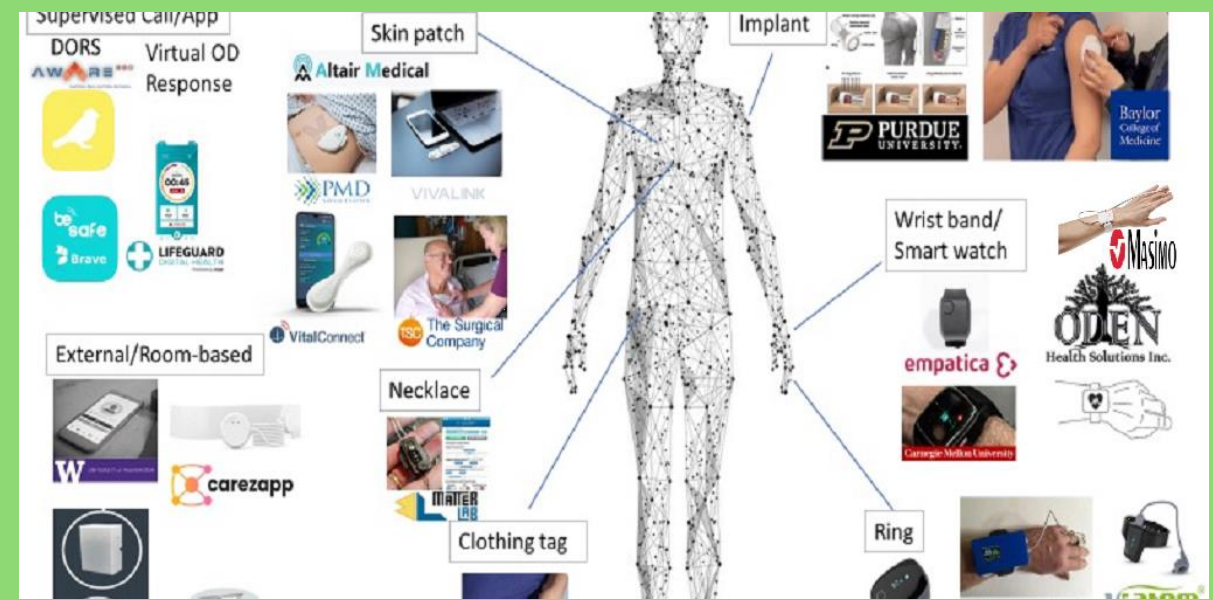


Smartphone apps for Remote Supervision

Catriona Matheson, Hadi Daneshvar, Graeme Strachan

BE THE DIFFERENCE

- UK wide interest in harnessing the potential of technology around 2018-2019
 - Research interest group Scotland
 - Overdose alert and responder technology (ODART) project in Scotland
1. Literature search
 2. Users' views of technology
 3. Scoping for adoption



JMIR Preprints Oteo et al

Overdose Alert and Response Technologies (ODART): A state-of-the-art review

Alberto Oteo¹ PhD; Hadi Daneshvar² PhD; Alexander Baldacchino¹ PhD, MD; Catriona Matheson³ PhD

¹DigitAS School of Medicine University of St Andrews St Andrews, Fife GB
²Salvation Army Centre for Addiction Services University of Stirling Stirling GB
³Faculty of Social Sciences University of Stirling Stirling GB

Dumbrell et al. *Harm Reduction Journal* (2023) 20:40
<https://doi.org/10.1186/s12954-023-00763-4> Harm Reduction Journal

RESEARCH Open Access

The acceptability of overdose alert and response technologies: introducing the TPOM-ODART framework

Josh Dumbrell^{1*}, Hadi Daneshvar², Alberto Oteo³, Alexander Baldacchino³ and Catriona Matheson²

*Check for updates

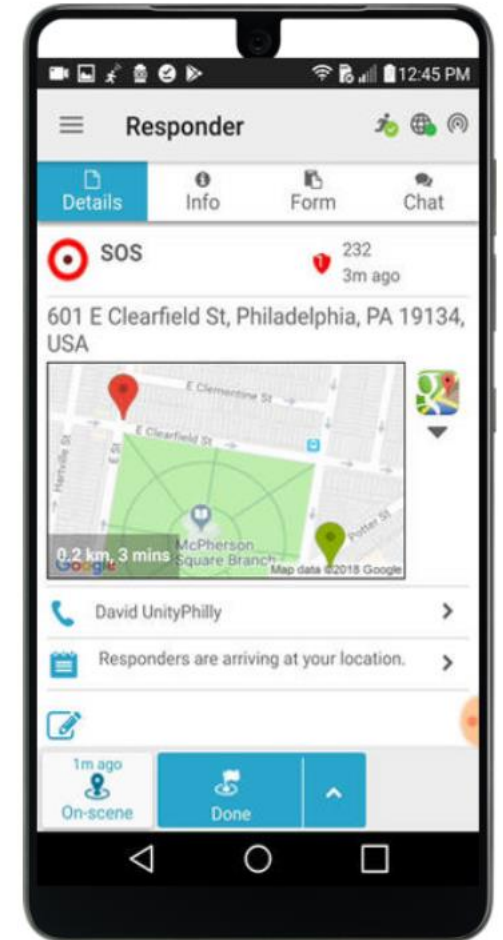
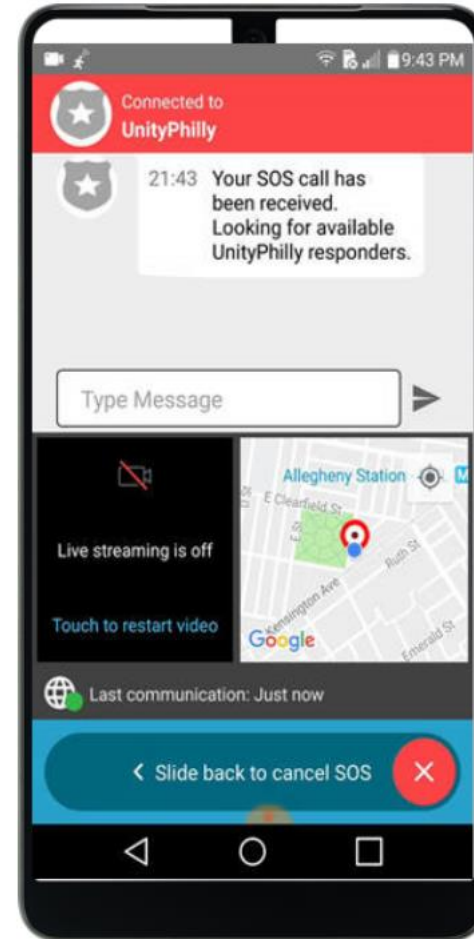
Response apps

22 apps identified, 3 categories

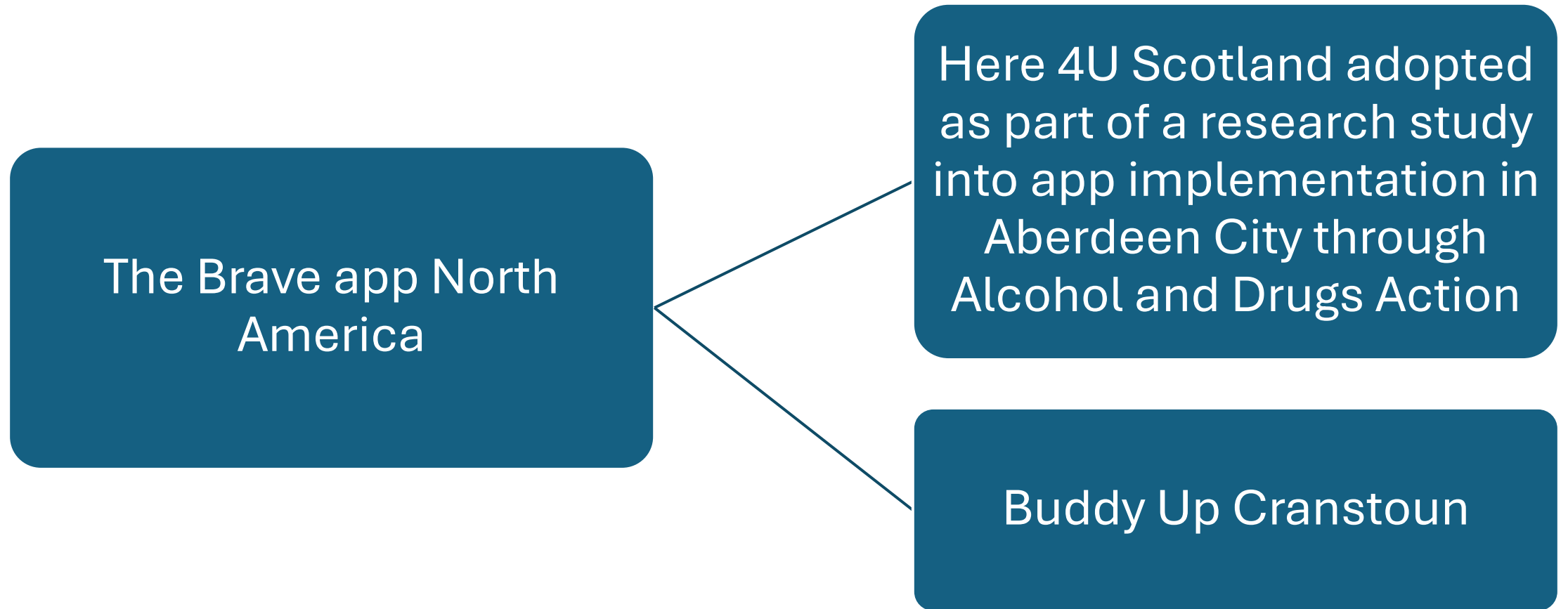
Information (10)

Interaction and support (10)

Connecting naloxone carriers with people with opiate users (3)



Remote Supervision and Responder app



The Brave app



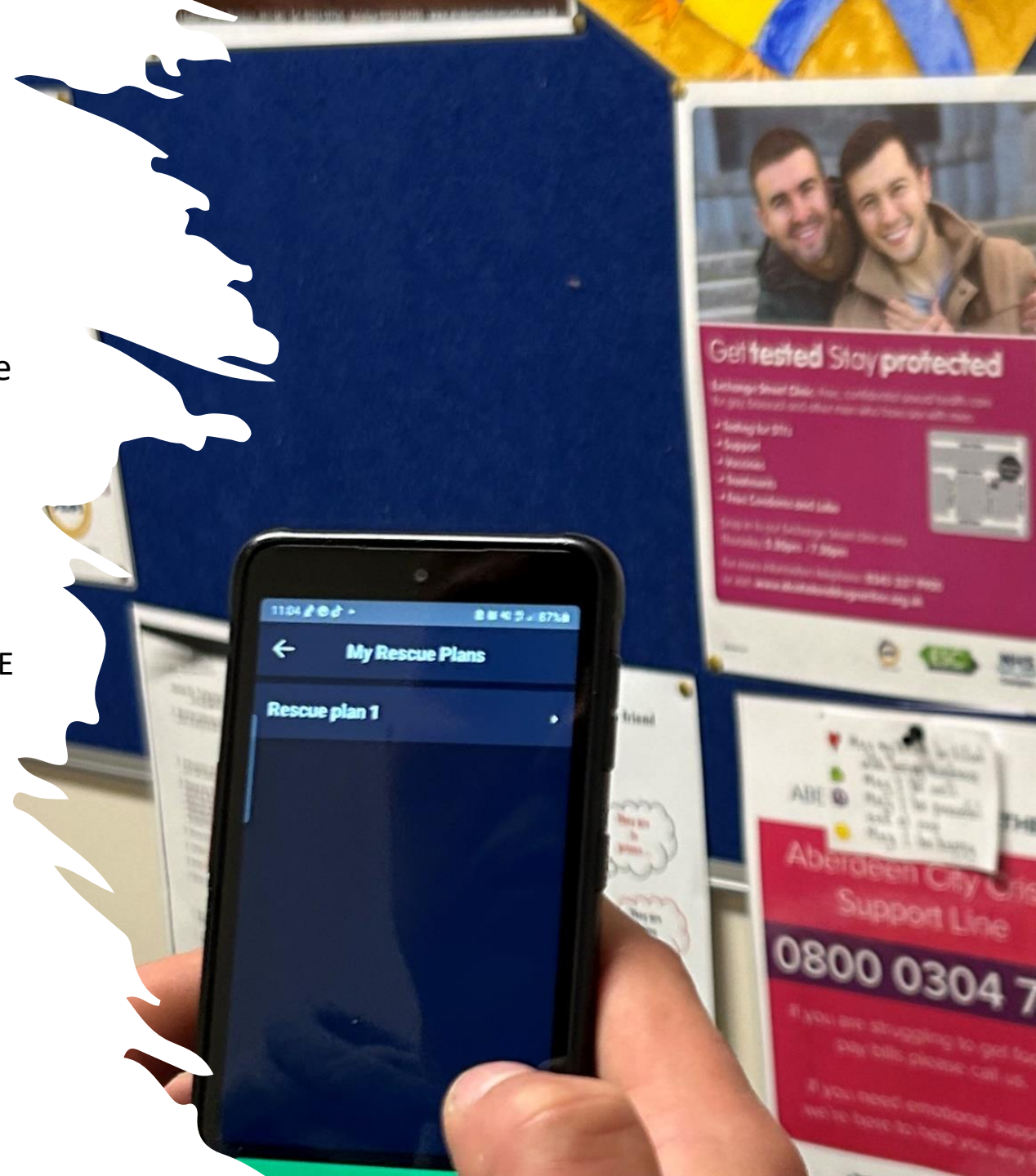
- Co-design methodology
- Preventing overdose death when using drugs alone
- Person (PWUD) centred design
- Could provide a supporter for 24/7 *
- Create a pool of supporters (informal carers)



BE THE DIFFERENCE

App specification

- Smartphone app, free download.
- Provide free, anonymous, and non-judgmental remote advice and supervision for users during drug use.
- Establish a point of harm reduction interaction to build credibility and trust.
- Users press a button to connect with supporters by voice.
- Develop a rescue plans and remain on calls until risk passes.
 - Who to call eg neighbour, where to find naloxone or phone A&E
- Backup supporters if disconnected.
- Notify unresponsive users before mobilizing emergency responders.
- Straightforward supporter training focused on saving lives.



Aims of the project

1. Adopt the app – hosted by ADA Aberdeen a respected and established local harm reduction and support service.
2. Examine the impact of virtual supervised consumption on those using drugs and on those providing support.
3. Evaluate the possibilities for evolving and adapting the app and service to expand digital solutions to reduce DRDs.
4. Investigate the potential to increase the appetite for service users to interact digitally with services and each other.



Research Methodology

Evaluation following the TPOM framework
(Technology, People, Organisation and Macro-
environment)

Interviews

Callers (n=10)

Supporters (n= 7)

Stakeholders (n= 4)

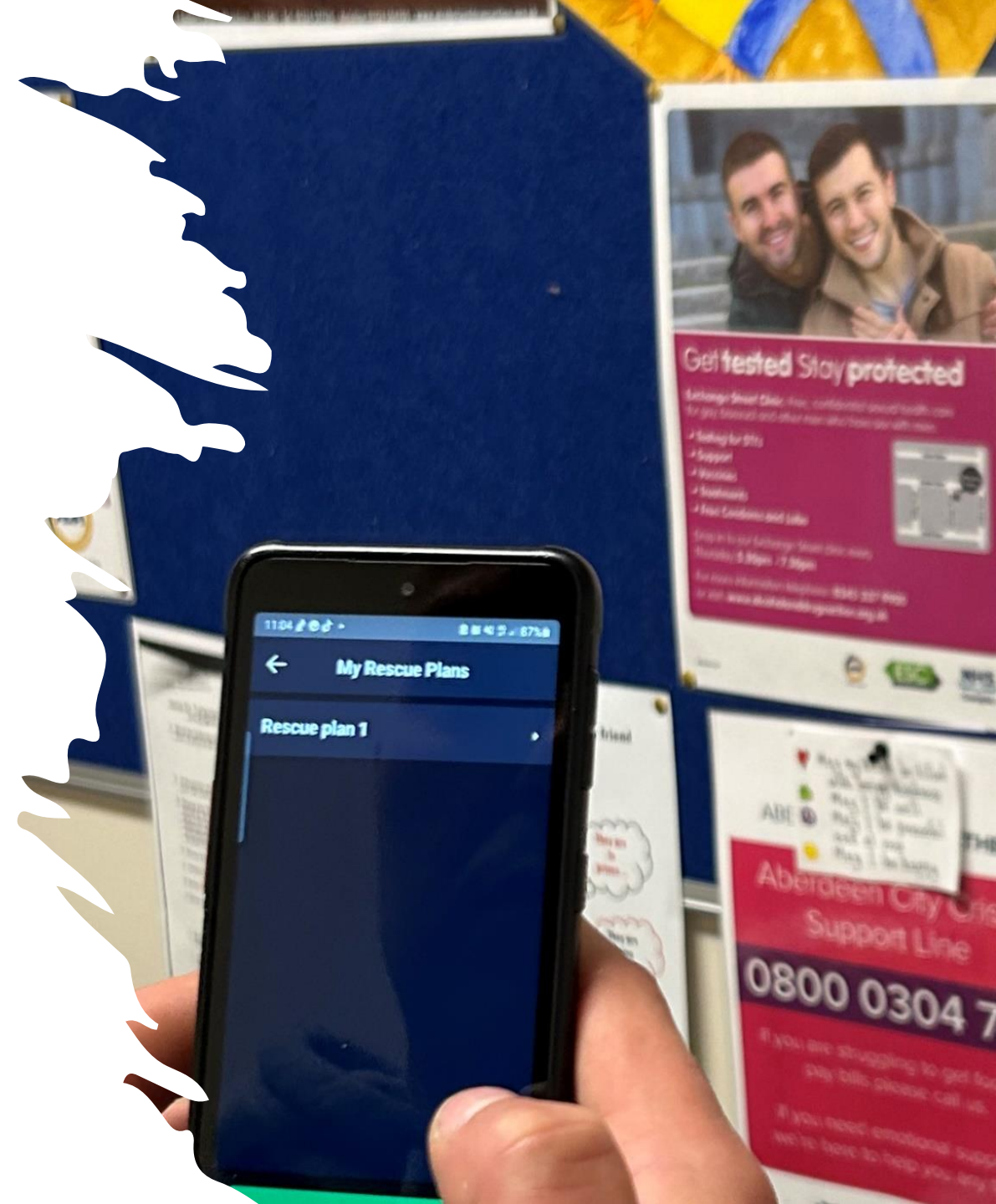
Focus groups

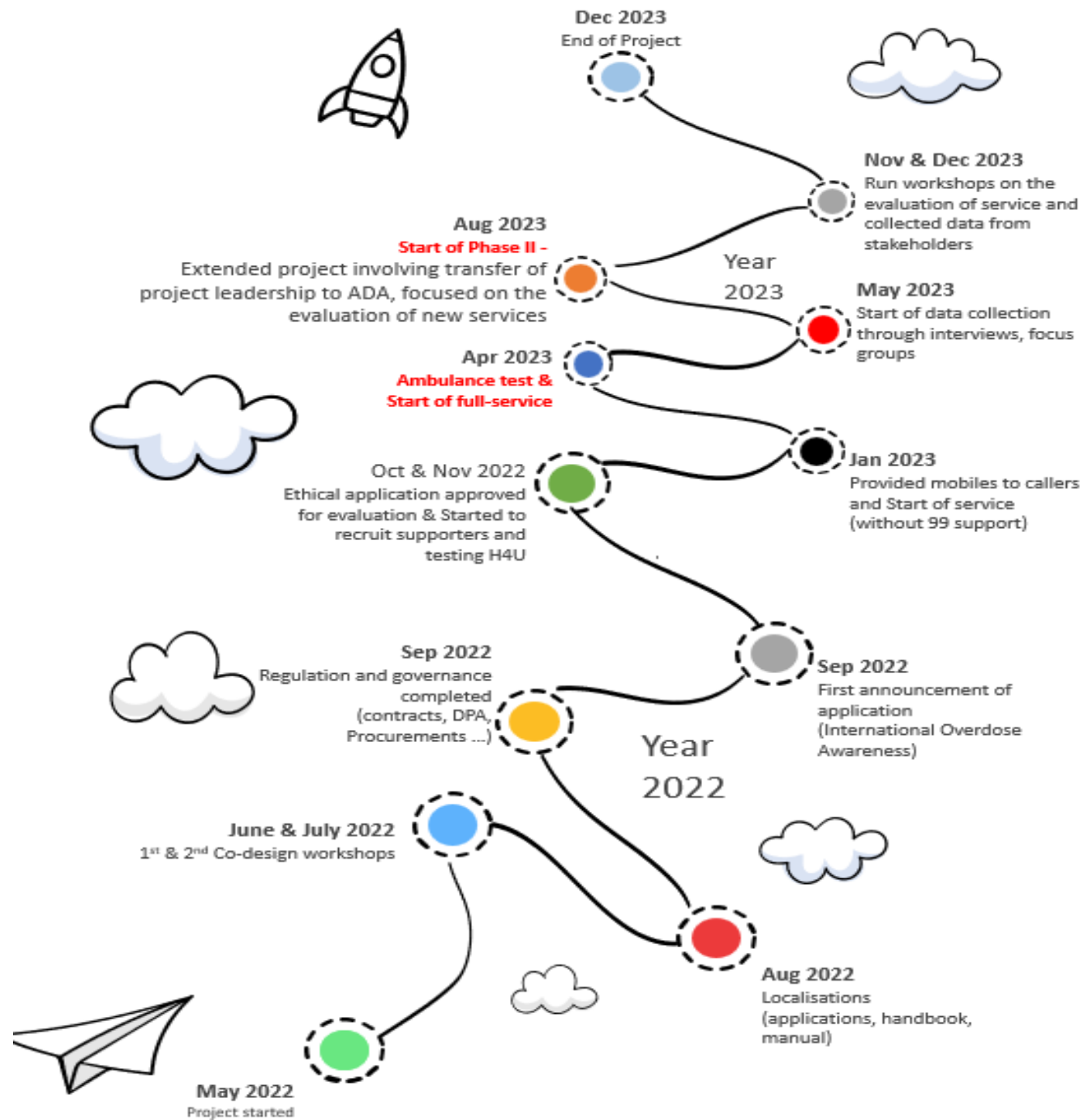
Stakeholders (n=5)

Supporter (n=3)

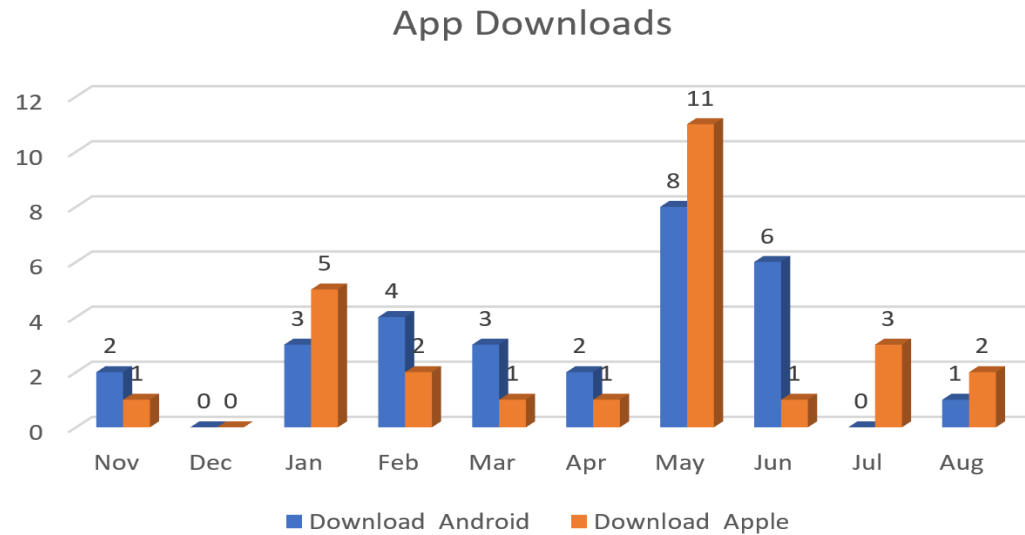
In total 29 people contributed

Interviews considered: usability and acceptability of technology,
the personal aspect of using technology to interact with
supporters, and the impact on organisations and the broader
macro-environment





Downloads and Calls



- ✓ From January to August 2023, 19 ADA service users were provided with smartphones
- ✓ A total of 74 calls were logged
- ✓ No rescue plans needed/ no emergency calls
- ✓ Easy setup with the app was widely reported, although connectivity to Wi-Fi or data and location issues occurred
- ✓ The app provides convenient access to support. Satisfaction and relationships were strengthened between limited users and supporters.

Key Findings

Stakeholders (commissioners, police, ambulance)

Enthusiastic about digital expansion more generally but noted resource constraints and lack of 24/7 availability currently.

Users

- Valued privacy, relationships, safety, convenience, and mental health support
- Concerns about data sharing, digital literacy, and lack of 24/7 access were raised.

Supporters

- lacked visual assessment capability
- Specialist training and recruitment needs anticipated.

Improvements suggested

- ✓ Enhanced features like **video calling**, and **drug alerts**;
- ✓ Ongoing funding, **dedicated staff needed**
- ✓ Strategies for expanding, **trust-building**
- ✓ Agency coordination on emergencies

Recommendations 1

- 1. Co-design and User-Centric Approach**
- 2. Accessibility and Availability**
 - Aim for 24-hour availability and expand app functionality.
- 3. Sustainability Model and Resource Allocation**
 - Seek increased support and funding for dedicated personnel.
 - Consider volunteer supporters to reduce costs.
- 4. User Training and Support**
 - Provide comprehensive face-to-face and online training.
 - Showcase success stories and statistics to encourage app usage.
- 5. Improvement and Innovation for User Onboarding**
 - Promote the app through innovative marketing strategies.
 - Consider nationwide coverage for increased user adoption.
- 6. Continuous Improvement and Innovation**
 - Actively seek and implement user feedback.
 - Explore advanced messaging capabilities related to harm reduction.

Recommendations 2

7. Safety Alerts and Notifications

8. Cultivate Trust and Relationships

9. Community Engagement

10. Safety Planning and Public Protection

11. Evaluate and Adapt

12. Effective Communication and Collaboration

13. Open to a Wider Audience

- Expand outreach to younger individuals and diverse drug user groups.
- Tailor app features to address specific user demographics.

14. Support the Callers

- Offer additional technology support to users, particularly those with program phones.

15. Utilise Informal Supporters

Towards Digital Transformation... Where have we got to?

New service was not sustained because

- New service did not integrate with current non digital practice
- Service user's had limited digital literacy
- Training was insufficient for service users and providers
- No ongoing resource to sustain it
- Catch 22 – need sufficient supporters for 24/7 service and need 24/7 service to maximise use and reach

What have we learned?

- Cultural change needed in organisations to adopt technology (some staff had reservations)
- Limited time and resources for the implementation of change
- Using an app requires adopting new behaviours and these need to be integrated into drug using habits...



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Contact for more info:

h.daneshvar@napier.ac.uk

Catriona.Matheson@stir.ac.uk



Brave

**Digital
Lifelines**



**DIGITAL
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DRNS
DRUGS RESEARCH
NETWORK SCOTLAND

The ODART Project

Overdose Detection, Alert & Response Technologies