Division of Mental Health, Developmental Disabilities, and Substance Abuse Services: Drug Control Unit

March 10, 2020

Department of Health and Human Services
CSRS: A story of Data Quality and Data Analytics

NC Nothing Compares
NORTH CAROLINA

The beginning

- CSRS Act enacted January 1, 2006
  - Improves ability to identify controlled substances abusers and misusers
  - Refer to treatment
  - Identify and stop diversion

- CSRS Vendor: Health Information Designs (HID) live in 2007

- Housed in the NC DHHS; DMH/DD/SAS; Drug Control Unit

STOP Act, 2017

Mandated DHHS to concentrate on prescribing patterns in addition to diversion

Resulted in new platform with our vendor Appriss in 2018

- Increased the amount of data collected
- Better audit functions
- Faster response times
- Integration into EHR/PMS/HIE
- Interstate data sharing

NC

New platform

The transition

- Frequency of submission

- Implemented mandatory fields

- Difference in quality lead to dead pool data with transition data (2011-2016)
  - Upfront with researchers that data requested may be impacted
  - Know exactly what fields are affected
  - Provide recommendations on how data can still be impactful for their purposes

Deadpool data

The challenge and work-through

- Inconsistent in meeting data quality rules

- Valuable data but quality varies
  - Time
  - Vendor
  - Individual submitter

- Integrating newer, higher quality QC data with more fields with older, lower variable QC data

- Some data did not survive the transition

Entity Resolution

- Improve definitions and processes

- Provided flags for internal use to monitor data quality

- Sources used to improve ER
  - State professional boards
    - Board of Nursing
    - Medical Board
    - Board of Pharmacy
    - Dental Board
    - Veterinarian Board
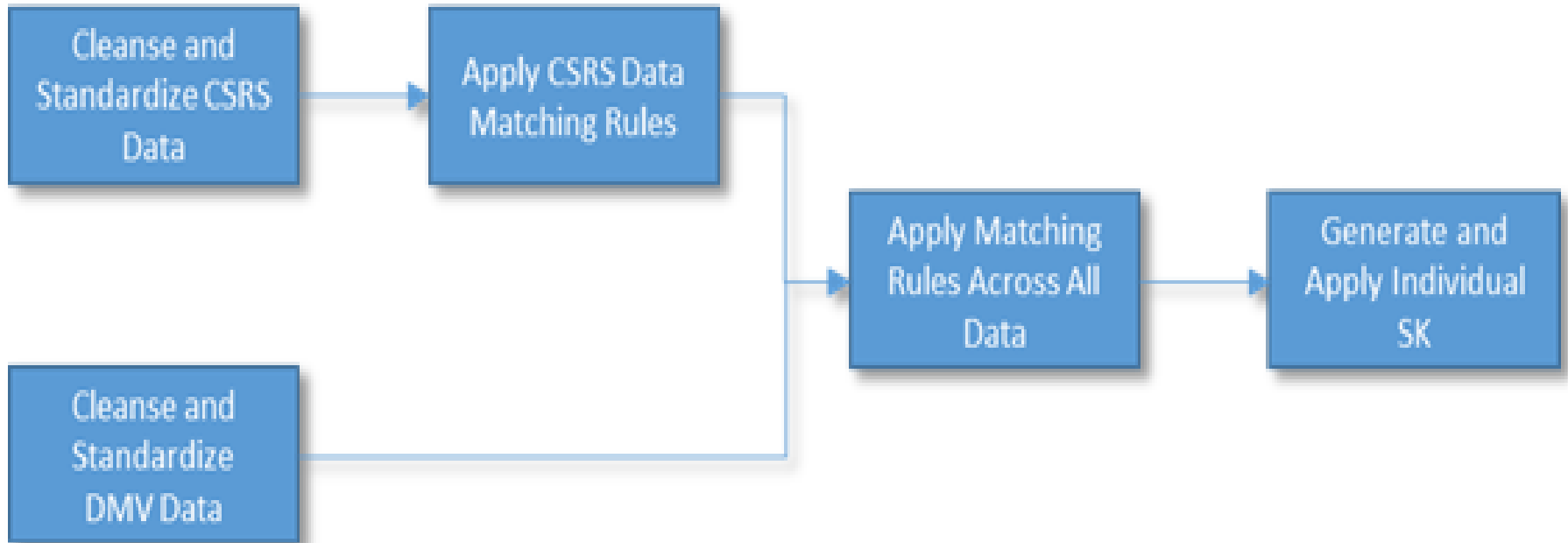 - State HIEA
  - Federal agencies (DEA, DHHS, NPPES)

Provider-Entity Resolution
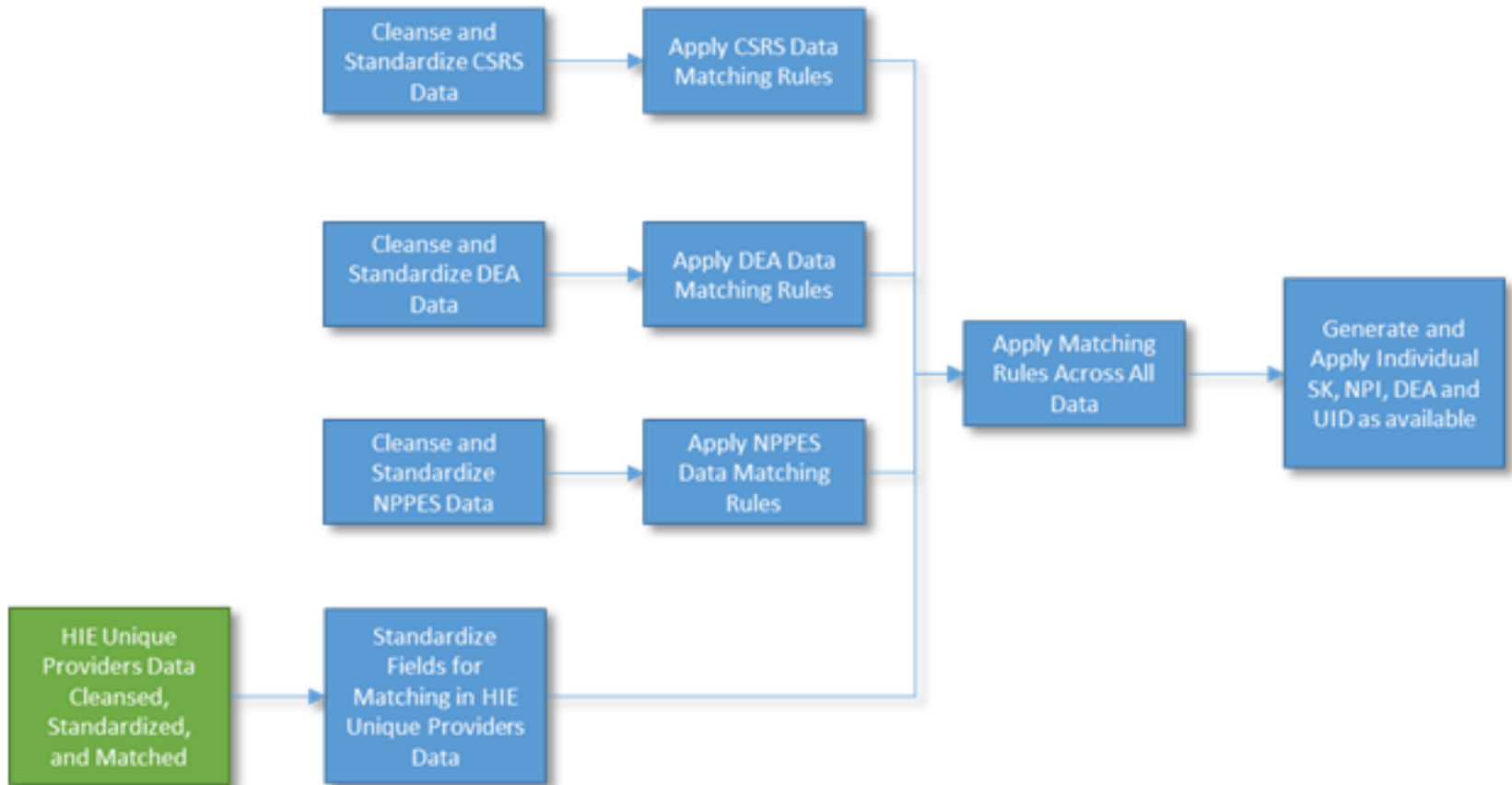
The Process

Patient-Entity Resolution

The Process

Challenges

Entity resolution

- **Non-individuating addresses**
  - Communes
  - Prisons
  - Colleges
  - Nursing homes
  - Homelessness

- **Entry errors in critical fields**
  - Name
  - Date of birth

- **IDs not to format/cannot resolve source**

- **Non-name usage of name fields**

Use of data

Long-term analysis and research data

- Reporting for summary prescription, provider, and patient behavior
  - Internal decision making
  - Automate regular reports
  - Share with partners

- Access PMP cohort to respond to request

- Framework for enabling exchange of approved data

- Functionality to track fraud

- Error resolution

Who is responsible for Data Quality?

EVERYONE!!!

- Establish a governing structure

- Strong presence of data steward

- Involvement of IT Security & Privacy Specialist

- Training & education concerning reporting to dispensers

- Collaboration among the State and its vendors

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Data Quality

Responsible party

|	STATE	Appriss	GDAC
Accuracy	x	X	X
Completeness	X	X	X
Reliable	X	x	x
Relevant	X	x	x
Timeliness	X	X	X

Veterinarian Rx Field

- In September 2018, only 50% dispensers reported whether the prescription was for a human or animal.

- Since October 2018 to present, the reporting for the vet Rx field has been consistent between 98.7% to 99.5%

- Useful in law enforcement and admin investigations

- Helps end users make better decisions when prescribing or dispensing

NarxCare Scores

- Providing immediate analytical tools allows for a patient/clinician/dispenser care experience

- Prompts end users to consider aspects of treatment that may have been missed otherwise
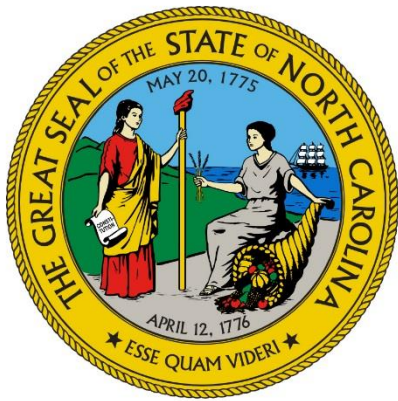
Questions

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