Data Science Committee Meeting

April 2023

Co-chairs: Joyce Lee, Marina Basina

Agenda

- Mapped sites update

- Discussion on improving data completeness and quality for existing data spec variables

- EHR paper discussion- Dr. Joyce Lee

Mapping updates

- 28 Sites fully mapped (from 23 Sites mapped in Q1)

- 3 in validation phase

- Data completeness scorecards
  - Scorecards completed including data through Q2-2022

Sample Scorecard

- On average of all mapped sites, we have about 90% of a1c data available

- T1d_dx_dt, ~80% of sites are sharing this information. We see a range from 18%- 100% availability

- Of mapped sites, about 50% are sharing TIR with us, and of those sites we data availability ranging from 7% to 92%

- For CGM use, about 60% of mapped sites are sharing cgm_binary with us, and of those sites we have about 76% available data

T1Dx Phase 1 Measures	Codes from T1DX data spec	Data availability	Meets Mapping Expectations
Demographic data	birth_date	100%	
	t1d_dx_dt	100%	
	Race	100%	
	Ethnicity	100%	
	primary_insurance_type	100%	
	39156-5 (BMI)	99%	
A1c data	4548-4, 17856-6	99%	
CGM Use data	cgm_binary=1	91%	
	cgm_st_dt	92%	
	cgm_company	75%	
	cgm_model	83%	
BG check data	bgm_test_freq	8%	
Pump Use data	ins_regimen=1	71%	
	pump_st_dt	94%	
	pump_company	16%	
	pump_model	53%	
HCLS	ins_pump_delivery==4	40%	
MDI Use data	ins_regimen !=1	29%	
Depression screening data	55758-7, 44261-6	Not available	
T1Dx Phase 2 Measures			
Time in Range	time_in_range	52%	
Time in Hypoglycemia	cgm_below_70	47%	
Time in Severe Hypoglycemia	cgm_below_54	47%	
DKA events	dka_events_inp	8%	
	dka_events_amb	Not available	
	dka_events_inp_pro	Not available	
	dka_events_amb_pro	Not available	
Bolus 3X among Pump users	bolus_ins_daily_inj	Not available	
SDOH	88124-3, 88122-7, 88123-5	Not available	
Change in medication file format	drug_name	Available	
	drug_name_generic	Not available	
	drug_sub_class	Not available	

Mapping Expectations

No Action Needed	(green)
Needs Confirmation	(yellow)
Site not collecting	(gray)
Collecting but not providing	(red)

Data completeness

- How to improve data collection?
- How do you collect/define these data locally?
- Keep variable or remove variable in next upgrade?
- Suggest actionable steps

	Captured as	No. of sites reporting	AV. Availability at a site	Action steps/notes
CGM use	Cgm_binary Cgm_company, Cgm_model Cgm_st_dt	28/28	27-58%	
Pump use	insulin_regimen pump_company, pump_model Pump_st_dt	24/28	24-40%	
T1d_dx_dt	Date of type 1 diabetes diagnosis	25/28	70%	

EHR Manuscript Discussion