



Standards Development
Organization



Paul Houston
An Overview of CDISC

16 March 2018



Possible calls and call areas

- TOPIC : Data integration and data-driven in-silico models for enabling personalised medicine - a European standardization framework
- Calls where data standards or domain models are essential in achieving interoperability or FAIR data
- Calls where therapeutic areas standards need developing to specifically aid research reproducibility and interoperability
- Calls to solidify and triangulate research and real world data in the pursuit of personalized medicine



CDISC Members Around the Globe



Membership Represents:

- Pharmaceutical
- Clinical Research Orgs
- Government
- Academic Researchers
- Healthcare Systems
- BioTech
- Nonprofit Organizations
- Medical Device Companies
- Nutrition Companies

CDISC Standards required for submission in the by the

*United States FDA

*Japan by PMDA

*Suggested by European IMI & EMA



What is CDISC?



- >435 organizational members
- Ongoing global research support in the Americas, Europe, Japan, China, India, Korea and other regions
 - Standards downloaded in 90+ countries
- Community consensus standards development for clinical & translational research

www.cdisc.org



CDISC Standards Required for Regulated Research in the US and Japan



Providing Regulatory Submissions in Electronic Format — Submissions Under Section 745A(a) of the Federal Food, Drug, and Cosmetic Act

Guidance for Industry

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)

December 2014
Electronic Submissions

Providing Regulatory Submissions In Electronic Format — Standardized Study Data

Guidance for Industry

U.S. Department of Health and Human Services
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December 2014
Electronic Submissions

STUDY DATA TECHNICAL CONFORMANCE GUIDE

Technical Specifications Document

This Document is incorporated by reference into the following Guidance Document(s):

Guidance for Industry Providing Regulatory Submissions in Electronic Format — Standardized Study Data

For questions regarding this technical specification document, contact CDER at cdisc@cders.hhs.gov or CBER at cdisc@cberr.hhs.gov.

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)

December 2014

BINDING DOCUMENTS

US FDA & Japan's PMDA Require CDISC Standards, China's CFDA and EMA Recommend CDISC Standards

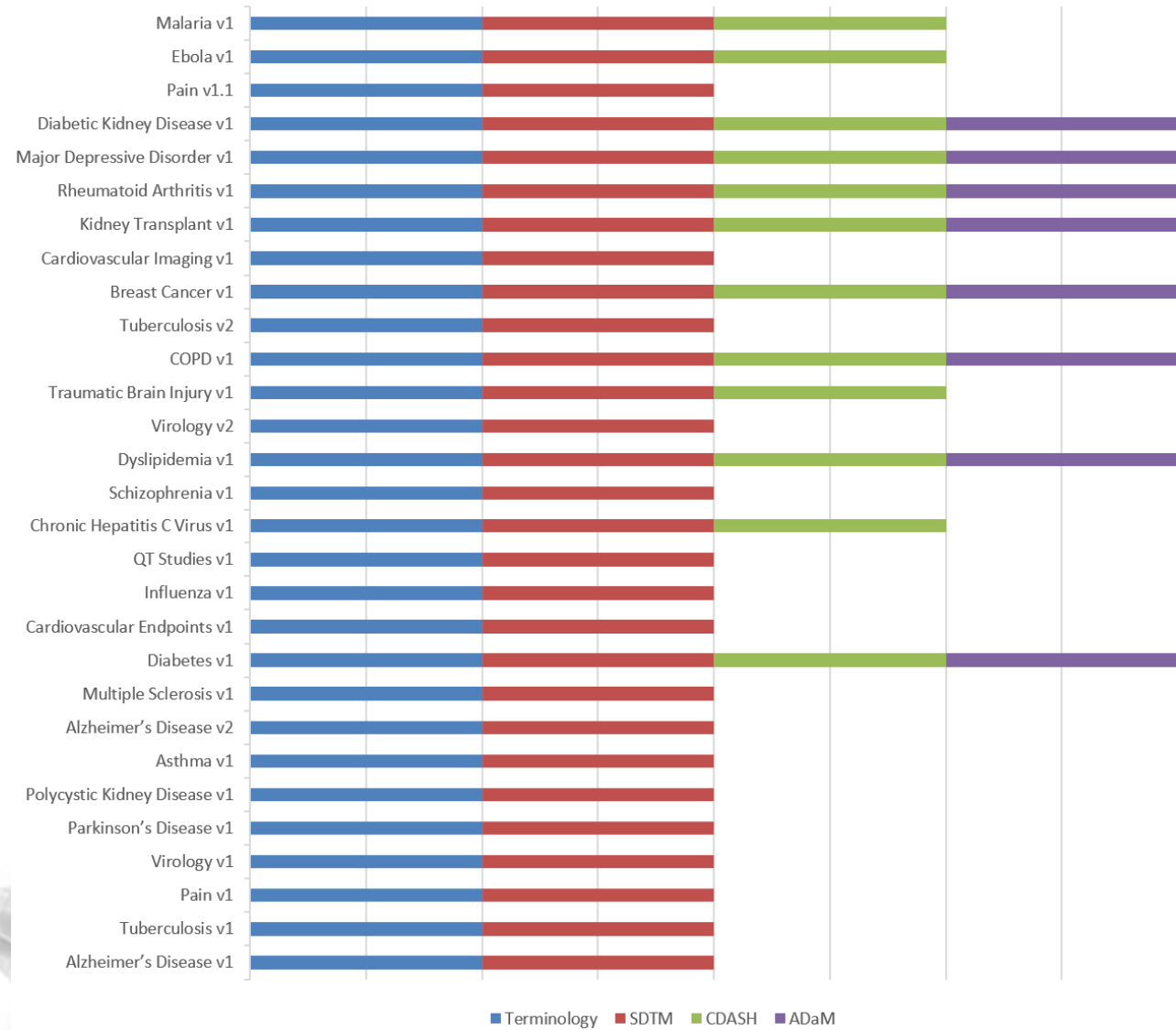
What We Have Done



2017



2011



Why Standards are Needed

(the Pillars of Misunderstanding)

Homonyms

If you *misunderstand the meaning of clinical concepts* you can't merge or make any meaningful connections or conclusions.



Definitions

If you *have different definitions for clinical concepts* you can't merge or make meaningful connections or conclusions.

<< 5 companies oncol project ex.>>

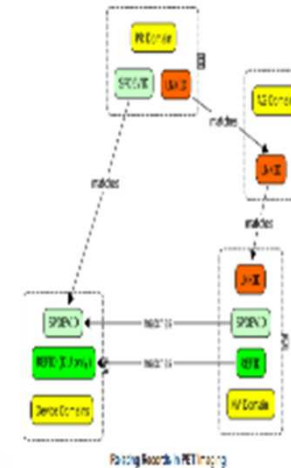
Terminology

If you *can't agree on the naming conventions and where to use them*, you can't merge or make meaningful connections or conclusions.

SUBJ ID	SEX	USUBID	SEX
0001	M		
0002	F	0001	0
0003	F	0002	1
0004	M	0003	1
0005	F	0004	0
		0005	1

Relationships

If you *don't see the relationships* between and amongst you create variability in how standards implemented.



Organization

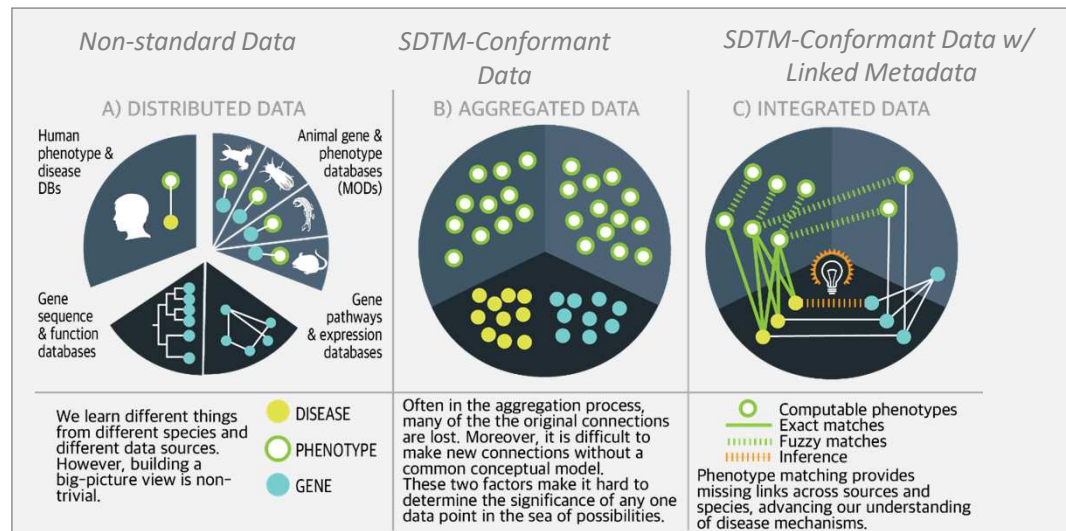
If you *can't find the data* you waste time and resource.

	STUDYID	DOMAIN	USUBID	CMSEQ
1				
2				
3				
4				

Data Sharing

You *can't share data* in a meaningful and efficient way without addressing each of the above aspects.

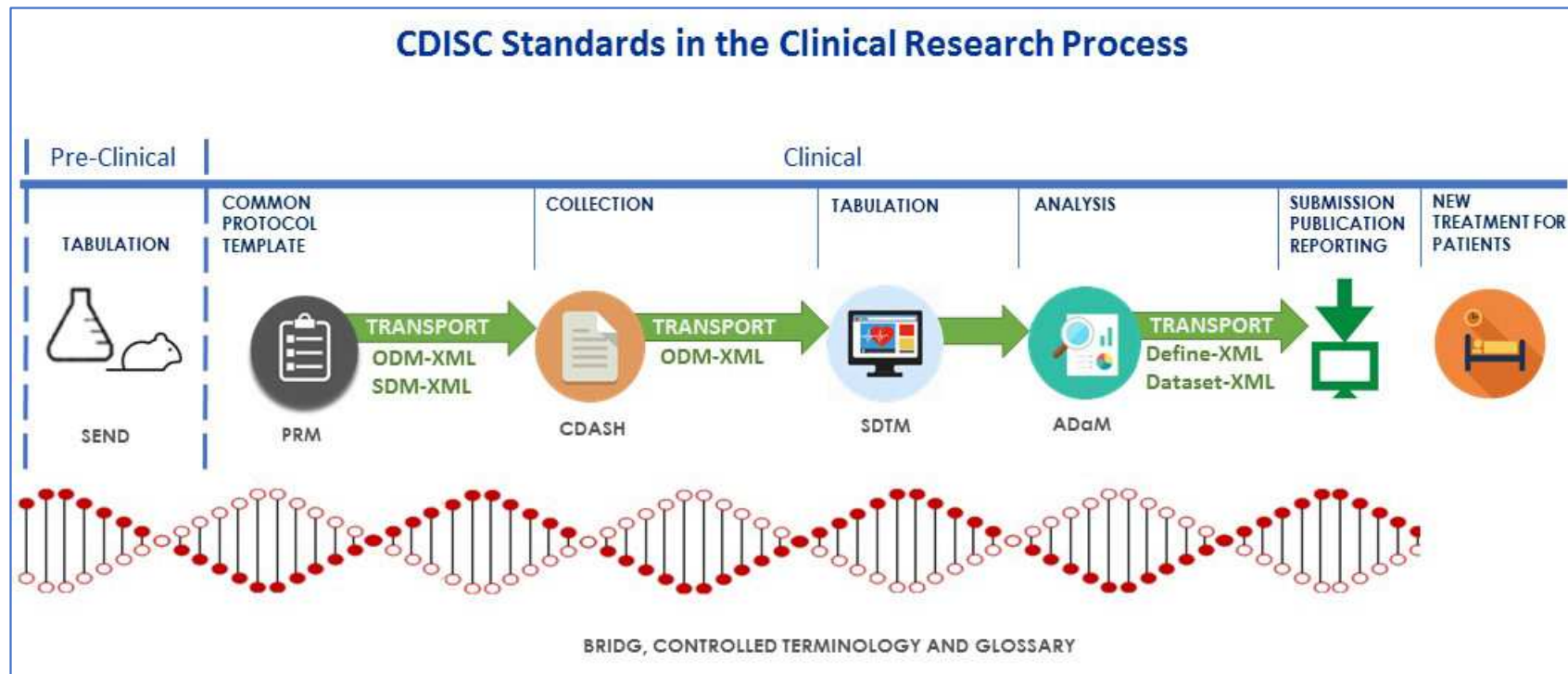
Biomedical Concepts & Ontologies Can Drive Big Data Analyses



From Haendel, M. <http://www.scidatacon.org/2016/sessions/14/paper/315/>



CDISC Standards Do NOT Dictate Research Questions or Conduct



...And Used for Non-Regulated Research in the EU



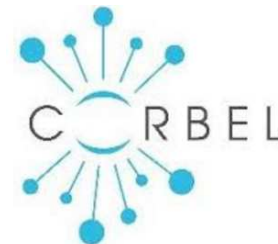
Vaccines Standard
Training on collection,
modeling and
aggregation standards
for interoperability



Mobile patient
reported outcomes
(PRO)



Standards Starter Pack
Curation pipeline to
TransMART



Data sharing
recommendations



Use of standardized data
for research sourced from
multiple EHRs



Infectious Diseases -
field research data
collection and
aggregation support

Only with good data management and clinical and preclinical standards as a foundation can successful precision medicine programs be achieved

