2019 TTAC PDMP SURVEY:

Patient Matching

PDMP·TTAC

Prescription Drug Monitoring Program Training and Technical Assistance Center

Q15: Does your state have a process for patient clustering/matching records?

ANSWER CHOICES	RESPONSES	
Yes	80.39%	41
No	19.61%	10
TOTAL		51

Q17: What data elements are used for patient matching? (select all that apply)

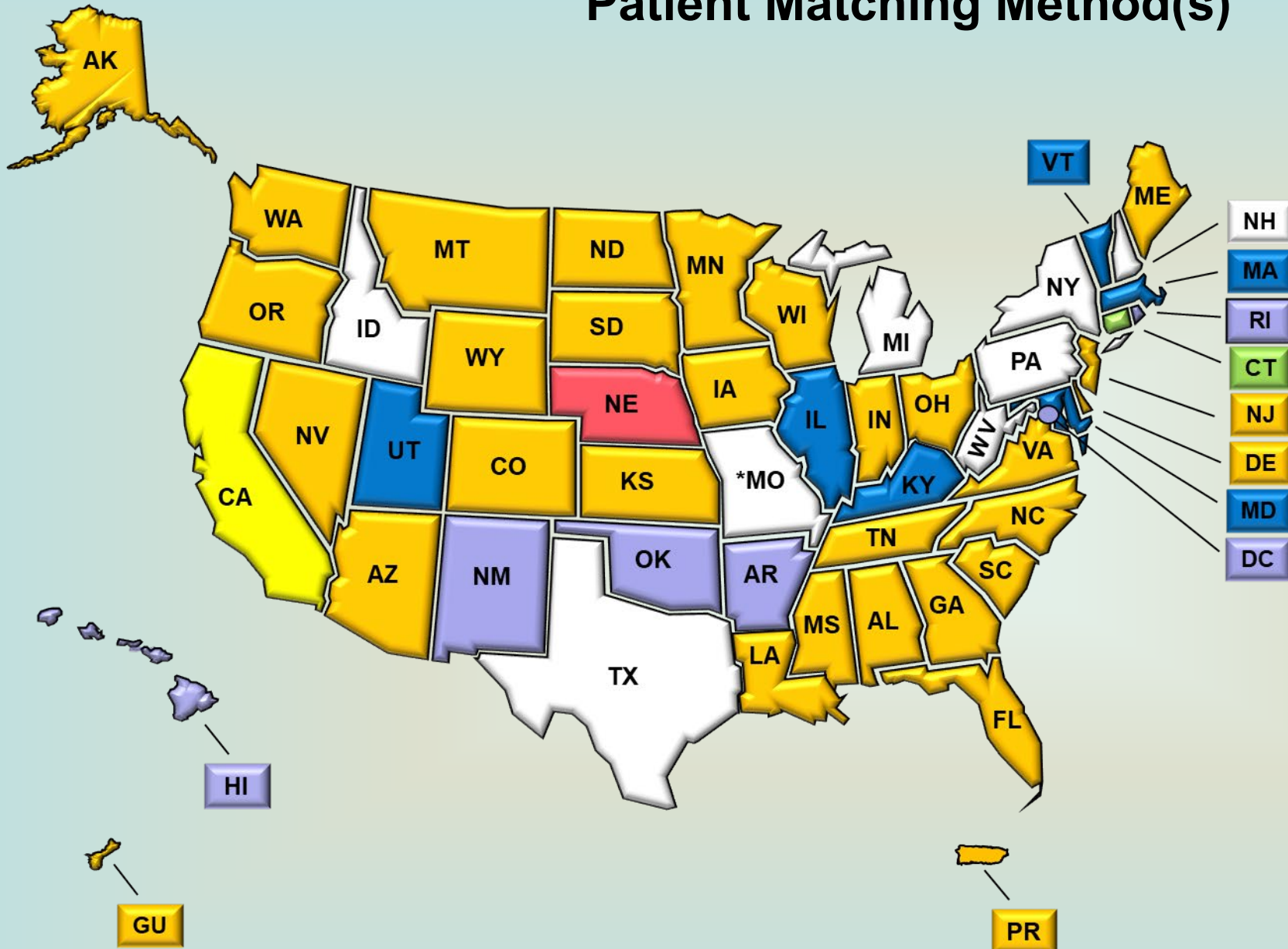| ANSWER CHOICES	RESPONSES	
Patient identification (i.e., driver license, social security number)	30.77%	4
Patient last name	76.92%	10
Patient first name	69.23%	9
Patient middle name or initial	38.46%	5
Patient address	76.92%	10
Patient date of birth	76.92%	10
Patient gender	38.46%	5
Unknown	23.08%	3
Other (please specify)	38.46%	5
Total Respondents: 13		

Q17: What data elements are used for patient matching? (select all that apply) – Other responses

- Phone number is also used

- Prescriber, prescribed drug, phone number, pharmacy location, and other fields used when select records are manually reviewed

- We are in the building stage of patient matcher, however it is to include the use of referential material.

- The PDMP is supported with an entity resolution algorithm for our live data base. The live database is currently serviced by a clustering algorithm. We receives data quarterly from the vendor to build analytic files and uses a machine learning process to further resolve entities for our analytic data.

Q18: What is the design/approach used by your PDMP for patient matching?

ANSWER CHOICES	RESPONSES	
Probabilistic only (the process of using statistical analysis to determine the overall likelihood or probability that two records match)	0.00%	0
Referential matching (a form of probabilistic matching where records are matched against a comprehensive and continuously-updated reference database of identities)	0.00%	0
Deterministic only (the process of determining whether records refer to the same patient if they have an exact match based on a subset of data; i.e., name, date of birth)	0.00%	0
Manual matching (human adjudicators manually review potential matches and make a determination whether or not two records match based on the data available)	8.33%	1
Combination of probabilistic, referential, or deterministic	25.00%	3
Combination of automatic (probabilistic, referential, or deterministic) and manual	41.67%	5
Unknown	16.67%	2
Other (please specify)	8.33%	1
TOTAL		12

Patient Matching Method(s)

Legend:

- Probablistic, Referential, Deterministic, Manual (6)
- Probablistic, Referential, Deterministic (1)
- Probablistic, Deterministic (1)
- Probablistic, Manual (30)
- Probablistic (6)
- Manual (1)

Missouri has not enacted state legislation to establish a PDMP

Access to Patient Matching Algorithm(s)
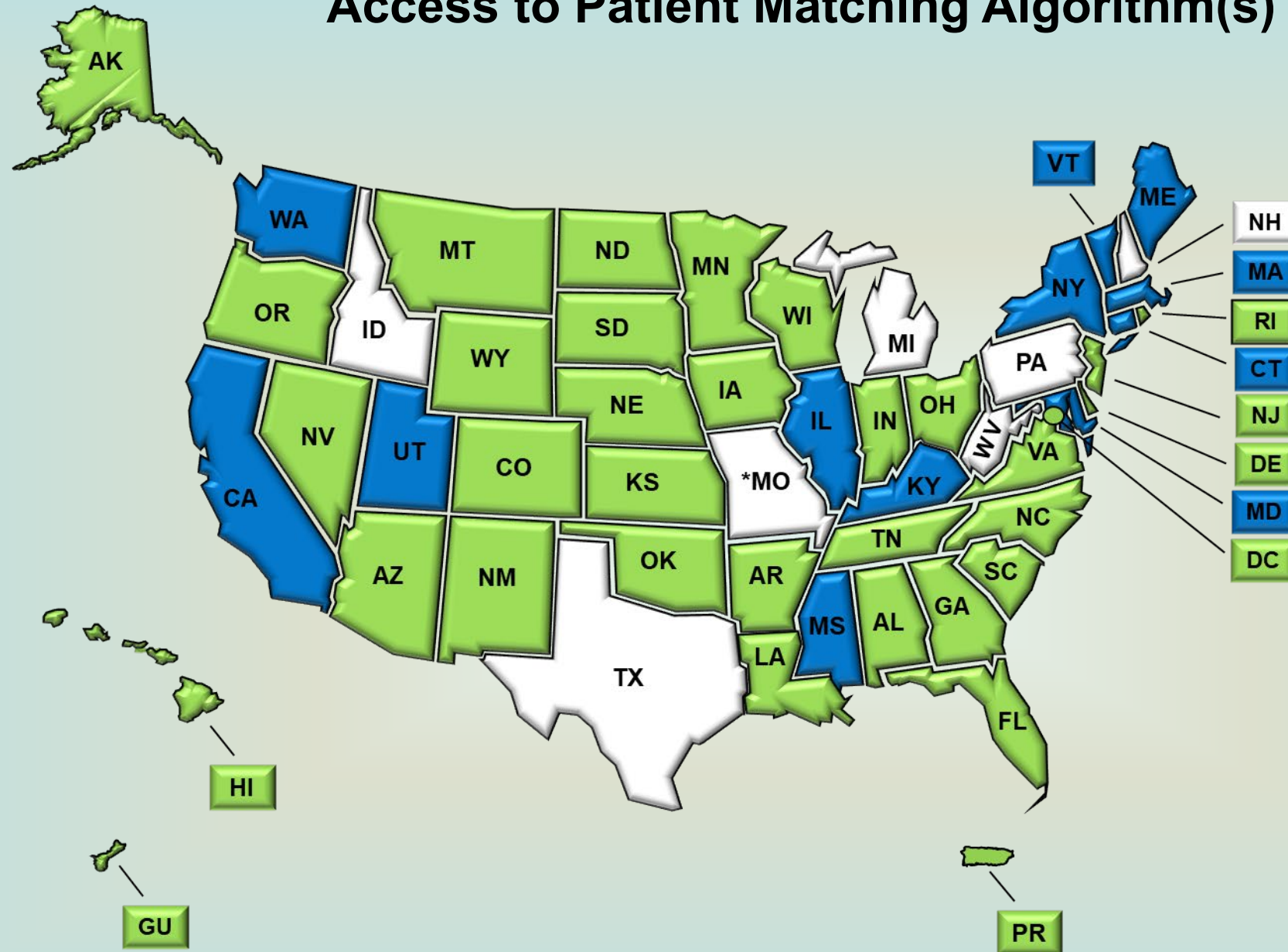
Legend:
- Have Access (12)
- No Access (34)

* Missouri has not enacted state legislation to establish a PDMP

Q20: Identify the barriers to patient matching within your PDMP. (select all that apply)

ANSWER CHOICES	RESPONSES	
Data quality issues	53.49%	23
Lack of available resources	18.60%	8
Lack of understanding of the matching process	30.23%	13
Limited data elements used in matching process	23.26%	10
Lack of insight into matching methodology in use	53.49%	23
Other (please specify)	25.58%	11
Total Respondents: 43		

Q20: Identify the barriers to patient matching within your PDMP. (select all that apply) – Other responses

- Health systems use patient legal names and often times pharmacies use nicknames.

- Primary sources of information are dispensers.

- lack of unique patient identifier; inability to manually merge/separate patients

- Data errors on the submissions

- lack of unique identifier for each unique patients

- Only require name, DOB, and address in prescription (no DL, SSN, etc) - address differences can sometimes prevent patient match (anecdotal evidence).

- Non-functional system features.

Q21: Identify the barriers to patient matching through interstate data sharing/integration. (select all that apply)

ANSWER CHOICES	RESPONSES	
Data quality issues	54.76%	23
Lack of available resources	21.43%	9
Lack of understanding of the matching process	35.71%	15
Lack of insight into matching methodology in use	54.76%	23
Other (please specify)	33.33%	14
Total Respondents: 42		

Q21: Identify the barriers to patient matching through interstate data sharing/integration. (select all that apply) – Other responses

- How patient information is required and entered by other states.

- Lack of Partial Name search

- We do not have access to Appriss's Axis 2.0 matching algorithm. Therefore, reports within the system will differ from those run during analyses and are not reflected for end users within the system.

- Health systems use patient legal names and often times pharmacies use nicknames.

- Exact match (last name, first name, dob). Limited identifiers.

- limited fields used for patient matches resulting in false positives; requirement to match full first/last

Q21: Identify the barriers to patient matching through interstate data sharing/integration. (select all that apply) – Other responses continued

- Other states do not have the ability to remove any patient matches that are not the healthcare providers patient.

- False positives or false negatives

- limited data elements from other states

- Little feedback from end users, Appriss reports a match rate of over 99%, though we receive audit reports that indicate when a patient report did not load due to multiple patients.

- Non-functional system features.

- Some issues that we have seen are not with data quality but with how queries and systems are set up to do the queries and how results are returned, in some cases there is a mis-match that needs to be managed.

www.pdmpassist.org

Questions?

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