digitalhealth REWIRED BIRMINGHAM 12-13 MARCH 2024

Headline Sponsors:

Graphnet Transforming Care

System C Connecting Care

tpp

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AI, DATA AND ANALYTICS STAGE

Stage Sponsor:

InterSystems Creative data technology

Adventures in Interoperability

NIHR | Oxford Biomedical Research Centre

BIG DATA INSTITUTE

Department of Health & Social Care

Policy paper

Data saves lives: reshaping health and social care with data

Updated 15 June 2022

secure data environments

In secure data environments, access to data is granted to authorised researchers in a controlled and recorded manner.

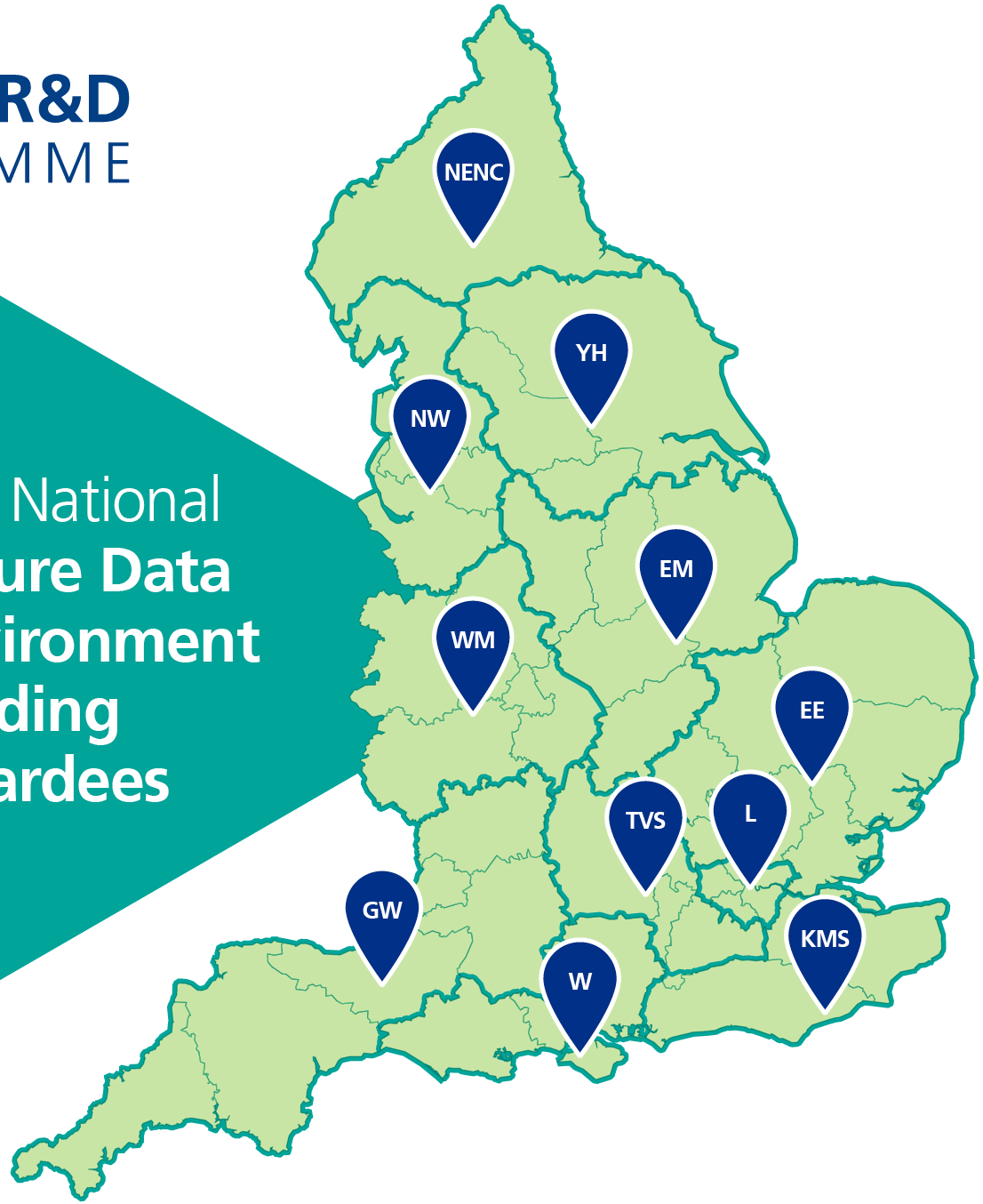
This will put an end to the routine sharing and distribution of healthcare data for research purposes.

We will be mandating the use of secure data environments for NHS data and engaging with the public to demonstrate their inherent benefits and to understand any remaining concerns.

Data Saves Lives 2022

Data for R&D
PROGRAMME

Sub National **Secure Data Environment funding awardees**



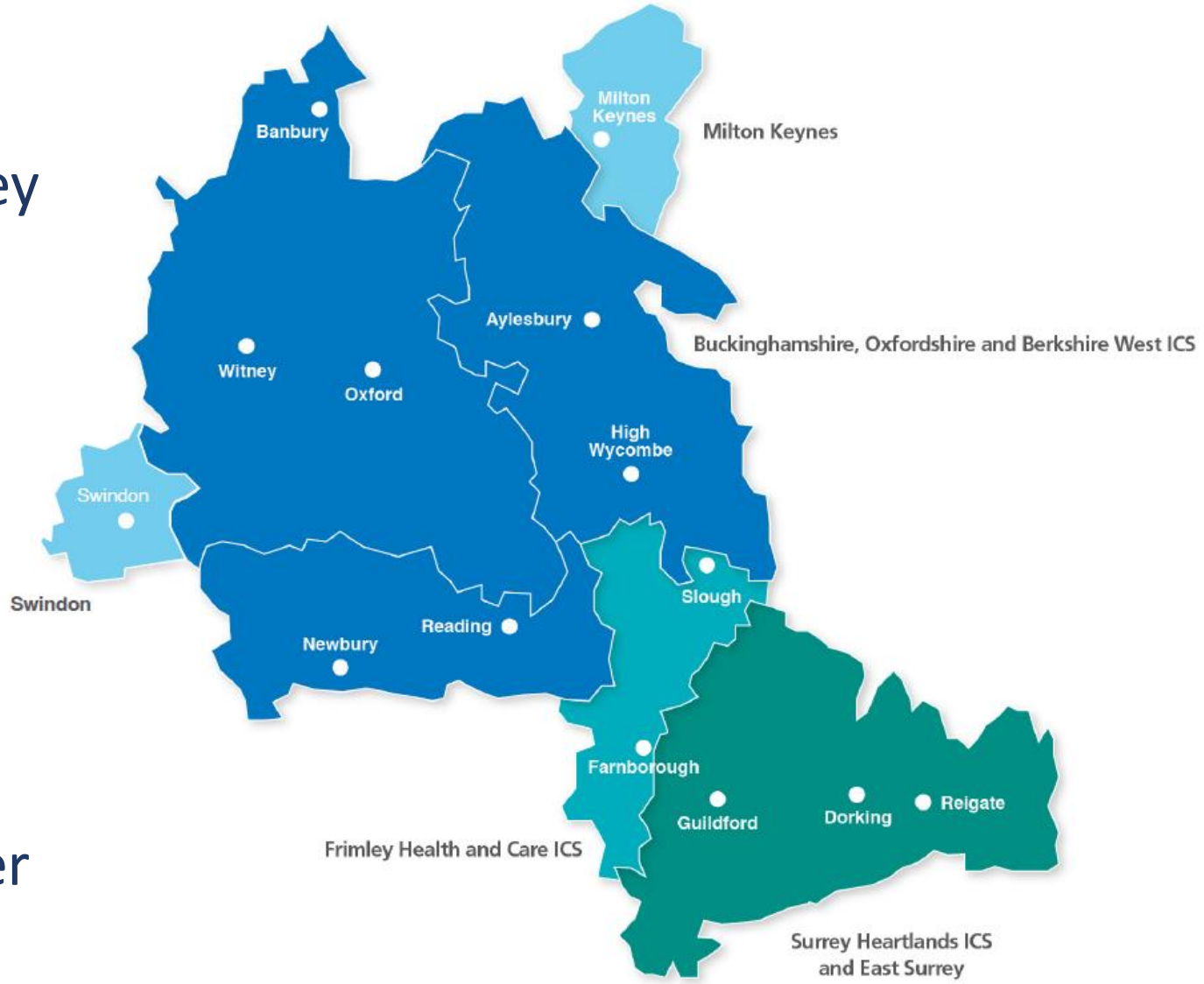
EE	East of England
EM	East Midlands
GW	Great Western
KMS	Kent, Medway & Sussex
L	London
NENC	NENC
NW	North West
TVS	Thames Valley & Surrey
W	Wessex
WM	West Midlands
YH	Yorkshire & Humber

region

BOB, Frimley Healthcare, Surrey Heartlands ICSs, plus MKUH, GWH, and SCAS

4.3 million people (up to 15 million as part of Southern Consortium)

OUH leading, with the University as a strategic partner



regional manifesto

eyes on over eyes off

translational over observational

patient records over research datasets

multi-modal data over codes

additional assurance over static description

real world data

semantic interoperability

“this data meets that specification”

”it is okay to use this data for that purpose”

”in this situation, it is okay to combine this data and that data”

“the algorithm makes reliable predictions for

- this kind of patient/population
- given that kind of data”

challenge

to provide assurance regarding semantic interoperability we need **metadata** describing

- the intended interpretation
- the context of collection
- the nature of any processing

to do this at scale requires a high degree of automation

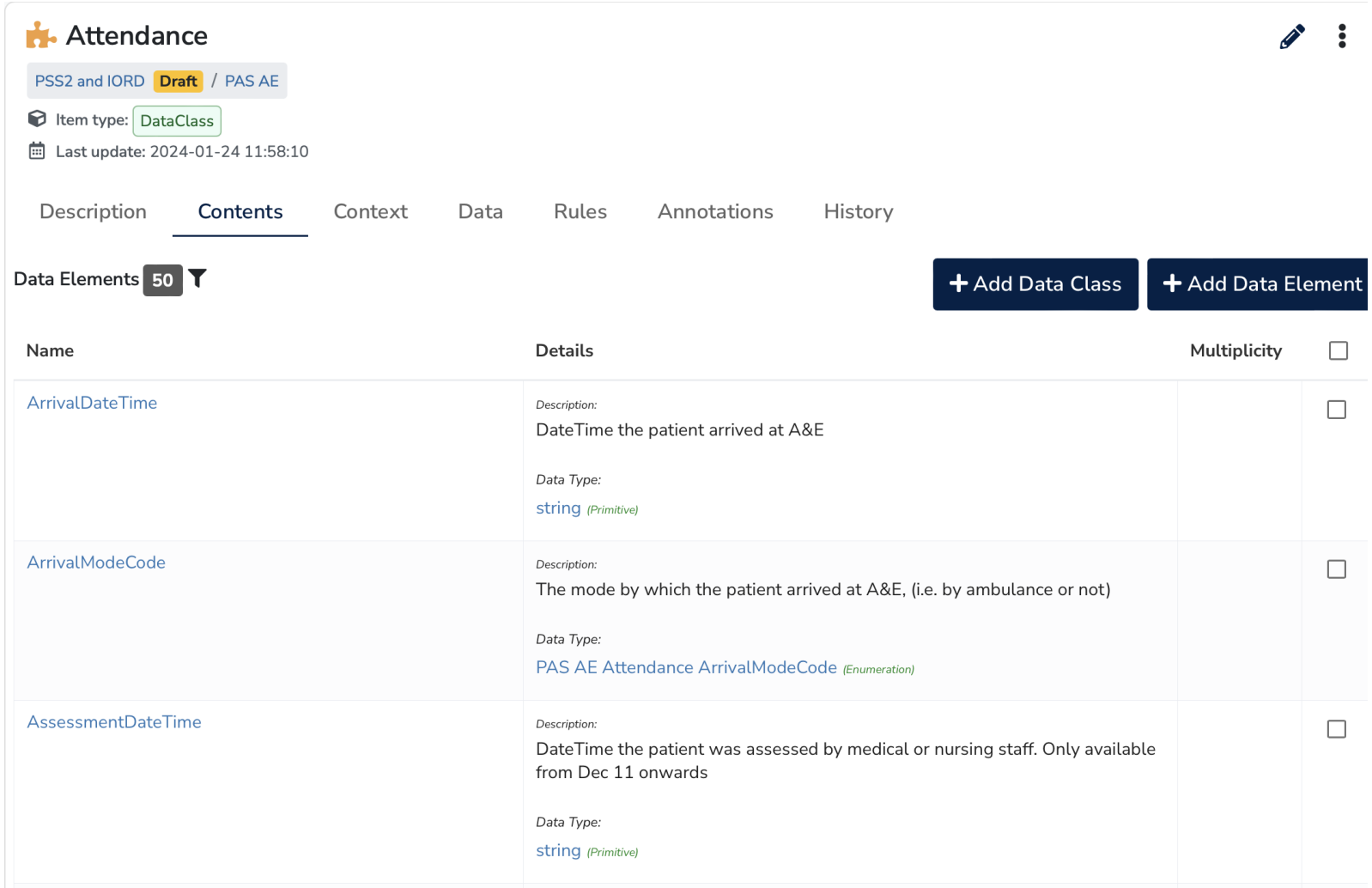
metadata catalogue

open source metadata tools

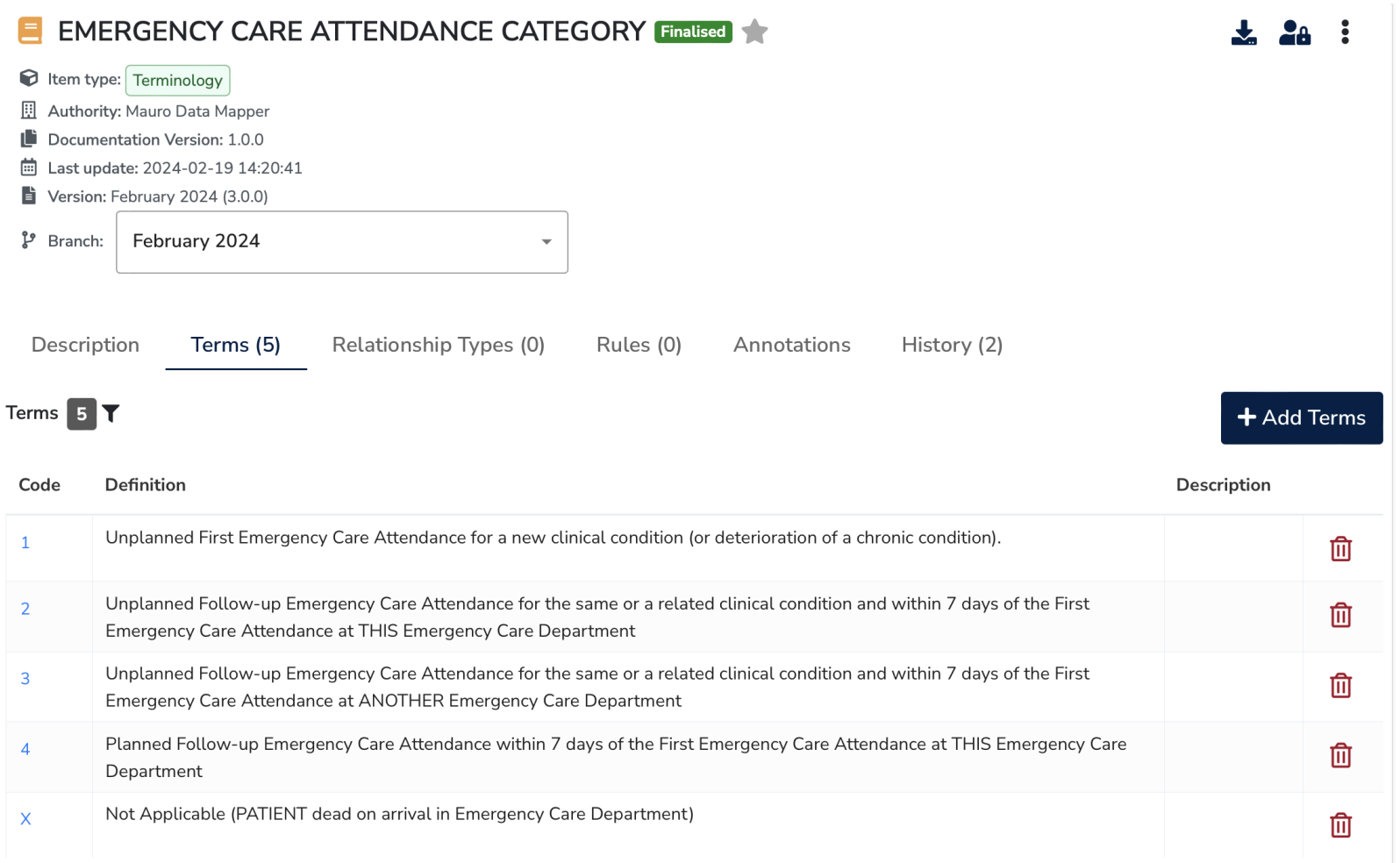
- Mauro Data Mapper
- Mauro Data Explorer

http://maurodatamapper.github.io

tables


Attendance
PSS2 and IORD Draft / PAS AE
Item type: DataClass
Last update: 2024-01-24 11:58:10
Description
Contents
Context
Data
Rules
Annotations
History
Data Elements 50
+ Add Data Class
+ Add Data Element
Name
Details
Multiplicity
ArrivalDateTime
Description:
DateTime the patient arrived at A&E
Data Type:
string (Primitive)
ArrivalModeCode
Description:
The mode by which the patient arrived at A&E, (i.e. by ambulance or not)
Data Type:
PAS AE Attendance ArrivalModeCode (Enumeration)
AssessmentDateTime
Description:
DateTime the patient was assessed by medical or nursing staff. Only available from Dec 11 onwards
Data Type:
string (Primitive)

value sets


EMERGENCY CARE ATTENDANCE CATEGORY
Finalised
Item type: Terminology
Authority: Mauro Data Mapper
Documentation Version: 1.0.0
Last update: 2024-02-19 14:20:41
Version: February 2024 (3.0.0)
Branch: February 2024
Description
Terms (5)
Relationship Types (0)
Rules (0)
Annotations
History (2)
Terms 5
Add Terms
Code
Definition
Description
1
Unplanned First Emergency Care Attendance for a new clinical condition (or deterioration of a chronic condition).
2
Unplanned Follow-up Emergency Care Attendance for the same or a related clinical condition and within 7 days of the First Emergency Care Attendance at THIS Emergency Care Department
3
Unplanned Follow-up Emergency Care Attendance for the same or a related clinical condition and within 7 days of the First Emergency Care Attendance at ANOTHER Emergency Care Department
4
Planned Follow-up Emergency Care Attendance within 7 days of the First Emergency Care Attendance at THIS Emergency Care Department
X
Not Applicable (PATIENT dead on arrival in Emergency Care Department)

transformations

`Observation` `observation_date`

Cds Total Previous Pregnancies Observation

Source column `CDSActivityDate`. Converts text to dates.

- `CDSActivityDate` Event date CDS ACTIVITY DATE

▼ SQL

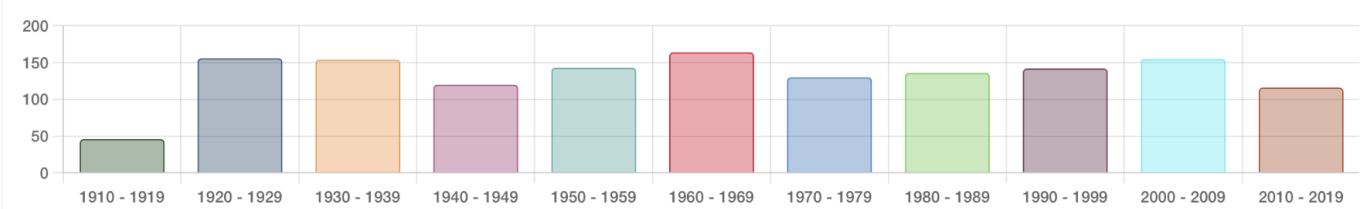
```
select
        l1.NHSNumber,
        l1.RecordConnectionIdentifier,
        l5.HospitalProviderSpellNumber,
        max(l1.CDSActivityDate) as CDSActivityDate,
        l1.TotalPreviousPregnancies
from omop_staging.cds_line01 l1
        left outer join omop_staging.cds_line05 l5
                on l1.MessageId = l5.MessageId
where l1.TotalPreviousPregnancies is not null
        and l1.NHSNumber is not null
        and (l1.CdsRecordType = '140' or l1.CdsRecordType = '120')
group by
        l1.NHSNumber,
        l1.RecordConnectionIdentifier,
        l5.HospitalProviderSpellNumber,
        l1.CDSActivityDate,
        l1.TotalPreviousPregnancies;
```

Answer

value distributions

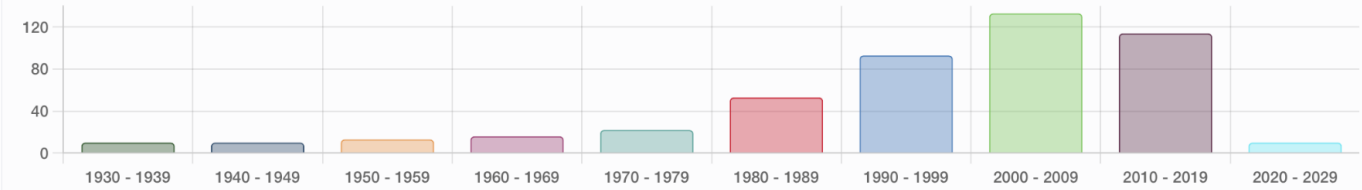
birthdate
Value Distribution

More details >



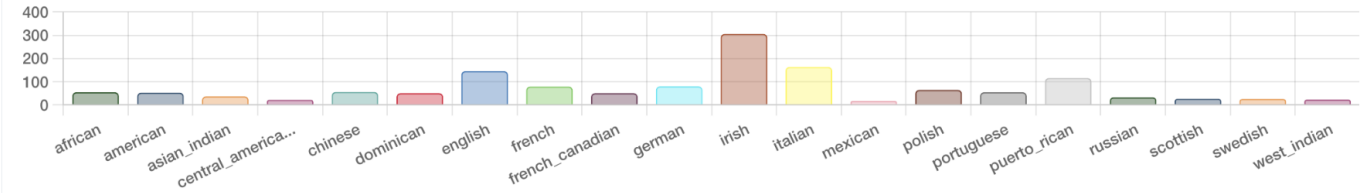
deathdate
Value Distribution

More details >



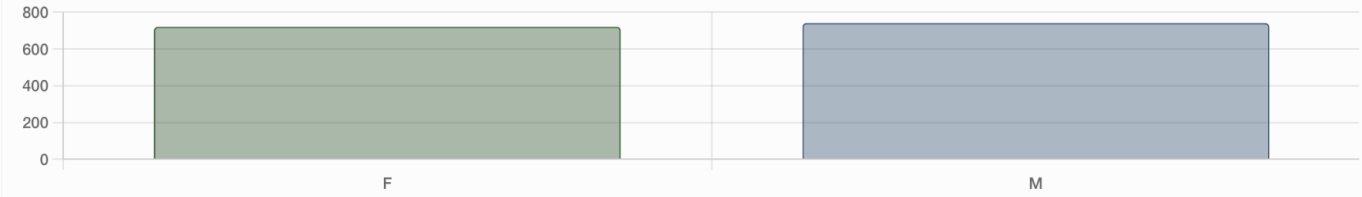
ethnicity
Enumeration Value Distribution

More details >

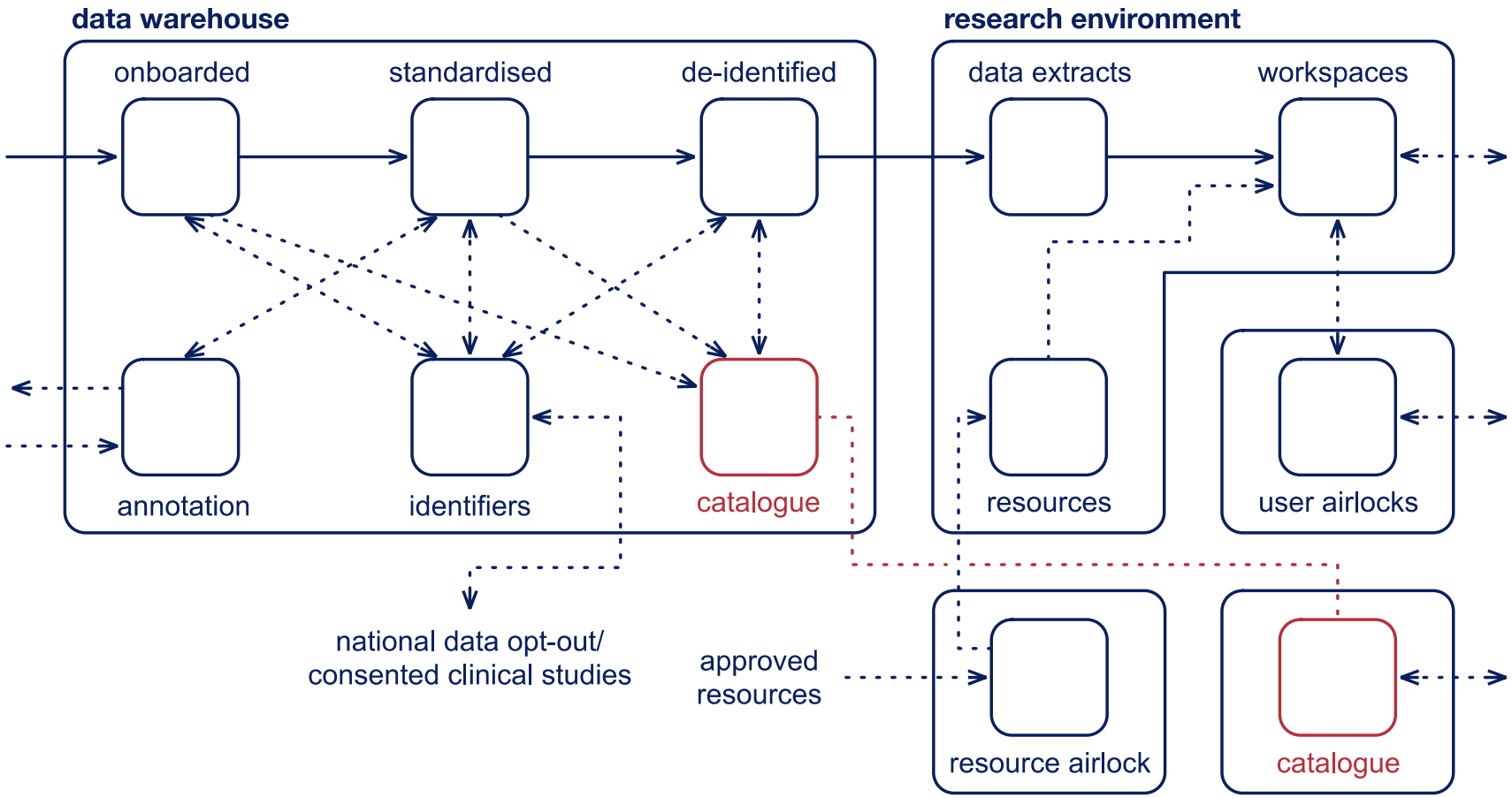


gender
Enumeration Value Distribution

More details >



architecture



support

Answer

System
Connecting Care