Health

Unleashing the power of data: Transforming insights into actions

Health

Acknowledgement of Country

Telstra Health acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging and extend that respect to all Aboriginal and Torres Strait Islander Peoples.

Speaker introductions

Louise Ryves is the General Manager of Ecosystem at Telstra Health and leads initiatives that drive and enhance the organisation's ecosystem of innovative solutions, platforms and services.

Starting her career as an actuary, Louise applies her skills in actuarial science, financial modelling and valuation to her extensive experience in management roles in data science and AI, and health and technology companies to leverage innovative solutions to improve patient outcomes and shape the future of healthcare.

Dr Charmaine Tam is a Senior Consultant at Telstra Health and provides extensive expertise in data and insights capability following 15 years of working in research, academia and healthcare delivery organisations.

Prior to joining Telstra Health, she led a clinical analytics team liberating Electronic Medical Record (EMR) data for providing feedback on quality and safety.

Dr Tam has published >50 peer reviewed articles and presented at >100 national/international conferences. Dr Tam is passionate about the better use of routinely collected data for creating insights and actionable knowledge to improve health outcomes and health system efficiency.

Purpose

We work to improve lives through digitally-enabled care for our community.

Vision

To realise a connected and improved digital health experience for all.

1,500+
STAFF

15
LOCATIONS

across Australia and the UK – and expanding across North America, Asia, the Middle East and Europe

Supporting the NHS as a leader in healthcare data and insight – our metrics have been adopted as global standards in healthcare

The majority of Aboriginal Medical Services (AMSs) use our **Communicare** platform

Australia's largest technology provider in residential aged care covering
60,000+ **beds**

We are supporting the Australian Government's goal to improve screening rates and reduce preventable cancer deaths via our National Cancer Screening Register.

80
million consultations enabled in primary care software platforms annually

Our secure messaging solution supports

5,800
healthcare organisations

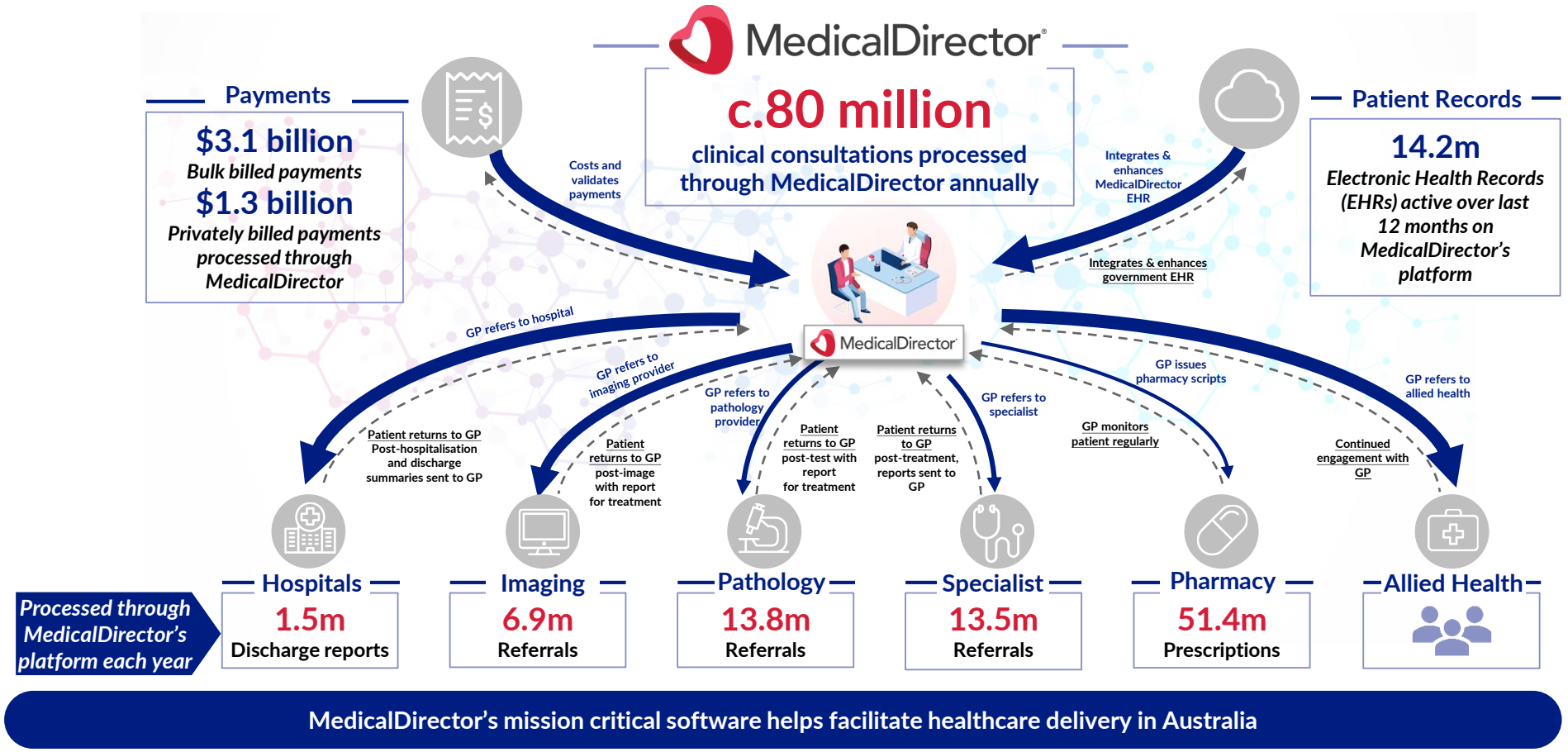
6.2m+
secure messages per year

500+
public & private hospitals
across Australia utilise our digital health solutions

Securely managing the records of
16m+
Australians

Distributing
12m+
items of correspondence to participants and health professionals

Example: MedicalDirector is the leading healthcare technology platform in primary care



The Telstra Health “Ecosystem” provides connections across 6 product sets

Patient engagement

Clinical communications

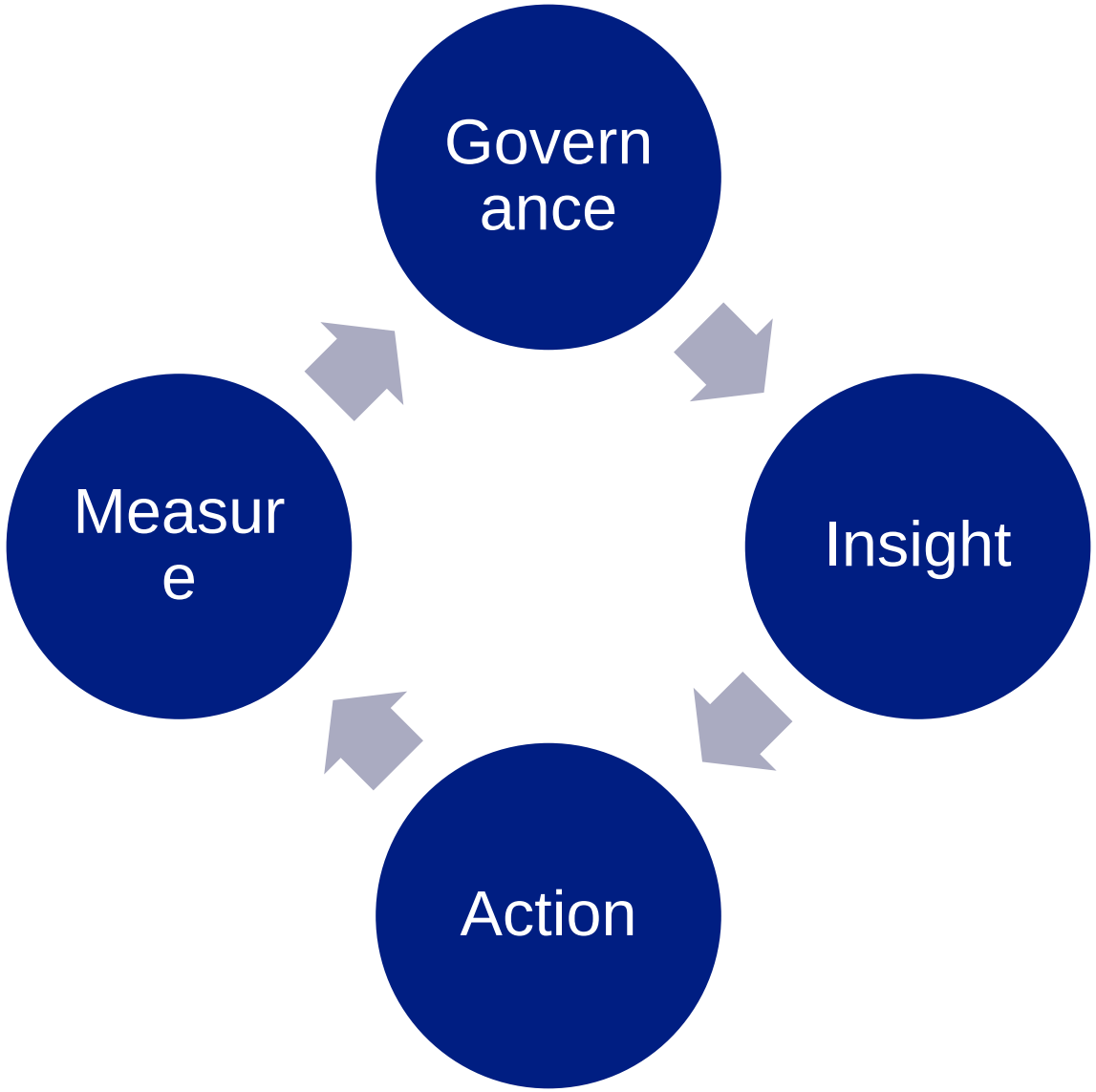
Visual dashboards and patient recall

Clinical trials and health programs

Clinical education

Aggregated insights and research

Framework for unleashing the power of health data



Internal data and clinical governance units drive decision making conducting projects

Governance

Integrity

We must uphold the social license that our clinician customers and the public instil in us

We must cause no harm to our clinician customers, their relationship with their patients
(and their communities) as well as the general public

Any use of data adheres to the relevant legislative, regulatory and governance requirements

Our policies will be updated to continuously meet community expectation as to the use and management of information

Safety

We adopt the 'five safes' framework for managing risk related to use and disclosure of information

We do not access personal or sensitive information and take steps to address re-identification risk

No single cell of any output will be provided to a third party where the underlying data is in respect of less than 10 patients, or patients from less than 3 practices

Control

We believe strongly in allowing individuals the ability to control access and use of information where it relates to themselves or their patients

Clinicians actively consent to participate in deidentified, aggregated data- based insight projects

We allow the facility for individual patients to have data related to themselves removed from any analysis

Utility

Projects must satisfy a requirement to be in the best interests of providing better quality medicine or advancing health outcomes

We will never enter into any agreement to use insight and analysis to individually target a patient outside of a clinical consultation

Analysis provided to our clients is subject to use strictly for the purposes outlined in contracts and is not to be used for any secondary purpose

All clinical decision support content must:

- Have a strong, defensible clinical rationale for raising awareness
- Be non-advertorial, be informative and educational and adhere to applicable standards and codes (such as the Medicines Australia's Code of Conduct)
- Should not include any branding with respect to a therapeutic product or the manufacturer (or any other organisation other than those that may be listed in references)
- Should include quality references where relevant
- Include appropriate targeting such that it is only directed to patients considered very relevant to the decision support content
- Be reviewed and approved by relevant stakeholders including our Chief Medical Officer to ensure the above

Transparency

Our privacy policy is made publicly available to clinicians and the broader community

We seek to obtain permission to make some form of output from aggregated data-based insight projects made available to consenting clinicians

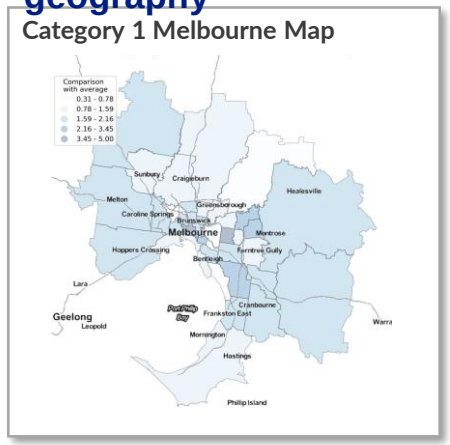
Using consented data pools to unlock insight on populations of interest

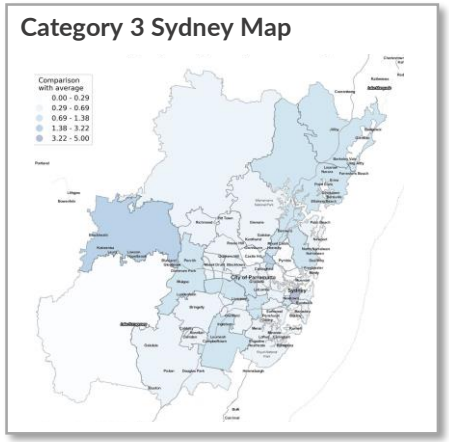
Insight

Identifying comorbidities across cohorts of categorised patient populations

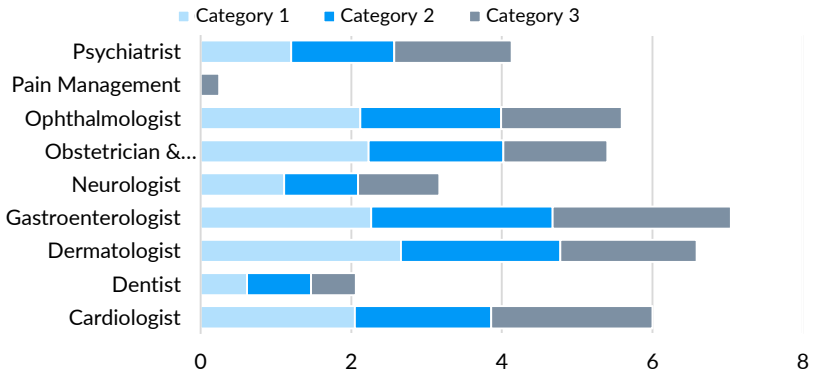
	Anxiety	Insomnia	Depression	Mental Health	Parasitosis	COPD	Stoke	Dental	STI	Infection of skin	Malnutrition	Blood pressure	Headache	Bacterial infection	Fingal infection	Nutritional deficiency	Viral infection	Breast infection
Category 1	0.62	2	2.4	0.36	2.2	0.3	0.5	0.67	2.6	0.58	1.4	0.9	0.85	1.3	1.2	0.94	0.59	1.6
Category 2	8	4.8	4.9	2.6	2.2	2.5	0.4	2.1	1.6	1.1	1.3	1.2	0.83	1.1	0.96	0.85	0.54	0.37
Category 3	8	7	7.9	3.1	2.3	2.8	1	2.1	1.4	1.1	0.77	0.97	0.83	0.68	0.57	0.75	0.37	0.3
Category 4	1.4	2.6	0	0.46	0	0	0	0.8	0	0.84	0.76	0.27	0.78	0.4	0.44	0	0.78	0
Category 5	8	5.5	3.4	4.3	3.6	4	5.7	3.4	1.7	1.3	0.8	1.2	1.2	0.97	0.98	0.77	0.4	0.13
Category 6	8	5.5	3.4	4.3	3.6	4	5.7	3.4	1.7	1.3	0.8	1.2	1.2	0.97	0.98	0.77	0.4	0.13

Heatmaps to identify specific care needs by geography

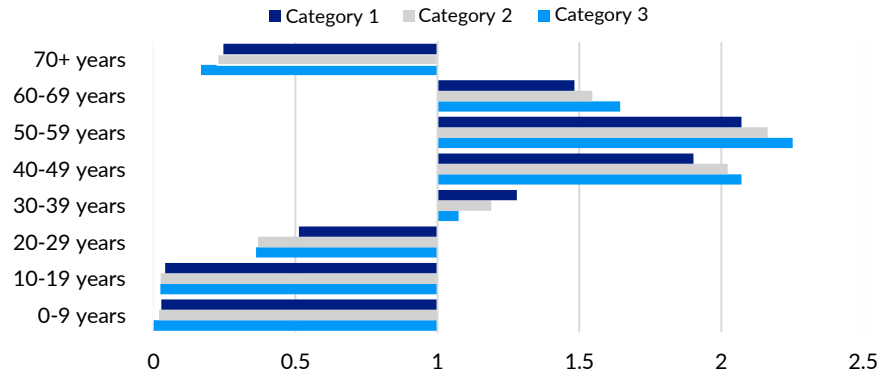




Investigating correlations of condition incidence on patient referral pathways



Identifying at-risk patient demographics



Sophisticated algorithms can then support targeted clinical decision making

Action

Prompt Content

Your patient could be at high risk of chronic Hepatitis C, and may need further investigation and treatment

If left untreated, chronic Hepatitis C (HCV) infection can lead to liver cirrhosis, liver failure, hepatocellular cancer and even death.

HCV Infection is curable. Many patients are successfully managed by thier GP.

You can now treat using medications known as direct-acting antiviral (DAA) therapies, which are highly effective (up to 95% cure rate[1]) and well tolerated[1].

Your patient appears to have a history of IV drug use. In Australia, 80% of HCV infection is contracted via injecting drug use

Recommended next step: Conduct a Hepatitis C Ab test.
If HCV Ab positive: order HCV RNA test.

- If HCV RNA positive your patient is eligible for HCV treatment

Click here for treatment guidelines

Click here for pangenotypic medication options

Alternatively, consider referral to a specialist.

References

1. Strasser 2017 Managing hepatitis C in general practice (v0.1)

Did you find this relevant? Yes / No

Prompt Trigger Criteria

Criteria:

Patients having the following criteria:

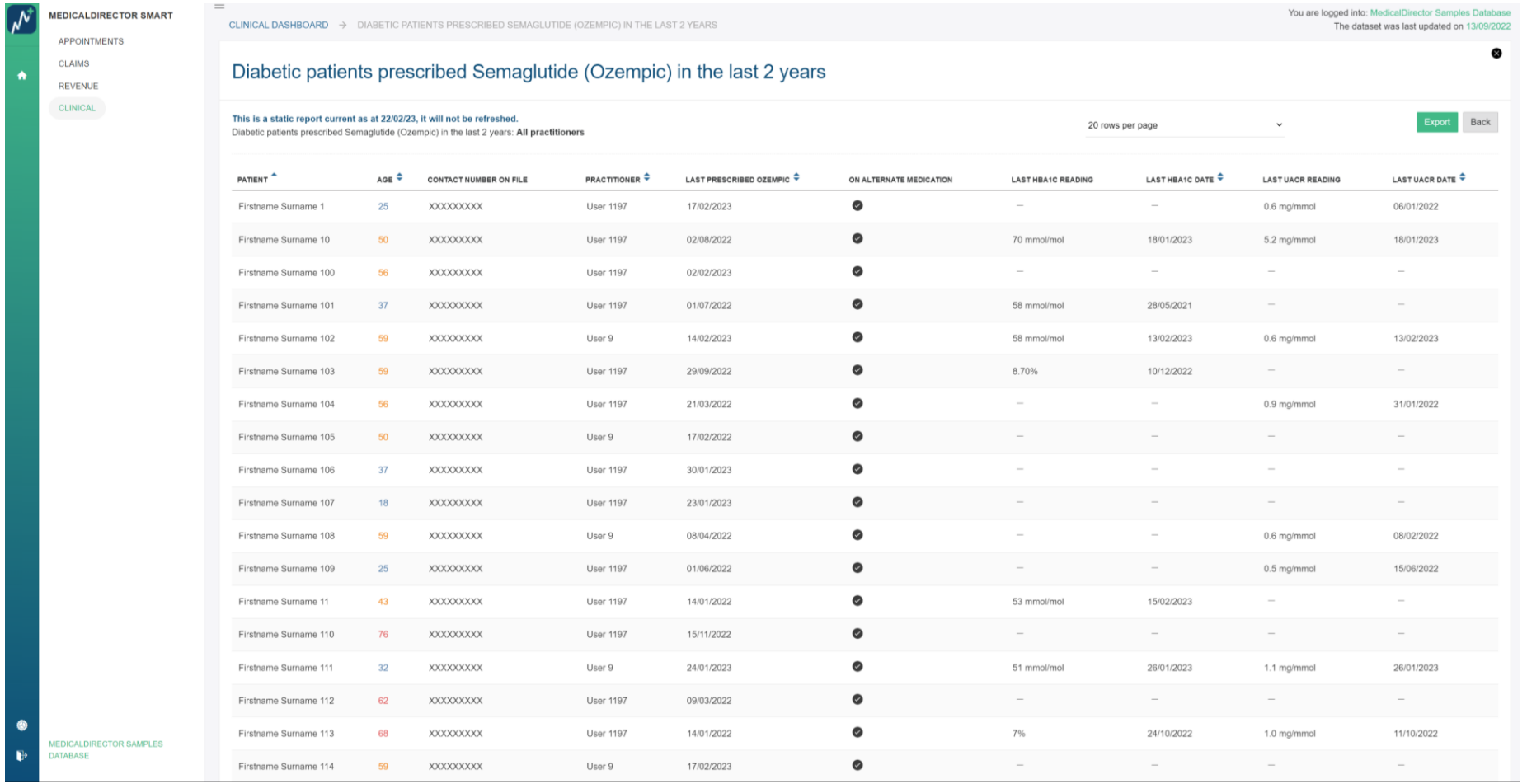
Patient has a reason for visit of Injecting drug user/Intravenous drug abuse in the last 10 years AND
Patient has no history of diagnosis of Hepatitis C or Hep C tests AND
Patient has not been prescribed any HCV medications ever

Prompt description and action: If history of injecting, then complete reflex testing.

Prompt should be displayed ONCE per patient

Or to generate intelligent patient lists for recall into practice to support proactive patient management

Action



PATIENT	AGE	CONTACT NUMBER ON FILE	PRACTITIONER	LAST PRESCRIBED OZEMPIC	ON ALTERNATE MEDICATION	LAST HBA1C READING	LAST HBA1C DATE	LAST UACR READING	LAST UACR DATE
Firstname Surname 1	25	XXXXXXXXX	User 1197	17/02/2023	✓	–	–	0.6 mg/mmol	06/01/2022
Firstname Surname 10	50	XXXXXXXXX	User 1197	02/08/2022	✓	70 mmol/mol	18/01/2023	5.2 mg/mmol	18/01/2023
Firstname Surname 100	56	XXXXXXXXX	User 1197	02/02/2023	✓	–	–	–	–
Firstname Surname 101	37	XXXXXXXXX	User 1197	01/07/2022	✓	58 mmol/mol	28/05/2021	–	–
Firstname Surname 102	59	XXXXXXXXX	User 9	14/02/2023	✓	58 mmol/mol	13/02/2023	0.6 mg/mmol	13/02/2023
Firstname Surname 103	59	XXXXXXXXX	User 1197	29/09/2022	✓	8.70%	10/12/2022	–	–
Firstname Surname 104	56	XXXXXXXXX	User 1197	21/03/2022	✓	–	–	0.9 mg/mmol	31/01/2022
Firstname Surname 105	50	XXXXXXXXX	User 9	17/02/2022	✓	–	–	–	–
Firstname Surname 106	37	XXXXXXXXX	User 1197	30/01/2023	✓	–	–	–	–
Firstname Surname 107	18	XXXXXXXXX	User 1197	23/01/2023	✓	–	–	–	–
Firstname Surname 108	59	XXXXXXXXX	User 9	08/04/2022	✓	–	–	0.6 mg/mmol	08/02/2022
Firstname Surname 109	25	XXXXXXXXX	User 1197	01/06/2022	✓	–	–	0.5 mg/mmol	15/06/2022
Firstname Surname 11	43	XXXXXXXXX	User 1197	14/01/2022	✓	53 mmol/mol	15/02/2023	–	–
Firstname Surname 110	76	XXXXXXXXX	User 1197	15/11/2022	✓	–	–	–	–
Firstname Surname 111	32	XXXXXXXXX	User 9	24/01/2023	✓	51 mmol/mol	26/01/2023	1.1 mg/mmol	26/01/2023
Firstname Surname 112	62	XXXXXXXXX	User 1197	09/03/2022	✓	–	–	–	–
Firstname Surname 113	68	XXXXXXXXX	User 1197	14/01/2022	✓	7%	24/10/2022	1.0 mg/mmol	11/10/2022
Firstname Surname 114	59	XXXXXXXXX	User 9	17/02/2023	✓	–	–	–	–

Sophisticated algorithms can then support targeted clinical decision making

Measure

Overall, decision support conducted through our platforms leads to a clinician being ~3x more likely to conduct desired behaviour than a control group

In the Hepatitis C case study, compared to a control group of GPs who didn't receive decision support, GPs were

- ~4x more likely to order a relevant patient a pathology test
- ~3x more likely to refer relevant patients to a specialist for treatment
- ~2x more likely to prescribe Hepatitis C medications themselves

For the diabetes supply shortage use case, 42% of affected patients were put back on their medication within

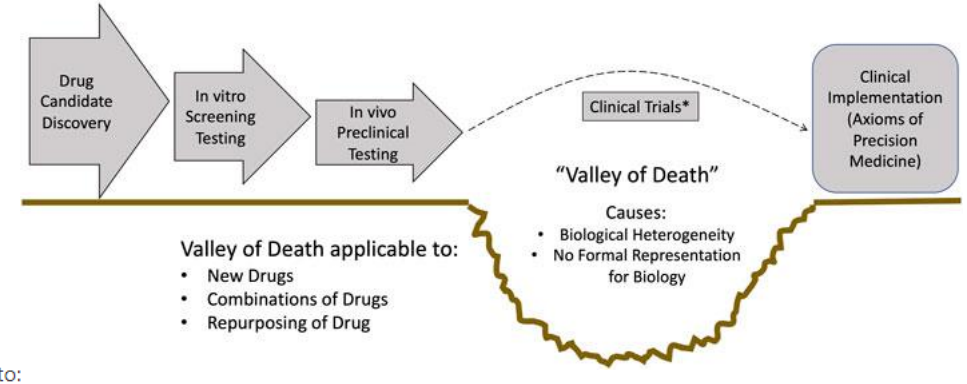
6 weeks

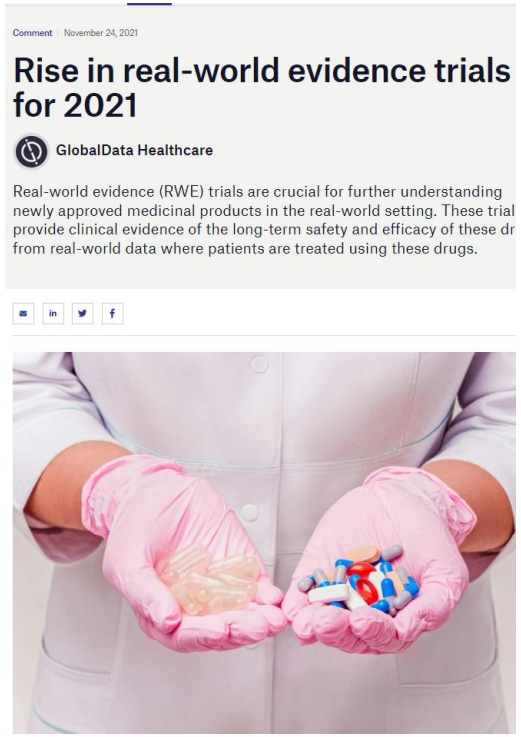
Opportunities for leveraging platforms for use in clinical trials in primary care

Objectives

The objective of this initiative is to increase clinical trial activity in Australia to:

- improve the evidence base supporting clinical care
- help patients access trials relevant to their health circumstances
- enable researchers to bring international trials to Australian patients.





BMC Med Res Methodol. 2017; 17: 144.
Published online 2017 Sep 18. doi: 10.1186/s12874-017-0420-7
PMCID: PMC5604499
PMID: 28923013

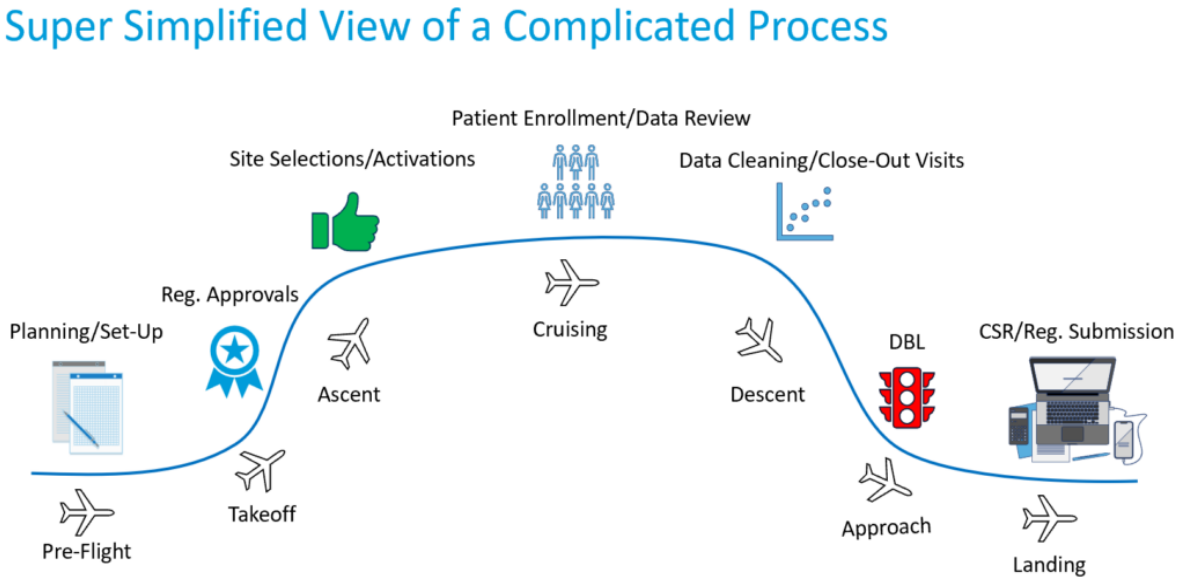
Pragmatic clinical trials embedded in healthcare systems: generalizable lessons from the NIH Collaboratory

Common challenges faced by organisations running clinical trials

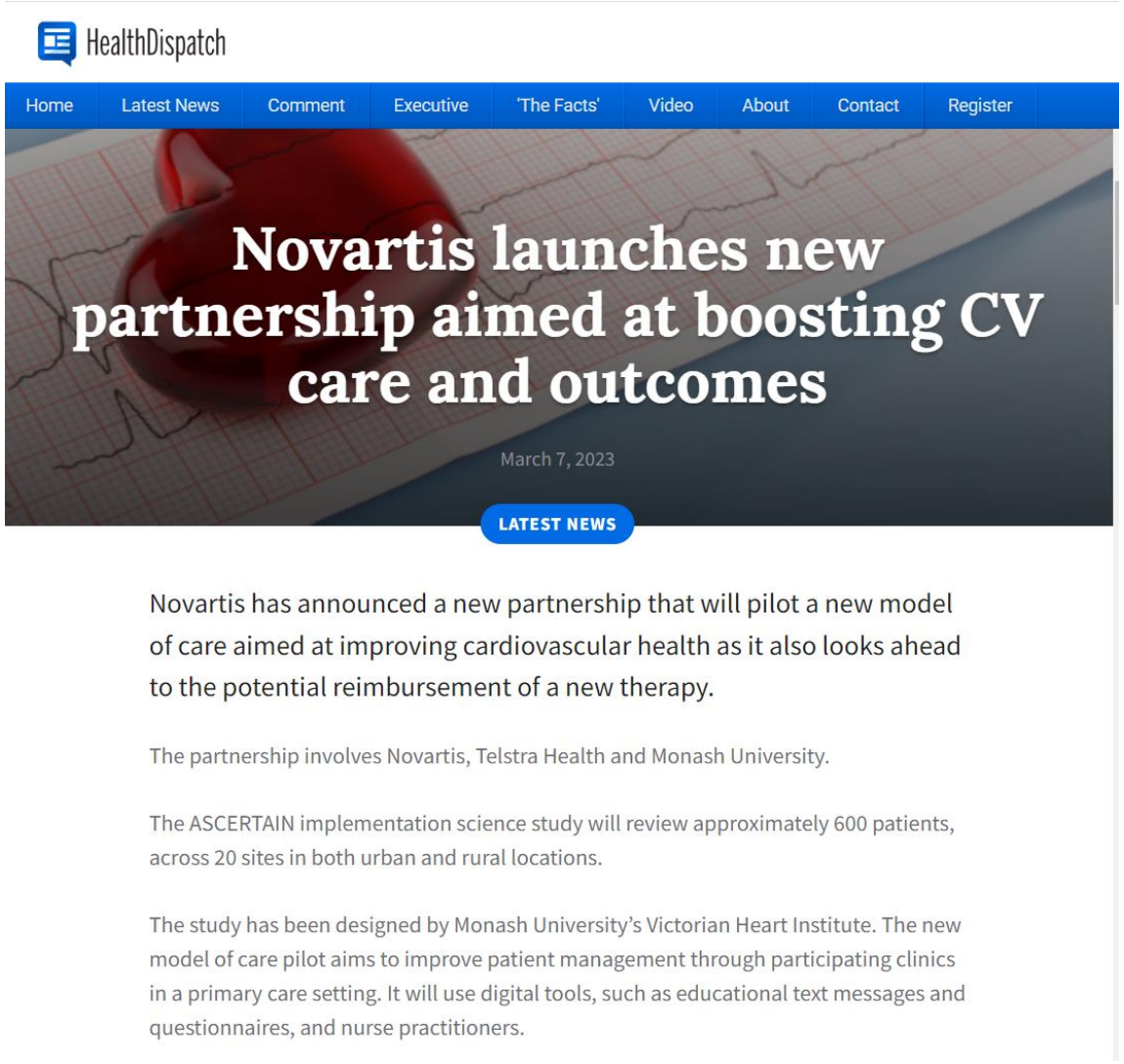
1) **Patient recruitment and retention and population diversity**
   - 80% of clinical trials fail to meet enrolment deadlines and up to 50% of research sites enrol 1 or none patients

2) **Increasing complexity of clinical trials**
   - Study designs that are acceptable to patients and funders with appropriate sample sizes

3) **Compliance with rules and regulations**
   - Lengthy ethics approval processes
   - Co-ordination between sites, partners and vendors
   - Requirements to use approved technology platforms for different functions (e.g. electronic data capture, electronic patient reported outcomes, etc)



Using clinical decision support to recruit practices and patients and existing clinical records for on-trial data capture



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Novartis launches new partnership aimed at boosting CV care and outcomes

March 7, 2023

LATEST NEWS

Novartis has announced a new partnership that will pilot a new model of care aimed at improving cardiovascular health as it also looks ahead to the potential reimbursement of a new therapy.

The partnership involves Novartis, Telstra Health and Monash University.

The ASCERTAIN implementation science study will review approximately 600 patients, across 20 sites in both urban and rural locations.

The study has been designed by Monash University's Victorian Heart Institute. The new model of care pilot aims to improve patient management through participating clinics in a primary care setting. It will use digital tools, such as educational text messages and questionnaires, and nurse practitioners.

ASCERTAIN trial design

2-arm multicentre cluster RCT to evaluate the implementation and utility of a new model of care for LDL-C management

P: 600 patients attending primary care physicians for treatment of ASCVD or with risk factors of ASCVD or currently being treated with statins/ezetimibe

I: *New model of care* (as per usual care + protocol-driven management of the patient's lipids + monthly SMS nudges + inclirisan)

C: *Usual care* (single episode of education to GP on current guideline-directed management + optional inclirsan)

O: %Change in LDL-C from baseline to day 180

1. **Practice** recruitment
2. **Patient** recruitment

3. De-identified data extracts

Visits	Day 1	Day 90	Day 180	Day 270	Day 365
Usual Care arm + Inclisiran	Usual care as described above according to the GP investigators preference. Inclisiran made available for GP use)				
Model of Care + Inclisiran arm	Stepwise titration as per GDMT + Monthly SMS nudges + Inclisiran dosing as per label 1. Patient registration for monthly nudges as SMSs 2. Educating GPs on GDMT				

In partnership with Monash University

Health

Contact *ecosystem.solutions@medicaldirector.com* for further information