# Using IIS for Coverage Assessments

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# Collaborators

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- AIRA Assessment Steering Committee

- AIM

- IIS & Immunization Program officials

# Objectives

1. Describe experiences in using IIS data to conduct immunization coverage assessments;

2. Describe the strengths and limitations of IIS-based coverage assessments; and

3. Synthesize findings to guide subsequent development of recommendations and best practices.

# Survey Process

- Online surveys of IIS Leads
- To ensure both technical and programmatic perspective, grantees could:
  - Collaborate on full survey, or
  - have Immunization Program Manager complete modified survey
- Data collection August – September 2013

# Survey Instrument

- Use of IIS in:
  - AFIX activities
  - Program-wide assessments for children and adults; other assessments based on age, geography, demographic characteristics
- Programmatic <u>uses</u> and <u>value</u> of assessment data, for children and for adults
- Challenges, resources needed

# Participation

- 47 IIS completed full survey
- 15 IPMs completed modified surveys

In all, 50 IIS responded:

      41 states, 5 territories, 4 cities

          **1 state, 1 territory currently with no IIS

*Current  source of immunization history data for AFIX:*

15  IIS data used exclusively for <u>all</u> providers

13  IIS data used exclusively for <u>some</u> providers; other providers use other data sources

12  IIS data supplemented with other sources

 5  IIS <u>not</u> used at all

# IIS for AFIX

*Factors that limit exclusive use of IIS data for AFIX:*

| | |
|---|---|
| Incomplete history for children 0-6 years | 23 |
| Incomplete history for adolescents | 22 |
| Lack of IIS record for many children | 16 |
| Difficulty identifying active patients | 13 |
| Unreliable or contradictory patient address | 8 |
| Duplicate patient records | 7 |
| Multiple records for same vaccination event | 3 |

# IIS for AFIX

*System used to <u>run AFIX reports</u> for providers:*

    8  IIS only

   22  Both IIS <u>and</u> CoCASA

   17  CoCASA only

# IIS for AFIX

*Current AFIX reports that can be run from IIS:*

| Lists of patients who are not up-to-date | 38 |
|---|---|
| Invalid doses | 24 |
| Missed opportunities | 18 |
| Late starts | 13 |

*Resources/assistance needed to enhance ability to generate all AFIX reports from IIS:*

36 Funds for IIS upgrades or support

34 Technical assistance

17 More staff time to run AFIX reports

17 Guidance on calculating AFIX coverage rates

11 Guidance on how to attribute children to a provider

# IIS for AFIX

*OTHER* *resources/assistance needed:*

- Conventions for disassociating / de-activating a child for a provider's calculation

- List of core AFIX reports and business rules that govern the AFIX program

- Clarification on desired output and methodology

- Interaction/collaboration between IIS and AFIX personnel

# Age-Based Assessments

*Use of IIS for age-based coverage assessments:*

| Age Group | Routinely | Ad hoc basis | Attempted | Have not attempted |
|-----------|-----------|--------------|-----------|--------------------|
| Infant/preschool age | 25 | 14 | 3 | 5 |
| Kindergarten age | 14 | 25 | 2 | 6 |
| Adolescents | 17 | 21 | 4 | 5 |

# Age-Based Assessments

*Challenges related to data quality:*

| | *Minor Challenge* | *Major Challenge* |
|---|---|---|
| Unreliable or contradictory address information | 16 | 29 |
| Children included who don't reside in jurisdiction | 20 | 20 |
| Incomplete history for adolescents | 9 | 19 |
| Duplicate patient records | 23 | 18 |
| Multiple records for same vaccination event | 31 | 9 |
| Incomplete history for children 0-6 years | 27 | 7 |
| Lack of an IIS record for many children | 20 | 2 |

*Other challenges:*

- Issues and inconsistencies with patient ownership and inactivating MOGEs

- Data entry of records based on scant evidence

- Use of wrong codes / need for user training

- Lack of homebirth records in IIS

- Lack of data exchanges with providers using EMRs; connectivity problems with remote providers

# Age-Based Assessments

*Resources or assistance needed related to data quality:*

- 28 Best practices on dealing with data quality issues
- 22 Guidance on evaluating the validity of results
- 21 IIS technical enhancement
- 21 Standard operating procedures for how to run standard assessment
- 16 Hands-on training opportunities for IIS staff

# Age-Based Assessments

*Other resources or assistance:*

- Update business rules with universal standard
- Fields/formula/codes needed to calculate assessment
- Ability to update reports/run queries without outside programmers or vendor support
- Upgrade to existing reporting/assessment functionality
- Ability to show providers a consolidated assessment of their practice
- Venue for sharing of state solutions/reports
- Better connectivity for remote providers

# Sub-Group Assessments

| | IIS capable, have conducted | IIS capable, haven't conducted | IIS not capable |
|---|---|---|---|
| Small-area rates | 29 | 13 | 5 |
| VFC-eligible children | 20 | 13 | 14 |
| Children in Medicaid | 16 | 16 | 15 |
| Children receiving WIC | 6 | 8 | 32 |
| Insured children | 14 | 15 | 18 |

# Sub-Group Assessments

*Resources/assistance needed to facilitate geography-based assessments:*

24   Standard operating procedures

12   IIS technical enhancement

18   Guidance on how to deal with multiple addresses

14   Hands-on training opportunities for IIS staff

*Other:*  detailed instructions; GIS mapping outputs; defining and selecting custom geographic parameters; geocoding; technical support

# Sub-Group Assessments

*Barriers to assessments by program/insurance:*

|  | VFC | Medicaid | WIC | Insured |
|---|---|---|---|---|
| Data unreliable, incomplete | 9 | 12 | 3 | 9 |
| Low priority | 2 | 4 | 0 | 4 |
| Assessment done elsewhere | 4 | 2 | 3 | 3 |
| Time/resource constraints | 2 | 1 | 0 | 2 |
| Data-sharing issues | 0 | 1 | 2 | 0 |

# Other Child Assessments

*Other IIS-based childhood immunization coverage assessments in last 4 years:*

23  Influenza vaccination rates for children

22  Antigen-specific vaccination rates during outbreak

21  H1N1 vaccination rates for children

15  Vaccination rates following a vaccine shortage

2  Influenza vaccination rates for high-risk children

# Programmatic Perspective

| …for childhood immunization activities | Current Use | |
|---|---|---|
| Filling out CDC-required reports | 45 | |
| Supporting AFIX activities | 39 | |
| Identifying areas of low vaccination coverage | 33 | |
| Comparing with other assessment data (eg, NIS) | 33 | |
| Using as internal quality improvement benchmarks | 29 | |
| Supplying data for health plan quality measures | 27 | |

# Programmatic Perspective

| …for childhood immunization activities | Current Use | High Value |
|---|---|---|
| Filling out CDC-required reports | 45 | 35 |
| Supporting AFIX activities | 39 | 44 |
| Identifying areas of low vaccination coverage | 33 | 41 |
| Comparing with other assessment data (eg, NIS) | 33 | 24 |
| Using as internal quality improvement benchmarks | 29 | 35 |
| Supplying data for health plan quality measures | 27 | 13 |

# Programmatic Perspective

| …for childhood immunization activities | Current Use | High Value |
|---|---|---|
| Evaluating impact of special projects | 31 | 20 |
| Responding to outbreaks or pandemics | 29 | 38 |
| Tracking uptake of new vaccines, recs | 28 | 24 |
| Assessing impact of vaccine shortages | 22 | 18 |
| Assessing impact of new school/daycare req's | 19 | 22 |
| Informing about how to deploy surplus vaccine | 16 | 16 |

# Adult Assessments

*Other IIS-based adult immunization coverage assessments in past 4 years:*

- 11   Influenza vaccination rates for seniors
- 15   Influenza vaccination rates for all adults
- 20   H1N1 vaccination rates
- 9     Pneumoccocal vaccination rates
- 6     Zoster vaccination rates
- 2     Any vaccination rates for high-risk adult subgroups

# Programmatic Perspective

| …for adult immunization activities | Current Use | High Value |
|---|---|---|
| Filling out CDC-required reports | 30 | 25 |
| Identifying areas of low vaccination coverage | 5 | 36 |
| Comparing with other assessment data (eg, BRFSS) | 11 | 18 |
| Using as internal quality improvement benchmarks | 10 | 23 |
| Supplying data for health plan quality measures | 8 | 10 |

# Programmatic Perspective

| …for adult immunization activities | Current Use | High Value |
|---|---|---|
| Evaluating impact of special projects | 16 | 16 |
| Responding to outbreaks or pandemics | 20 | 31 |
| Tracking uptake of new vaccines, recs | 8 | 18 |
| Informing about how to deploy surplus vaccine | 8 | 11 |

# Programmatic Challenges

*Major Challenges to supporting program needs – Child vs Adult IZ:*

| Challenge | CHILD | ADULT |
|---|---|---|
| IIS data completeness / quality | 26 | 33 |
| Inadequate staffing | 28 | 29 |
| Competing demands on staff time | 32 | 28 |
| Lack of funding for IIS infrastructure | 29 | 23 |
| Limited IIS functionality | 14 | 20 |
| Staff diverted to EHR onboarding | 24 | 19 |
| Limited staff expertise | 10 | 15 |

# AIRA Role

*AIRA role in enhancing use of IIS-based coverage assessments:*

- 40 Create a library of standard operating procedures
- 39 Provide webinars on key aspects of running coverage assessments
- 26 Offer hands-on training opportunities at AIRA conferences and meetings
- 23 Publish "experts" list for different vendors / platforms

# AIRA Role

*AIRA role – other suggestions:*

- Offer training opportunities in small groups

- Disseminate best practices, logic for reports & queries

- Establish standardized business rules & specifications

- Increased funding for adult-focused efforts

- Training for field trainers (AFIX); user guide for providers

- Advocate for IIS-supportive policies (e.g., mandated reporting, opt-out rather than opt-in); guidance on how to move toward that goal

# Insight

*AIRA is perfectly positioned to bring together the IIS community, immunization program community, vendor community, and CDC to develop in-depth business rules and specifications around AFIX and small-area analysis.*

*It would be helpful to do this in a modular way so functionality and tools could be leveraged across the IIS community, further supporting standardization and efficient use of resources.*

# Summary

- Substantial room for enhanced IIS use in AFIX, overall coverage assessments, and small-group assessments

- Significant data quality issues exist

- Resource needs include SOPs, best practices, and technical assistance, as well as funding

- Some gaps between high value vs current capacity in terms of IIS support for immunization program needs

# Next Steps

- Explore patterns based on IIS characteristics (e.g., vendor, structure)

- Brief telephone interviews with a few IIS personnel to present "case studies" of strengths and limitations; and

- Synthesize findings to guide subsequent development of recommendations and best practices.

# Thank you!

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