



**2018** NATIONAL  
**RYAN WHITE**  
CONFERENCE ON HIV CARE & TREATMENT

# Assembling a Fuller Picture of Ryan White Part A Clients Using Data from Program Reporting, Surveillance, Claims, and Surveys

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# Outline

- Overview of Programs Within Bureau of HIV/AIDS Prevention and Control (BHIV)
- Data Sources
- Medicaid Match Process and Results
- Examples of Application of Merged Data
- Next Steps

# Overview: NYC BHIV Programs

- HIV Care and Treatment Program
  - Administers funds awarded under the NY Eligible Metropolitan Area (EMA) Ryan White Part A Program
- HIV Prevention Program
  - Oversees services aimed at preventing the transmission of HIV, including HIV testing, PrEP or PEP, screening or treatment for STI and Hepatitis C
- HIV Epidemiology and Field Services Program
  - Oversees HIV case reporting and surveillance, including managing the HIV surveillance registry

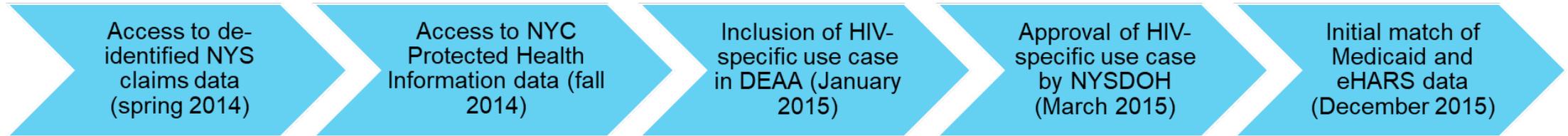
# Data Sources Used for Matching

<b><u>E</u>nhanced <u>H</u>IV/<u>A</u>IDS <u>R</u>eporting <u>S</u>ystem (eHARS)</b>	<b><u>E</u>lectronic <u>S</u>ystem for <u>H</u>IV/<u>A</u>IDS <u>R</u>eporting and <u>E</u>valuation (eSHARE)</b>	<b><u>S</u>alient <u>I</u>nteractive <u>M</u>iner (SIM)</b>
<ul style="list-style-type: none"><li>-Mandatory reporting (New York State law)</li><li>- Population-based, most complete source of laboratory test data (CD4 and viral loads)</li></ul>	<ul style="list-style-type: none"><li>-Reporting system for HIV services contracts, including Prevention and RWPA (for which it produces the annual RSR)</li><li>-Captures client demographics, enrollments, services (individual and group), referrals, assessments, and some clinical outcomes</li></ul>	<ul style="list-style-type: none"><li>-Medicaid managed care encounters and fee-for-service claims data</li><li>-Includes data on enrollments, laboratory, and pharmacy services utilization (including ART prescriptions)</li></ul>

# Obtaining Medicaid Data Access

- Data sharing intent
  - Improve services and the health of Medicaid recipients while reducing costs
- New York State Department of Health (NYSDOH) Requirements
  - Demonstrate a strong governance structure and compelling project need (“use case”)
  - Review of Medicaid data privacy
  - Review of Data Exchange Application and Agreement (DEAA)
    - ✓ Use cases from bureaus and programs and list of approved individuals for DOHMH
      - Business Administration Agreement (BAA) for non-DOHMH collaborators
    - ✓ Distribution guidelines on materials produced using Medicaid data
  - Participation in SIM’s training course

# Timeline of Medicaid Data Access – for Analysts in BHIV



# Matching NYC Medicaid Data to eHARS

- Objectives
  - To integrate data from SIM and eHARS, in order to examine healthcare coverage, enrollments, services, and outcomes among people living with HIV (PLWH) in NYC
  - To be able to merge other data sources (e.g., Ryan White program reporting) with the Medicaid-eHARS match results
- Collaboration between multiple programs/units
  - Medicaid data workgroup convened by Care & Treatment Program
  - Match conducted by the HIV Epidemiology and Field Services Program within BHIV

# Matching NYC Medicaid Data to eHARS (cont.)

- Matches conducted in 2016 and 2017
  - Criteria
    - ✓ Initial match: 2012-2014 NYC Medicaid enrollees and HIV-positive patients in eHARS alive as of 01/01/2012, diagnosed and reported to DOHMH by 12/31/2015
    - ✓ Second match: 2015-2016 NYC Medicaid enrollees and HIV-positive patients in eHARS alive as of 01/01/2015, diagnosed and reported to DOHMH by 09/30/2017
- Process and results presented here from the initial match
  - Reviewed and approved by NYSDOH

# Summary of Data Matching Process

- Creating a de-duplicated Medicaid dataset to be matched to eHARS
- Using deterministic matching process to confirm matches
  - Compare each Medicaid record to each record in eHARS using a set of keys made up of first name, last name, date of birth and social security number

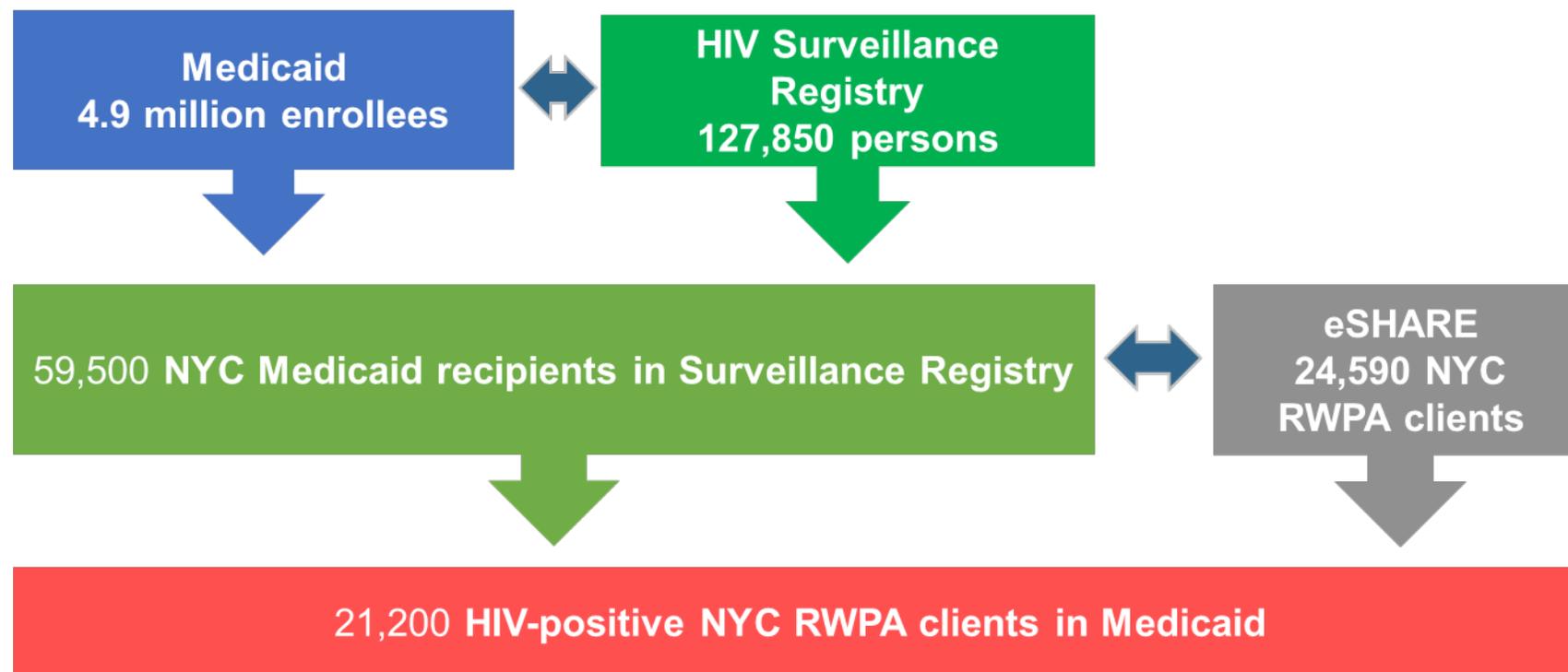
## Examples of matching keys

Full LAST NAME + first 6 letters of FIRST NAME + full DATE of BIRTH (DOB)

First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + full DOB

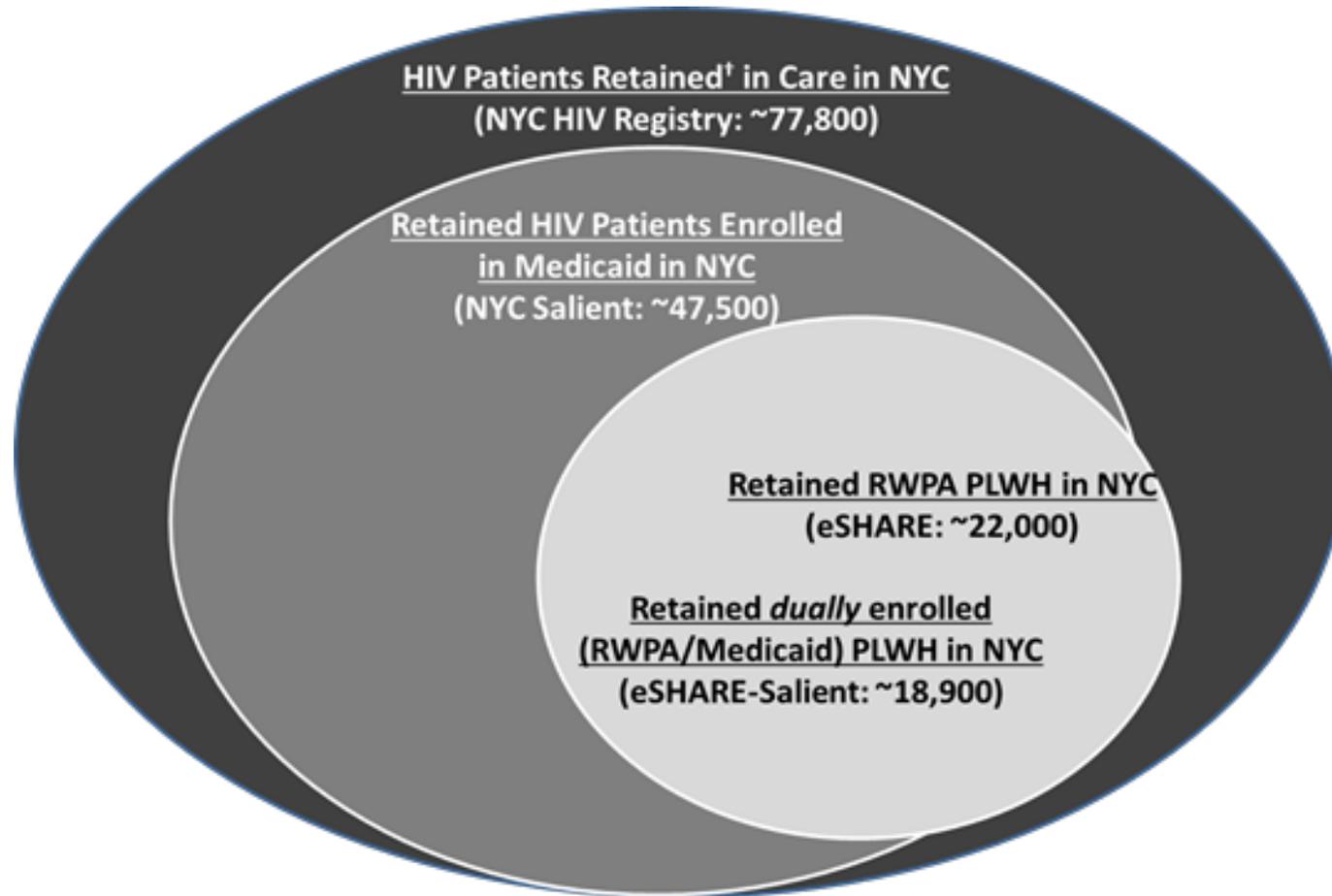
# Medicaid-eHARS and eSHARE Match Results

- Initial match of NYC Medicaid (enrolled 01/2012 – 12/2014) and HIV Registry (PLWH alive as of 01/01/2012 , diagnosed and reported by 12/31/2015) with eSHARE (served 01/2012 – 12/2014) shows:



**Note:** This analysis was performed by DOHMH and the conclusions are those of DOHMH and not necessarily of the New York State Department of Health (NYSDOH).

# Application: Overlap of Populations Retained in Care, 2012-2014



† Having evidence of at least two HIV care visits at least 3 months apart during a 12-month period.

**Note:** This analysis was performed by NYC DOHMH and the conclusions are those of DOHMH and not necessarily of the NYSDOH.

# Application (cont.): Examine Fuller Picture of Public Services Received to Support HIV-related Health

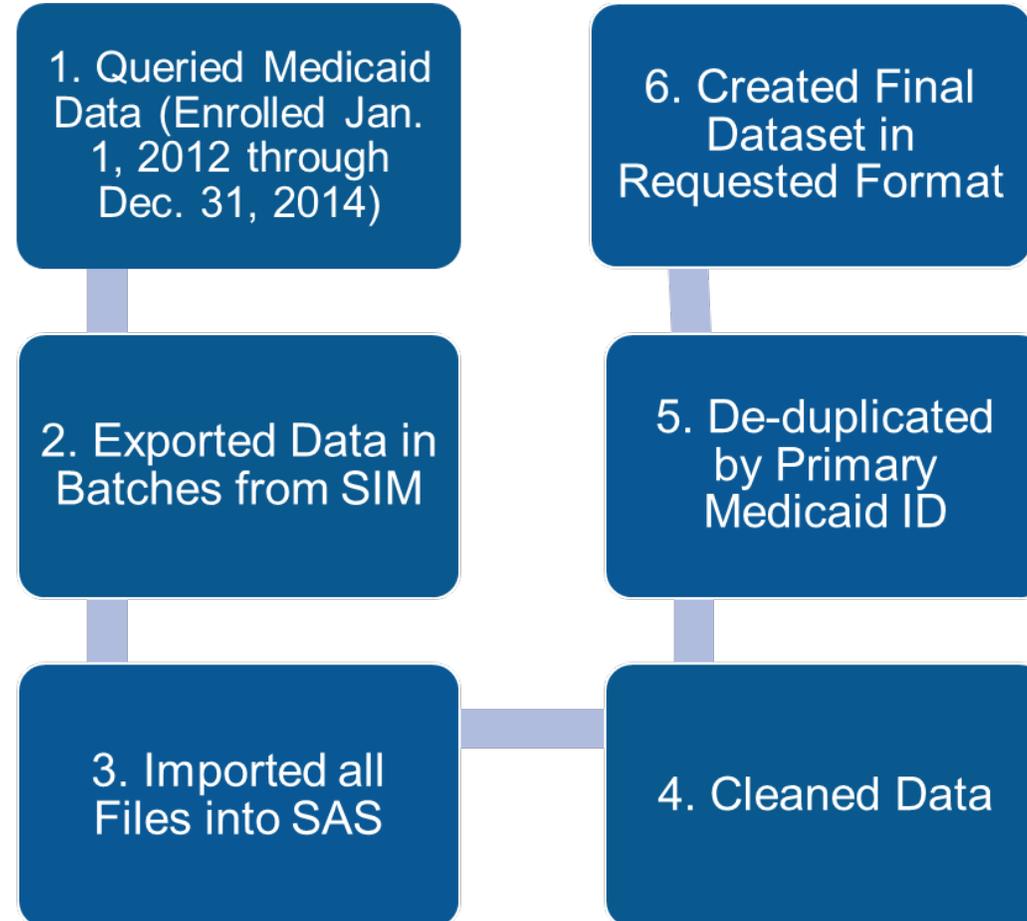
- Compare service needs and service utilization among HIV-positive transgender women, cisgender women and men who have sex with men – by service area (e.g., behavioral-health) and *across payers*
- Assess the impact of specific packages/combinations of health services (with comparisons of Ryan White only, Ryan White plus Medicaid, and Medicaid only) on HIV care continuum outcomes
- Estimate uptake of PrEP among HIV-negative Medicaid enrollees using diagnosis data from eHARS with prescription data from the SIM

# Acknowledgements

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- ❖ Zoe Edelstein, PhD, MS
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# Appendix

# Steps Used to Prepare Pre-Match File

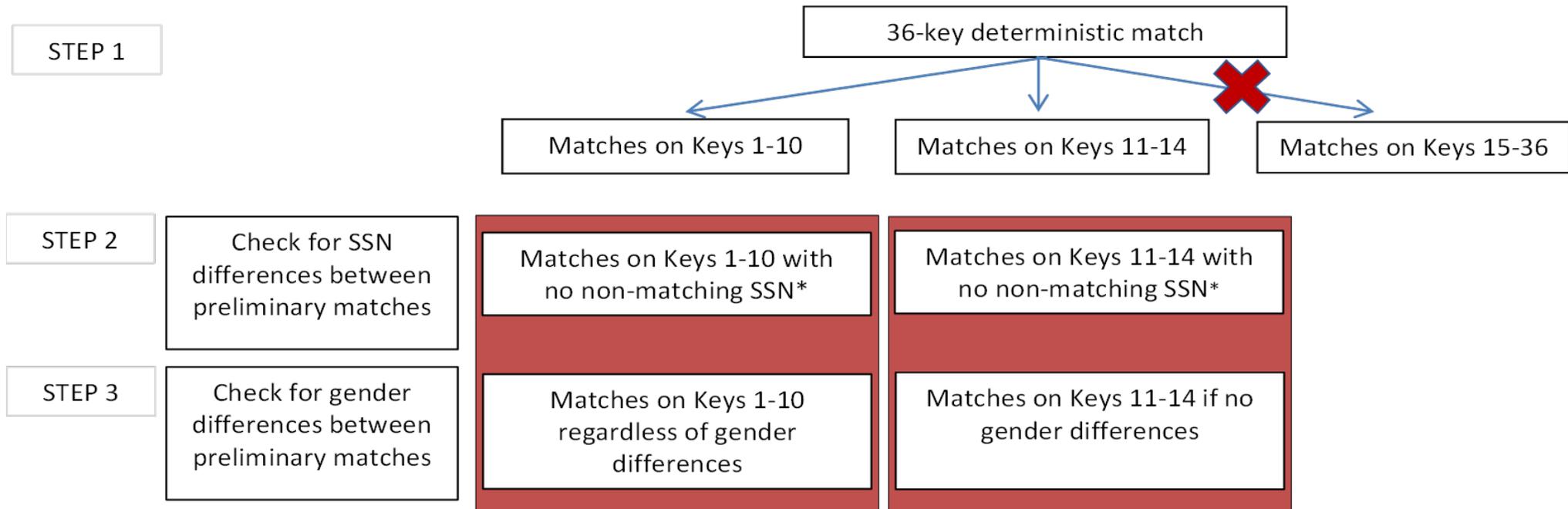


# Data Matching Process

- Deterministic matching process
  - Comparison of unique identifiers
- Used a set of 36 keys based on combinations of first name, last name, date of birth and social security number
  - Starting with key 1, each Medicaid record was compared to each eHARS record
    - If it was a match, the second record was compared against all records in eHARS using key 1. If not, it was evaluated on subsequent keys until it was determined to be a match or not.
    - This process was repeated until the last set of Medicaid and eHARS records were compared.

Matching Keys	Description
1	Full LAST NAME + first 6 letters of FIRST NAME + full DATE of BIRTH (DOB)
2	First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + full DOB
3	Letters 2-7 of LAST NAME + first 6 letters of FIRST NAME + full DOB
4	First 2 letters of LAST NAME + first 3 letters of FIRST NAME + full SOCIAL SECURITY NUMBER (SSN) + full DOB
5	Full LAST NAME + first 3 letters of FIRST NAME + full DOB
6	Letters 3-5 of LAST NAME + first 3 letters of FIRST NAME + full DOB
7	First 4 letters of LAST NAME + first 4 letters of FIRST NAME + full DOB
8	First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + month and year of DOB
9	First letter of LAST NAME + letters 3-10 of LAST NAME + letters 2-9 of FIRST NAME + day and year of DOB
10	Full 8 digits of SSN
11	First 5 letters of LAST NAME + first 4 letters of FIRST NAME + month and year of DOB
12	First 3 letters of LAST NAME + first 3 letters of FIRST NAME + month and year of DOB, switching the first and last name
13	First 3 letters of LAST NAME + first 3 letters of FIRST NAME + day and year of DOB, switching the first and last name
14	First 4 letters of LAST NAME + first 4 letters of FIRST NAME + month and day of DOB, switching the first and last name

# Summary of Medicaid-eHARS Matches



\*Non-matching SSNs are those with >4 digits different from one non-missing SSN to another non-missing SSN.

Indicates confirmed matches