



# Assessing provider use of IIS information in their EHR systems

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- Aaron Bieringer is not affiliated with any of the commercial tools or software discussed in this presentation.

# Outline

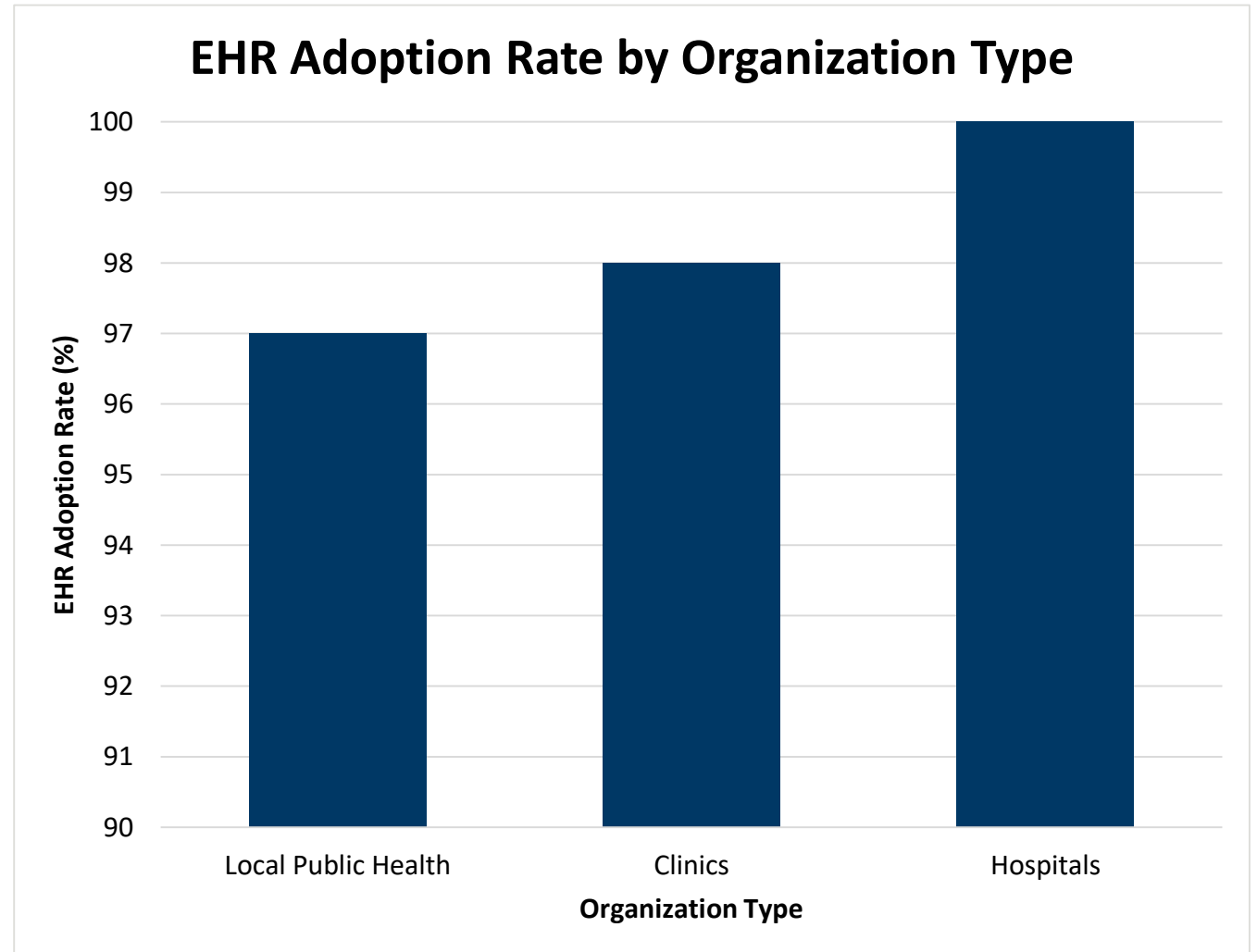
- Background
- Objectives
- Methods
- Results
- Conclusions



# Background

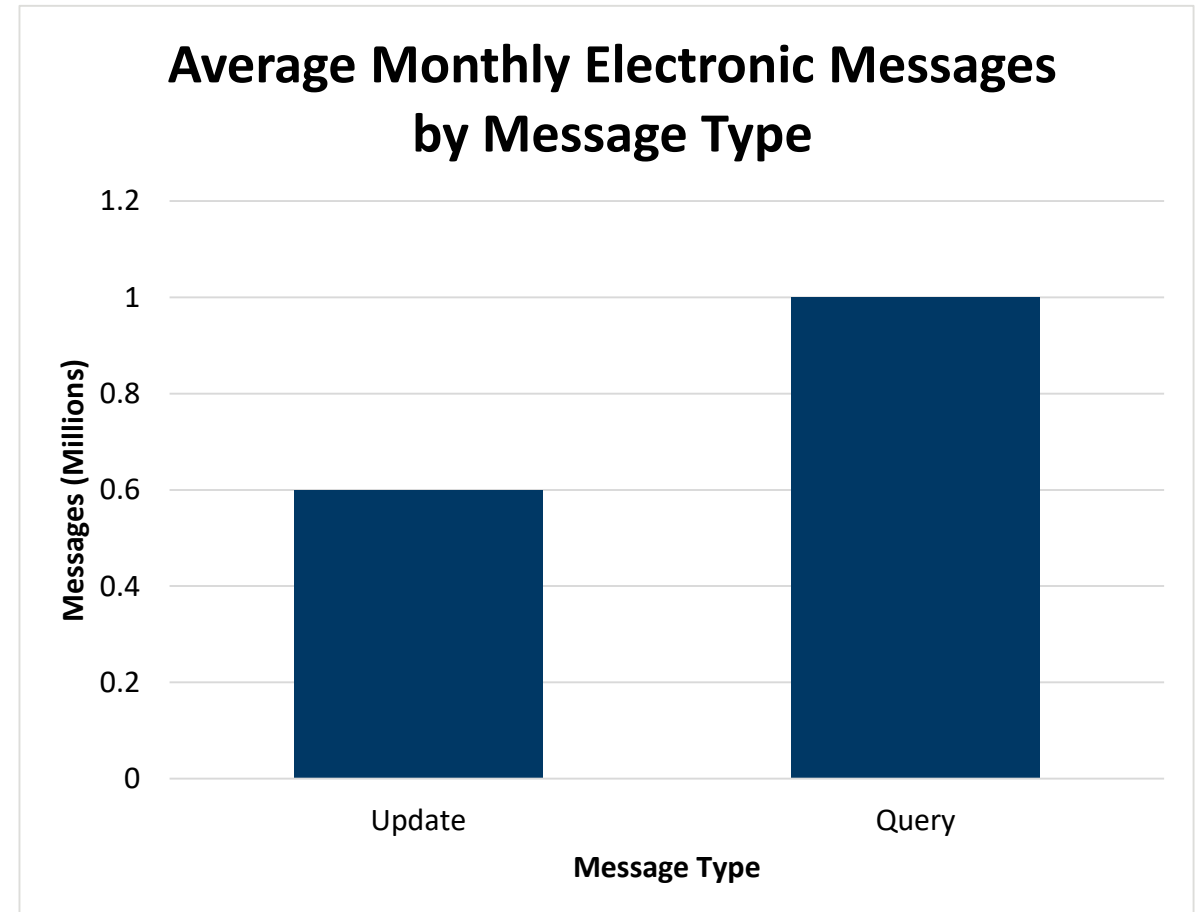
# Immunization Data Sharing in MN

- Data sharing allowed under MN Statute 144.3351
  - MN licensed providers, schools, licensed childcare, group purchasers, Community Health Boards, Commissioner of Health
- Only pharmacists are mandated to report
- High EHR adoption rates



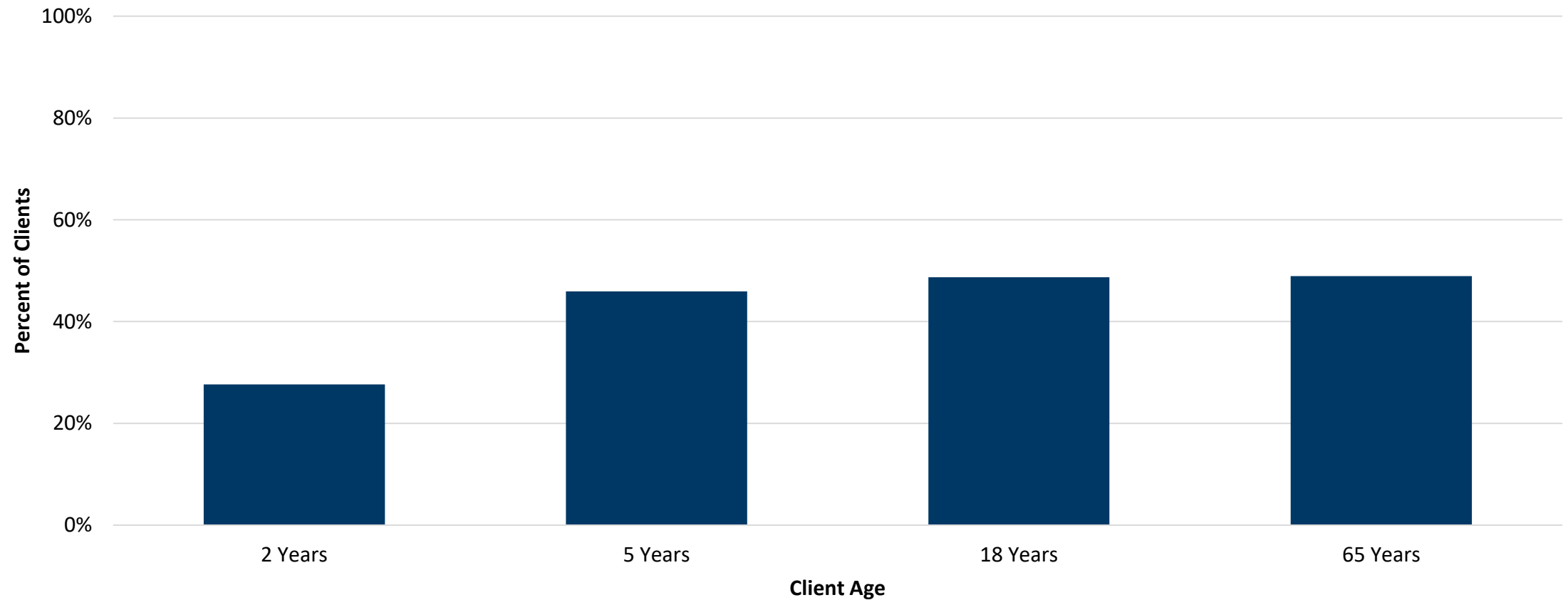
# Overview of MIIC

- Lifespan IIS established in 2002
- Contains over 92 million immunizations for 8.4 million clients
- 91.4% of MnVFC providers participate
- Widely used



# Multi-Provider Clients

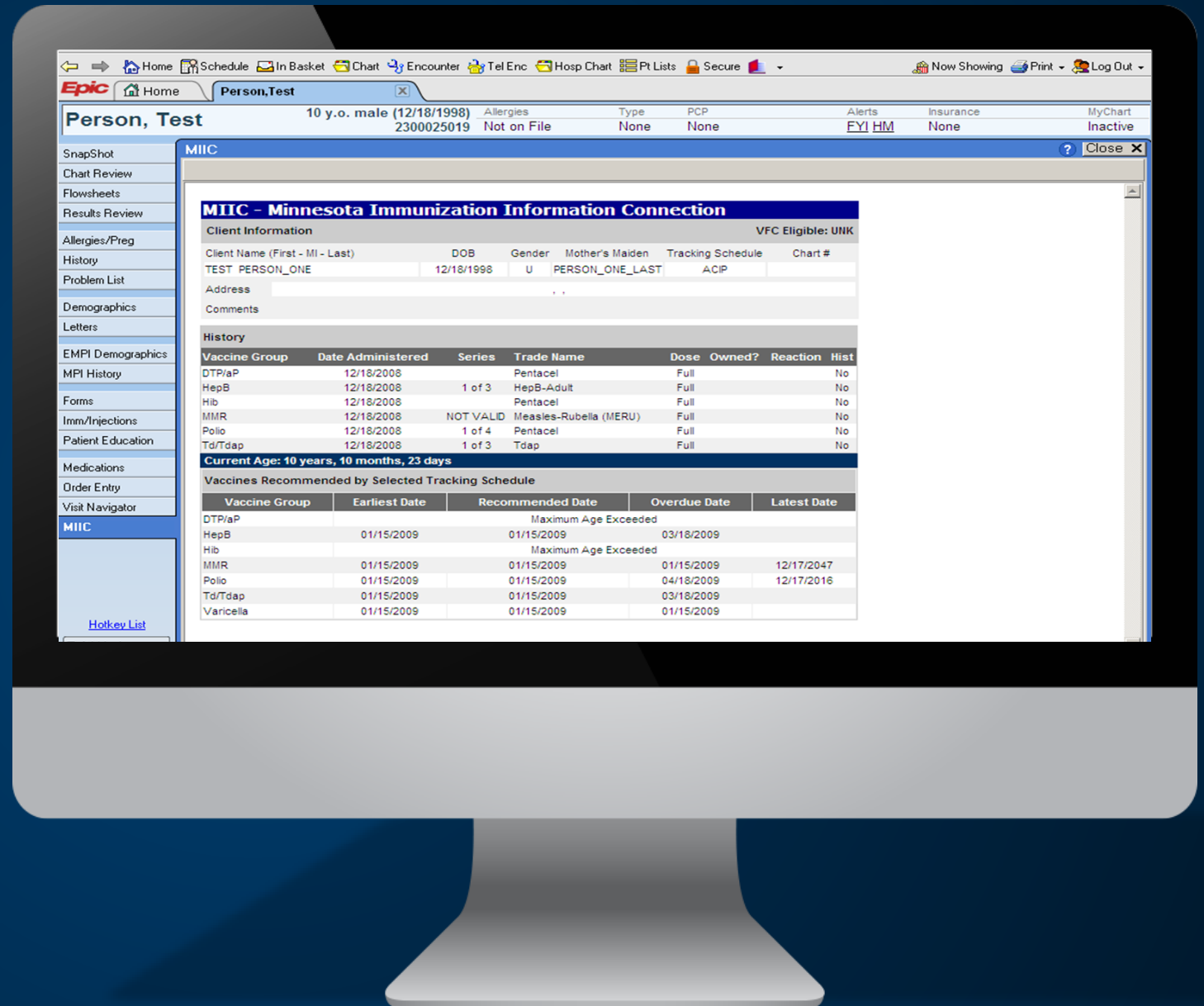
**Percent of Clients with Immunizations from 3+ Providers in MIIC, July 2018**





# Potential Value of Accessing MIIC Data in EHR

- Access to data that supports immunization practice without logging into separate system
- Fits more easily into provider workflow
- Access to data in real-time





# Potential Threats to Value

- Issues with data completeness
- CDSi challenges with complicated schedules
- Lack of regular communications

# Objectives

# Study Objectives

- Better understand user/stakeholder use of MIIC data
- Better understand user/stakeholder perceptions of MIIC data
- Collect user/stakeholder feedback on priorities for improvement
- Use results to enhance utility of MIIC and improve vaccination practice in MN

# Methods

# Site and Participant Selection

- Health care systems and public health clinics
- Clinical and administrative roles
- Knowledge at system-level and site-level
- Familiarity with CDSi tools
- Selected 17 professionals from 12 organizations representing 324 individual care sites

# Interview Questionnaire

- Semi-structured questionnaire refined with input from MIIC leadership
- Four domains
  - Background
  - Awareness and use of MIIC data
  - Value of MIIC data
  - Closing

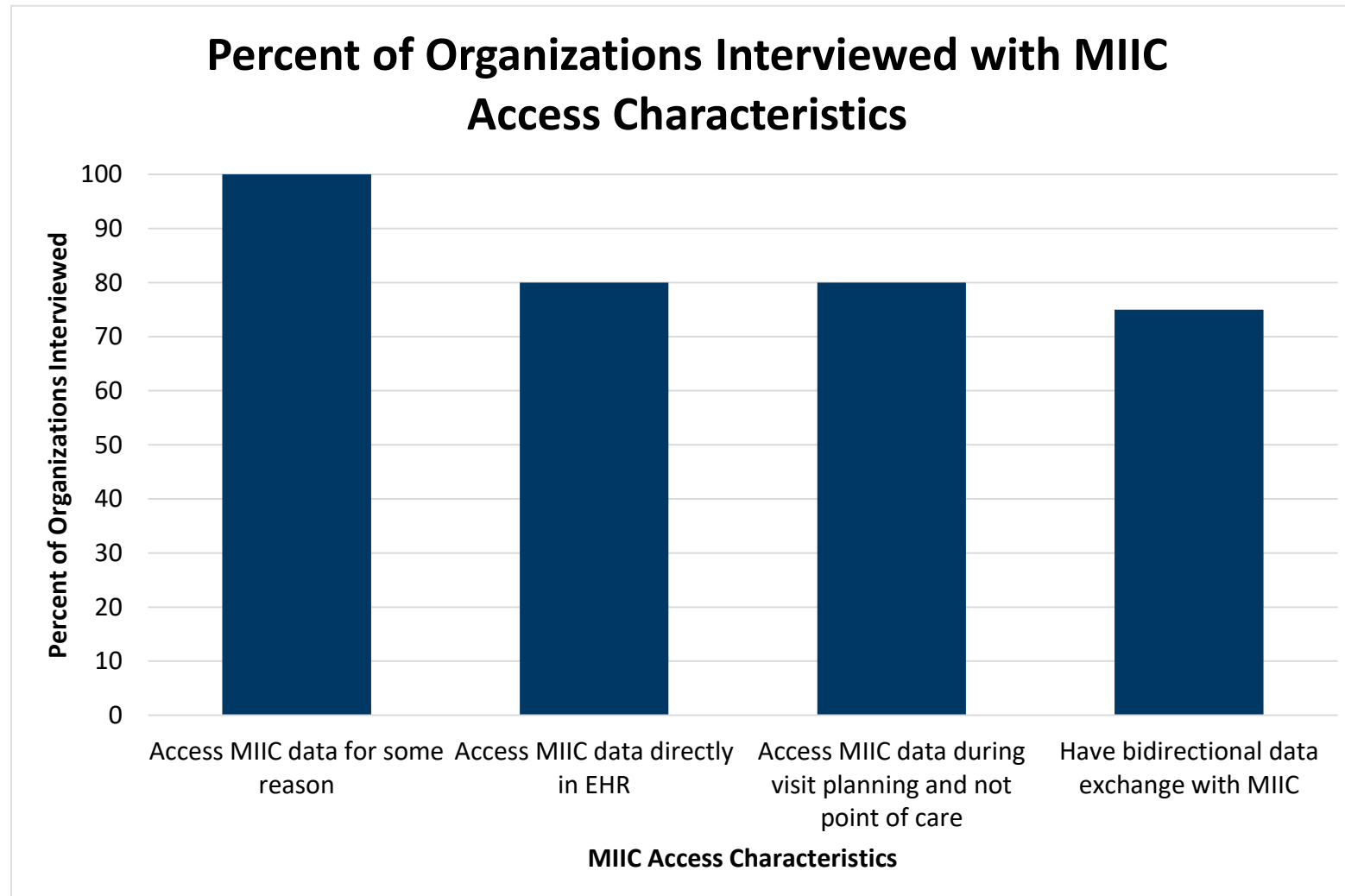
- Interviews May 2015 – February 2016
- Pre-interview:
  - Shared questions
  - Invited participants to include colleagues
- Interview:
  - Approximately 45 minutes long
  - Used WebEx for set-up and recording
  - Took hand-written notes



- Synthesized and coded qualitative content through discussion and NVivo 11 software (QSR International)
- Selected topics/issues to highlight through group consensus
- Analyzed responses to structured questions using descriptive statistics
- Tabulated structured questions results

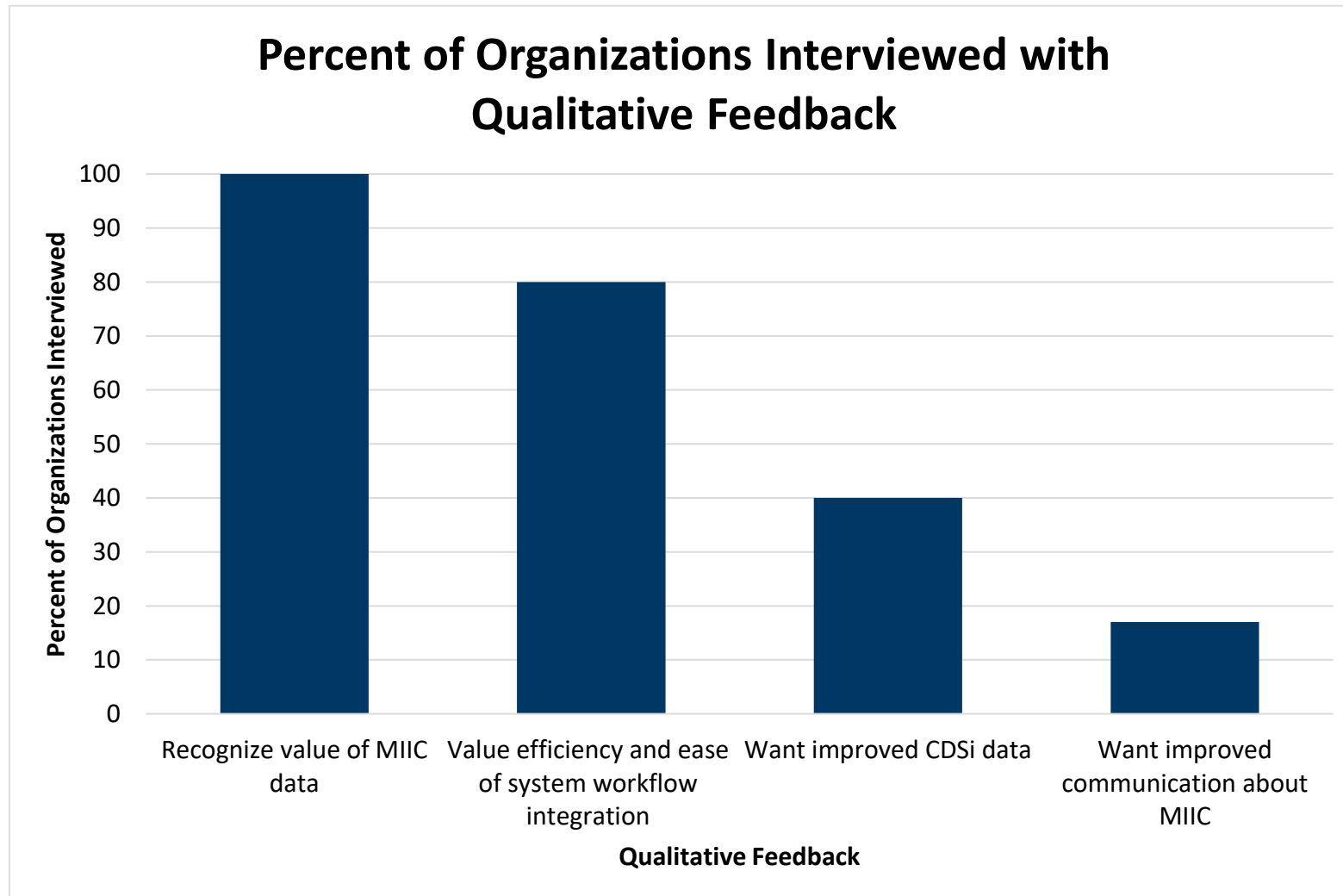
# Results

# Results: Structured Questions



2 high-volume health systems used MIIC immunization history data only (not CDSi)

# Results: Qualitative Questions



# Conclusions

- Results confirmed our assumptions:
  - Users find MIIC history and CDSi data valuable
  - Users value ability to access MIIC data directly in their EHRs
  - Users want improved CDSi data
  - Users want better communication

- Did not cover all organizations
- Participants selected for their expertise and role
- Focused on single statewide IIS
- Landscape of health care delivery in MN is unique



- Consider ways to improve MIIC CDSi data
- Continue to improve MIIC communications
- Continue partnering with users to identify ways MIIC can better support immunization practice in MN

# Thank you!

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# Questionnaire

# BACKGROUND

1. What is your role at your organization?
2. We understand that MIIC CDSi data is sent to your EHR. What is the number of sites that have access to this data and what number of these sites use the CDSi data in their practice?
3. When was this feature installed in your system? Why? What led to this decision?
4. What was the process for assessing client immunization history and vaccine recommendations (decision support) prior to that?
5. Is this functionality included as part of EHR training or other user education efforts?

# AWARENESS AND USE OF MIIC CDSi

6. How many users are there in your clinic/health system that use the CDSi data from MIIC?
7. Who typically accesses this functionality? Nurse, provider, clinic manager?
8. How many client visits does your system have annually?
9. Is MIIC accessed during all visits or only for select visits / client group?
10. How is this integrated with workflow? Is it similar across various clinic types (pediatric vs. other settings)? When is the CDSi data reviewed?
11. When viewing CDSi information from MIIC, does data not present in EHR get entered into your system? If not, why not?
12. If there is data in EHR and not in MIIC, do they get reported back to MIIC?
13. If errors noticed in the MIIC data (CDSi or immunization data), are they noted and reported back to MIIC?
14. Are users aware that the source of the immunization data (history and forecasting) is MIIC?

# VALUE OF MIIC CDSi

15. What do users typically look for/what are users most interested in? New immunization data or validate current ones and/or look for vaccine recommendations?
16. Please speak to the value of the MIIC CDSi information. Does your organization find this information valuable? If not, why not?
17. Does your system use CDSi offered by any sources other than MIIC? How is this integrated into workflow?
18. If you didn't have access to MIIC for CDSi what would your organization use? Has your organization looked into alternate CDSi solutions?
19. Do you track immunization rates by clinic and try to find "missed opportunities"? If so does the MIIC CDSi data help you determine a missed opportunity, or do you use something else to calculate that?
20. What would like to see happen to improve use and value of this feature? (e.g. software improvement, ideas to promote use)

21. What are the initiatives under which this functionality is promoted/monitored? (E.g. quality improvement, public health, clinical decision support); if not, why not?
22. Who else in your organization/clinic would be involved with this and could be subject matter expert (SME) for this purpose?
23. Any additional information you would like to share or relevant topic that needs to be addressed?