### Sparked Webinar

Sparked

October 2024

Acknowledgement of Country



### We acknowledge the Traditional Custodians of the land on which we all gather today.

We pay our respect to elders past, present, and emerging and extend our respect to all Aboriginal and/or Torres Strait Islander people, acknowledging the First Peoples as the first scientists, educators and healers.



# Agenda



Time	Торіс	Presenter/Facilitator
12.00 – 12.05pm	Welcome & introduction	Michael Hosking
12.05 – 12.10pm	Perspective: Patient Summary	Shaun Francis (Royal Flying Doctors Service)
12.10 – 12.15pm	Perspective: Chronic Disease Management	Jackie O'Connor (Allied Health Professions Australia)
12.15 – 12.20pm	Perspective: Reason for Encounter Perspective	Averil Tam (Silverchain)
12.20 – 12.25pm	Perspective: Reason for Encounter Perspective	Michael Frost (Australian Institute of Health and Welfare)
12.25 – 12.35pm	eRequesting Perspectives	David Willock (Royal College of Pathologists of Australasia) Carmen Wong (Royal Australian and New Zealand College of Radiologists)
12.35 – 12.45pm	September Workshop Update AUCDI R2 Scope update	Kylynn Loi Michael Hosking
12.45 – 1.00pm	Q&A and Close	Michael Hosking





### Webinar objectives



To provide a snapshot of the different perspectives from the September workshop in Brisbane informing our work on AUCDI R2



To provide an update of the workshop findings



To encourage you to join the CDG to work on the detailed models and next steps for AUCDI R2







### COMMUNITY

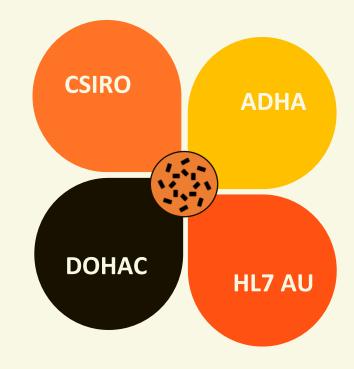
comprising government, technology partners, provider organisations, peak bodies, practitioners, and domain experts



### ACCELERATING

the creation and use of national FHIR standards in health care information exchange See sparked.csiro.au

Sparked is supported through a partnership







# September Clinical Design Group workshop

# Face to Face

- 120+ people
- Scope AUCDI R2
  - Driven by
    - Patient Summary
    - Chronic Disease
       Management
    - Reason for Encounter
  - Understand use cases and current landscape
  - Understanding data requirements
- Explore national catalogues for pathology and radiology requesting





# September 2024 Clinical Design Group Objectives

Identifying scope for Australian Patient Summary Release 1 (AU PS R1)



Discussing the use cases of Reason For Encounter information



Identifying the data groups required to support real-time shared care planning and chronic disease management



Building the workplan for AUCDI R2



Exploring the national terminology catalogues for pathology and radiology requesting





### Shaun Francis Royal Flying Doctors Service

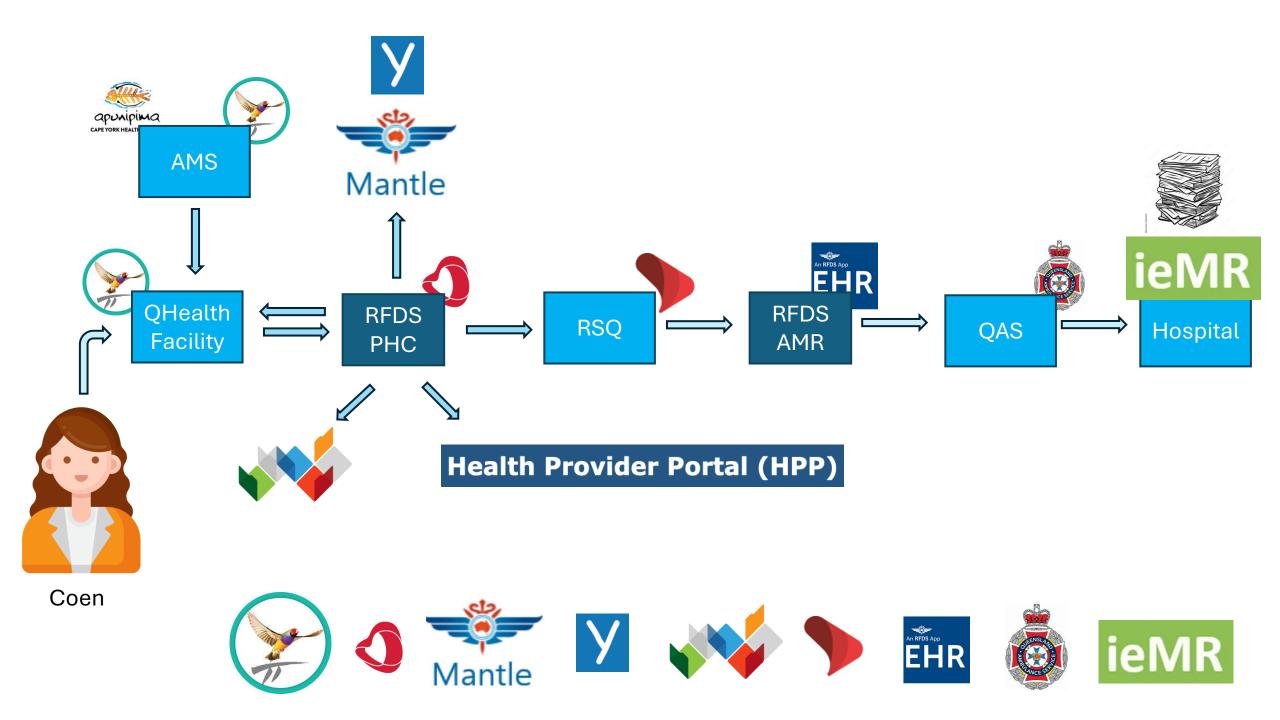




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AVE





ral Flying Doctor Service

VH-FDZ

# **Royal Flying Doctor Service**

QUEENSLAND SECTION



### Jackie O'Connor Allied Health Professions Australia



# Chronic Disease Management & Allied Health Professionals

Jackie O'Connor – Digital Health Program Manager

### **AHPA Ordinary Members**





# Who is the audience?

- Medicare funded CDM plans = 15 of 39 professions
- System additions:
  - Community health, Aboriginal medical health services,

compensable schemes, imaging requests

- Broad workflows = nuanced communication
- Inefficiencies limit sharing beyond referrers and mandates



# **Receipt and delivery**

- MHR not fit for purpose
- GP's to AHP = fax
- Email + or password
- Secure messaging
- EMR/CIS
- Snail mail



# **Information shared**

- Referrals received and reports provided in response
- Aged care plans = little to no input
- Medicare CDM requirements met
- 3<sup>rd</sup> party insurers = outcome measure results and guided assessment forms
- Details = practitioner discretion = enormous data diversity



# **Challenges & Opportunities**

CHALLENGES	OPPORTUNITIES
Lack of information = clinical risk & costly delays	Limit delays in treatment provision & optimise outcomes Decrease costs for various stakeholders
Return communication not addressed	Increased levels of coordinated care and understanding of decisions made
Limited care plans produced	Increased use and communication of information
Accuracy & currency concerns Language interpretation difficulties Siloed information remains	One easy to interpret source of truth
Potentially conflicting goals with limited opportunity for consumer vs practitioner differentiation	1 set holistic goals informed by consumer, aligned with treatment plans



# **Challenges & Opportunities**

CHALLENGES	OPPORTUNITIES
Loss of documents = delays & funding ineligibility	Accessible documentation
Privacy & security concerns	Ability for consumers to manage access
Confused consumers	Empowered consumers



### **Current state = not ok**

- System level data required:
  - Policy development
  - Fill research gaps
  - Informed choice
- Holistic data standards needed to make digital integration valuable to & viable for AHPs

Reason for Encounter Perspective

Averil Tam Silverchain



# Reason for Encounter – GP & Aged Care Perspective

Dr Averil Tam

GP & Clinical Advisor/SME for Electronic Care Record Project

2 October 2024

### **Current state**

### **Reason for Encounter**

- Consultation "heading" enables us to locate relevant encounters
- Usually a single value, sometimes blank
- Often likely diagnosis or symptom
- May be a procedure or intervention



### **Consultation framework** SOAP

- Subjective history including patient agenda
- Objective examination, investigations
- Assessment formulation, impression or issues/problem list
- Plan management including referrals



Subjective – history

- 70 year old female, attends alone
- 3 days of dysuria (discomfort when passing urine)
- 1 day of blood on wiping ?<u>haematuria</u> vs per vaginal bleeding
- Increasing urinary frequency on a background of chronic urinary frequency "it's been many years, doc"
- No fevers, no back pain
- Menopause at approximately 48 years
- Widowed
- Past medical history: diabetes, osteoarthritis, hypertension, gastro-oesophageal reflux, cataracts
- Medications: multiple, including empagliflozin



Subjective – patient agenda ie. ideas, concerns and expectations

- I have a <u>urinary tract infection</u> these symptoms are the same as my previous UTIs
- I'm leaving for a 2-week cruise tomorrow and **don't want to be rushing** to the toilet all the time
- I am expecting the GP to <u>stick test my urine</u> to prove there is an infection and prescribe me <u>antibiotics</u> which will cure the infection



### Objective – examination & bedside investigations

- Mobilised from waiting room unaided
- Alert, well but looks tired
- <u>Respiratory rate 16, blood pressure 130/80, heart rate 80, temperature 37.5°C</u>
- No peripheral oedema
- **<u>Abdomen</u>** soft, mild suprapubic tenderness, no renal angle tenderness
- <u>Vulva</u> no ulceration
- <u>**Urinalysis**</u> leukocytes +++, erythrocytes ++, ketones 0
- Urine MCS from 3 months ago E coli sensitive to trimethoprim





Assessment – impression, issues/problem list

- Likely diagnosis of <u>urinary tract infection (UTI)</u> vs <u>undifferentiated urinary symptoms</u>
- Additional diagnosis <u>poorly controlled diabetes</u>, <u>medication side effect</u>

- Differential diagnosis
  - <u>Acute pyelonephritis</u>
  - Renal stones
  - Herpes simplex virus
  - Sexually transmitted infection e.g. chlamydia, gonorrhoea, syphilis
  - Nephritic syndrome
  - Nephrotic syndrome
  - <u>Renal cell/urothelial cancer</u>
  - Vulval/cervical cancer
  - Atrophic vaginitis
  - Vulvovaginitis candidiasis, dermatitis

••• silverchain

Lichen sclerosus

#### **Investigations & Management**

- Investigations
  - Urine MCS
  - Fasting BGL, HbA1c
- Management
  - **<u>Bladder hygiene habits</u>** adequate hydration, wipe from front to back, avoid holding on, empty bladder fully
  - Antibiotics prescribed
  - Follow up on return from cruise
    - Optimise diabetes management
    - Consider urine ACR; urine cytology, CT IVP
    - Consider vaginal and cervical examination, HPV and LBC testing



### **Future state**

### **Reasons for Encounter**

- Doctor/provider agenda either
  - Presenting complaint/undifferentiated symptoms most likely diagnosis or primary symptom
  - Activity/procedures e.g. diabetes management, blood glucose check
- Patient agenda provider accountability
- Demonstrate value to the user
  - Clinical decision support
  - Billing
  - Other providers e.g. Reason for Encounter is documented in a referral to another provider the provider must address this



### It's never simple and straightforward

- John (Ethel's son) attends with Ethel support person's agenda (ideas, concerns and expectations)
- GP receives referral from community RN who is providing wound care via HCP/Support At Home
  - Carer stress
  - Elder abuse/safety concern
  - Memory impairment, uncertain decision-making capacity
- GP receives requests from residential aged care facility (RACF) staff
  - Medication orders and prescriptions
  - Psychotropic medication review



Reason for Encounter Perspective

Michael Frost Australian Institute of Health and Welfare (AIHW)



Australian Government

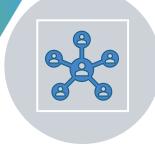
Australian Institute of Health and Welfare

# Reason for Encounter AIHW perspective

Michael Frost Group Head Primary Healthcare, Information Standards & Communications

Australian Institute of Health and Welfare

# Imagine a health system where...



PHNs have a complete and current understanding of access to and the utilisation of primary care services in their regions



GPs receive regular, relevant and meaningful information about the health of their patient cohort, and the quality of services they provide to patients



New policy initiatives such as Urgent Care Centres can be evaluated for their effectiveness as a by-product of routine clinical activity



Research teams have secure access to de-identified, linked data sets for advanced research projects...





### Trends making this vision achievable



Advances in digital health

Digital 'systems of record' more prevalent and more integrated Interoperability agenda (including the use of national identifiers)

# N

Advances in data management and analytics

Date extraction tools / capabilities Modern Data Analytics Platforms Machine learning and AI / LLM



Maturing of data linkage capabilities

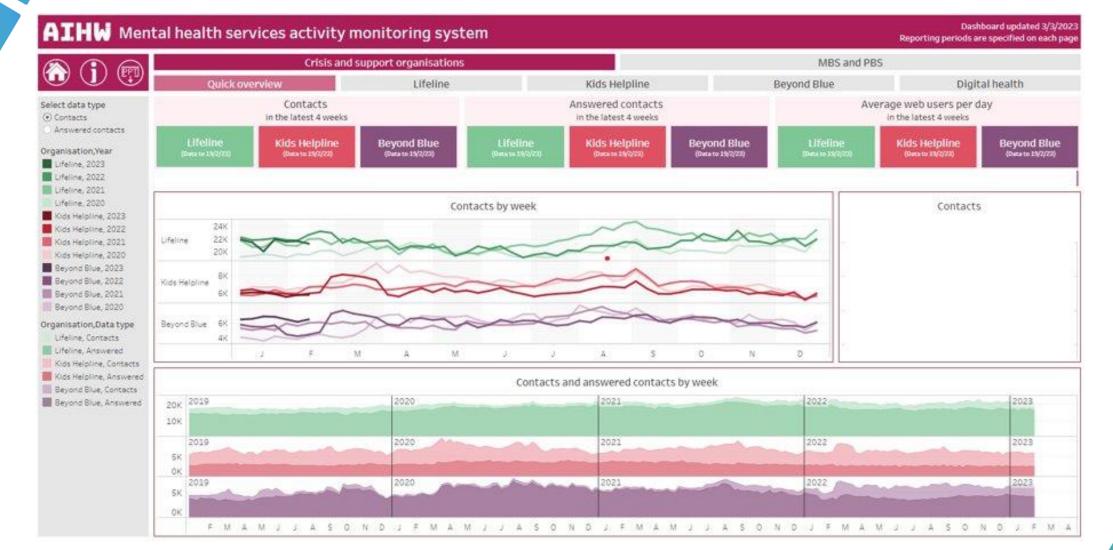


'Five Safes' and other contemporary data governance models



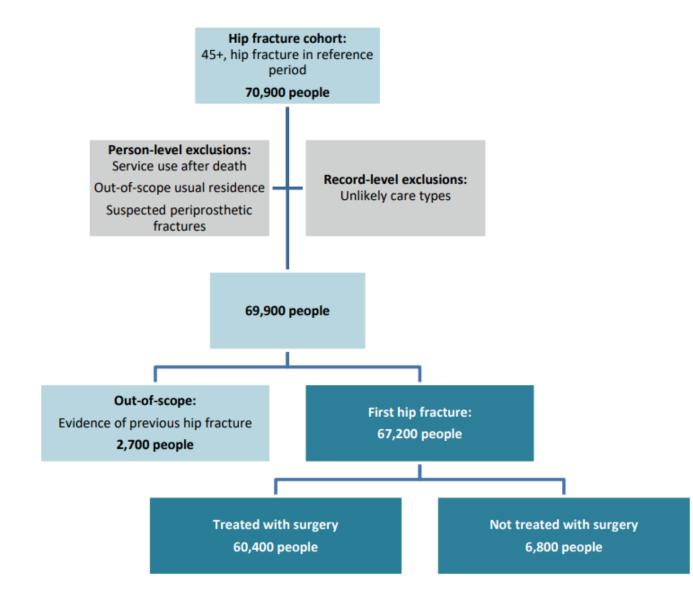


# MH SAMS – national view



AIHW

# Hip fracture care pathways

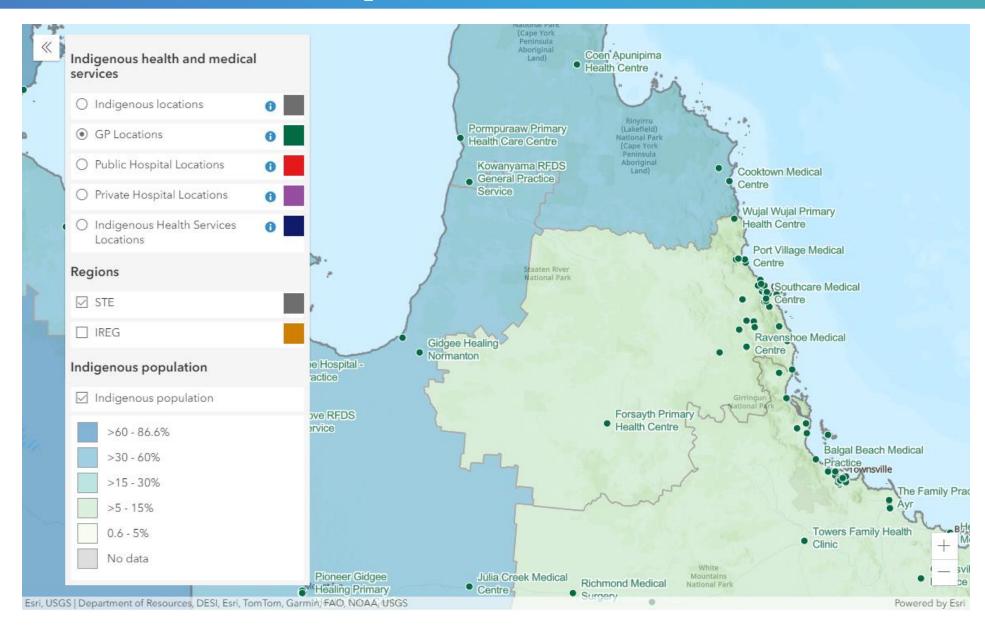






# **Services** Map

AIHW

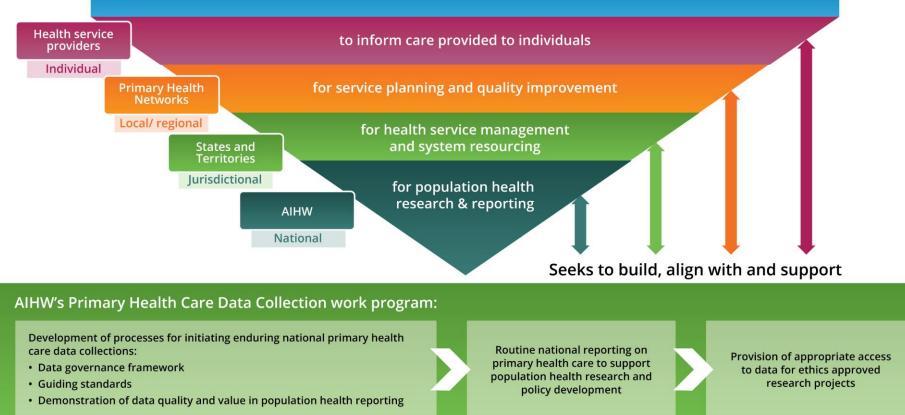




#### **Primary health care data development**

Primary health care data development as a national priority

#### Clinical and administrative data collected:





# What next?



A shared mental model and commitment from all stakeholders: Departments, PHNs, GPs, professional bodies, data analytics experts and agencies



Enabling data governance framework

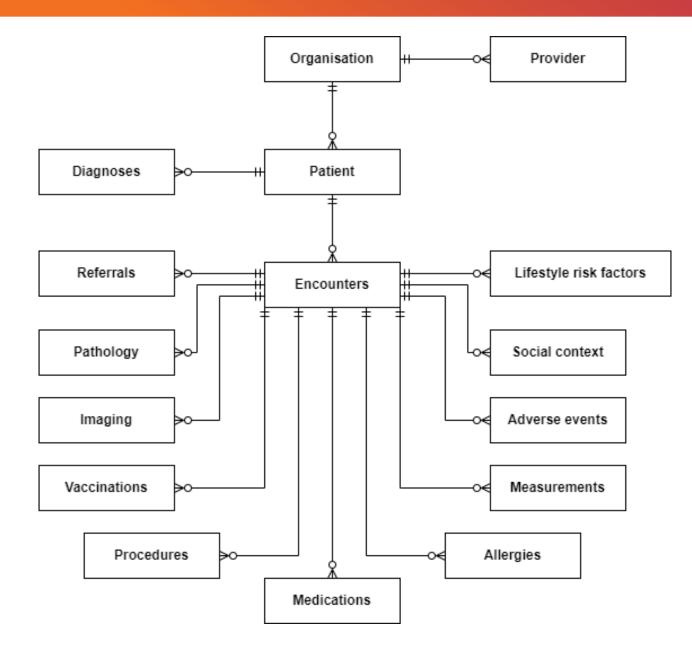


Data model and data dictionary (underpinned by terminology and classifications)





#### AIHW developing a data model aligning with AUCDI



AIHW



## eRequesting Perspectives

David Willock Royal College of Pathologists of Australasia (RCPA)

#### Pathology Information

Sparked Update

2 October 2024

David Willock Digital Lead



#### RCPA Standardised Terminology and the SPIA Guidelines



3 October, 2024

# PITUS and SPIA

- The RCPA <u>Pathology Information, Terminology and Units Standardisation</u> (PITUS) projects have progressed development of standardised pathology data since 2011.
- As part of the above, the RCPA has developed the Standardised Pathology Informatics in Australia (SPIA) Guidelines along with associated Information Models and Terminology Reference Sets.
- The above Reference sets are available for both Reporting and Requesting. They are downloadable from the ADHA National Clinical Terminology Service – <u>RCPA resources</u>
- The Requesting Ref Set is being used by the Sparked Program to provide content for the e-Requesting standard.



3 October, 2024

# Standardised Pathology Information

- Providing standardised terms for the same test provides unambiguous information with surety. If standard information is being exchanged, then we can start to:
  - Improve pathology information, for example by reducing transcription errors
  - Build robust decision support, because knowledgebases that <u>support</u> Clinical decisions need to use the same terminology
  - Provide more accurate data analytics and research; data will not need to be converted or manipulated (often manually)
- The RCPA has a rich history in providing Terminology and other Informatics products, supporting the position that more appropriate testing benefits Consumers, Providers, Requestors and Government
- The College acknowledges the time given freely by Fellows to provide oversight and review of the SPIA content.



# Standardised Pathology Information

- Benefits include
  - The inclusion of clinical and/ or historical information on pathology requests where appropriate, allowing Pathologists to provide analysis and reporting in the clinical context
  - Consumer choice (digital requests) and convenience
  - Requestors can provide digital requests easily from within the clinical workflow
- Reduction of Risk associated with
  - Transcription errors
  - Misinterpretation of data due to ambiguity of terminology
  - Laboratory variation



# **Standardised Pathology Information**

- If you can't find a Requesting term, you can
  - download the <u>bulk request template</u> from the <u>NCTS</u> website and
  - email your submission along with supporting documentation to <u>help@digitalhealth.gov.au</u> or <u>Terminology-Support@csiro.au</u>
- Or you can email the RCPA at pitus@rcpa.edu.au



#### eRequesting Perspectives

## Carmen Wong

Royal Australian and New Zealand College of Radiologists (RANZCR)



The Royal Australian and New Zealand College of Radiologists\*

The Faculty of Clinical Radiology

# Standardised terminology for Radiology

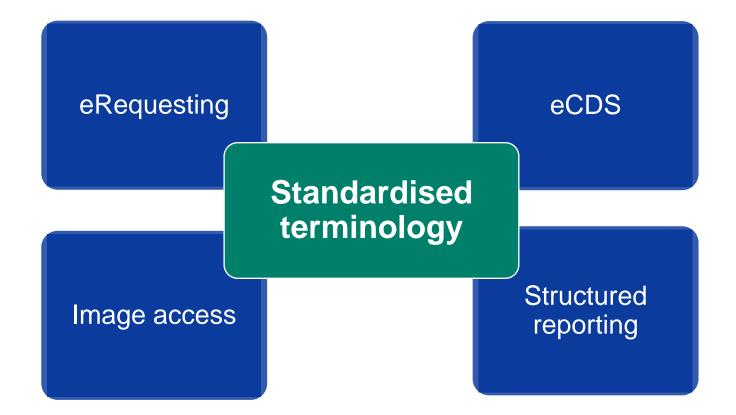
#### SPARKED CDG WORKSHOP

Carmen Wong

2 October 2024

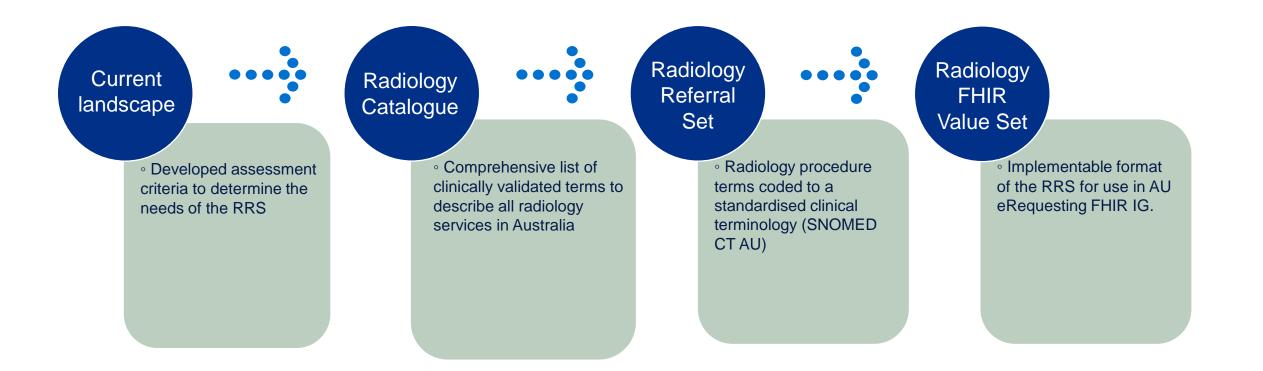


#### **Toward interoperability**

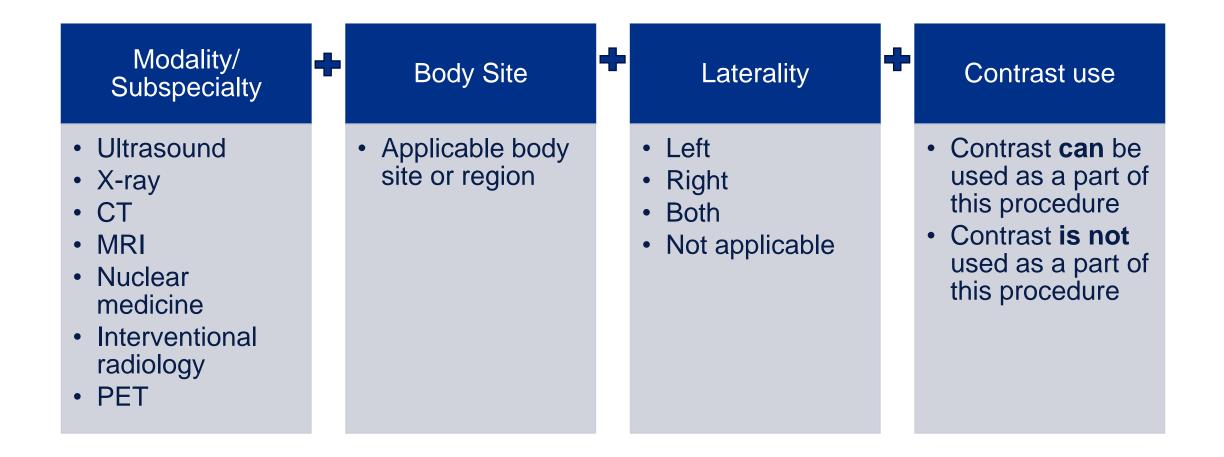


**RANZCR** Radiology Referral Set

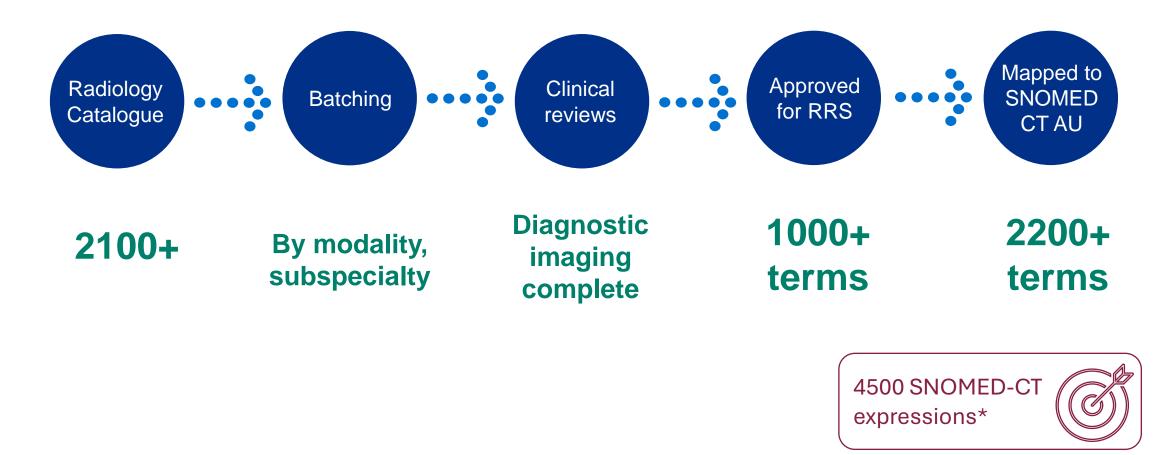
#### **Development approach**



#### **Term structure**



#### **Progress to date**

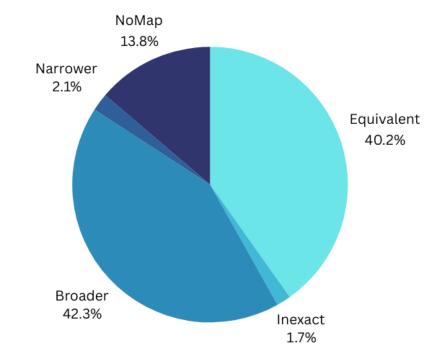


\*Estimated Sept 2024, this figure may change during the clinical review process and gaps are identified or procedures are deprecated

### **Progress to date**

- 2228 unique terms uploaded to SNAP2SNOMED
- 698 directly equivalent mapped terms
  - 735 broader terms requiring refinement
- 36 narrower terms requiring refinement.
- 29 inexact terms requiring refinement.
- 239 terms with no representation within SNOMED-CT AU

#### **RRS coverage in SNOMED-CT AU**

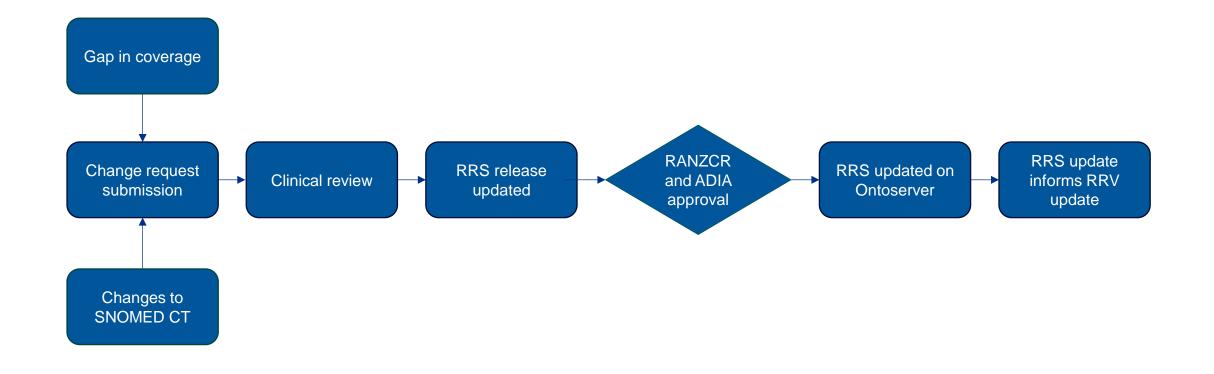


### Progress to date RRV draft candidate v1

Expansior Size: 513	1				
version	http://snomed.info/sct http://snomed.info/sct/32506021000036107/version	1/20240831			
used-codesyste	m http://snomed.info/sct/http://snomed.info/sct/32506021000036107/version	n/20240831			
displayLanguag	e en-US,en;q=0.9,en-AU;q=0.8				
warning-draft	https://ranzcr.com/fhir/ValueSet/radiology-referral 0.1.0-ballot				
Code	Display	System		Inactive	Version
45036003	Ultrasound of abdomen	http://snomed	d.info/sct	false	
444900008	Ultrasound of abdomen with contrast	http://snomed	d.info/sct	false	
418394000	Ultrasound scan of abdomen and pelvis	http://snomed	d.info/sct	false	
241462009	Ultrasound of abdominal aorta	http://snomed	d.info/sct	false	
241512001	Ultrasound of Achilles tendon	http://snomed	d.info/sct	false	
871000087105	Ultrasound of left Achilles tendon	http://snomed	d.info/sct	false	
881000087107	Ultrasound of right Achilles tendon	http://snomed	d.info/sct	false	
1921000087100	Ultrasound of bilateral Achilles tendons	http://snomed	d.info/sct	false	
431844005	Ultrasound of acromioclavicular joint	http://snomed	d.info/sct	false	
241480000	Ultrasound scan of adrenals	http://snomed	d.info/sct	false	
11691000087107	Ultrasound of left adrenal gland	http://snomed	d.info/sct	false	
11681000087105	Ultrasound of right adrenal gland	http://snomed	d.info/sct	false	



### **Target operating model**





The Royal Australian and New Zealand College of Radiologists\*

The Faculty of Clinical Radiology

australian diagnostic imaging association

#### Thank you

Standards@ranzcr.edu.au





Kylynn Loi CSIRO

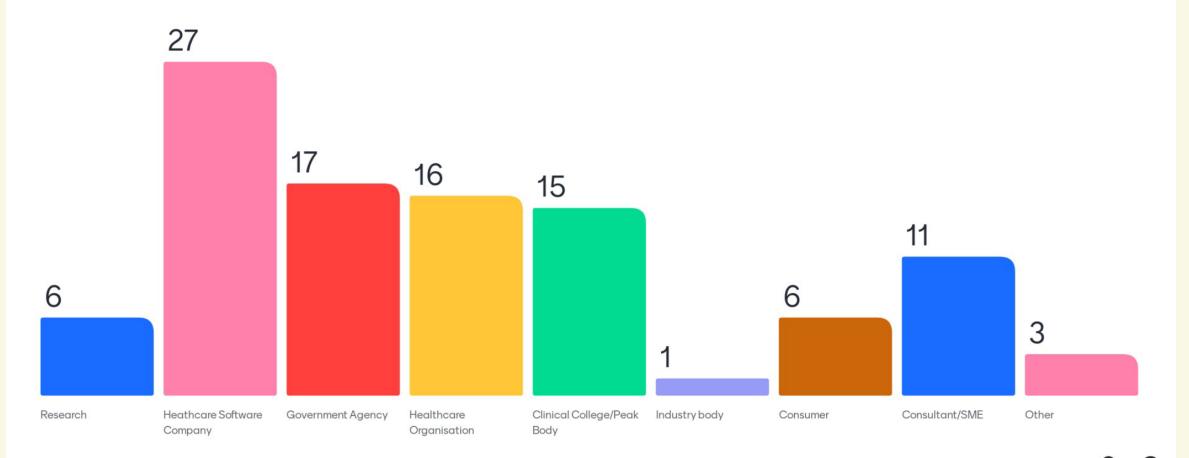
# Summary of activities and outputs

- Series of workshop activities focused around
  - AUCDI R2
    - Patient summary
    - Chronic disease management
    - Reason for Encounter
  - eRequesting national terminology



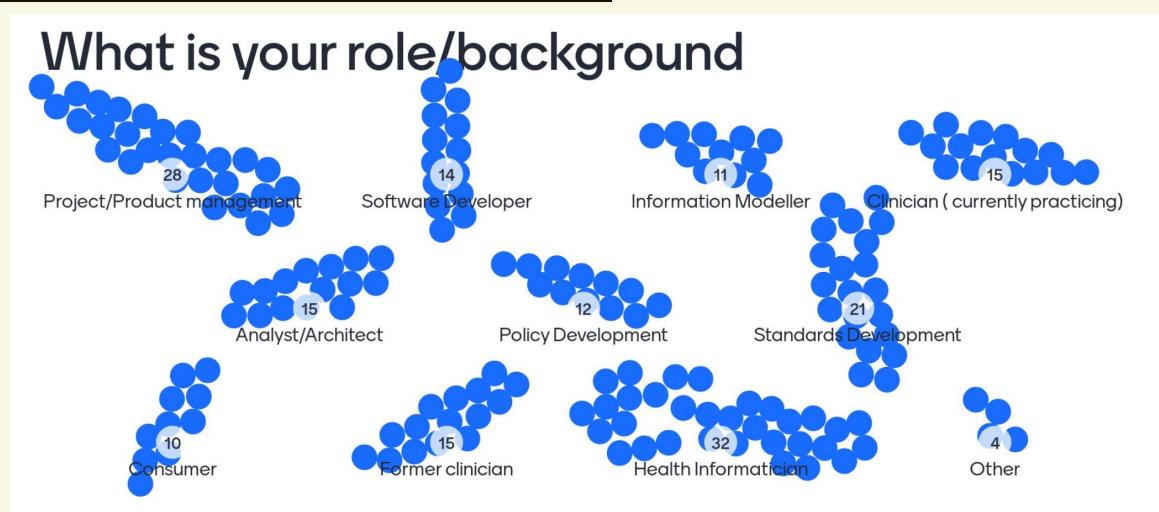


## What kind of organisation are you from?





#### MENTIMETER RESULTS



Sparked

**a b a** 



### Patient summary

#### • 3 activities

- Understand the opportunities, challenges, and data requirements of curated versus machine-generated Patient Summary workflows.
- Identify the data groups that should be prioritised for inclusion in the first release of AU Patient Summary
- For those identified high priority data groups, consider the scope at the data element level identify where we need to add to AUCDI R1.



## Patient Summary - Workshop 1: Activity 1



Data group	ls it recorded?	How?	Which settings	Curation Feasibility to curate for patient summary	Automatically generate/derive - Feasibility to derive/ generate a patient summary
Medication statement	Yes	Mixed – structured and unstructured, coded and free text	Primary care Pharmacy Uploaded to MyHR	Yes • Coded, but large workload and often incomplete	<ul> <li>Yes, if confirmed</li> <li>Concerns with trusting quality, completeness and provenance of data, needs confirmation</li> </ul>
Vaccination administration	Yes	Mixed – structured and unstructured, coded and free text	Australian immunisation register (AIR) EMRs, incl. Hospital & GP MyHR Baby book (personal health record)	<ul> <li>Yes</li> <li>Coded, well collected except for overseas records and pre-digital records</li> </ul>	<ul> <li>Yes</li> <li>Coded, well collected except for overseas records and pre-digital records</li> </ul>
Adverse reaction risk (allergies and intolerances)	Yes	Mixed – structured and unstructured, coded and free text	EMRs, incl. Hospital & GP PAS MyHR Discharge summaries	Yes <ul> <li>Requires good data capture</li> <li>Concerns with data quality, definitions and 'source of truth'</li> </ul>	<ul> <li>Yes</li> <li>Concerns with data quality, definitions and 'source of truth'</li> </ul>
Patient information/demog raphics	Yes	Structured – some standardisation	Primary care Acute care Aged care Medicare	<ul> <li>Yes</li> <li>Desire to use single digital identifier (e.g. IHI)</li> <li>Considerations over duplicates/mismatches</li> <li>Consistency concerns re: identifier use &amp; across cohorts</li> </ul>	<ul> <li>Yes</li> <li>Will decrease re-entry &amp; improve visibility.</li> <li>Concerns with data quality, 'source of truth'</li> <li>Considerations over duplicates/mismatches</li> </ul>



## Patient Summary - Workshop 1: Activity 1



Data group	ls it recorded ?	How?	Which settings	Curation Feasibility to curate for patient summary	Automatically generate/derive - Feasibility to derive/ generate a patient summary
Pregnancy (status and history summary)	Yes	Mixed - structured and unstructured, coded and free text	Primary care Acute care Specialist Lab & imaging systems	<ul> <li>Yes</li> <li>Curation necessary</li> <li>Variable data capture across location and care setting</li> <li>Consistency concerns re: identifier use &amp; across cohorts</li> </ul>	<ul> <li>Yes, but difficult</li> <li>Concerns with trusting quality, completeness and provenance of data, needs confirmation</li> </ul>
Functional status and disability assessment	Partially	Mixed - structured and unstructured, coded and free text	Relevant to many care settings, including NDIS	<ul> <li>Possible</li> <li>Depends on care setting/patient presentation</li> <li>Curation necessary</li> </ul>	<ul> <li>Possible</li> <li>Depends on care setting/patient presentation</li> <li>Concerns re: currency &amp; relevance of data</li> </ul>
Problem/diagnosis	Yes	Mixed - structured and unstructured, coded and free text	EMRs & other systems	Yes • Already 'core' • Curation necessary • Concerns re: quality, currency & frequency, relevance	<ul> <li>Yes</li> <li>Provides overarching/bonus information</li> <li>Standardisation required</li> </ul>
Key biomarkers	Yes	Structured		Yes • Consistent & comparative data May not link to related diagnosis	<ul> <li>Possible</li> <li>Considerations re: managing data volume, currency and matching to diagnosis</li> </ul>
Vital signs and measurements	Yes	Structured - but variable			Yes • Should be easy, however large amount of data to filter



## Patient Summary - Workshop 1: Activity 1

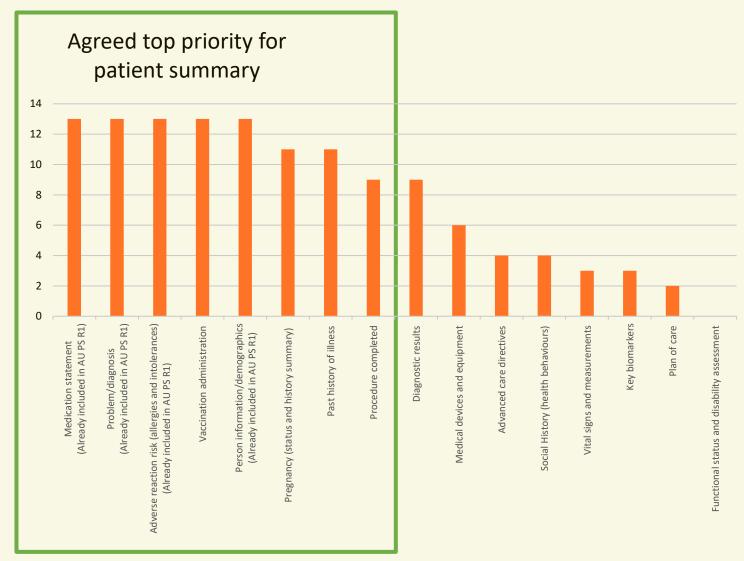


Data group	ls it recorded ?	How?	Which settings	Curation Feasibility to curate for patient summary	Automatically generate/derive - Feasibility to derive/ generate a patient summary
Medical devices and equipment	Yes	Mixed – structured or free text	Hospital	Low <ul> <li>No governance or standards</li> </ul>	
Procedure completed	Yes	Mixed – structured and unstructured, coded and free text	Primary care Acute EMRs, incl. Hospital & GP	<ul> <li>Yes, if coded</li> <li>Considerations re: data quality, consistency &amp; standardisation.</li> <li>High time &amp; cost investment to curate and ensure clinical value</li> </ul>	<ul> <li>Yes, if coded</li> <li>Considerations re: data quality, consistency &amp; standardisation.</li> <li>Concern re: duplicated/repeating items decreasing clinical value.</li> </ul>
Diagnostic results	Yes	Mixed - structured and unstructured, coded and free text	PMS EMRs, incl. Hospital & GP Lab & imaging systems MyHR Community	<ul> <li>Yes</li> <li>Coded at point of testing/examination</li> <li>Considerations re: consistency, currency &amp; relevance</li> </ul>	Yes • Considerations re: data quality, consistency & standardisation.
Plan of care	Partially	Free text	EMRs, include Hospital & GP Specialist MyHR	<ul><li>Difficult</li><li>Concerns re: time, investment &amp; change management</li></ul>	Difficult – "not yet"
Advance care directives	Partially	Curated prior to upload	EMRs, incl. Hospital, GPs, Aged Care MyHR	<ul> <li>Low</li> <li>Considerations as nuanced and individual requirements</li> <li>Concerns re: time, investment &amp; change management</li> </ul>	<ul> <li>High difficultly</li> <li>Concerns re: appropriateness and trust in the information.</li> <li>Benefits noted as "none"</li> </ul>



# Patient Summary Data Group Prioritisation



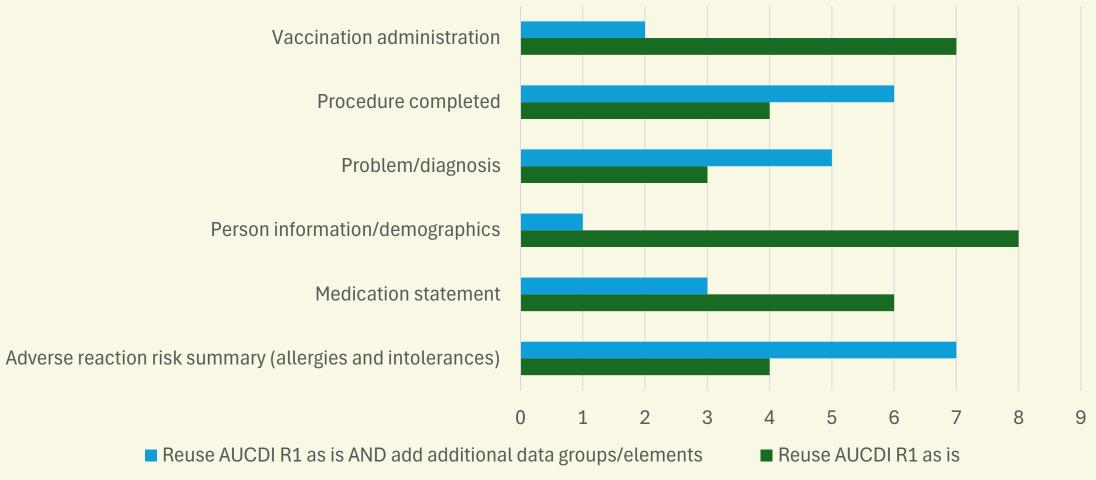


	Data group	AU PS reqd	AUCDI R1
1	Medication statement	V	√
2	Problem/diagnosis	~	✓
3	Adverse reaction risk (allergies and intolerances)	~	~
4	Vaccination administration		~
5	Person information/demographics	~	~
6	Pregnancy (status and history summary)		
7	Past history of illness		?
8	Procedure completed		~
9	Diagnostic results		
10	Medical devices and equipment		?
11	Advance care directives		
12	Social History (health behaviours)		?
13	Vital signs and measurements		
14	Key biomarkers		~
15	Plan of care		
16	Functional status and disability assessment		





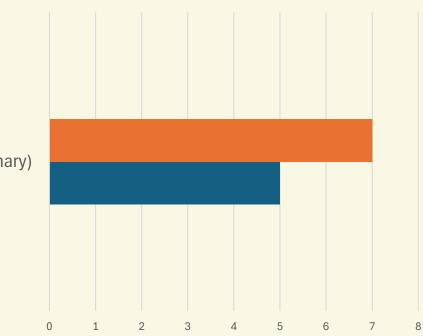
# Patient summary– Detailed Data Group Scoping







# Patient summary – Detailed Data Group Scoping

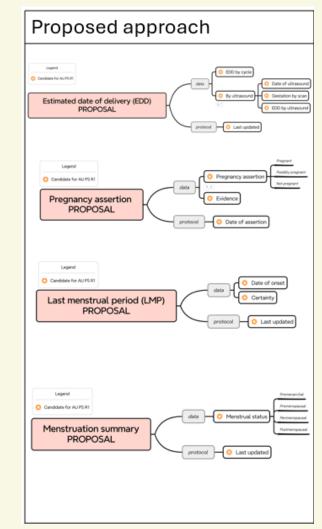


Pregnancy (status and history summary)

Proceed with proposed approach for EDD, Pregnancy assertion, LMP and Menstruation summary

Alternative approach







## Chronic disease management

- Consider what information is needed to support shared care for Chronic Disease Management.
- Identify priority data groups required to support Chronic Disease Management for AUCDI R2.



# Summary – Workshop 5, Activity 1

Data group	ls it recorded?	How is it recorded?	Which settings?	Future state
Social determinants of health	Yes	<ul> <li>Mostly unstructured or partially structured</li> <li>Free text</li> <li>Incomplete or inconsistent capture of information</li> </ul>	All	<ul> <li>Consistent data capture, based on defined clinical standards, even if unstructured</li> <li>Patient-facing and clinician-to-clinician data</li> <li>Should reflect current status</li> </ul>
Interventions	Yes	<ul> <li>Largely unstructured, not standardised</li> </ul>	All Not much in MyHR	<ul> <li>Data should be structured, consistent, granular, and tied to goals</li> </ul>
Goals	Yes	<ul> <li>Largely unstructured; not standardised, can be free text, variable formats</li> </ul>	All	<ul> <li>Data should be structured, unstructured data is a challenge</li> <li>Approaches will differ by disease</li> </ul>
Health concerns (consumer)	Yes, but a lot of paper notes	<ul> <li>Some coded, mostly unstructured, not standardised, can be free text, significant variation in how data is captured</li> </ul>	All Not much in MyHR If no internet, unable to access care plans/MyHR	<ul> <li>Consistent data capture is essential, even if unstructured</li> <li>For well-defined care plans this is required</li> <li>Automation &amp; codifying of narrative content</li> <li>Consumer questionnaire</li> </ul>

Sparked

HL7 FHIR All = Complex care coordination (e.g. transplants & cancer), GPs, Aged care, Home care, Pharmacy, Emergency departments, Allied health documents, Acute care, community health care, etc.

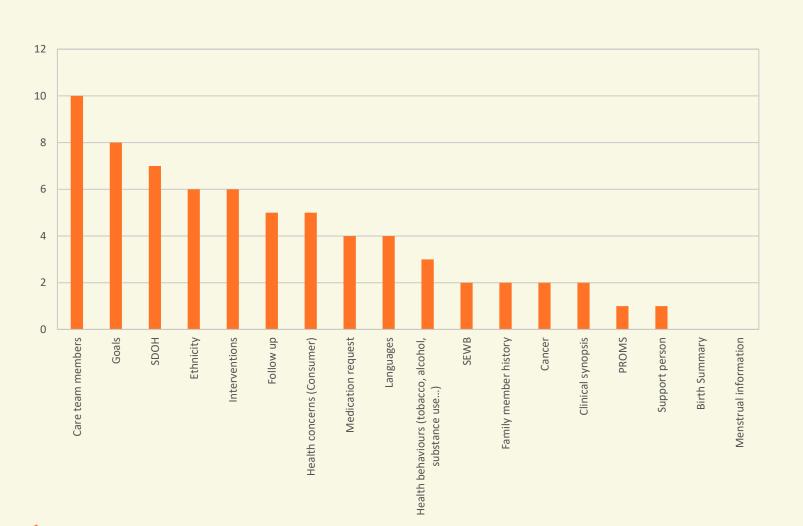
# Summary: Workshop 5, Activity 1

Sparked

Data group	Is it recorded?	How is it recorded?	Which settings?	Future state
Care team members	Yes	<ul> <li>Dependent on setting</li> <li>Mostly structured, not standardised</li> <li>Not always available</li> </ul>	All Not in MyHR Less in ED/acute	<ul> <li>Captured structured in all systems</li> <li>Single source - National directory interfaced with EMR's, MyHR, live, information exchange</li> </ul>
Social emotional wellbeing	Mostly no	<ul> <li>Varies across systems</li> <li>Unstructured, not standardised</li> <li>Some coverage by Problem/Diagnosis list, assessments</li> </ul>	All Often recorded, less in ED/Acute setting Not in MyHR Partially captured in care plan	<ul> <li>Captured consistently, doesn't need structure</li> <li>Aligned with goal</li> <li>Patient preferences captured</li> </ul>
Follow up	Yes	<ul> <li>Structured, not standardised, can be free text</li> </ul>	All Often recorded, less in ED/Acute setting	<ul> <li>Should reflect current status</li> <li>Centralised – MyHR, support Care plans</li> <li>Relates to interventions</li> </ul>

ML7 FHIR All = Complex care coordination (e.g. transplants & cancer), GPs, Aged care, Home care, Pharmacy, Emergency departments, Allied health documents, Acute care, community health care, etc.

# Chronic Disease Management Data Group Prioritisation



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1	Care team members
2	Goals
3	SDOH
4	Ethnicity
5	Interventions
6	Follow up
7	Health concerns (Consumer)
8	Medication request
9	Languages
	Health behaviours (tobacco,
10	alcohol, substance use)
11	SEWB
12	Family member history
13	Cancer
14	Clinical synopsis
15	PROMS
16	Support person
17	Birth Summary
18	Menstrual information



# Reason for encounter

• Identify the common use cases for Reason for Encounter

### **Clinical Reasons**

- Recording symptoms, diagnoses, and ongoing management.
- Referrals, discharge summaries, clinical history, medication review, and care plans.
- Relevant settings: GP, hospitals, clinics, aged care, and EMRs.

### **Consumer Reasons**

- Routine check-ups, online appointments, mental health advice, and medication management.
- Involves telehealth, GP EMRs, and real-time patient engagement.

### Administrative Reasons

Reason

for

Encounter

- Handling forms, activities, routine scheduling, and financial matters.
- Includes hospital PAS, administrative procedures, and managing patient information.





# eRequesting in action

- Presented an example visualisation of:
  - the data model (AUeReqDI)
  - National eRequesting terminology in the context of a CSIRO SMART on FHIR form component
    - Showing test selection component, one example visualisation
- Activities
  - Identify the benefits, challenges, opportunities and risks of having nationally standardised terminology for eRequesting?
  - What support is needed to adopt nationally standardised terminology for eRequesting by the different stakeholder groups?



## **Benefits** of a Nationally Standardised Terminology for eRequesting

# Population health and secondary use

• Easier reporting/analysis /research of requests

### Interoperability

- Standard language across the country, decrease barriers to adoption
- Data readily available for local systems as well as national
- Ability to marry result with request

# Patient

Improved patient care & experience Improving patient understanding of orders/procedures

### Efficiency

- Reduction in duplicate tests
- Supports simpler data entry
- Reduced time & resources in clarification of orders
- Could be used to support billing and reimbursement

# Summary -Workshop 4: Activity 1

### Clinical decision making

- Improved clinical context to support result interpretation
- Supports consistency of understanding
- Enables clinical decision support

### Safety and quality

- Reduction in transcription and translation errors
- Improved data quality and safety
- Consistency between labs on test type, Right tests irrelevant of provider the consumer takes the request to



## **Opportunities** of a Nationally Standardised Terminology for eRequesting

# Population health and secondary use

• Easier reporting/analysis /research of requests

### Interoperability

- Develop maturity and readiness for implementation
- •Standards adoption supports widespread change
- Enables uniform practices across systems and jurisdictions (incl. for requests, clinical decision support, testing, etc.)

# Patient

Enable consumer choice Improved ability for clinicians & consumer to share language and meaning

### Efficiency

- Streamline processes, e.g. reduce test duplication, actioning of failed requests, centralised repositories
- Financial opportunities, e.g. reduce procurement costs
- Innovation, e.g. Al

# Summary -Workshop 4: Activity 1

### **Clinical decision making**

- Use clinical decision support to improve utilisation
- Improve understanding and literacy of testing
- Capture patient history of tests

### Safety and quality

- Enable best practice standardisation and benchmarking
- Support value-based outcomes
- Improve patient identification processes
- Develop Australian standards and provide global leadership



## **Challenges** of a Nationally Standardised Terminology for eRequesting

### Change management

- Clinical adoption and resistance
  Removal of free text templates in systems
  Education, training and use of new
- nomenclature/workflow
- •UI & UX changes and testing of workflows

## Challenges

# Summary -Workshop 4: Activity 1

### **Technical and System Complexity**

- Timeframe to transition & adopt
- Complexity and capability of current systems
- Compatibility of existing reference sets and systems
- Ensuring consistent use
- Flexibility to support clinical environment & edge cases
- Legacy mapping requirements

### **Social Consideration**

- Potential to widen gap for socially disadvantaged
- Patient choice

### Governance, Policy and Funding

- Support to improve patient identification required, e.g. implement IHI
- Funding & incentives across all sectors required
- Need for standards to have clear governance and ownership ongoing
- Continuous government support required to ensure sustained progress



## **Risks** of a Nationally Standardised Terminology for eRequesting

### **Change management**

- •Poor implementations leading to poor utilisation/adoption
- •Variable timeframes to transition leading to perceived time waste
- Lack of clinical engagement & trust due to poor UI, UX, and lack of systemic adoption
  Consistent patient identification required to
- integrate effectively

### **Operational and Resource**

- Cost of technical uplift
- Lack of ongoing funding
- Cottage industry hindering broader integration

# Summary -Workshop 4: Activity 1



- Slow technical adoption, i.e. system capability to adopt/implement
- Increased cybersecurity and privacy risks
- External system dependencies leading to local system failures
- Lack of processes to manage free-text errors, AI hallucinations and data quality

### **Governance and Compliance**

- Political influences changing policies/direction & funding
- Variable approaches, poor data maintenance & lack of compliance undermining value
- Need to ensure vendors, jurisdictions, systems, etc., adherence to standards
- Timeliness and currency not supported

Risks

• Lack of clear accountability & ownership of ensure compliance



## Nationally Standardised Terminology for eRequesting - Support Requirements



## Clinicians/Colleges

#### Engagement & Collaboration

•Support broader involvement from all clinical cohorts

Identify & support change champions
 Support change management

#### Funding

Funding required to support ongoing engagement
Articulate clinical benefits for business cases

#### Standards, Guidelines & Terminology

• Drive standards across colleges

•Map and maintain standardised terminology and guidelines

•Ensure value sets/catalogues accommodate all contexts

#### Education

Integrate change management into training programs
Involve universities
Develop digital health literacy

#### Outcomes

Evidence based

• Move away from bespoke solutions to

support interoperability

Articulate (non-financial) value

## Government

#### Support and Governance

- Policy and legislation
- Promote compliance through regulation
- Prioritise interoperability across sectors

•Establish ongoing governance to support standards

Coordination and Oversight

Monitor compliance

•Ensure continuity and national assistance •Foster adoption across all levels

#### Funding

Funding for interoperability for all sectors (public, private, aged care)
Incentives to adopt standards
Develop ongoing funding models

Standards, Guidelines & Terminology

•Support for open terminology

• Align with international open standards

#### Education

Education on the importance of standards and interoperability
Promote benefits

Outcomes

•Focus on patient health, not cost evaluation

## Industry

Software Development and Technology • Building the software & support the technology

• Demand for solutions that meet standards & frameworks

•Support versioning and backward compatibility

Implementation and Change Management

Implementation support
Ensure robust transmission processes and consumer access

• Change management for users

#### Funding

Need for government mandates
Need for funding for initiatives to adopt/implement
Participating in market versus funded approach

#### Standards, Guidelines & Terminology

Unified standards for public and private health providers
Conformance, compliance, and certification

Adopt/implement value sets and standards

#### Education

digital health)

Engage with consumers
Educate staff
Training for health providers
Education on the rationale behind changes
Move away from ambiguous terms (e.g., "test" in

## Other

Challenges

• Demand for solutions that meet defined standards

#### Consumer Engagement and Education

•Consumer education and engagement •Media campaigns (e.g., cartoons/ads for escripts)

Broader consumer representation (age diversity, disability perspective, women)
Education on the rationale behind changes

#### Stakeholder Involvement

Call out to PHNs
Inclusion of standards in university courses
Insurance companies' support for implementing standards

#### Governance and Leadership

Standards maturity
Decision-making on mandates and clinical leadership across political gaps

### MENTIMETER RESULTS

# What is the benefit of standardised test names for Pathology and Medical Imaging?

names for Pathology and Medical Imaging?				resource rationalisation.			professionals
Consistency	Clinical safety	Efficiency	Clinical consistency				
				Consistence across the entire health ecosystem	Clinical Safety	Eliminate cultural stasis for interop	Consistency, safety, avoid duplication
Patient Safety	Safety quality and reduced duplication	Improved outcomes	Trending across health services	Easier new implementations	Improved processes of care	Finding past tests	Consistency in test ordering and improved data quality
Clinical Safety	Consistency of information	Clinical safety	Safety and quality				data quanty
				Consistency and reduced risk of errorReduced	Consistency across the workflow.	Reliability ond Consistency	Greater reuse of test results across care
Consistency and interoperability	Understanding of terms across health settings to avoid ambiguity and	Consistent data to be used to invest and evolve the offering	Accuracy	duplication			processes
Patient care	Streamlined care visibility, reduction in duplication	Consistency for providers and systems	National infrastructure	Teaches the importance of semantic interoperability in a small practical way	Requests are clear and complete	Clinical safety	
Common language	Less duplication of effort	consistent data	Safety				

Better result

interpretation and

Avoid Duplication

Allied health will ise same

terms as Medical

Consistency across the

digital health sector





# Next steps

- All summary slides and the aggregated transcriptions from the workshops from the 2 days will be on the Sparked website shortly
- Next CDG meeting will be focusing on Patient Summary and developing the data groups required (new and extensions of AUCDI R1) to be published as part of AUCDI R2





# Thank you to our speakers



# Standards are only as strong as its community

## **Over 100 Founding Members**





# Sparked Evaluation

## **CSIRO Evaluation**

## **CSIRO Evaluation Team**

to ensure Sparked is fit for purpose and is serving the community's needs

## **DoHAC Evaluation**

## **Independent external evaluation**

to examine the broader Sparked deliverables and policy perspectives

## Why should you participate?

- Influence what's needed to improve the community process
- Support our agile way of working so we can adapt
- Contribute to the global benchmark of what success looks like for a national accelerator
- Shape the future direction for creation and adoption of FHIR standards in Australia





# CSIRO Sparked Evaluation Update

The CSIRO AeHRC is continuously evaluating the effectiveness of Sparked to inform improvements and changes to the accelerator



# Upcoming Events 2024

	November Description November Sparked CDG F2F Melbourne Sparked TDG F2F Melbourne	
October Dectober Dect Sparked Webinar Dect		December December Decent Decent Decent HL7 Au Connectathon Melbourne





Register for Sparked

# Thank you

Recording available in the coming days