Common and Unique Barriers to the Exchange of Inpatient and Emergency Department Visits Data in the Environmental Public Health Tracking Program

NAHDO ANNUAL MEETING
7/17/2020

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2019 Needs Assessment Survey

Background

The Environmental Health Tracking Program (Tracking Program) receives hospital and ED data annually from 25 to 30 states.
How do we improve quality of hospital discharge data to inform public health science and practice?

Approach

A Cross Sectional Survey for 26 recipient programs
-Data source
-Acquired data attributes
-Data from bordering states
-Data quality and validation
-Partnership with data agency/organization

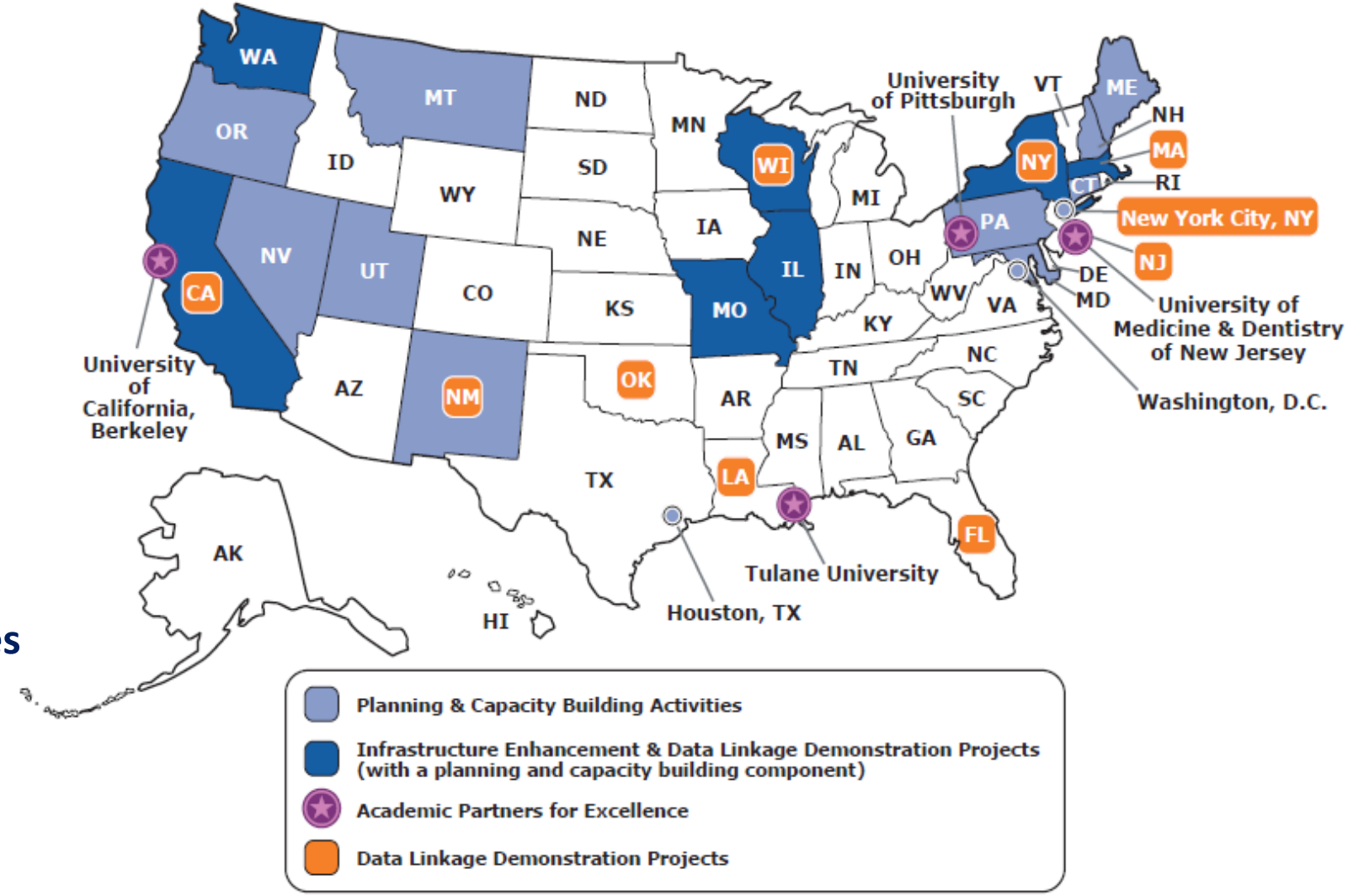
Results & Lessons

What have we learned during the Needs Assessment Survey?

What are the next steps?

Environmental Health Tracking Network

Nationally Consistent Data Measures (NCDM)



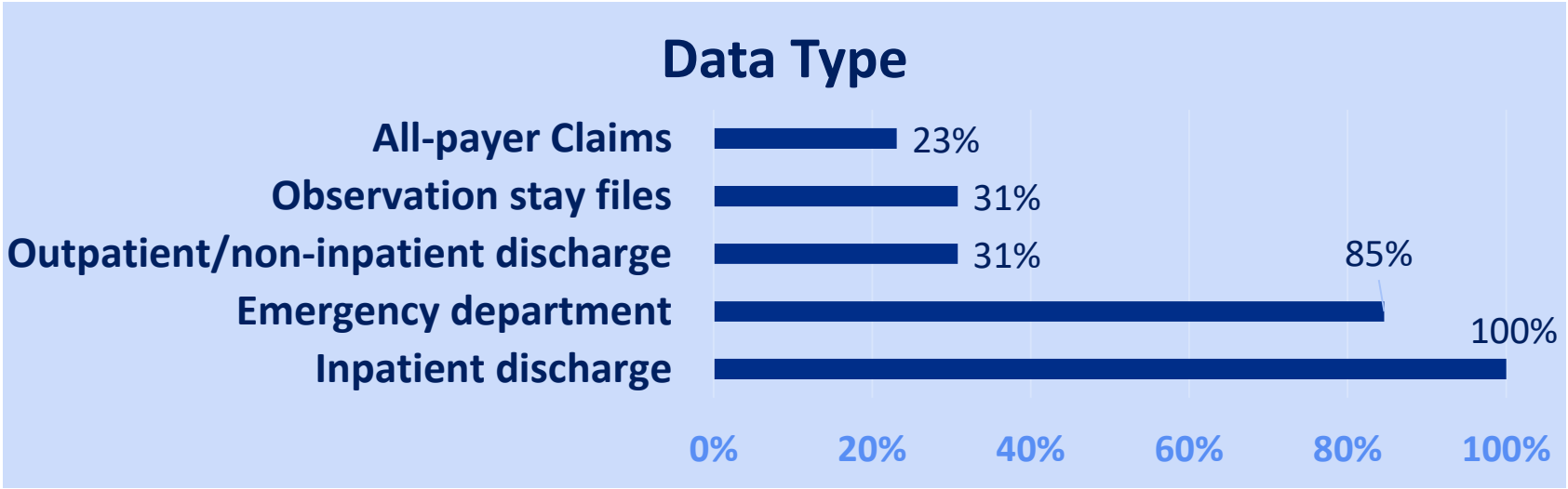
Survey Questionnaire

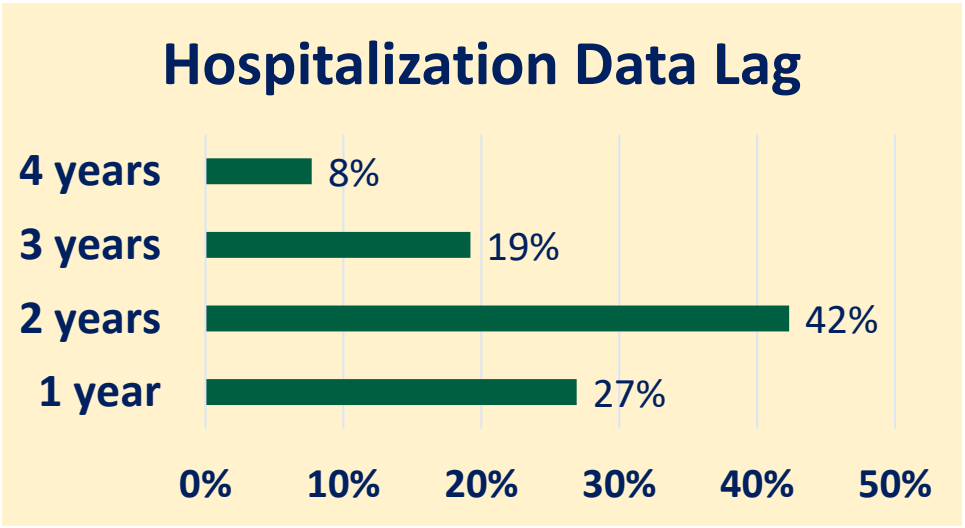
- Data source/ data sharing
- Acquired data attributes
- Data from bordering states
- Data quality and validation
- Partnership with data agency/organization

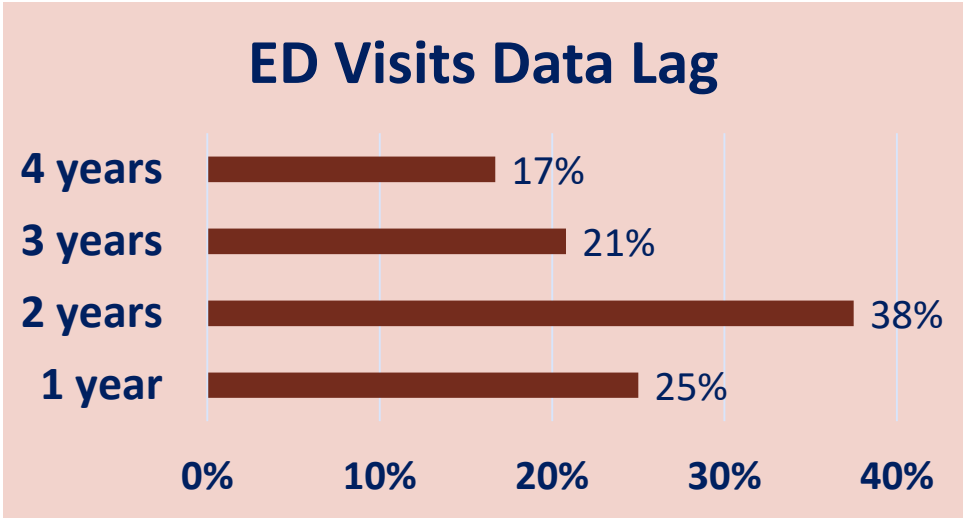
OMB Control No. 0920-1154.
GenIC "Formative Research to Identify Common and Unique Barriers to the Exchange of Hospital Inpatient and ED Data"

RESULTS

1. Data Sources and Timeliness

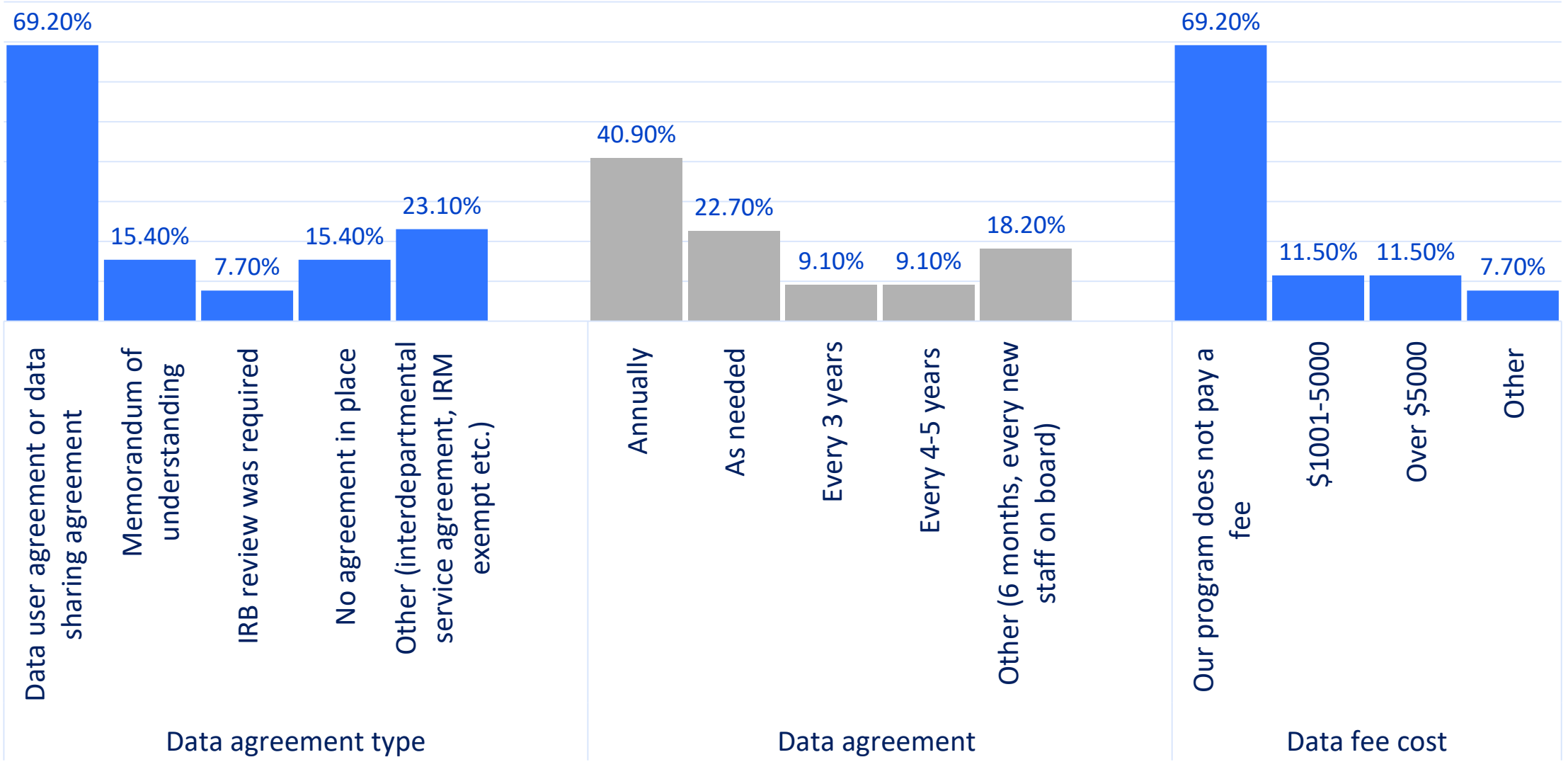






*Total for column is not 100% because of multiple choices

2. Data Sharing Agreements

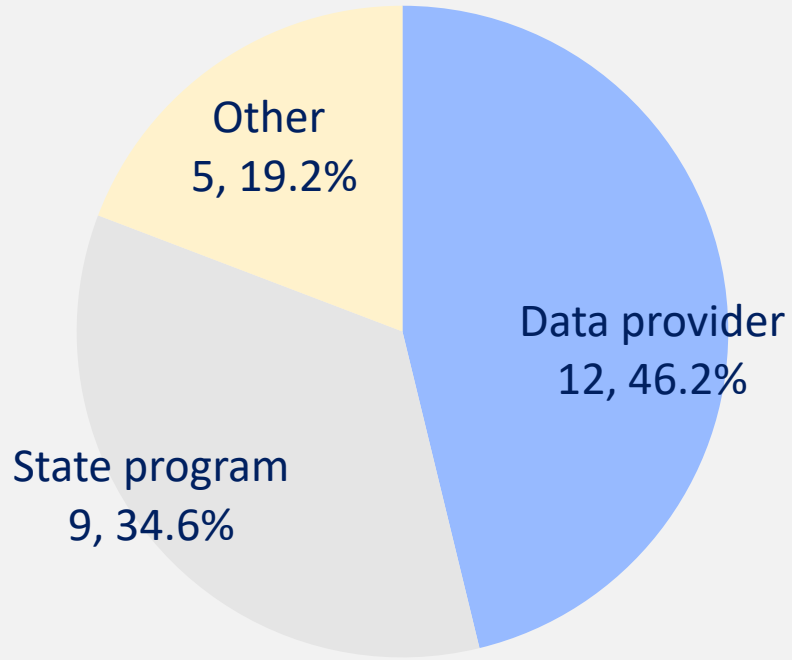


3. Acquired Data Attributes

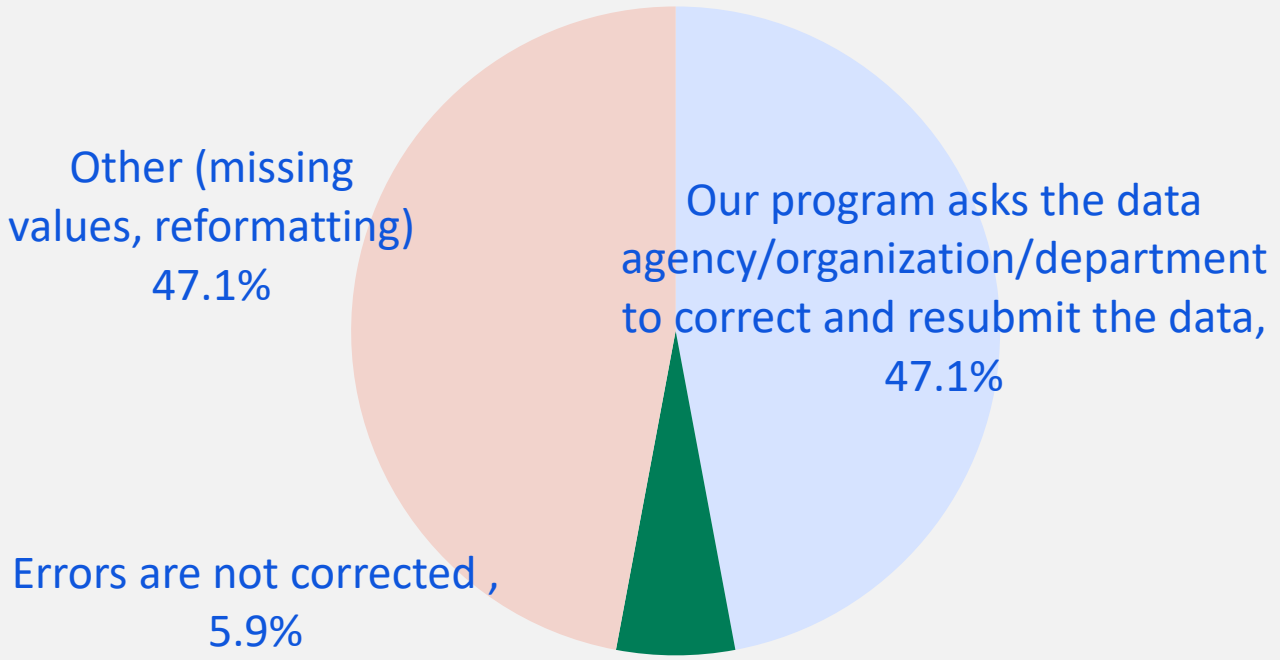
Protected Health Information (PHI)	Record level identifiable data set with PHI	15 (57.7%)
	Record level de-identified data set with PHI removed	7 (26.9%)
	Aggregated data set (not record level)	2 (7.7%)
	Other (Hospital data only has PHI)	2 (7.7%)
The scope of data	We receive full records/all discharges for all diagnosis (in addition to those needed to calculate NCDMs)	21(80.8%)
	We only receive records/discharges with specified data elements required to calculate NCDMs	4(15.4%)
	Other (access to server, secure network, CITRIX etc.)	1(3.8%)
Spatial resolution of data	Street address level	8 (30.8%)
	Census tract level	3 (11.5%)
	Zip code level	9 (34.6%)
	County level	1 (3.8%)
	Other (block group, street level, community level, county town level)	5 (19.2%)
Necessary elements to identify Transfer	Yes, a combination of variables is provided	16 (61.5%)
	Yes, patient ID is provided	6 (23.1%)
	No, but data provide identifies/flags transfers	3 (11.5%)
	No, data are too aggregated to identify transfers	1 (3.8%)

4. Data Cleaning

Who is responsible for removing duplicates?



How does your program correct errors/problems you find with the data?



5. Data from Border States

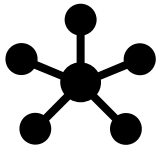
Receiving Border Data?	%	State or City Represented
Yes, all bordering states	11.5%	Michigan, Kansas, New Hampshire
Yes, some but not all bordering states	23.1%	Wisconsin, Missouri, New Mexico, Minnesota, Vermont, Washington
Attempted the border data, but still do not have border data	23.1%	Maine, Florida, Massachusetts, Maryland, New York State, Oregon
No attempting of border data	42.3%	Louisiana, Connecticut, Utah, New York City, Colorado, California, Arizona, New Jersey, Rhode Island, Iowa, Kentucky

Lessons Learned

Timeliness:
Need a standard DUA with data layout and format, data quality check, and shared timeline for regular data.

Granularity:
Need effective communication with the data providers

Data cleaning:
Use the Tracking resources (tools, documents, generic SAS scripts, and technical support.



Border sharing:
Need a good system [e.g. State and Territorial Exchange of Vital Events (STEVE)].

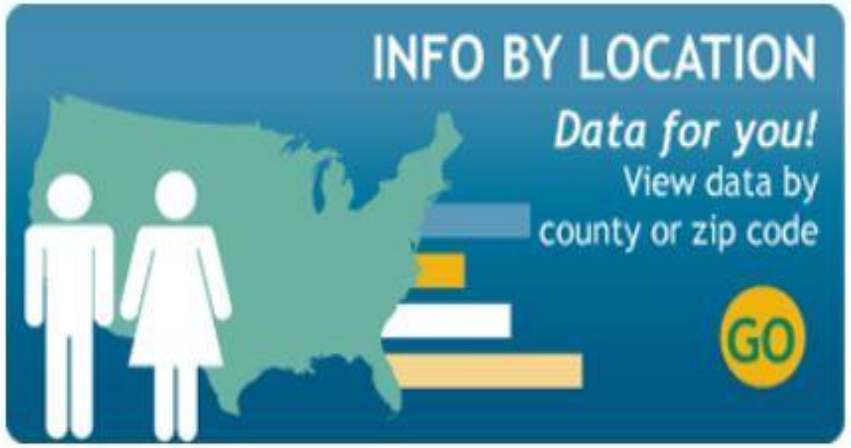
Next Steps

The survey results will help Tracking Program

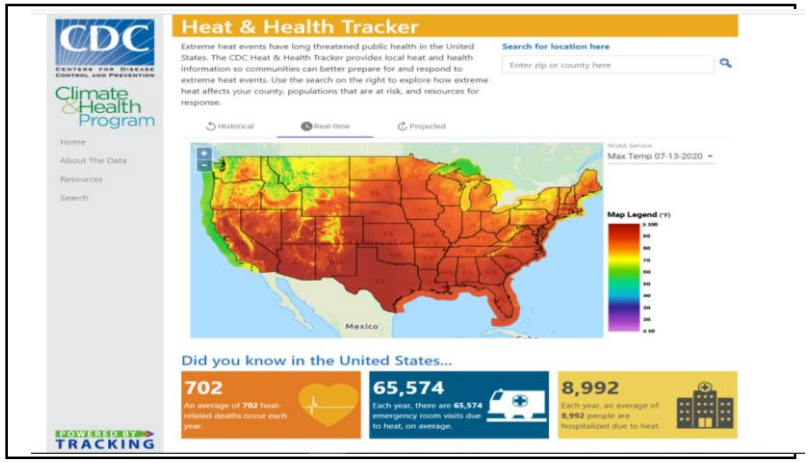
- To understand the knowledge gaps and perceived barriers to the utilization and accessibility of hospital data
- To inform the development of resources that can provide solutions for more efficient and timely data exchange.
- To improve the ongoing data call process including routine data validation and data sharing practices.

Engage Diverse Audiences with Accurate and Timely data

Info by Location-
Community snapshot



Dashboards-
Data storytelling



Data Explorer-
Self-guided investigation

Thank you!

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The findings and conclusions in this presentation are those of the author(s) and do not necessarily represent the official view of the Centers for Disease Control and Prevention.

Extra Slide 1

NCDM Hospitalization and Emergency Department Visits Data

Hospitalization (Inpatient Discharge) data

- Asthma
- Chronic Obstructive Pulmonary Disease (COPD)
- Carbon Monoxide Poisoning
- Heat Stress Illness
- Acute Myocardial Infarction

Emergency Department Visits Data

- Asthma
- COPD
- Carbon Monoxide Poisoning
- Heat Stress Illness