Harnessing the power of data and AI to create new diagnostic and therapeutic paradigms

How software-based technologies can change the game for patients

Data & Analytics in Healthcare, Melbourne

Wednesday 13 March 2024

ANDHealth®
Australia's National Digital Health Initiative

Dee Dinneen

Director – CHICC, ANDHealth

OVERVIEW

- Introduction to ANDHealth

- Insights into Australia's Digital Health Sector

- Data and AI products that are changing the game for patients

- Data and AI products that are shifting the paradigm

- Learnings for evaluating AI in healthcare

- Future paradigm shifts?

- Visit us at CHICC

ANDHEALTH

Australia's Digital Health Commercialisation Engine Room

ANDHEALTH

Our purpose is to accelerate the commercialisation of evidence-based digital health technologies in Australia.

Australia's leading provider of digital health commercialisation support and funding

Specialised technology identification, assessment and commercialisation acceleration capabilities

Manager of Australia's largest non-dilutive investment fund specifically for digital health companies

Proven outcomes across diverse growth metrics

Female-founded, female-led and founder focused

"I applaud the work that ANDHealth is undertaking. I congratulate ANDHealth on its significant achievements ... including your work to secure investment to accelerate investment in Australian digital health companies."

- The Honorable Mark Butler MP, Minister for Health and Aged Care

*"[ANDHealth] surfaced high quality companies of potential interest, many of which were not already on our radar. **Overall, this was by a distance the most effective international deal flow day we have participated in globally."***

- LARGE US CORPORATE VC

INDUSTRY-LED COOPERATIVE COMMERCIALISATION

ANDHealth's unique industry-led model facilitates business investment into digital health product development and commercialisation

ANDHealth is supported by the Australian Government Department of Health and Aged Care under the Medical Research Future Fund Early Stage Translation and Commercialisation Support Program

Australian Government
Department of Health and Aged Care

Medical Research
Future Fund

CORE PARTNERS

murdoch children's research institute

Planet Innovation

Roche

T Health

RMIT UNIVERSITY

curve

HPM Executive Search & Selection

healthxl

PROGRAM PARTNERS

BRANDON BIOCATALYST

Australian Government
Department of Health
Therapeutic Goods Administration

MTP Connect
MedTech and Pharma Growth Centre

REDi DEVELOPING AUSTRALIA'S MTP SECTOR WORKFORCE
Powered by MTPConnect

aws activate

VICTORIA State Government

launchvic

NSW GOVERNMENT

cicada INNOVATIONS

GOVERNMENT OF WESTERN AUSTRALIA | NEW INDUSTRIES WA

WA Life Sciences Innovation Hub

INTERNATIONAL PARTNERS

ChicagoARC

Elevance Health

DIGITAL THERAPEUTICS ALLIANCE

DiME DIGITAL MEDICINE SOCIETY

ECOSYSTEM PARTNERS

HEALTH ROUNDTABLE

AIDH AUSTRALASIAN INSTITUTE OF DIGITAL HEALTH

BioMelbourne Network
Progressing BioIndustry

MTAA Medical Technology ASSOCIATION OF AUSTRALIA

MSIA MEDICAL SOFTWARE INDUSTRY ASSOCIATION

AusBiotech
AUSTRALIA'S BIOTECHNOLOGY ORGANISATION

informa

MEDTECH ACTUATOR

modern RISK SOLUTIONS

intelliHQ

Talking HealthTech

ANDHEALTH ACTIVITIES

ANDHealth currently has three core areas of activity focused on achieving our purpose of accelerating the commercialisation and growth of Australian digital health companies.

Industry Growth, Development & Advocacy

- Leading Industry Database >850 companies
- Policy support & advocacy (State & Federal)
- Events, international outreach and promotion
- Industry outreach lead for TGA SaMD Regulation

Investment Readiness, Commercialisation Education & Skills Development

- Proprietary education and accelerator programs
- National & International Executives in Residence
- Targeted training & commercialisation support

Non-Dilutive Investment Programs

- Professional Investment Management for Public Funding (MRFF)
- Partnership with Australia's largest healthcare VC Firm, Brandon Capital (Digital & Connected Health Specialist)

The Highlights Reel: ANDHealth+

Gross Economic Value	$4.2 of gross economic value (driven by employment) for every $1 of ANDHealth+ Investment*
Capital	$19.7 of capital raised for every $1 of ANDHealth+ Investment
New Jobs	56 new jobs created for every $1m of ANDHealth+ Investment
Intl. launches	4.1 international market launches per $1m of ANDHealth+ investment
Revenue	$6.7 of revenue earnt for every $1 of ANDHealth+ Investment
Clinical trials	9 clinical trials commenced for every $1m of ANDHealth+ Investment
Patients served	87 patients impacted for every $1k of ANDHealth+ Investment

LEK™

CHANGING THE GAME FOR PATIENTS

Exemplar products with data analytics, ML and AI as primary technology focus

SOUND SCOUTS

Overview

Game-based hearing screening application

Harnessing the power of data

Strong published evidence base: Data collected to intelligibility-equalize the stimuli, establish normative performance and evaluate the sensitivity with which Sound Scouts detected known hearing problems and identifies their type

Progress and maturity

- TGA Class I Medical Device, transitioning to Class IIa in line with SaMD requirements

- Has significant traction in the Australian Education market, previously funded by Australian Department of Health, Hearing Australia and NSW Health.

- Recently completed development of a clinical diagnostic tool for Auditory Processing Disorder for multiple markets.

- Currently using data insights to modify our existing software to be better suited to the aged care market.

Product

VAXAPP

Overview

VaxApp is an immunisation management platform used by Public Health Services, pharmacies and workplace health service providers to improve access and uptake of vaccinations.
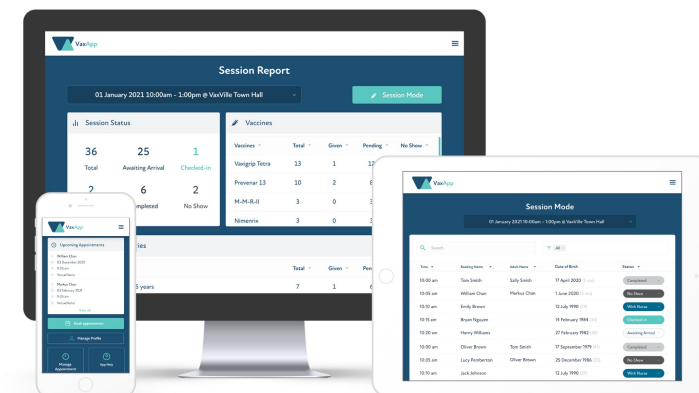
Harnessing the power of data

Integrations enabling actionable insights:

- Australian Immunisation Register (AIR)
- Vaccine inventory and stocktake
- Clinic availability and bookings etc.

Progress and maturity

- Developed the world's first immunisation Eligibility Engine to automate what vaccines a patient is eligible to receive, with life-time reminders.

- Implementation of the eligibility engine increased vaccine uptake:

  - for Chickenpox by 180%, Whooping Cough by 270% and flu vaccination uptake 25% at the City of Melbourne

  - for Meningoccacal B by 100% for indigenous community at City of Greater Bendigo

- ANDHealth is supporting VaxApp to expand the Immunisation Eligibility Engine into catch up programs (for those who have fallen behind in vaccinations and new migrants/refugees) and travel vaccinations

- VaxApp is planning NZ, UK & Ireland expansion in late 2024

Product

SHIFTING THE PARADIGM

Exemplar products with data analytics, ML and AI as primary technology focus

BAYMATOB

Overview

An AI-powered wearable 'Oli' which aims to create a digital platform for early warning in maternal health.

The first planned capability is to predict post-partum haemorrhage before birth, enabling early intervention.

Shifting the paradigm

Completely novel. ML training data generated by the device.

Progress and maturity

- Baymatob has completed a PoC study, animal studies, and a 150 patient Pilot study.

- The completed Oli Pilot has been used to train the ML algorithm.

- Has received FDA Breakthrough device designation for early-warning for PPH.

- Approval pathway is FDA de novo.

Product

LIFE WHISPERER BY PRESAGEN

Overview

AI enhanced fertility: AI image assessment of embryos for their likelihood of success in IVF allowing embryologists to select the most viable embryos

Shifting the paradigm

AI open projects collaboration model

Progress and maturity

- Strong published evidence base for Life Whisperer Viability AI

- Global distribution partnership with FUJIFILM Irvine Scientific

- AI Open project in progress: Endometrial Receptivity from static endometrial ultrasound images

Product

LEARNINGS FOR EVALUATING AI IN HEALTHCARE
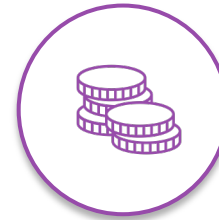
ANDHEALTH'S COMPANY ASSESSMENT MATRIX

- Each time a company engages with ANDHealth through our programs, events and office hours our team assesses the company across the following categories to determine their stage of development.

Market & traction

Commercial potential

Path to revenue model

Technology maturity

Capital raised

Regulation

Clinical evidence

IMPORTANT ADDITIONS FOR EVALUATING AI

Clinical evidence

Clinical evidence

- Generalisability
- Relevant performance metrics
- Evaluation design: retrospective vs prospective evidence

Technological maturity

Technology maturity

- Product development
  - o Volume of training data
  - o Quality of training data
  - o Relevance of training data to clinical use case and ML task
- Deployment and monitoring
  - o Integration maturity
    - ▪ Performance shift and drift

LOOKING TO THE FUTURE

What paradigm shifts can we expect in the future?

Visit us at CHICC

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