

Centre for Digital Transformation of Health University of Melbourne

*Optimising RPMs in Australia
Dr Olivia Metcalf*



Drug development process

Discovery and development

Pre-clinical research
Animal testing, safety assessment

Clinical Research
Phase I-IV
clinical trials

Review by government
regulatory agency
TGA, FDA review

Post-marketing safety
monitoring



Digital health innovation process

Discovery and development

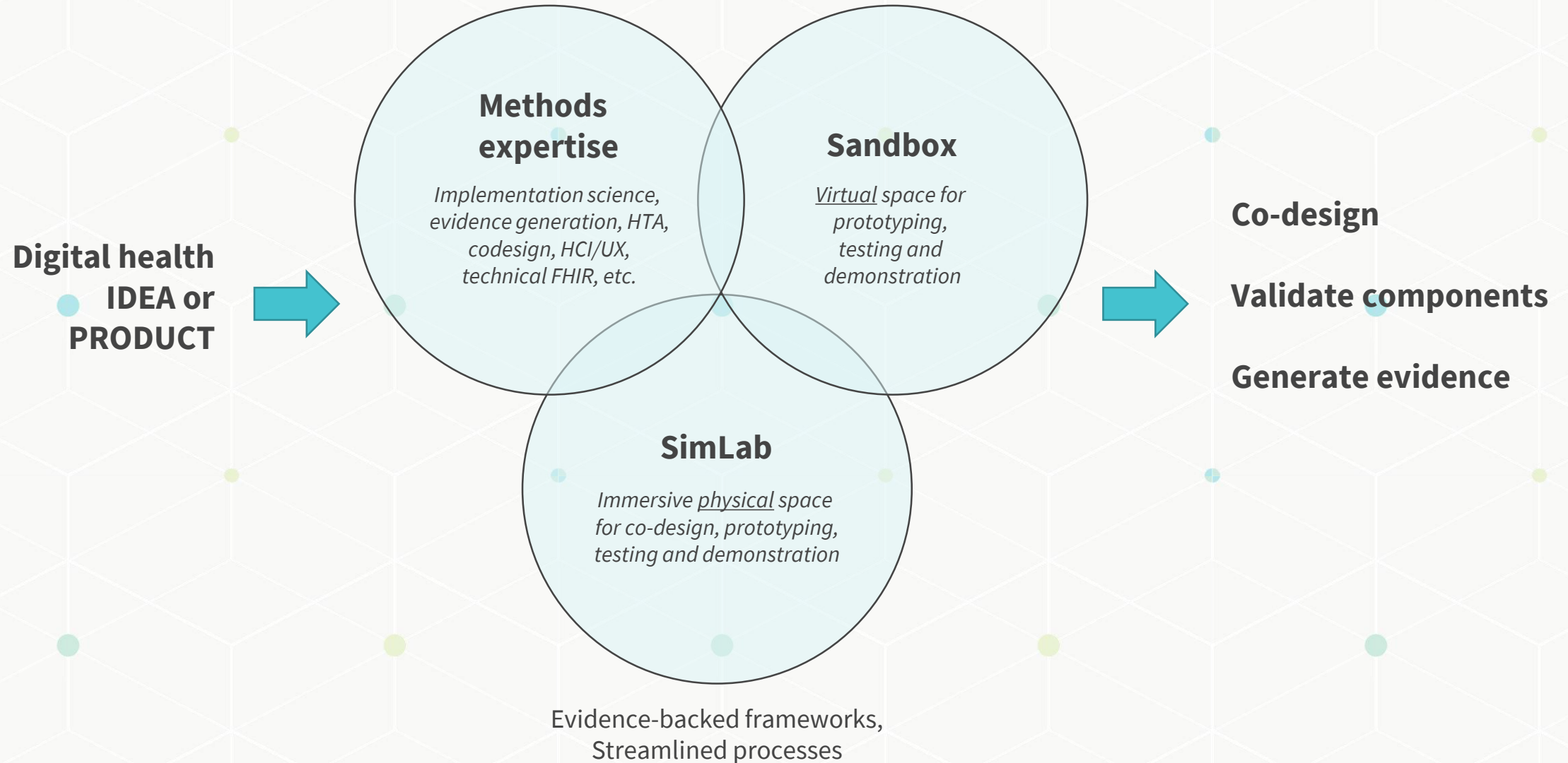


Review by government
regulatory agency

Post-marketing safety
monitoring

There is a gap in developing and implementing digital health innovations such as RPM

Validitron: A research platform for supporting the development of digital health products, focussing on implementability, workflow integration and evidence generation.





 Validitron



*Who are the users?
Who are the stakeholders?*

How and where can clinical information generated by this innovation best be used?

How can the usability, acceptability and safety of this innovation be optimised (for realistic clinical scenarios)?

What training, implementation and/or change processes are required?

What is the state of evidence for this innovation area?

What would a model of care built around this innovation look like?

Exploration

Design and prototyping

Development and Validation

Evaluation

What is a feasible payment model for this innovation?

What is needed to promote engagement and sustained, meaningful use?

What outcomes evidence is needed by payers and for compliance?

What regulatory frameworks will it need to operate within?



Validitron

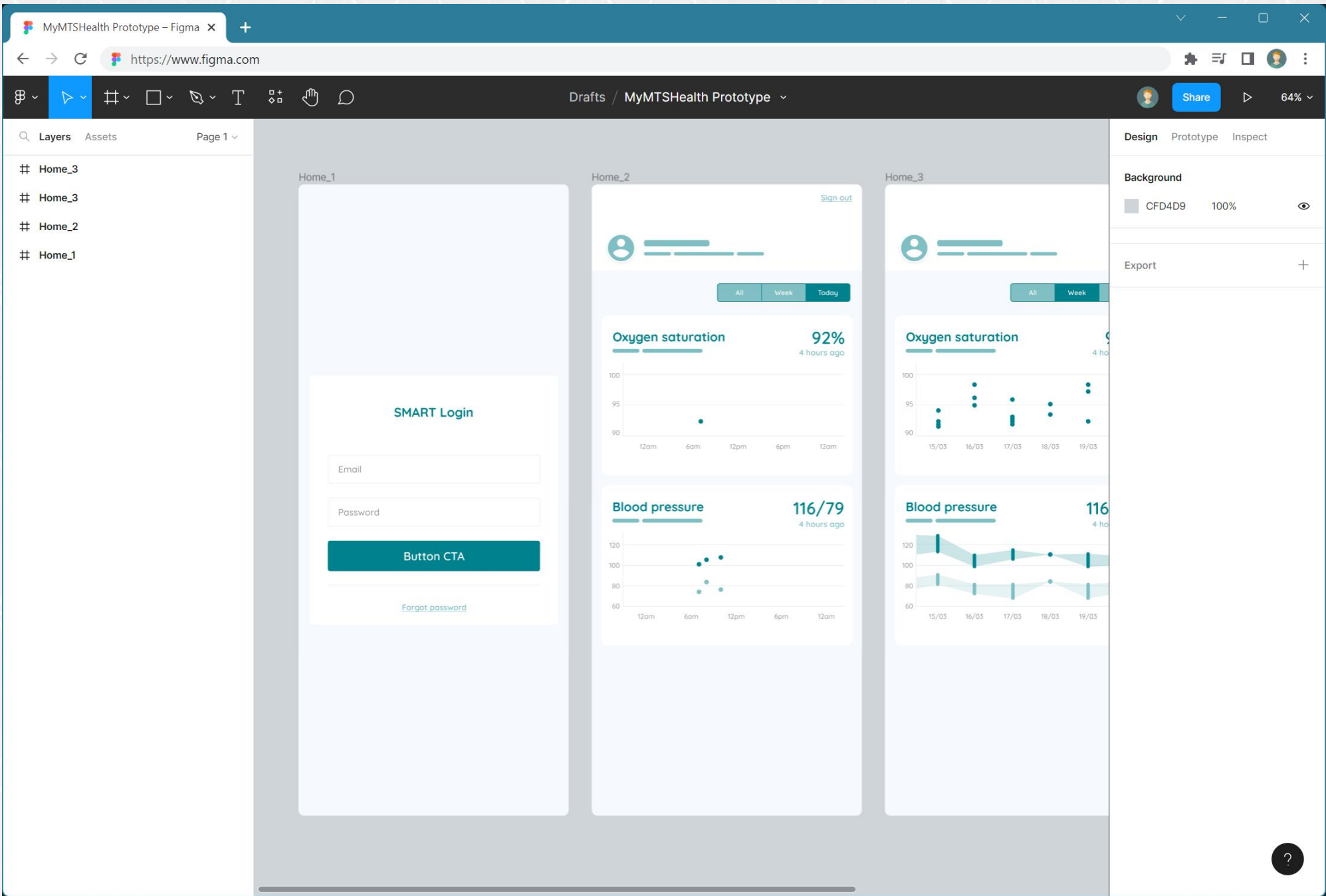
How can automated digital/behavioural data collection enable outcomes/experience measurement?





Virtual environment that flexibly combines both **real** and **simulated** infrastructure and clinical information systems like LEGO® bricks.

How can we rapidly develop, test, and optimise
RPM programs?

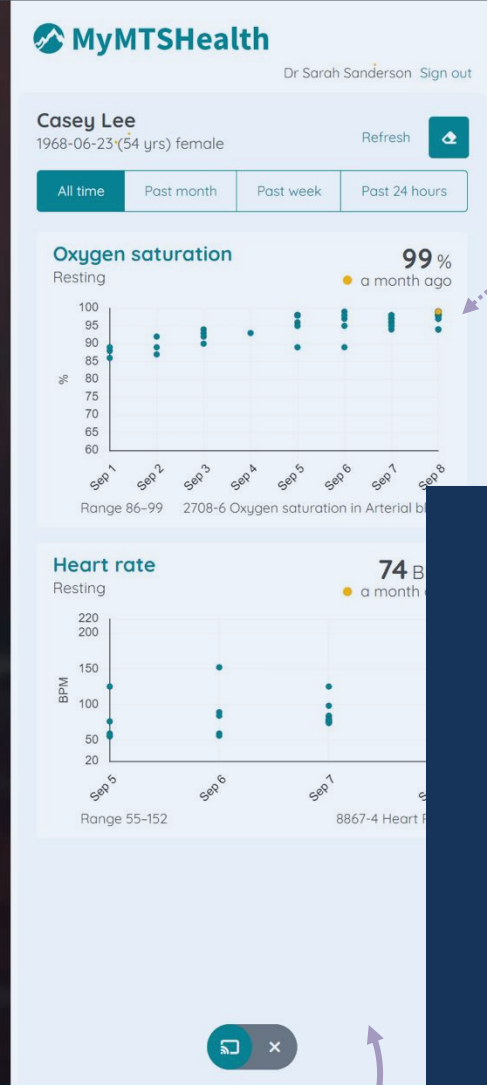


Virtual Doctor

Casey Lee (1968-06-23, 54 yrs, female)



Clinician view



SMART-enabled telehealth client

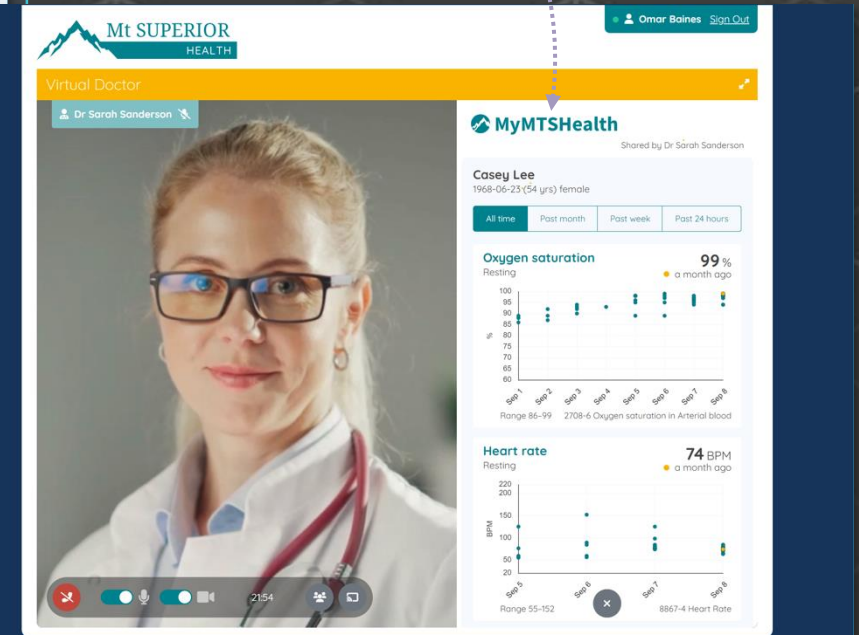
SMART-on-FHIR remote monitoring app add-in

Validitron Sandbox
SMART-enabled telehealth client



SMARTSync – seamlessly share add-in views between call participants

Patient view



RUNNING ON VALIDITRON SANDBOX



How can we support remote and regional health services with innovation in RPM?

DELIVER

DELIVER is a five year, \$9 million research project funded through the Australian Commonwealth Government Medical Research Future Fund, led by Western Alliance Academic Health Science Centre and the Deakin University Institute for Health Transformation

DELIVER brings together, for the first time, healthcare consumers, regional and rural health services, peak bodies, universities and primary healthcare providers across western Victoria to achieve better healthcare closer to home



Validitron is being leveraged by:

- Rapid evidence assessments to inform healthcare partners
- Co-designing RPM programs to meet their unique needs
- Improving data flow collected in current RPMs
- Evaluating current programs
- Implementing learnings across the health care system
- Reviewing and advising on models of care that are required
- Advocating for reimbursement models

Challenges

1. From an ethical and legal perspective, we have gaps around data collected in an individual's home environment
2. Reimbursement models for these methods of healthcare in Australia leads to ceilings in implementation and scaling
3. There is no community of practice around virtual care innovation across Australia