

Sparked



Sparked Clinical Content Design Group

Thursday 9 November Meeting

Online



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

Item	Item	Time	Lead/facilitator
1	Welcome	5 mins	Kate Ebrill
2	Recap of workshop AUCDI - Scope and priorities	25 min	Kate Ebrill
3	Clinical modelling introduction Dive into details - Clinical synopsis - Adverse reaction risk - Problem/Diagnosis - Procedure - Medication statement - Vaccination - Observations - Encounter	55 mins	Heather Leslie
4	Wrap up and close	5min	Kate Ebrill



Welcome and intro



Kate Ebrill – Sparked Lead



Michael Hosking –
Sparked Deputy Lead



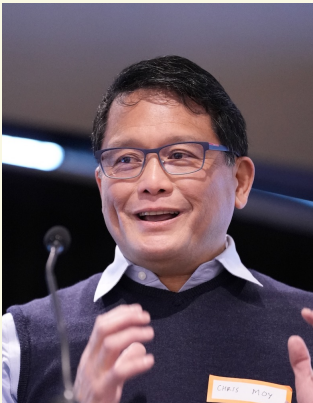
Kylynn Loi – Clinical
Design Lead



Dr Heather Leslie – Lead
Clinical data modeller



Danielle Tavares-Rxion
– FHIR technical lead



Dr Chris Moy– Co-Lead
Sparked Clinical Design Group



Brett Esler – FHIR
expert



Matt Cordell – Clinical
Terminology Specialist



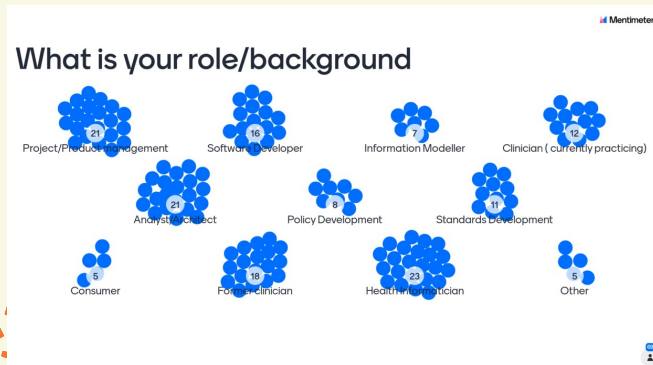
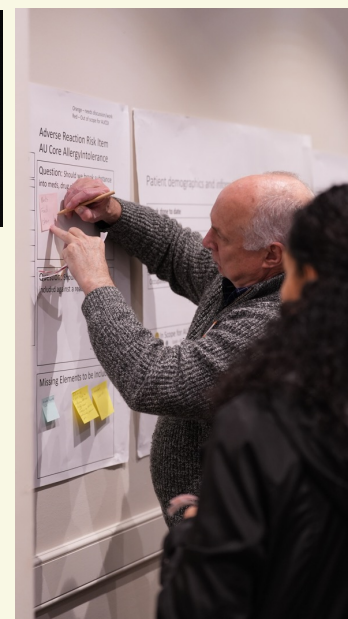
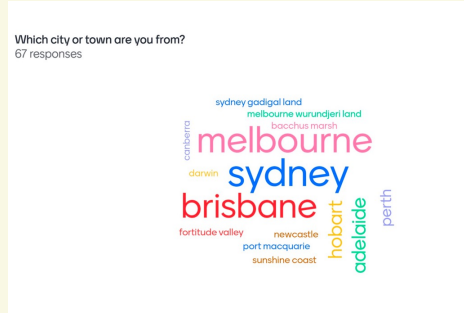
Michael Osborne –
FHIR Terminologist



Bernadette Cranston
– Program Manager



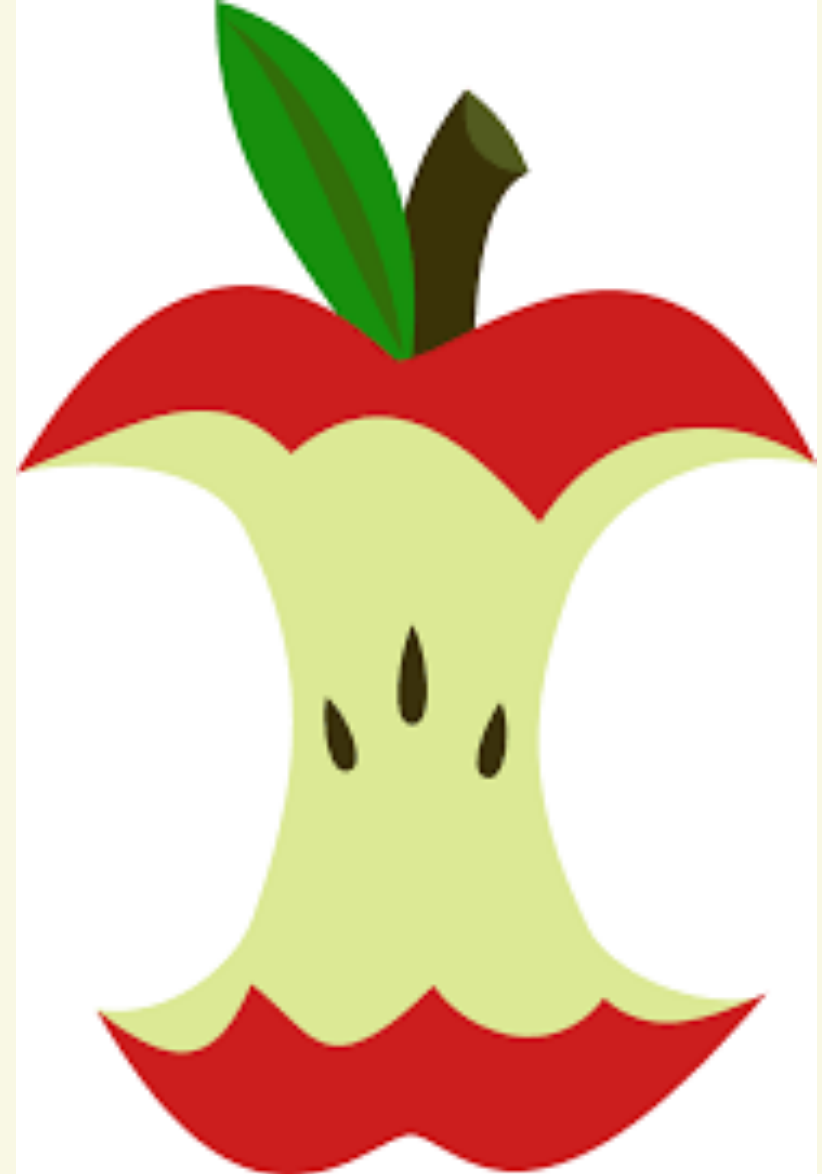
First workshop held in September



50 attendees

First workshop objectives

- Understand the Sparked Program
- Understand how Sparked aligns with other International activity
- Understand how Sparked is leveraging other previous and current activity
- Inform the scope and priorities of the Sparked deliverables
- Agree our principles and ways of working
- Understand how you can participate in Sparked ongoing
- Identify how we can engage others beyond this group in Sparked





Core Draft Principles of Data Set Design

- Single entry, single development - multiple use and reuse
- Driven by a clinical safety use case
- Reduce duplication of effort
- Not data for data's sake
- Driven by primary use not secondary use needs
- Systems can support now or with minimal effort
- Standards based

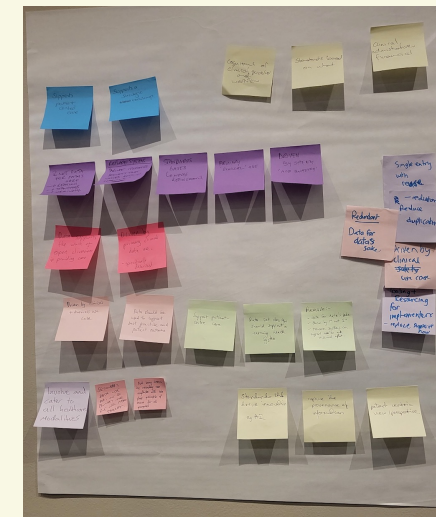
Results of group activity

1. Supports patient centred care
2. Supports a strategic roadmap
3. Cognizant of clinical guidelines and workflow
4. Standards based on what
5. Clinical, administrative, financial
6. ? Not for data's sake
 - -> reasons
 - -> standards
 - -> terminology
7. Replace systems – “agile iterative process that values action/learning”
8. Standards based --> needs refinement
9. Primary “clinical” use
10. Driven by safety “and quality”
11. Data supports the work of expert clinicians in providing care
12. Driven by primary clinical data use – specifically described
13. Driven by clinical + business use case
14. Data should be used to support best practice and patient outcome
15. Support patient-centred care
16. Data set design should support a learning health system
17. Remove

Activity done in workshop



- Data for data's sake
 - Driven by primary not secondary
 - Systems can support now or with minimal effort
18. Involve and cater to all healthcare modalities
 19. Secondary data use may not be primary use but still needs thought
 20. Not being driven by secondary use conflicts with the first principle of reuse for all purposes
 21. Standards that drive innovation e.g. AI
 22. Capture the provenance of information
 23. Patient centric view/perspective
 24. Single entry with re-use – redundantant with reduce duplication
 25. Redundant – data for data's sake and driven by clinical ~~safety~~ use case
 26. Tooling and resourcing for implementers – replace support now





Core Draft Principles of Data Set Design

- Single entry, single development - multiple use and reuse
- Supports patient centred care - driven by a clinical quality and safety use case
- Reduce duplication of effort, not collecting of data for data's sake
- Driven by primary clinical data use not secondary data use needs
- Supports best practice care, clinical guidelines and clinician workflow
- Systems can support now or with minimal effort, supporting a strategic roadmap with an agile iterative process
- Leverage agreed national health data standards
- Involve and consider all healthcare modalities



What is the Australian Core Data set for Interoperability (AUCDI)?

AUCDI is a standardised set of health data items and constituent data elements

- focuses on core data required for patient data access and patient care related exchanges and data reporting
- data items represent individual concepts: medication, allergy, procedure, health concern, etc.
- some data elements should be expressed using specific health IT vocabulary/terminology standards e.g. SNOMED CT, LOINC etc
- is “content exchange standard agnostic”. AUCDI doesn’t specify how and to what extent its elements are included in FHIR or other exchange standards



AUCDI use cases

DRAFT

Person care



Patients, clinicians, care teams, family and carers

- Clinical care planning coordination and management

Administrators,
directors,
managers

- Resource allocation
- Quality improvement
- Program planning

Local, state,
national and
other
reporting
bodies

- Chronic disease management
- Health outcomes
- Disease surveillance
- Health system planning

Care organisations

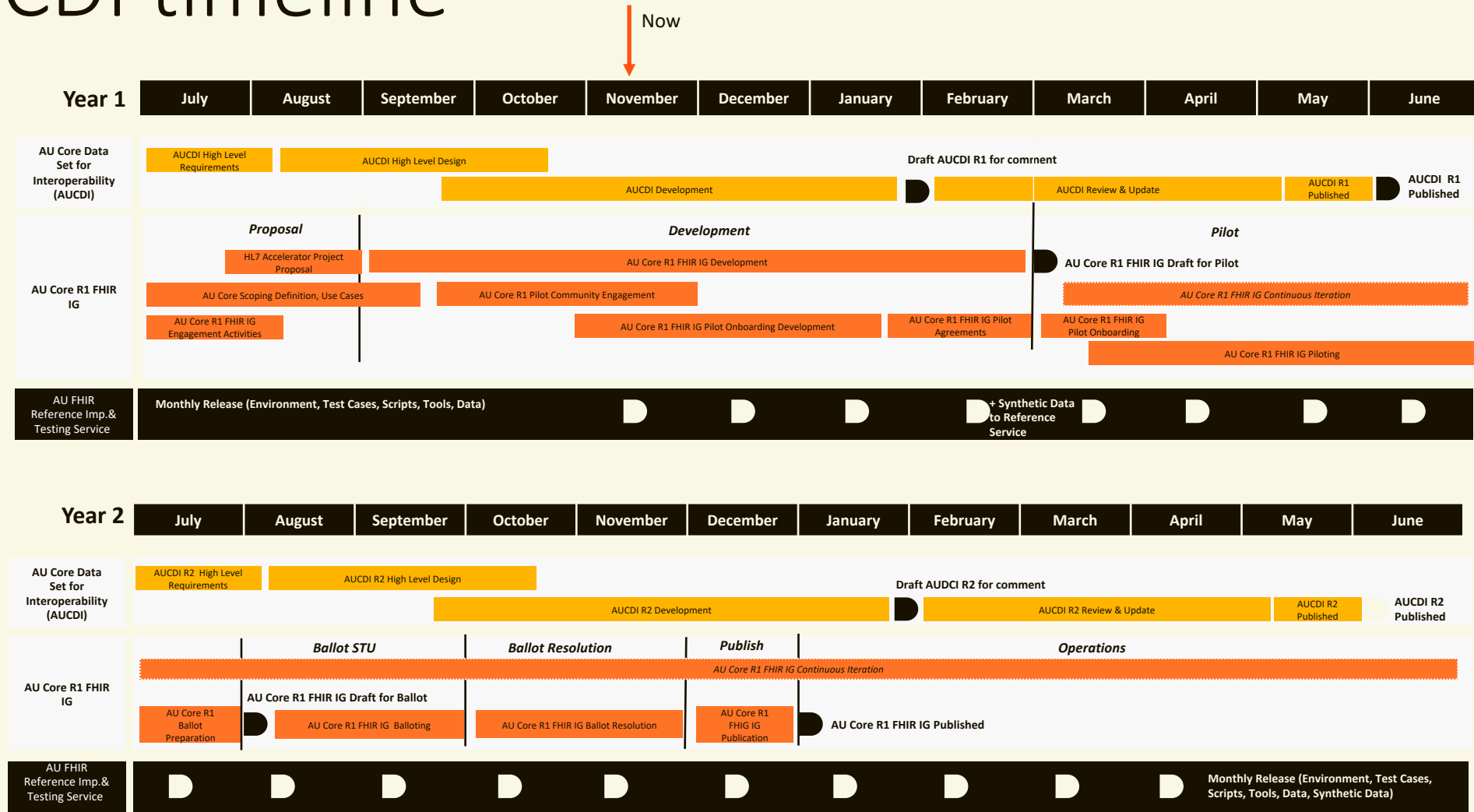


Population and public health





AUCDI timeline





USCDI v1

USCDI v1 Summary of Data Classes and Data Elements

Allergies and Intolerances

- Substance (Medication)
- Substance (Drug Class)
- Reaction

Assessment and Plan of Treatment

- Assessment and Plan of Treatment

Care Team Members

- Care Team Members

Clinical Notes

- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note

Goals

- Patient Goals

Health Concerns

- Health Concerns

Immunizations

- Immunizations

Laboratory

- Tests
- Values/Results

Medications

- Medications

Patient Demographics

- First Name
- Last Name
- Previous Name
- Middle Name (including Middle Initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

Problems

- Problems

Procedures

- Procedures

Provenance

- Author Time Stamp
- Author Organization

Smoking Status

- Smoking Status

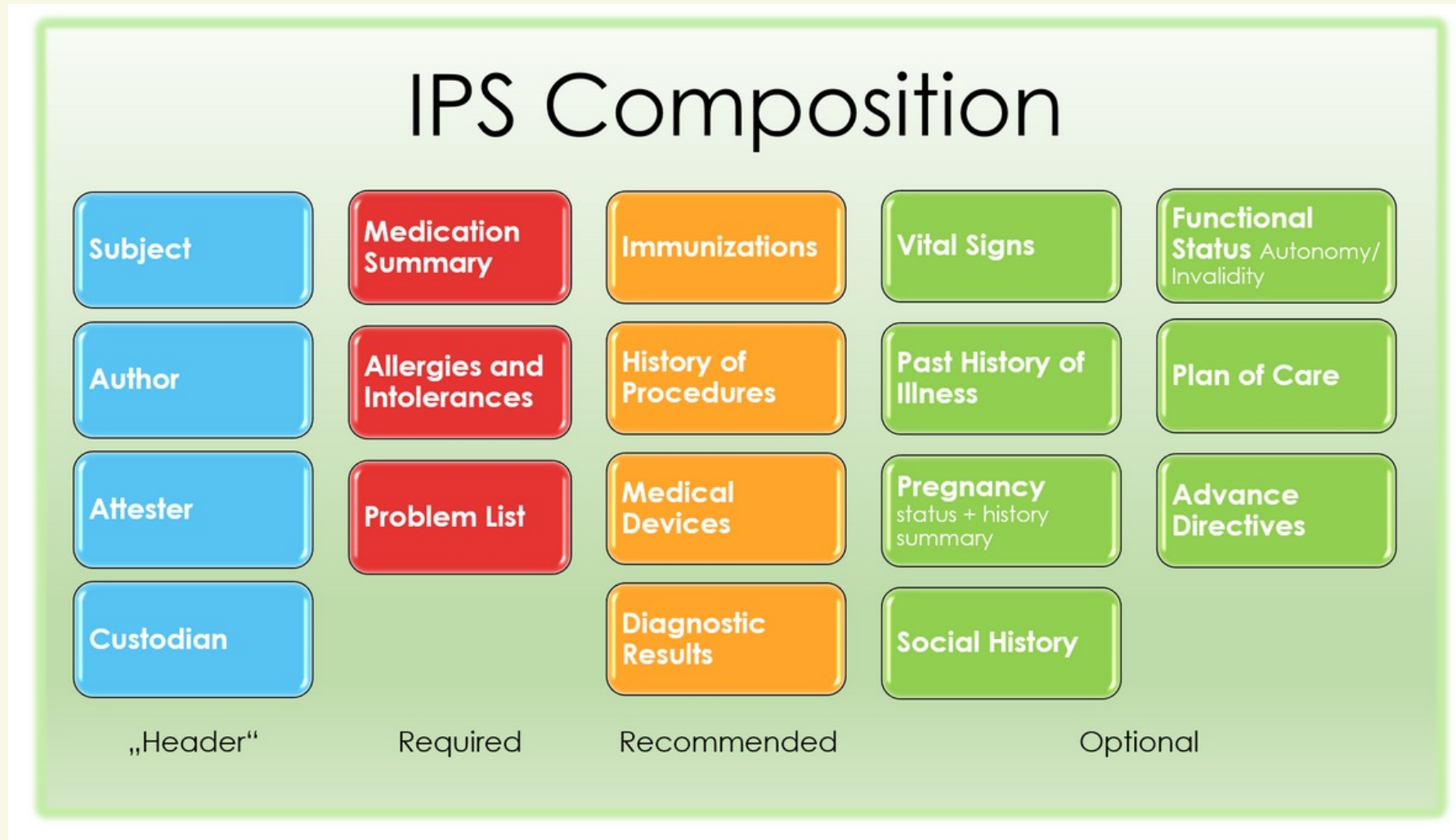
Unique Device Identifier(s) for a Patient's Implantable Device(s)

- Unique Device Identifier(s) for a Patient's Implantable Device(s)

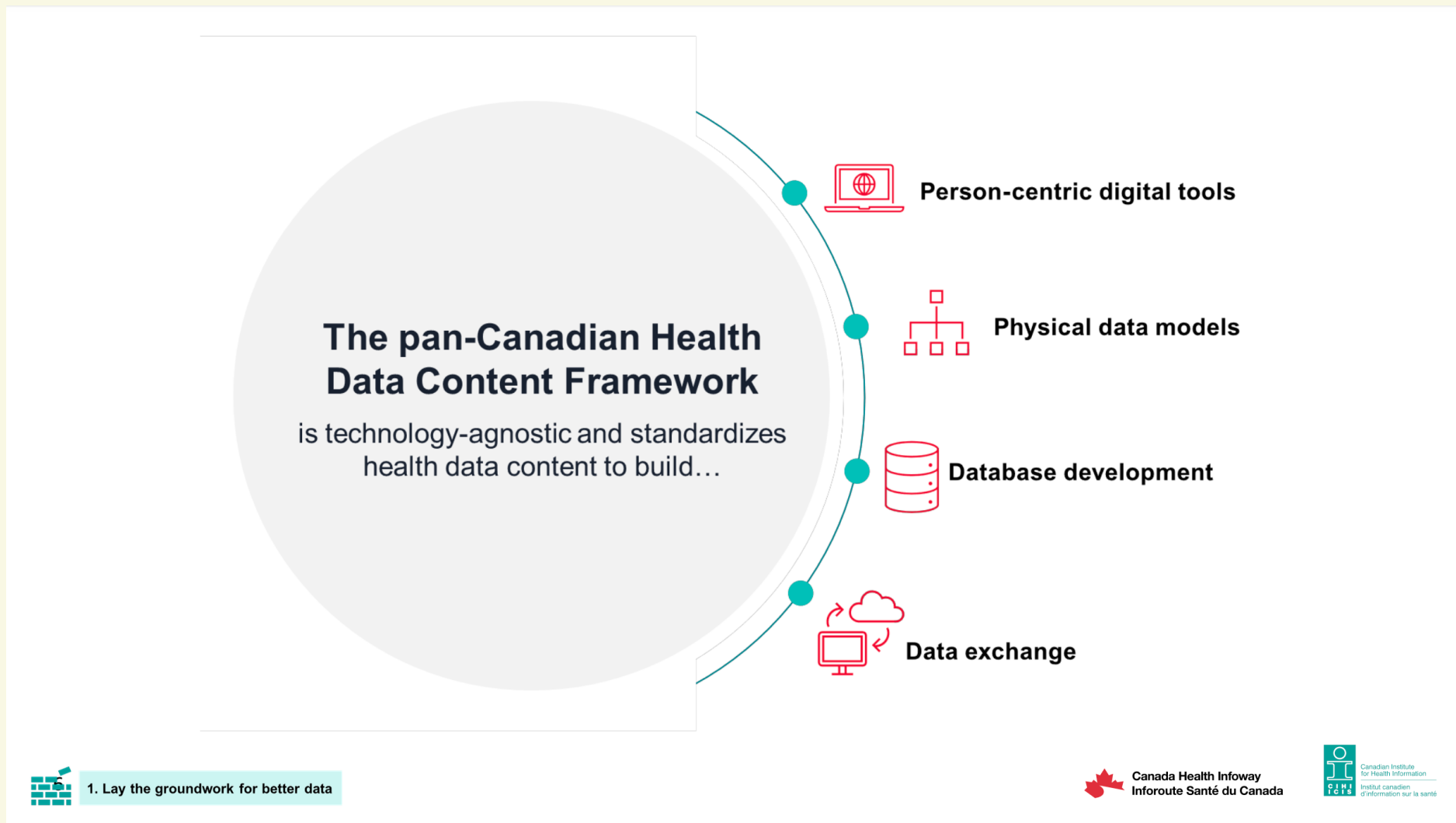
Vital Signs

- Diastolic Blood Pressure
- Systolic Blood Pressure
- Body Height
- Body Weight
- Heart Rate
- Respiratory Rate
- Body Temperature
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 Years)
- Weight-for-length Percentile (Birth - 36 Months)
- Head Occipital-frontal Circumference Percentile (Birth - 36 Months)

IPS

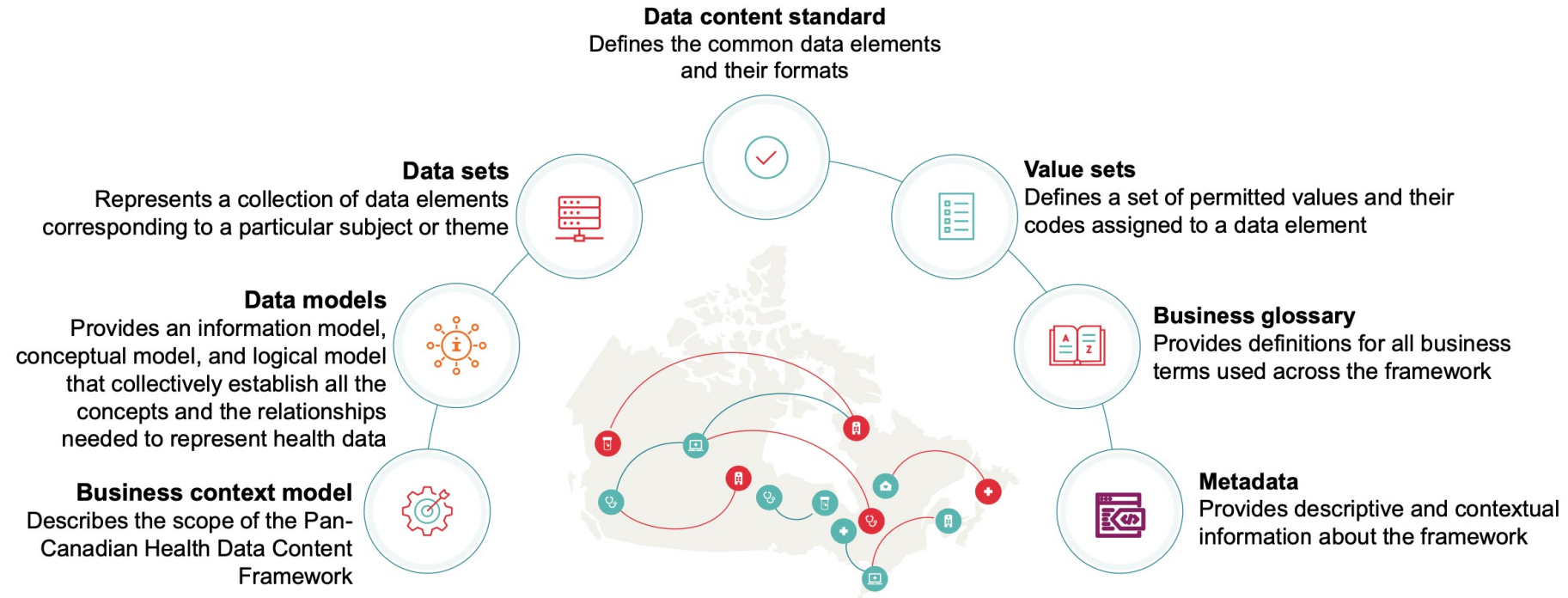


The pan-Canadian Health Data Content Framework



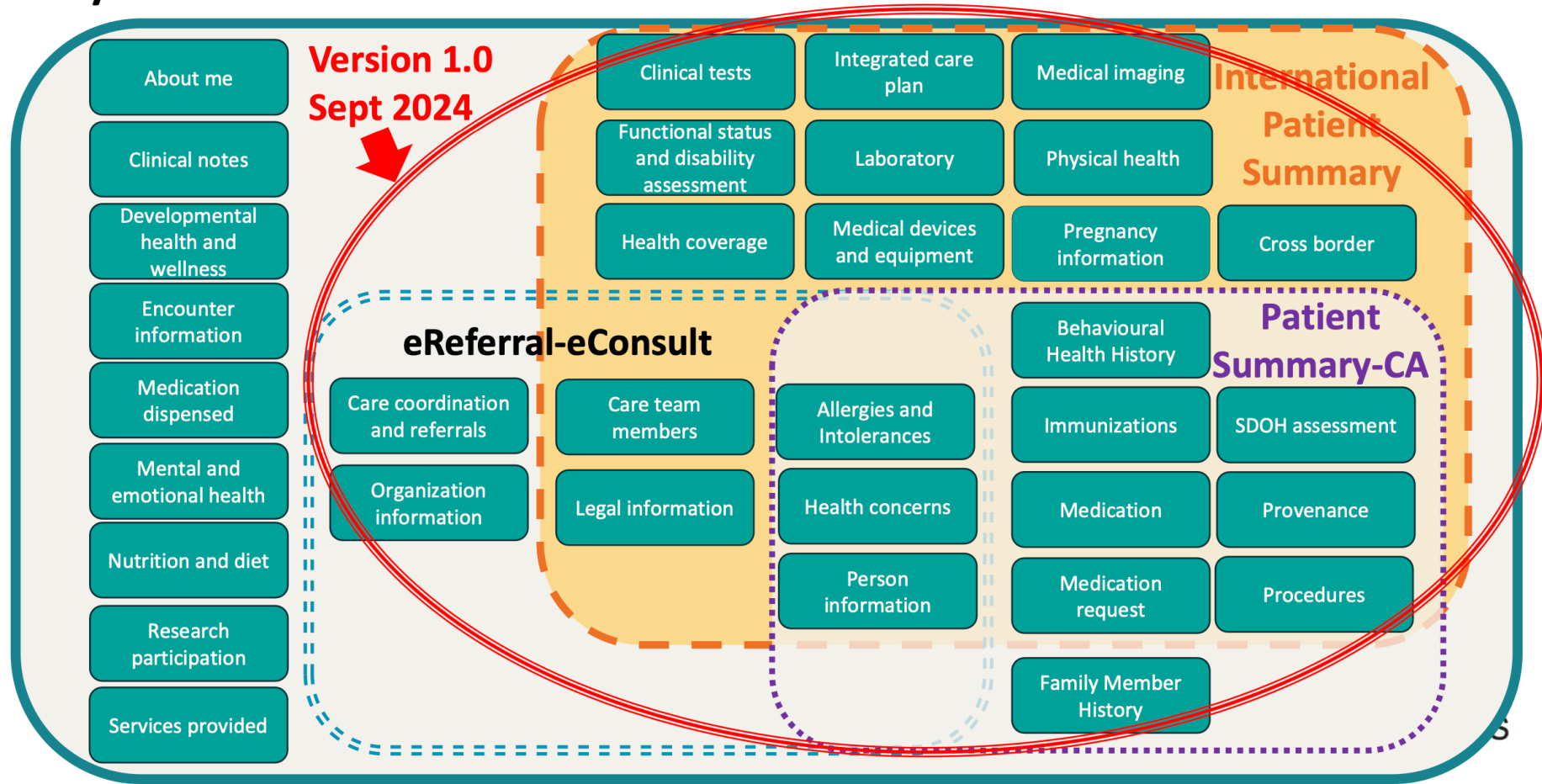
The pan-Canadian Health Data Content Framework

The pan-Canadian Health Data Content Framework is a single cohesive product with many deliverables



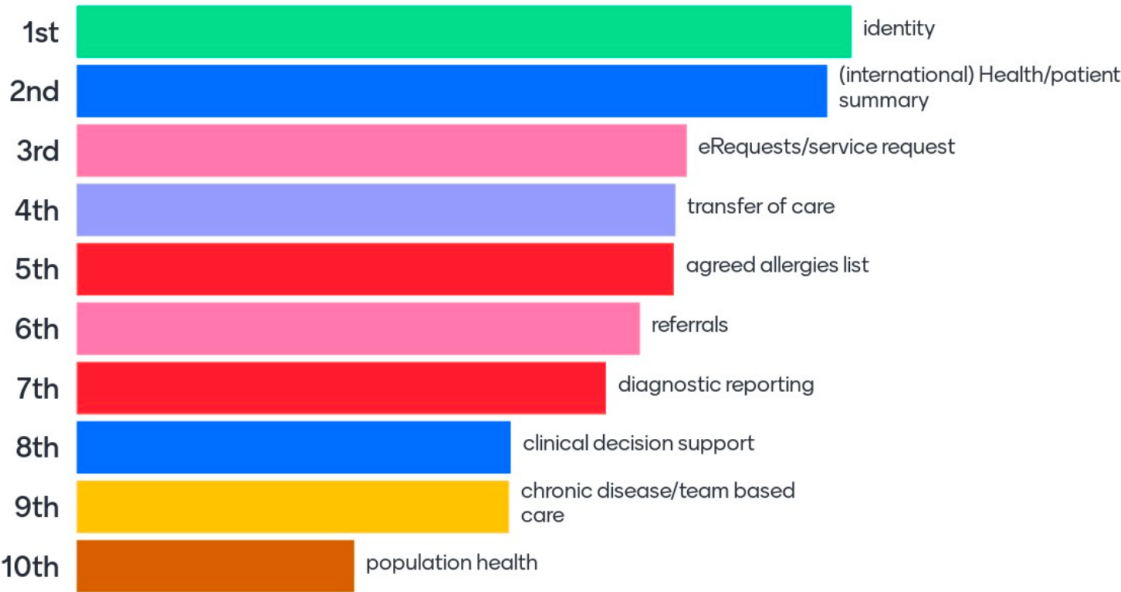
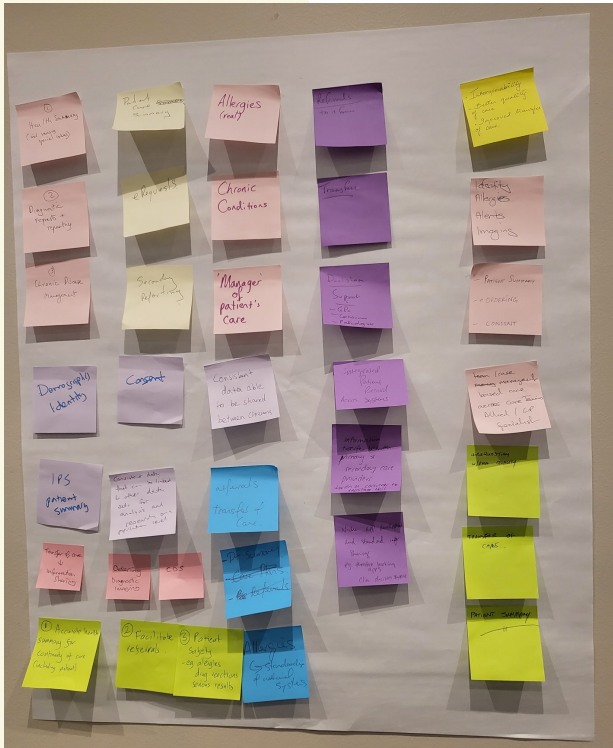
The pan-Canadian Health Data Content Framework

Pan-Canadian Health Data Content Framework version 1 Scope: Primary Health Care



Audience Ranking of priorities from group activity

Priority Uses of AUCDI



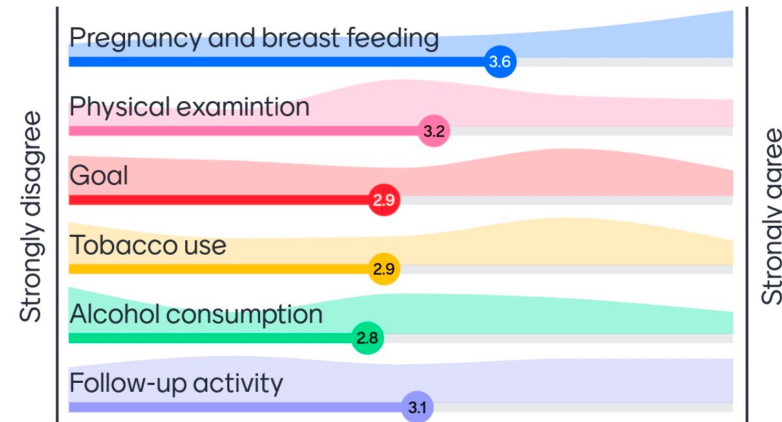
Activity done in workshop

Mentimeter

Release 1

- Medicine
- Reason for encounter
- Service request
- Procedure
- Adverse Event
- Demographics
- Care Team
- Vaccination
- Diagnostic results
- Vital Signs

Release 2



Adverse Reaction Risk Item
AU Core Allergy/Intolerance

Question: Should we break substance into meds, drug class, non-meds?

Question: Should criticality be included against a reaction?

Missing Elements to be Included

Medicine Item
AU Core Medication

Question: What is the core interoperability use case for medication?

Missing Elements to be Included

Problem/Diagnosis
AU Core Condition

Question: Should SDOH problem/health concerns be called out specifically?

Question: What is your core interoperability use case for problem/diagnosis?

Pregnancy and breast feeding

Work done to date

Identified gaps

Missing Elements to be Included

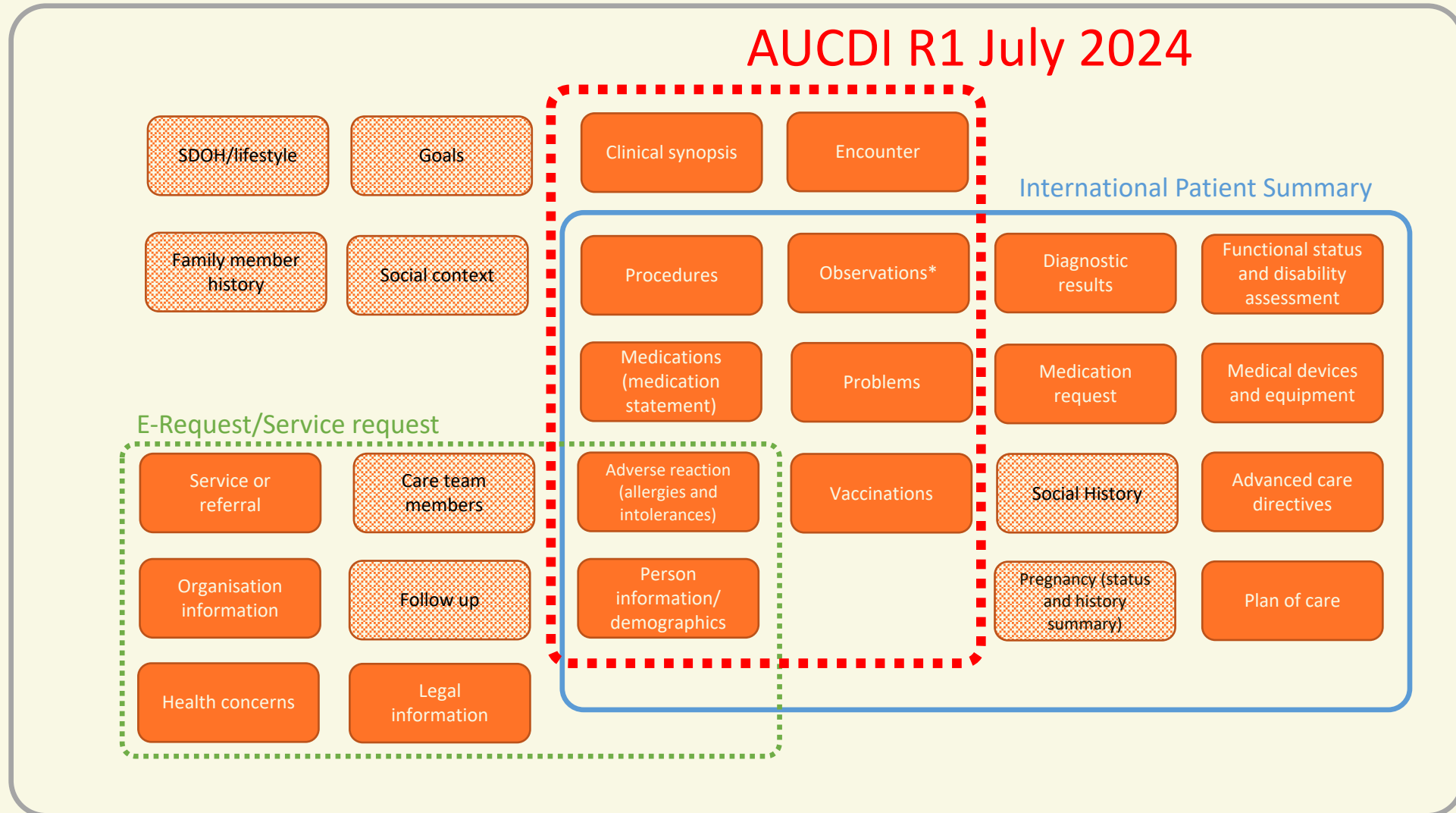


AUCDI scope drivers

Concepts for a health summary (guided by clinical content of IPS)

- Clinical content to underpin any type of health summary
- Transfer of care
 - Practice2Practice transfer summary
 - Discharge summary
 - Aged care summary
 - Handover summary
- Chronic disease management
- Decision support – e.g. CVD risk
- Referral

AUCDI – Draft Scope



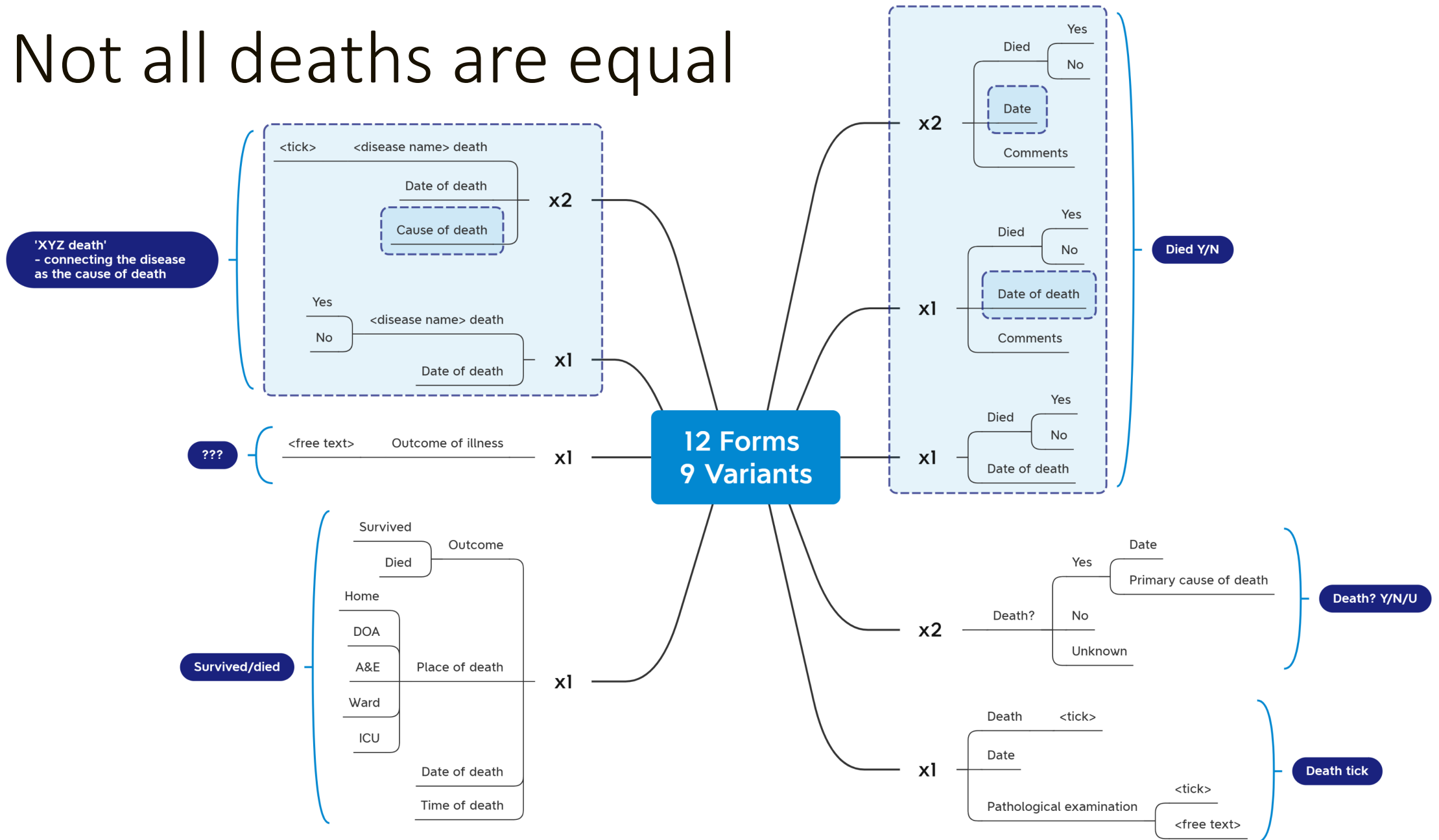
*scoped to support chronic disease management and pregnancy status

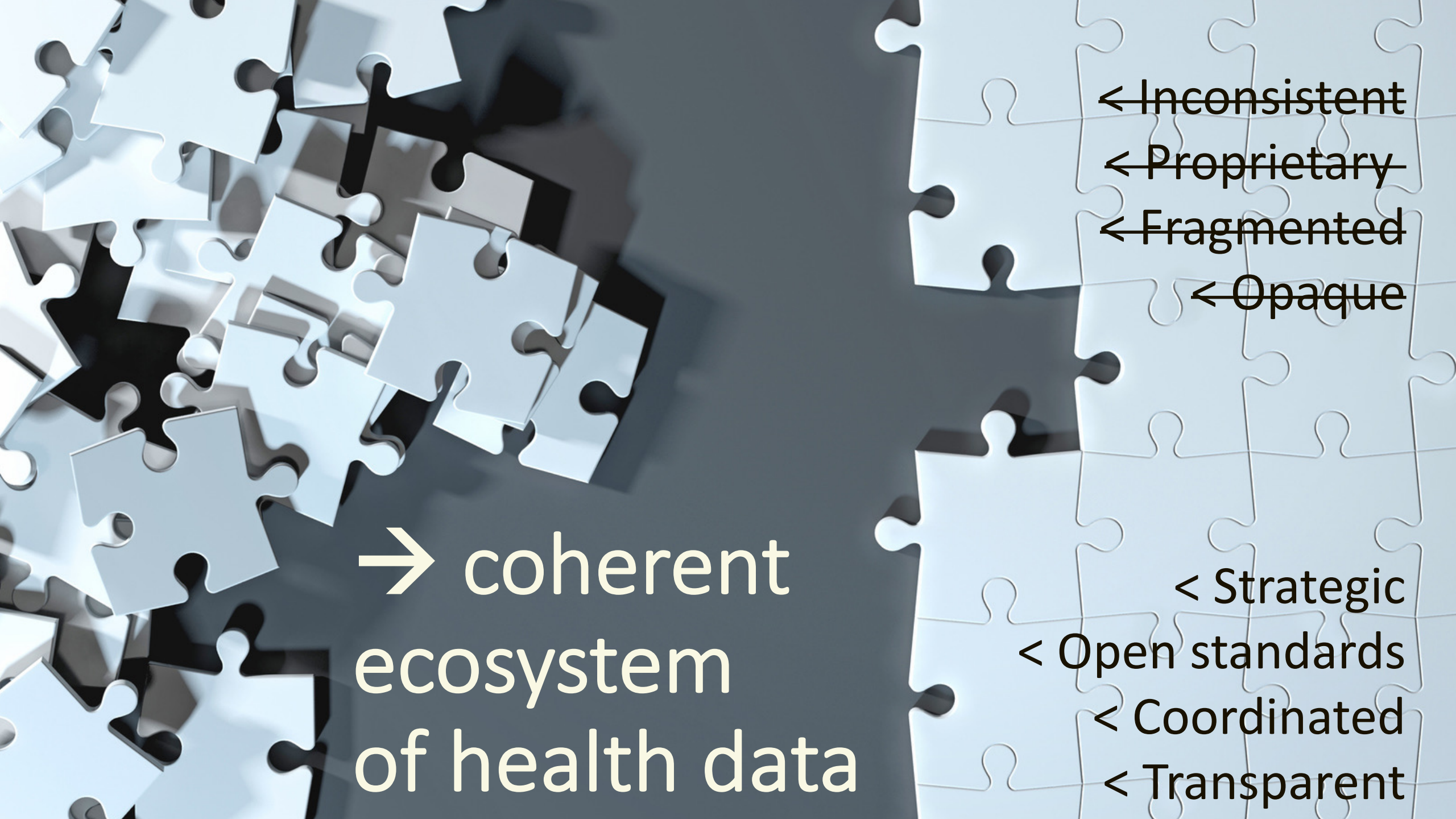
To Heather



< Inconsistent
< Proprietary
< Fragmented
< Opaque

Not all deaths are equal





~~< Inconsistent~~
~~< Proprietary~~
~~< Fragmented~~
~~< Opaque~~

→ coherent
ecosystem
of health data

< Strategic
< Open standards
< Coordinated
< Transparent

Health data ecosystem



A grey elephant is depicted within a large, brown-outlined thought bubble. The elephant's body is covered in dashed lines, indicating it is a coloring page. The elephant is facing right, with its trunk curved downwards. The thought bubble has several smaller circles leading to it from the bottom left. In the bottom left corner, a small portion of a landscape with green hills and a blue sky is visible.

Datasets

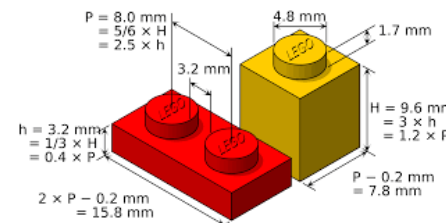


- *Clinical Documents*
- *Messages*
- *Forms/Screens*
- *Minimum data sets*

Information models + term sets



- *Standardised*
- *Validated 'Fit for use'*
- *Tightly governed*



Technical rules



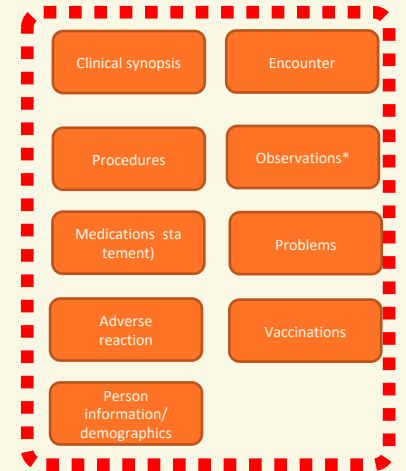
CSIRO PCDQF project – 2018 -2022

- Developing a foundation of ‘little data’ for broad reuse
 - P2P
 - Health check
- Kickstarted work with mature ‘straw man’ archetypes (openEHR)
 - We benefited from reuse of prior global efforts
 - Discussion focused on degree of detail for a use case, not starting from scratch
- Rapid consensus by clinicians on the ‘little data’ patterns
 - Clinically verified, fit for use
 - Clinician engagement – very positive
- Outputs
 - Data dictionary of standardised information models + term sets
 - FHIR

**In turn, our AUDCI project will be kickstarted by the PCDQF work;
informed by USCDI, pCHDCF, & IPS**

AUCDI R1 – Draft Scope for CWG

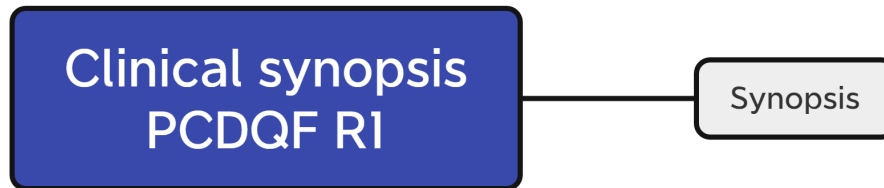
- Clinical synopsis
- Adverse reaction risk
(= allergies & interactions)
- Problem/Diagnosis summary
- Procedure completed
- Medication statement
- Vaccine administration
- Critical observations
 - Weight
 - Height
 - Blood pressure
- Encounter
 - Reason for encounter
 - Type of encounter





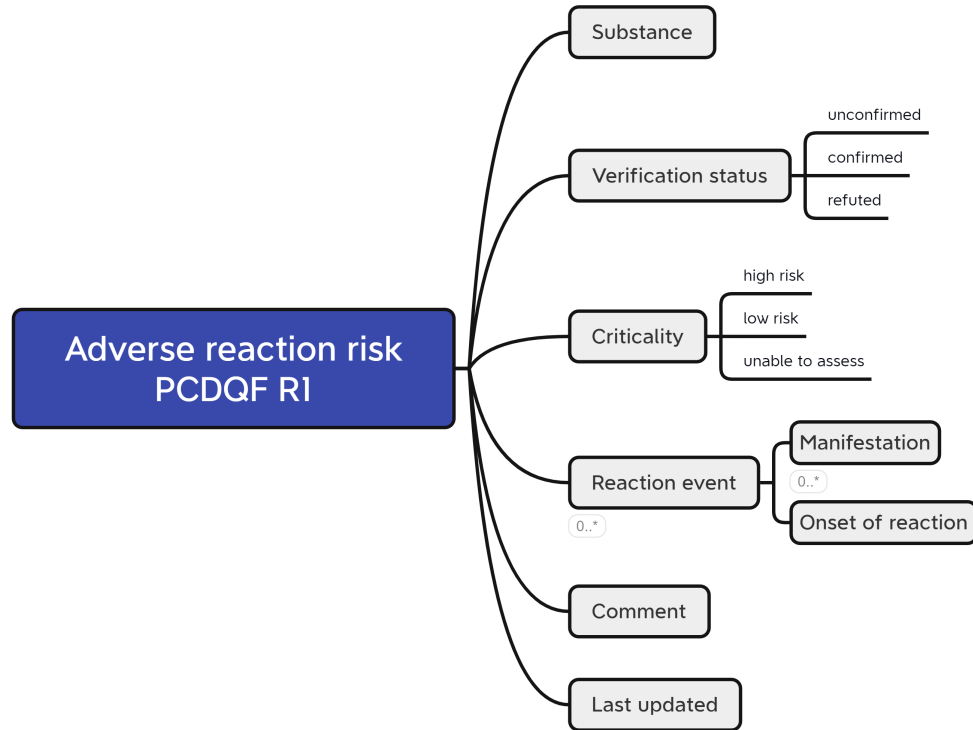
Clinical synopsis

Narrative text that provides additional information or context about the individual that is NOT otherwise captured in the structured clinical content of the exchange but is considered relevant by the sending clinician as part of a comprehensive clinical handover of information.

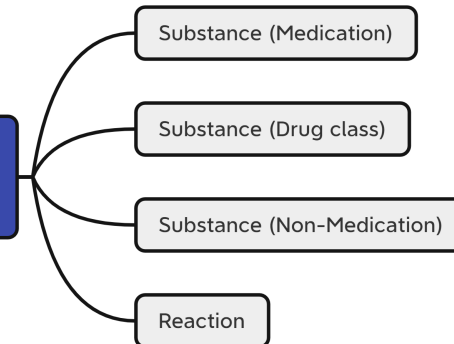


“Mary Fictitious has arranged a transfer from her employer and will move to their regional office in <Suburb> to be closer to her son and daughter-in-law. Mary is still grieving the early and unexpected death of her husband last year. She will become a grandmother in 5 months. She is currently most concerned about resolving her <XYZ> issues.”

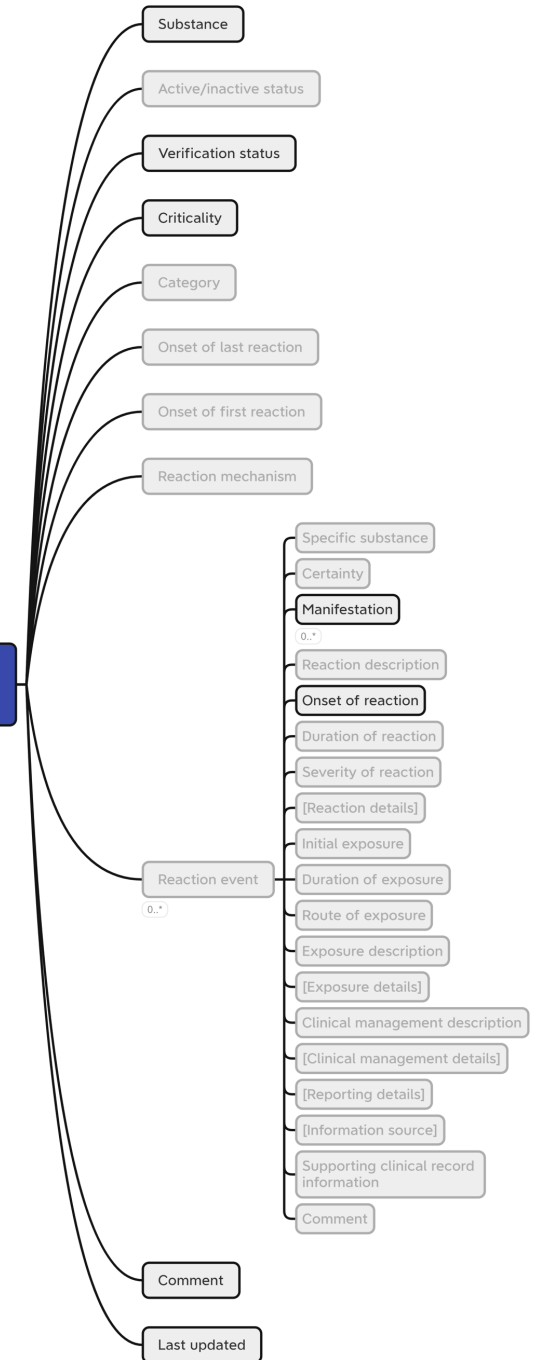
Adverse reaction risk



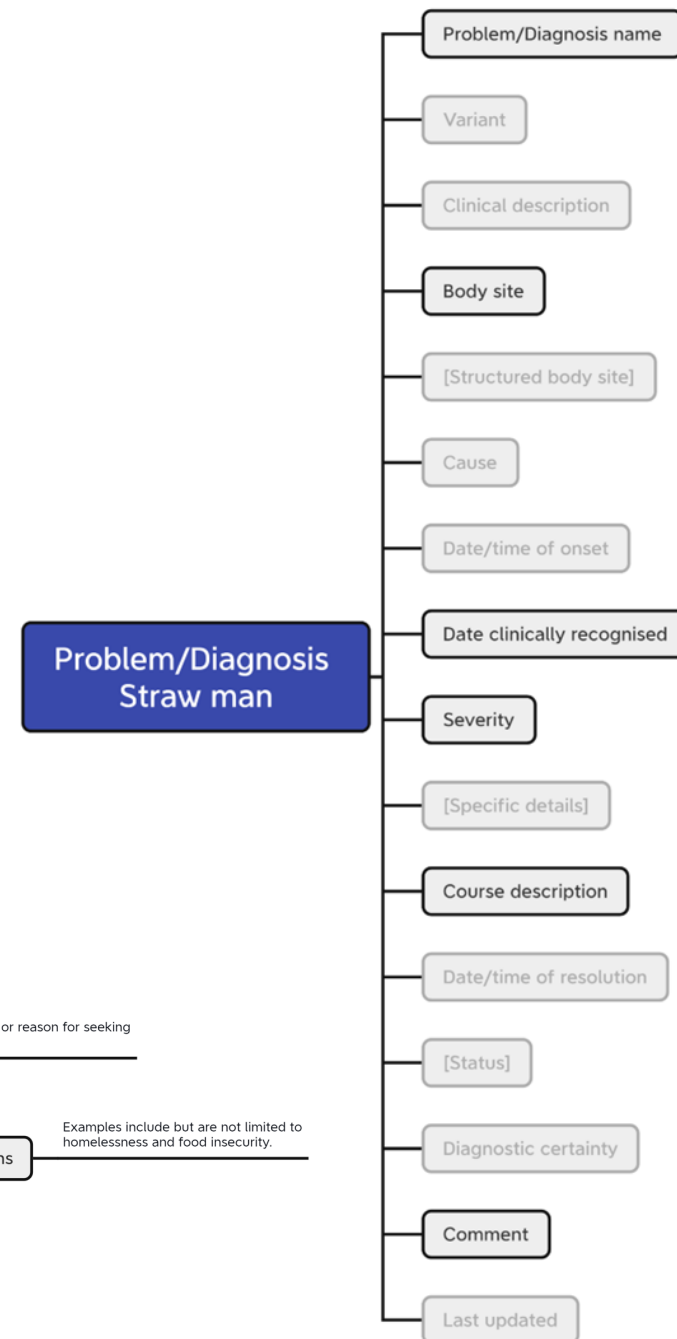
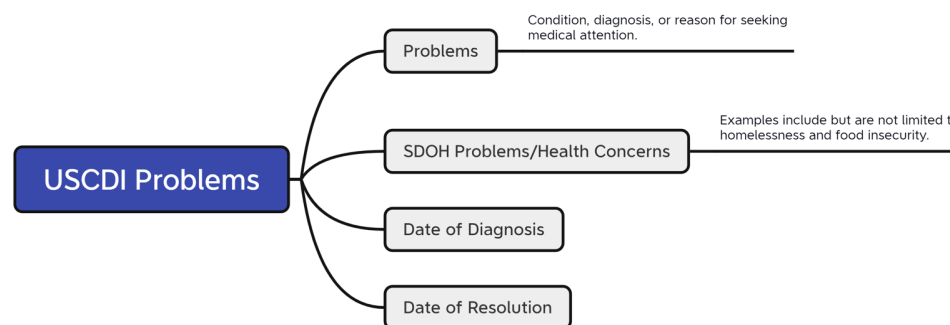
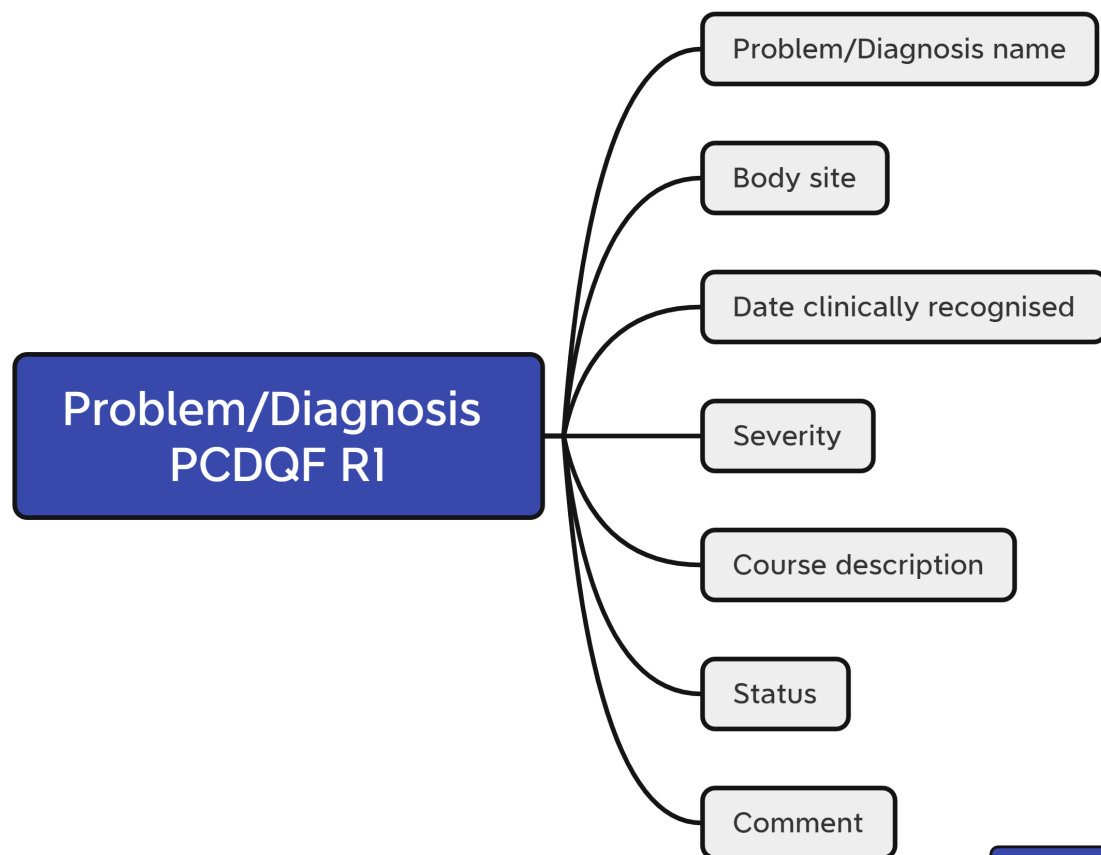
USCDI Allergies & Intolerances



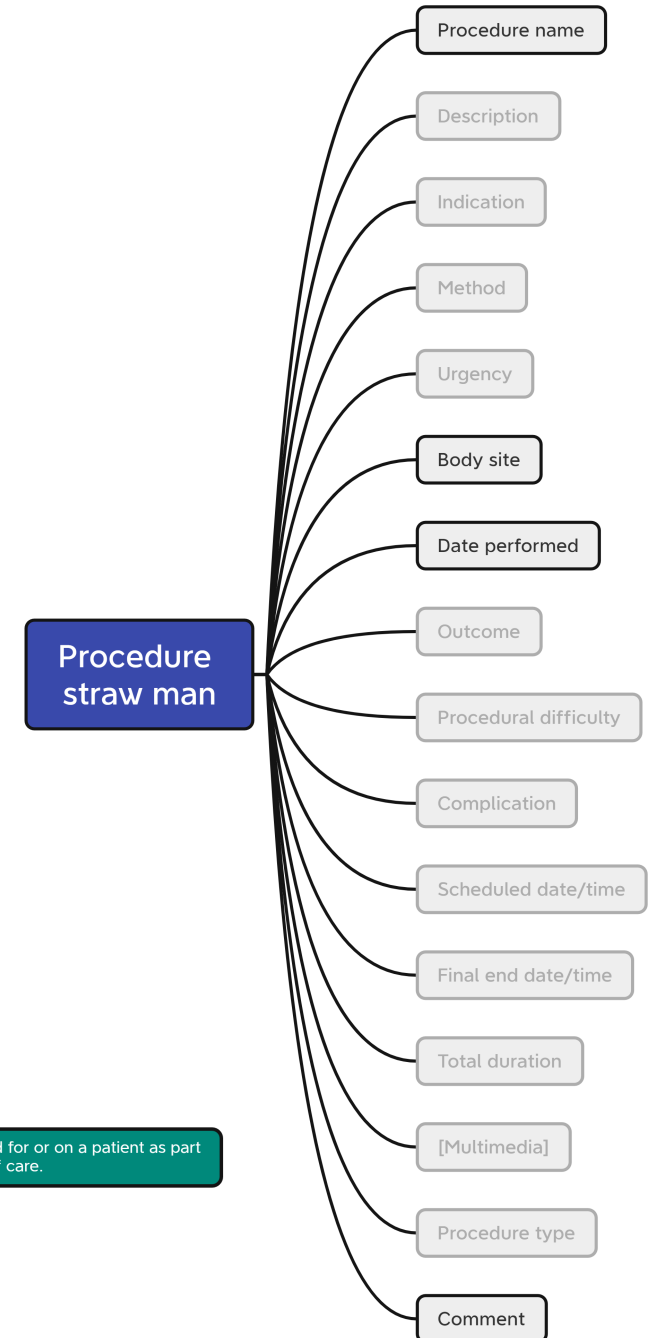
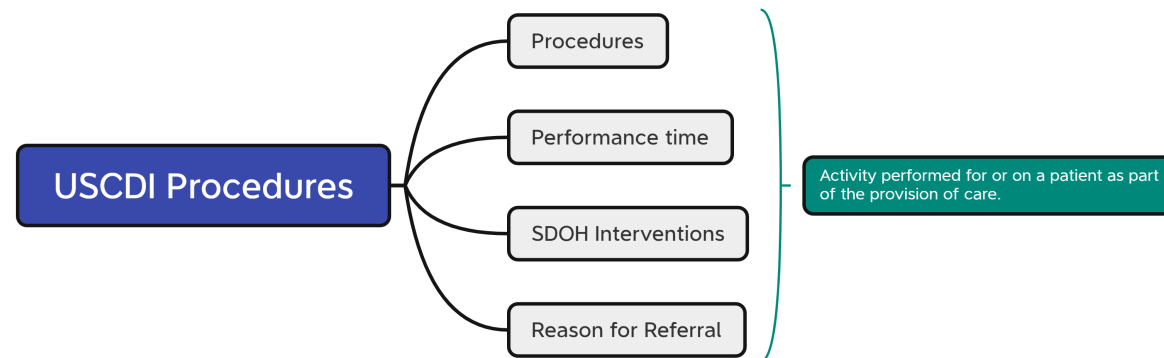
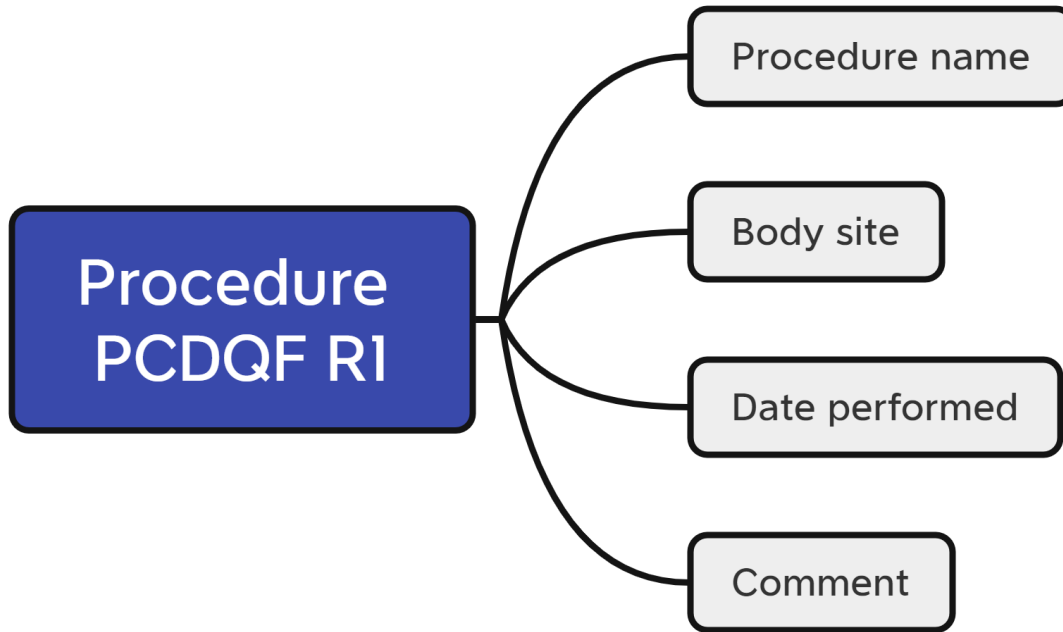
Adverse reaction risk straw man



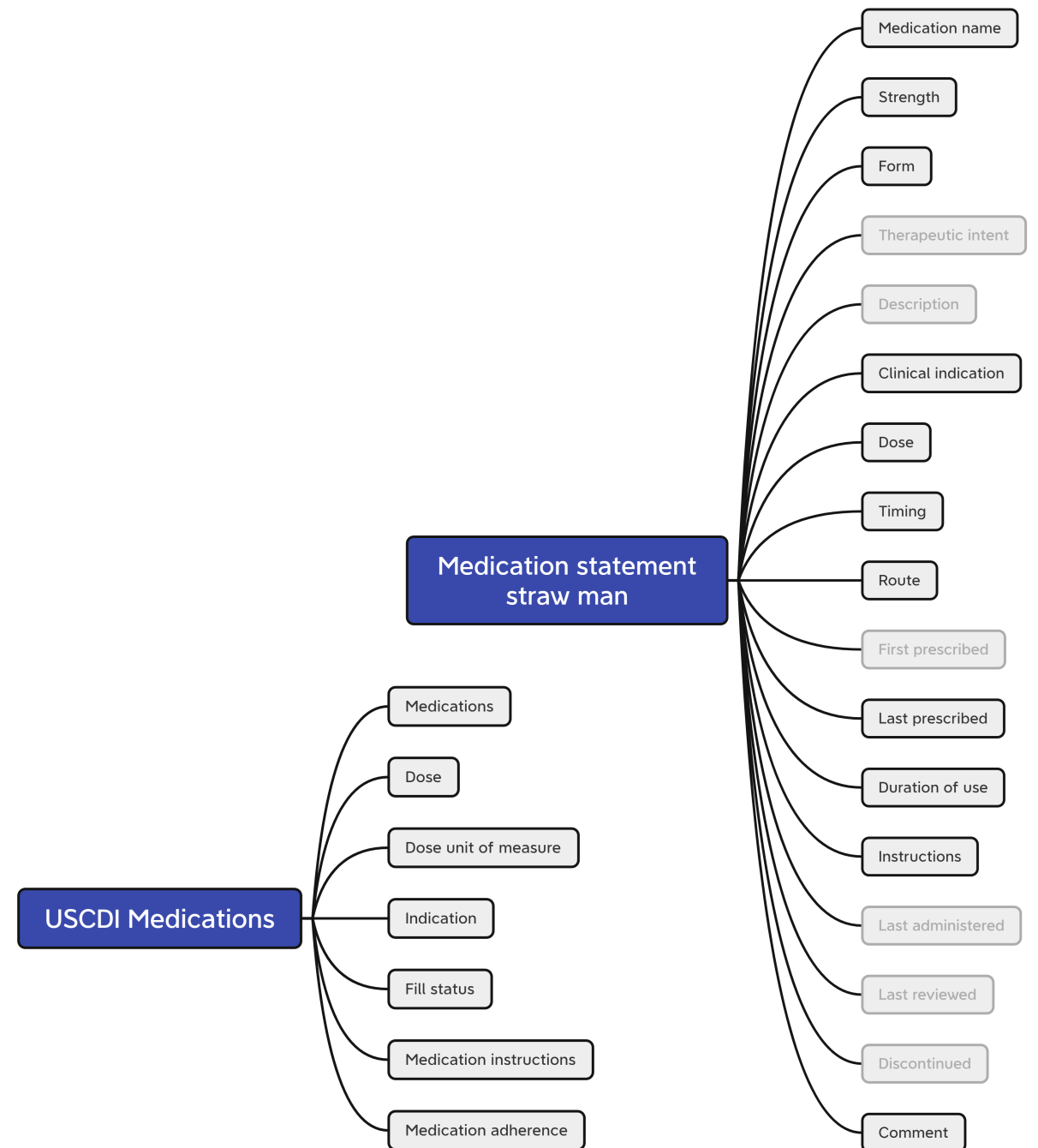
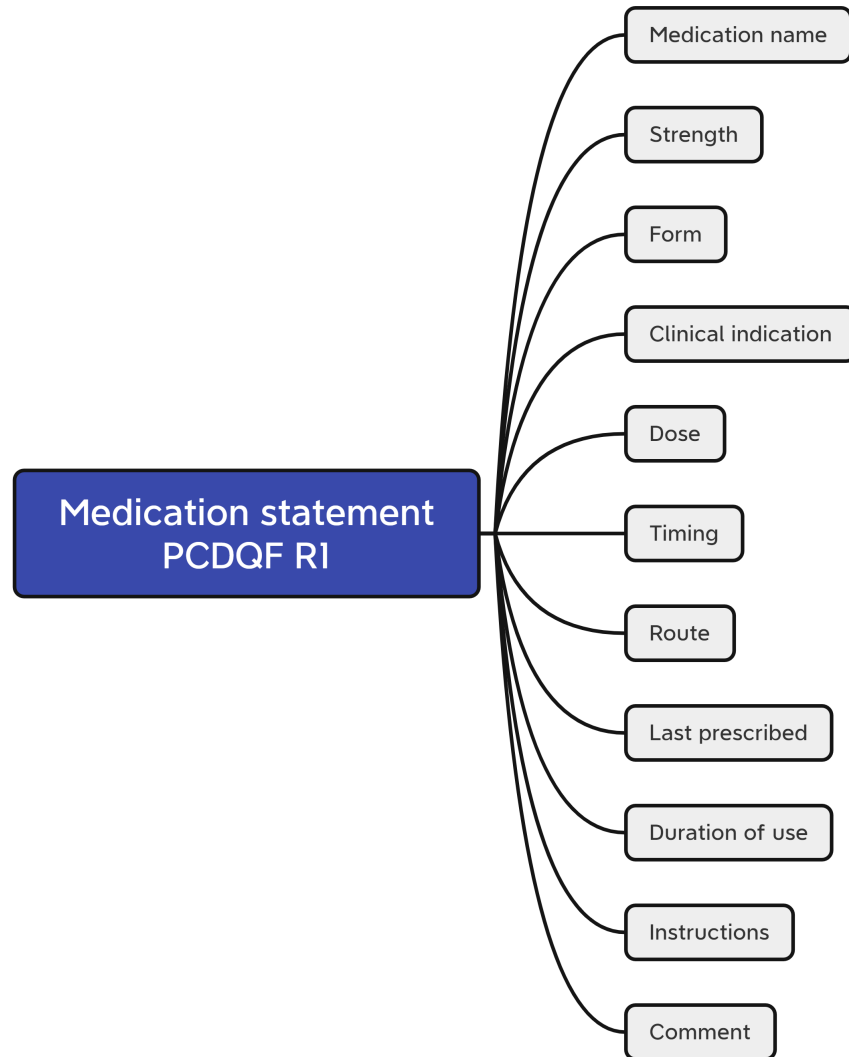
Problem/Diagnosis summary



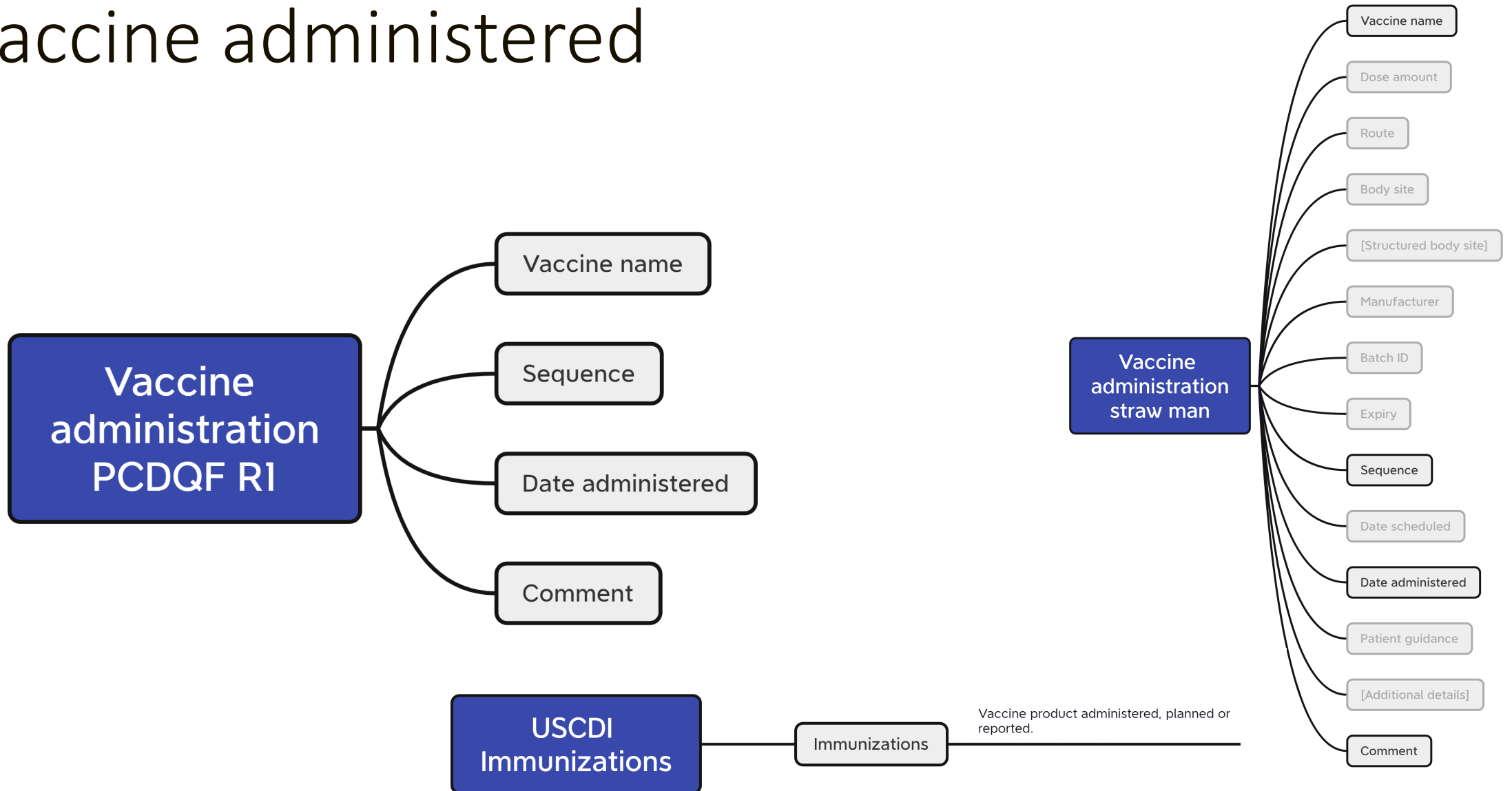
Procedure completed



Medication statement

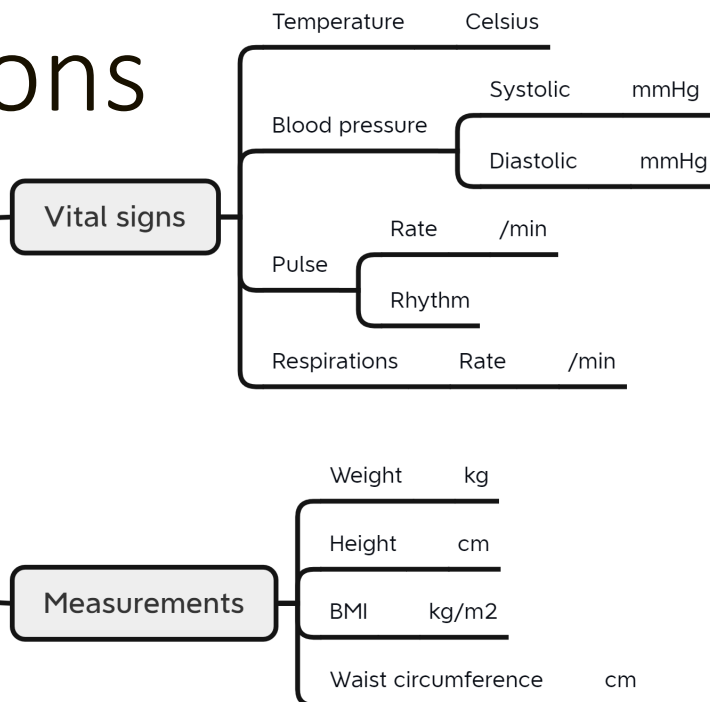


Vaccine administered

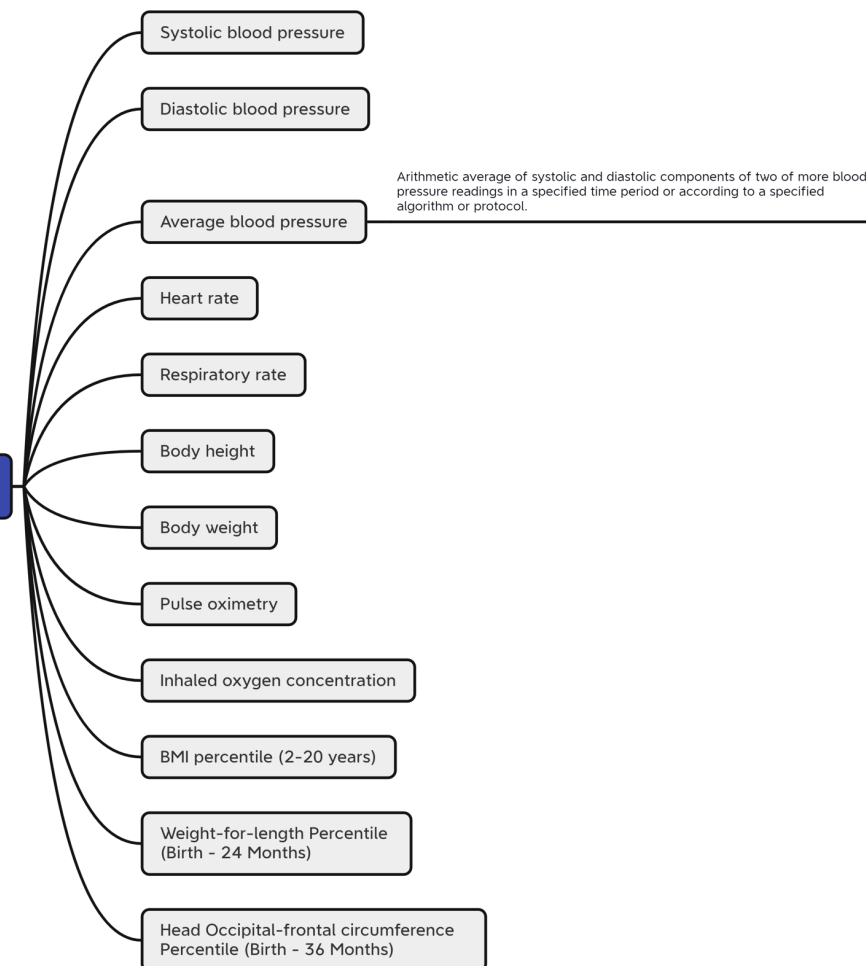


Observations

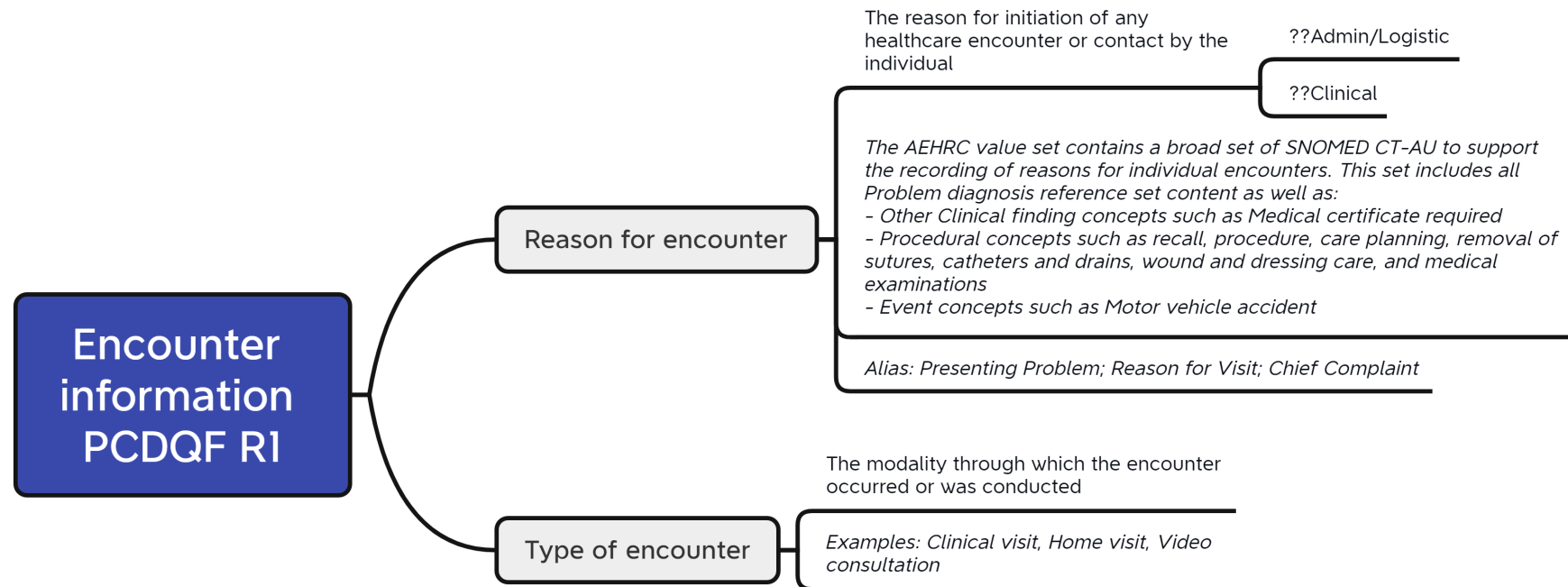
Observations PCDQF R2



USCDI Vital signs



Encounter information





Next steps

- Slides and recordings of this meeting will be posted on Sparked CDG confluence page
 - Please provide feedback by commenting on confluence (you will need a PUMA account) or by emailing fhir@csiro.au



Next meetings

- 5 December 2023 (online)
 - 3.30pm-5pm AEDST
- 17 January 2023 (online)
 - 3.30pm-5pm AEDST
- 13 February 2023 (in person Melbourne)
 - All day workshop
 - Run along side in person Sparked TDG workshop (14 February 2023)



Thank you