



S-CUBED

TT04

Decomposing SDTM – Starting again

Johannes Ulander
PHUSE EU Connect
Amsterdam
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Agenda

- Decompose SDTM
- Summary

Person and cat



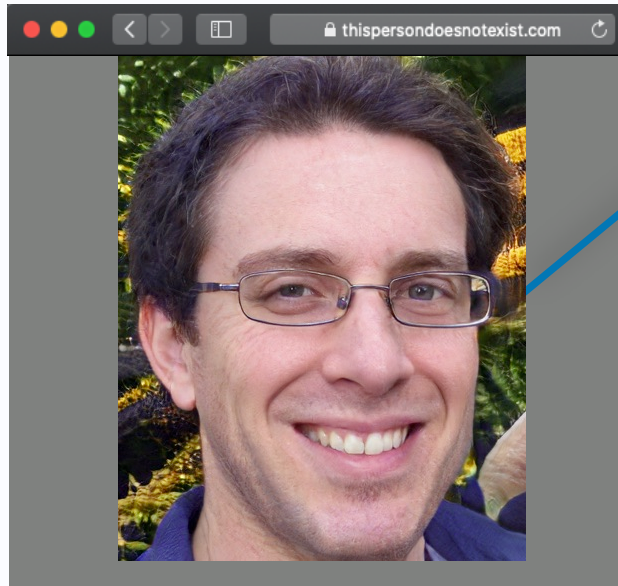
Name: John
Age: 32
Gender: Male

Name: Jazzy
Age: 6
Gender: Female



Person and cat – or is it?

<https://thispersondoesnotexist.com>



Name:
Age:
Gender:

Name: Jazzy
Age: 6
Gender: Female



Yes, this is our cat

Imagined by a GAN ([generative adversarial network](#))
[StyleGAN](#) (Dec 2018) - [Karras et al.](#) and Nvidia
[Original GAN](#) (2014) - [Goodfellow et al.](#)
Don't panic. Learn about [how it works](#).
Help me figure out what was learned [here](#).
[Help](#) this AI continue to dream
[Another](#) | [Save](#) • [Cats](#) | [Articles](#) | [TV Friends](#) - [Office](#) | [x](#)

<https://arxiv.org/abs/1406.2661>

<https://arxiv.org/abs/1812.04948>

36

<i>AAGE</i>
36
42

42

DM – Specification for the Demographics Domain Model

dm.xpt, Demographics — Version 3.2. One record per subject, Tabulation

Variable Name	Variable Label	Type	Controlled Terms, Codelist or Format	Role	
USUBJID	Unique Subject Identifier	Char		Identifier	Identifier used to uniquely identify submissions involving the product compound identifier formed
INVID	Investigator Identifier	Char		Record Qualifier	An identifier to describe the SITEID. Not needed if SITE
AGE	Age	Num		Record Qualifier	Age expressed in AGEU. M BRTHDTC may not be avail
AGEU	Age Units	Char	(AGEU)	Variable	Units associated with AGE.

SDTM IG

STUDYID	USUBJID	INVID	AGE
STUDY1	S01	I01	36

Study Data Reviewer's Guide

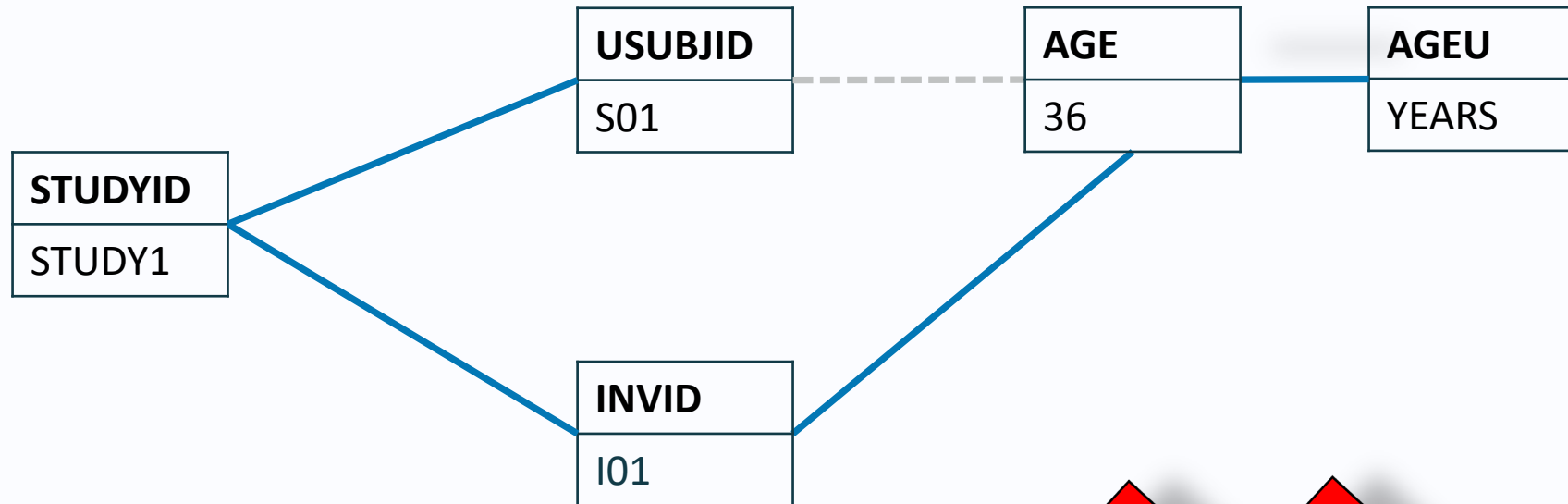
SDRG, Inc.

Study SDRG-001A

Version 2014-08-06

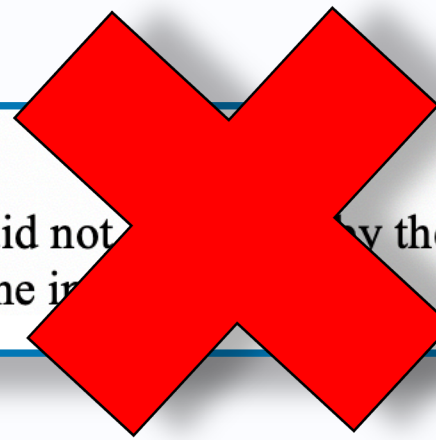
3.3.1. DM – Demographics

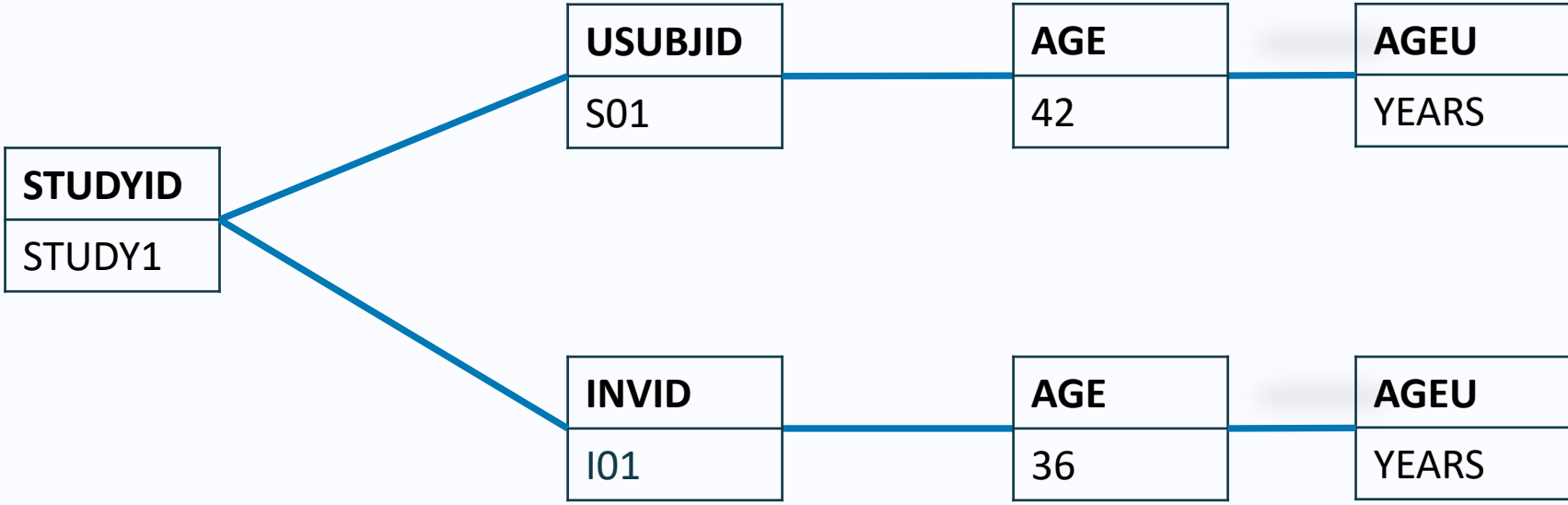
To make sure that subjects did not get biased by the investigators age, variable AGE is used for the age of the investigator.



3.3.1. DM – Demographics

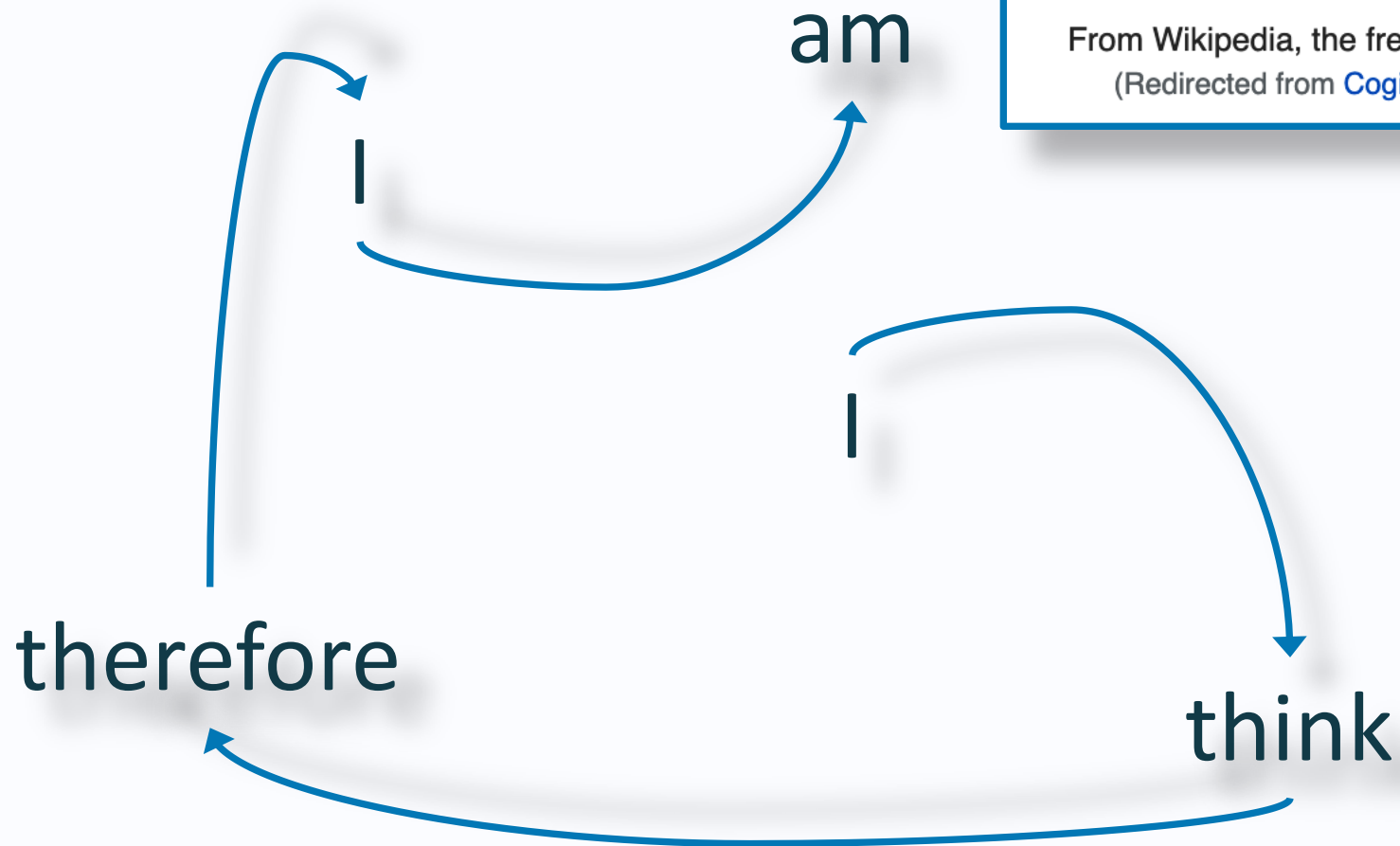
To make sure that subjects did not provide the investigators age, variable AGE is used for the age of the investigator.





Our data is incomplete

STUDYID	USUBJID	INVID	AGE	AGEU
STUDY1	S01	I01	42	YEARS



Cogito, ergo sum

From Wikipedia, the free encyclopedia
(Redirected from [Cogito ergo sum](#))

Part of a series on
René Descartes



Philosophy

[\[show\]](#)

Works

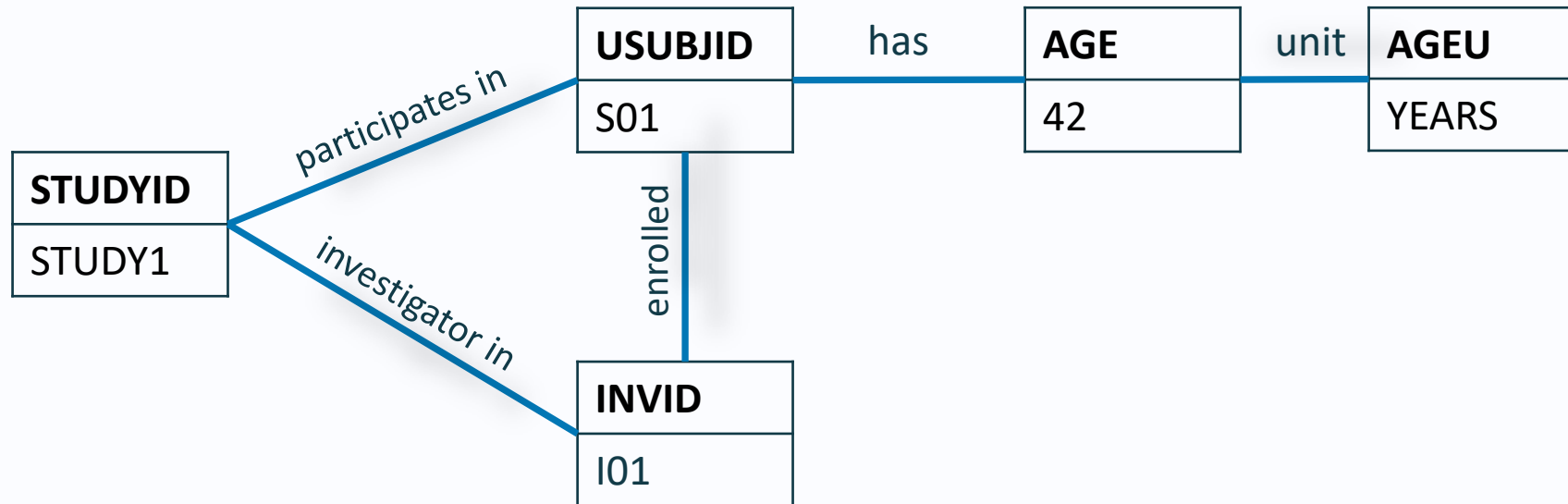
[\[show\]](#)

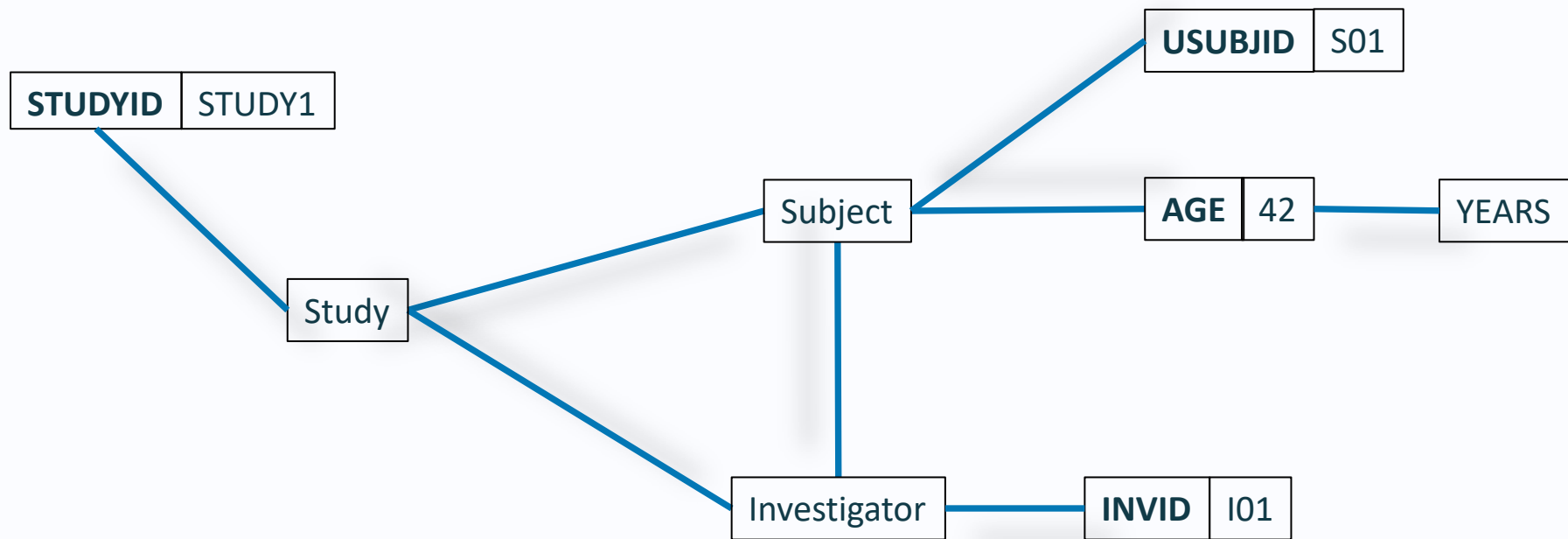
People

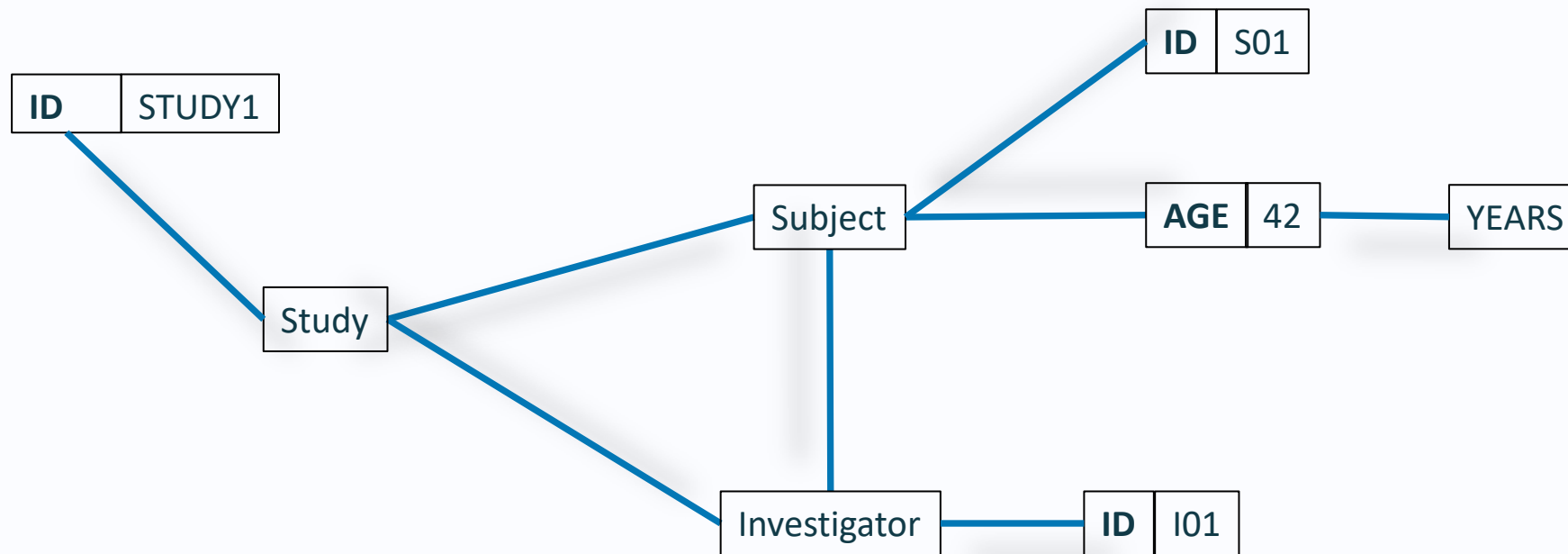
[\[show\]](#)

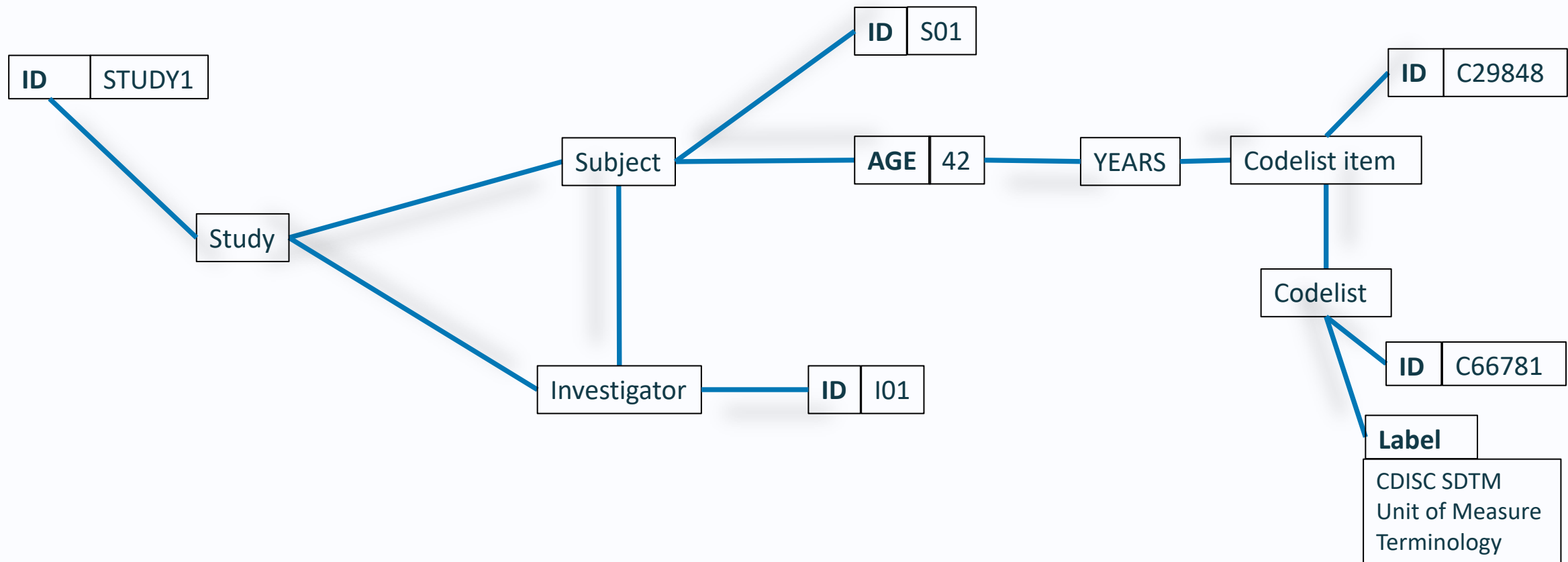
V · T · E

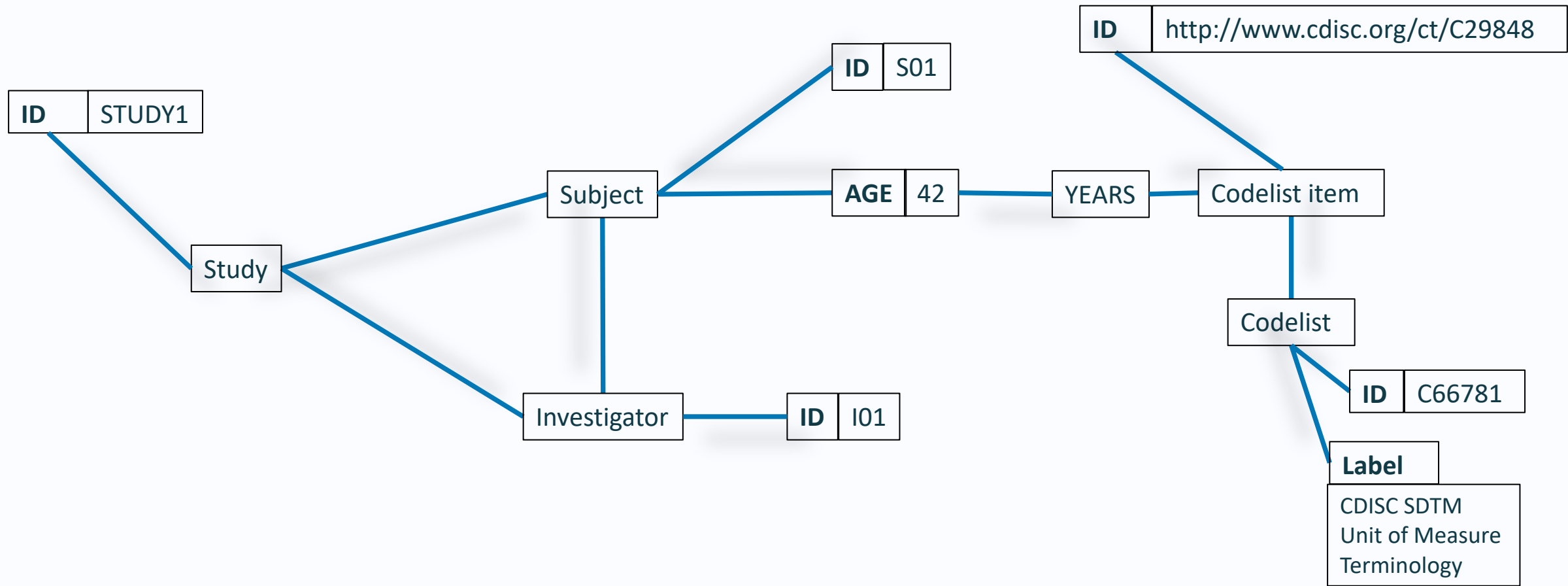
I want to decompose some more











```

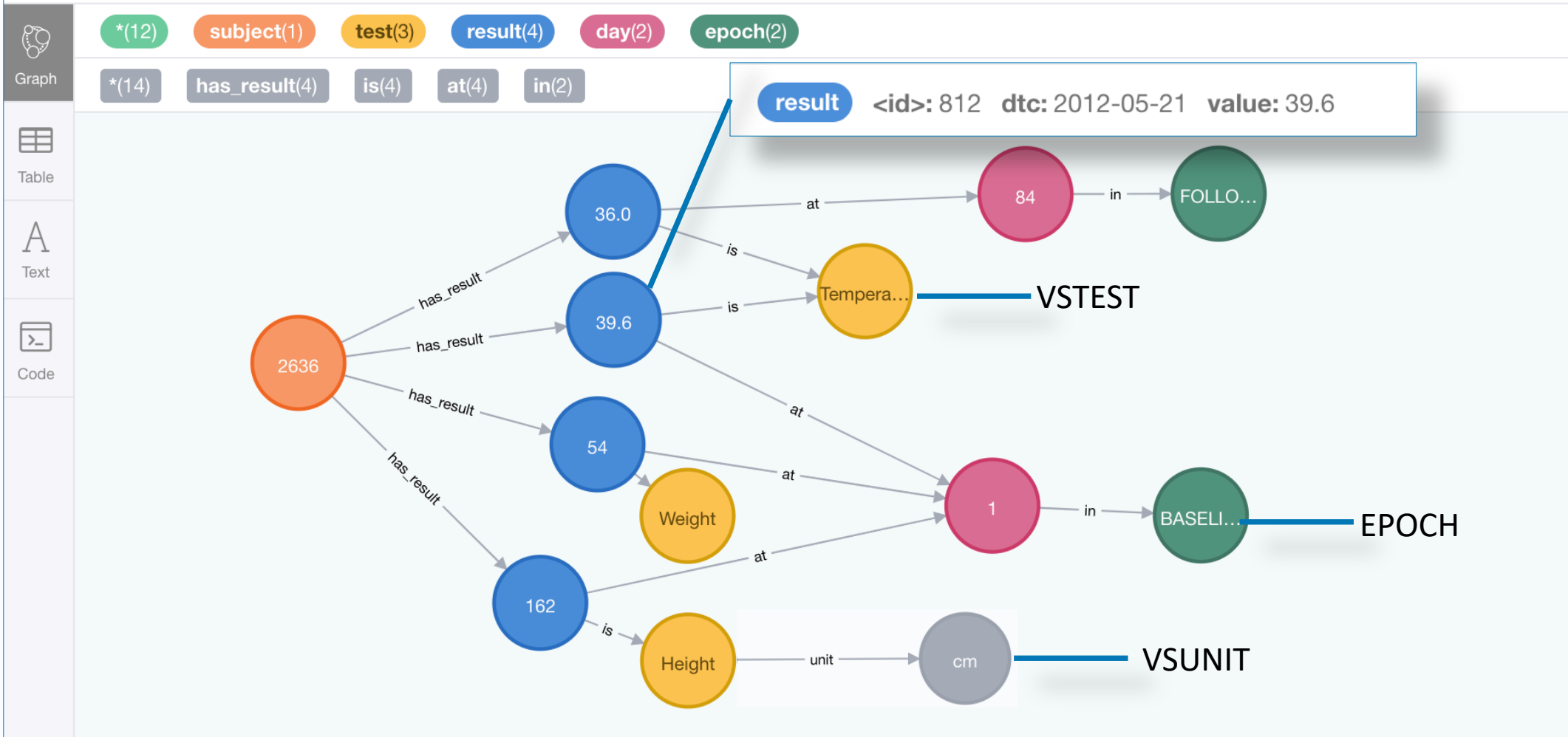
2 MATCH (subj:subject {n:2636})-[:has_result]→(res:result)-[:is]-(type)
3 MATCH (res)-[:at]→(day)-[:in]→(epoch)
4 MATCH (res)-[:unit]→(unit)
5 RETURN subj.ID as USUBJID, type.name as VSTEST, res.value as VSORRES, unit.name as VSORRESU, res.dtc as VSDTC,
6 ORDER by type.name, res.dtc

```

USUBJID	VSTEST	VSORRES	VSORRESU	VSDTC	VSDY	EPOCH
2636	"Height"	"162"	"cm"	"2012-05-21"	"1"	"BASELINE"
2636	"Temperature"	"39.6"	"C"	"2012-05-21"	"1"	"BASELINE"
2636	"Temperature"	"36.0"	"C"	"2012-08-12"	"84"	"FOLLOW-UP"
2636	"Weight"	"54"	"kg"	"2012-05-21"	"1"	"BASELINE"

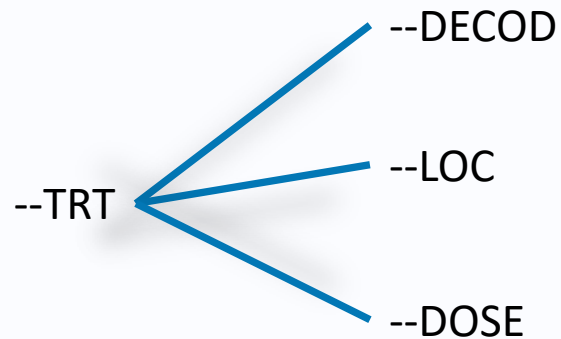
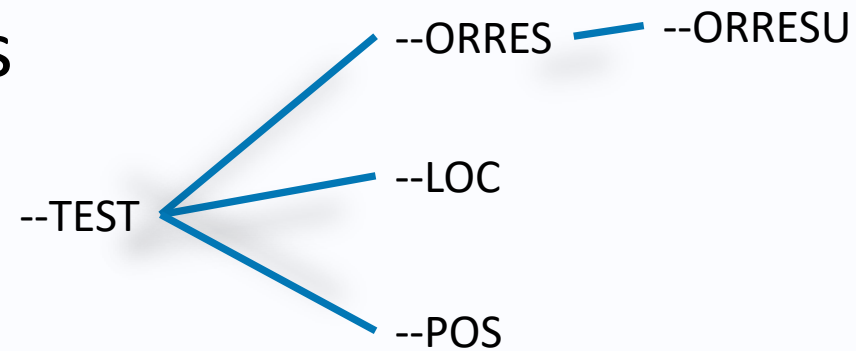
```
2 MATCH (s:subject {ID:2636})-[:has_result]→(r:result)-[:is]-(t)
3 MATCH (r)-[:at]→(d)-[:in]→(e)
4 RETURN s, t, r, d, e
```

```
$ MATCH (s:subject {ID:2636})-[:has_result]→(r:result)-[:is]-(t) MATCH (r)-[:at]→(d)-[:in]→(e)
```



Data as Patterns/Shapes

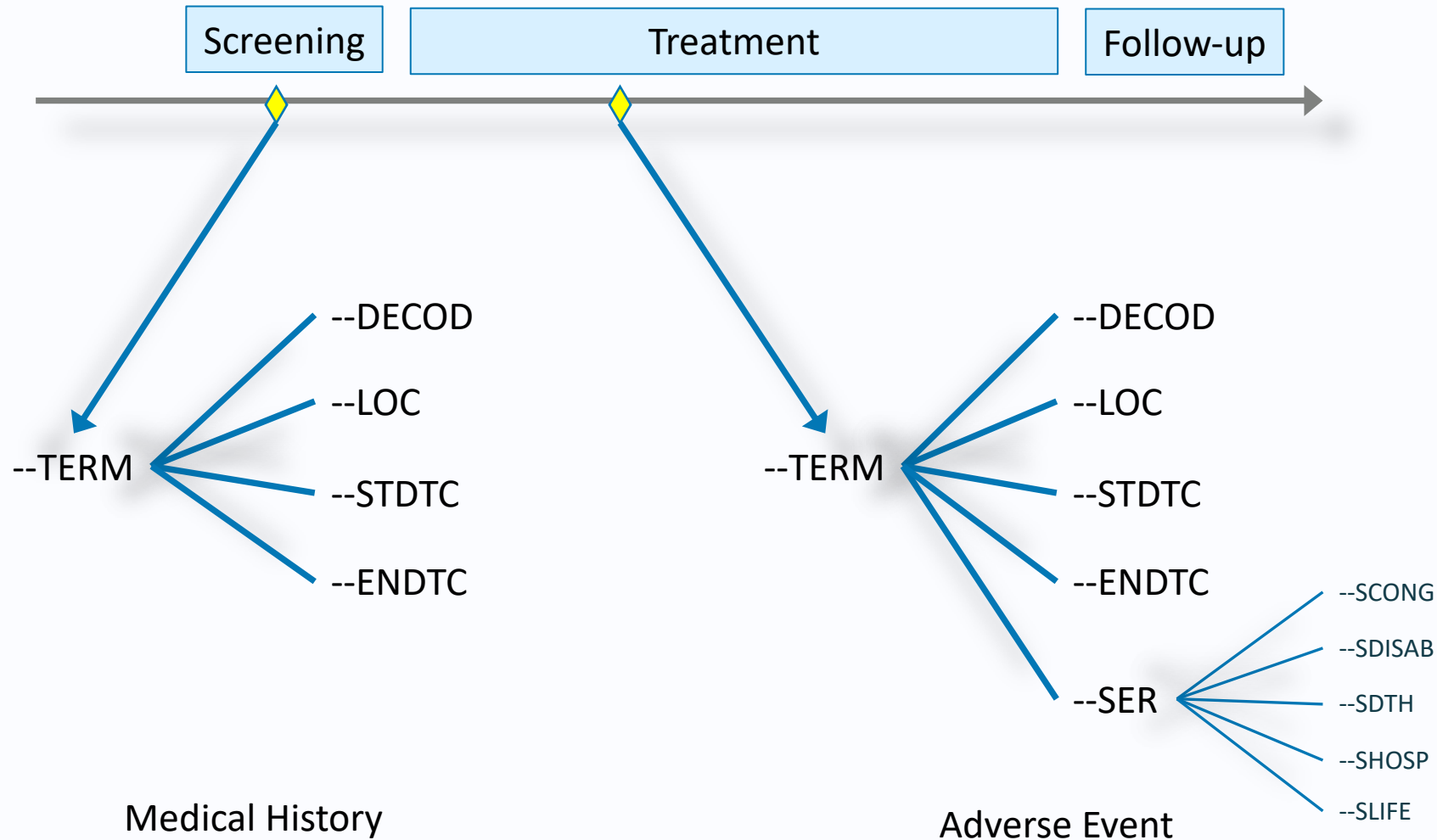
Findings



Interventions

Events

Data as Patterns/Shapes



Push the button

Protocol
... collect subjects Vital Signs.

Vital Signs BC Demo 2

VS=Vital Signs

Group

Common Group

Question text

VSDTC where VSTESTCD=HEIGHT

VSDTC where VSTESTCD=WEIGHT

D

D

:

M

M

:

M

M

:

Y

Y

:

V

H

:

M

M

Height (BC C25347)

Result value?

VSORRES where

Result units?

VSORRESU where

Weight (BC C25208)

Result value?

VSORRES where

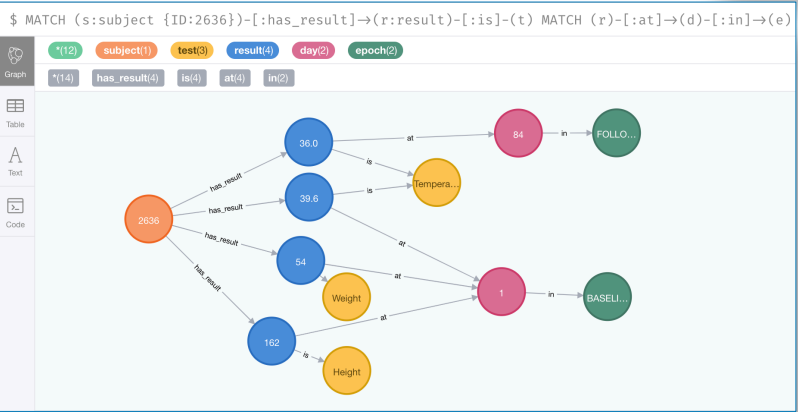
Result units?

VSORRESU where

Vital Signs (VS) [Location: [vs.xpt](#)]

Variable	Label	Key	Type	Length	Controlled Terms or Format	Origin	Derivation/Comment
STUDYID	Study Identifier	1	text	7		Protocol	
DOMAIN	Domain Abbreviation		text	2	["VS" = "Vital Signs"] <Domain Abbreviation (VS)>	Assigned	
USUBJID	Unique Subject Identifier	2	text	14		Derived	Concatenation of STUDYID and SUBJID
VSSEQ	Sequence Number		integer	2		Derived	Sequential number identifying records within each USUBJID in the domain.
VSTESTCD	Vital Signs Test Short Name	3	text	20	Vital Signs Test Code	Assigned	

USUBJID	VSTEST	VSORRES	VSORRESU	VSDTC	VSDY	EPOCH
6164	"Height"	"162"	"cm"	"2012-05-21"	"1"	"BASELINE"
6164	"Temperature"	"39.6"	"C"	"2012-05-21"	"1"	"BASELINE"
6164	"Temperature"	"36.0"	"C"	"2012-08-12"	"84"	"FOLLOW-UP"
6164	"Weight"	"54"	"kg"	"2012-05-21"	"1"	"BASELINE"



Summary

- Reason for moving to linked data is to make things easier
- SDTM more important than SDTMIG
- Biomedical Concepts, think patterns/shapes

Thank you for listening

www.s-cubed-global.com

Johannes Ulander

ju@s-cubed.dk