AIRA
AMERICAN IMMUNIZATION REGISTRY ASSOCIATION

Flu Coverage and Identifying Non-reporting Providers

Takeaways from the IIS Data Analyst Collaborative (IDAC)

February 2026

IIS Data Analyst Collaborative (IDAC)
February 19, 2026

The IIS Data Analyst Collaborative (IDAC)

The IIS Data Analyst Collaborative (IDAC) is a discussion-based collaborative for people who work with immunization data to connect on important and timely topics. IDAC happens quarterly on the third Thursday at 1 p.m. ET. There are different discussion topics in every meeting. The goals for these collaboratives are to offer an opportunity to share and develop skills and insights, to help people who work with immunization data to connect and spark collaborations, and to create a supportive, engaged community of IIS data analysts.

Questions discussed during this IDAC session included the following:

Part 1: Calculating Flu Coverage Rates
- What denominator do you use?
- Do you adjust it at all?
- What kind of statistical models are other jurisdictions using to improve coverage rate estimates?
- What considerations are made related to at-home FluMist?
- Have you seen different rate trends depending on the age group?
- How do you accommodate the two flu doses/season for smaller children?

Part 2: Identifying Non-reporting Providers
- What constitutes a non-reporting provider?
- How can we get a true denominator of providers?
- How do you obtain lists of active providers in your jurisdiction?
- What external sources do you use?
- How do you identify non-reporting providers?
- What time frame do you use?
- How is follow-up conducted?

Part 3: Monitoring HepB Birth Dose Coverage
- How are you monitoring changes in first-dose HepB since the recommendation change?
- Do you have a data source for HepB screening of pregnant people?
- Are others seeing a decrease when tracking 1-, 3-, or 10-day administration?

Calculating flu coverage rates, identifying non-reporting providers, anticipating data needs considering changing recommendations—meeting summary

The February IIS Data Analyst Collaborative (IDAC) meeting focused on two primary topic areas: influenza (flu) coverage rate calculation methodologies and strategies for identifying and engaging non-reporting providers, with additional discussion on birth dose hepatitis B baseline monitoring.

Key themes included:

- Denominator selection significantly impacts flu coverage estimates, with jurisdictions using varying approaches (IIS-based, census-based and other sources of population estimates, statistical modeling adjustments).
  - IIS-based denominators work well for children in high-participation states but are less reliable for adults—especially 65+ populations—due to historical enrollment gaps.
  - IIS-based denominators are influenced by jurisdictional consent policies (e.g., opt in vs. opt out).
- NIS (survey-based) flu coverage estimates consistently exceed IIS-based estimates, highlighting methodological differences and ongoing challenges in reconciliation.
- Jurisdictions are experimenting with statistical modeling (e.g., Fay-Herriot, Bayesian methods, ogive weighting) to improve estimates.
- At-home FluMist reporting remains limited, with incomplete denominator visibility and modest reporting compliance (~50% in some areas).
- Identifying non-reporting providers remains resource-intensive and operationally challenging, even in states with mandatory reporting laws.

- Jurisdictions are building strategies such as collaboration with school nurses, VFC staff, Medicaid, and HIEs as well as using claims data to identify gaps.
- Several jurisdictions are now monitoring hepatitis B birth dose coverage trends, noting post-2020 declines, and beginning dashboard development.

Part I: Calculating Influenza Coverage Rates

A. Denominator Methodologies

Jurisdictions reported using different denominators depending on age group and registry structure.

1. IIS-based denominators
- Strengths
  - Strong childhood participation
  - Good real-time numerator capture
  - Supports age-specific analysis
- Limitations
  - Overrepresentation of children (some states report >100% of census population)
  - Underrepresentation of older adults (IIS began in early 2000s; limited historical capture)
  - Migration and deceased individuals inflate denominators
- Adjustments used
  - Remove individuals with no vaccine in last 5 years (adults)
  - Remove infants with limited early vaccine records
  - Set recency thresholds (5–10 years)
  - Nightly inactivation of inactive clients
2. Census-based or population estimates

- Strengths
  - More stable for adult/65+ populations
  - Better historical alignment
- Limitations
  - Not registry-specific
  - Cannot capture consent-based registry constraints
  - Age-stratified trend reporting (5-year trend)

3. Consent-based registry approach (Texas)
- Denominator = active consenting clients
- Automated bulk inactivation (5- to 12-year configurable threshold)
- Helps reduce denominator inflation
- Limits representation to enrolled individuals only

4. Ogive weighting method
- Smooth curve-based method (discussed by Oregon)
- Avoids hard cutoffs
- Often aligns more closely with population-based denominators

B. IIS vs. NIS Flu Coverage Differences

1. Participants consistently noted
- NIS estimates are significantly higher than IIS estimates
- IIS = likely underestimation (missing providers, incomplete reporting)
- NIS = potential overestimation (self-report bias, recall bias, non-response bias)

2. Louisiana is experimenting with
- Fay-Herriot small area estimation model
- Exploring Bayesian modeling techniques
- Attempting to normalize county IIS data against state-level NIS data
- Links to resources shared
  - [Modeling and presentation of vaccination coverage estimates using data from household surveys](#)
  - [Estimating county-level vaccination coverage using small area estimation with the National Immunization Survey-Child](#)
  - [Small area estimation of human papillomavirus vaccination coverage among school-age children in Alabama counties](#)
  - [Vaccination coverage in India: A small area estimation approach](#)
  - [Approximate hierarchical Bayes small area estimation using NEF-QVF and poststratification](#)

C. FluMist (Administered at Home and by Providers)
- Reporting observations
  - Included in flu coverage calculations
  - Very small numbers overall
- Challenges
  - Limited access to shipment denominators
  - Similar issue exists for traditional flu vaccines
- Conclusion
  - Currently monitored but too small for detailed analysis
  - Denominator transparency remains a major gap

D. Two-Dose Pediatric Flu Analysis
- Generally low analytic focus due to small numbers
- Most jurisdictions count ≥1 dose as coverage
- Complexity of identifying who truly requires two doses
- Considered lower priority compared to broader flu coverage estimation issues

Part II: Identifying Non-reporting Providers

A. Strategies Attempted
  1. Historical flu reporting review
  - Identify providers who reported in past 5 years but not current season
  - Outreach conducted by regional/provider relations teams
  - Limited return on investment
  2. Season-to-season comparison
  - Compared current flu/COVID reporting to prior years
  - Direct email outreach to providers with discrepancies
  - Identified closed providers
  - Generated meaningful engagement
  - Resource-intensive follow-up burden
  3. Medicaid and claims data
  - Proposed/attempted
    - Medicaid claims crosswalk
    - All-payor claims databases (where available)
  - Limitations
    - Data access challenges
    - Medicaid providers already tend to comply
    - Many states lack all-payor claims databases
  4. School nurse partnerships
  - Effective grassroots strategy
    - School nurses flag missing providers when student records are not found in IIS
    - Especially useful during kindergarten assessments
    - Generates actionable leads each August/September
  5. VFC and field staff intelligence
  - VFC field representatives familiar with local provider landscape
  - Useful in identifying "unknown" vaccinators
  6. HIE (health information exchange) data
  - Review vaccination data submitted to HIE but not IIS
  - Manual crosswalk of provider submissions
  - Barriers
    - Legal constraints
    - Technical limitations
      - Resource burden
  - Some jurisdictions (e.g., San Diego) report strong HIE collaboration

B. Operational Challenges
- Follow-up is labor-intensive
- Requires dedicated outreach staff
- COVID-era staffing reductions limit capacity
- Smaller seasonal providers (flu-only) difficult to sustain engagement
- Technical onboarding barriers (HL7, flat files)
- Consensus: identifying providers is only half the battle; onboarding and sustained compliance are more difficult

Part III: Birth Dose Hepatitis B Monitoring

Key takeaways:
- Birth dose HepB coverage is an emerging focus area
- Multiple jurisdictions proactively building dashboards
- Leadership increasingly requesting this data

Overall Themes and Takeaways
- There is no standardized denominator approach, and methods vary based on registry design and population structure.
- Flu coverage remains methodologically complex, especially when reconciling IIS and NIS data.
- Statistical modeling is a growing area of interest.
- Non-reporting provider identification requires sustained staffing and cross-system collaboration.
- School nurses and VFC staff are practical field-level assets.
- Birth dose HepB monitoring is gaining urgency.