



Capturing Hearing Results among Audiologists: Evaluating the Acceptability and Usability of Reporting to EHDI-IS

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Disclaimer:

The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Learning Objectives

By the end of the sessions, participants will learn:

- The acceptability (i.e. willingness to report) and usability of the EHDI-IS and its provider-reporting module among audiologists.
- The most common barriers preventing audiologists from reporting hearing evaluation data to state EHDI programs.
- Ways to increase awareness among audiologists about the importance of documenting and communicating hearing evaluation results to state EHDI programs

Evaluation Overview

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- The Early Hearing Detection and Intervention Information System (EHDI-IS) is a tool that supports EHDI programs to ensure that all deaf and hard of hearing infants and young children are identified early and receive intervention services.
- The Centers for Disease Control and Prevention (CDC) currently funds 44 state EHDI programs to enhance their EHDI-IS and to improve documentation of hearing diagnostic testing for infants who do not pass the newborn hearing screening.

Evaluation Overview

Formative evaluation, which focused on project improvement:



- To understand the willingness of the audiologists in the states to report data to the EHDI program
- To learn how user- friendly is the process for audiologist to report and enter data into the EHDI-IS
- To identify obstacles audiologists face around reporting hearing data to the EHDI-IS

Evaluation Overview



EVALUATION PLANNING

IMPLEMENTATION AND RESULTS

2017

2018

Evaluation Design

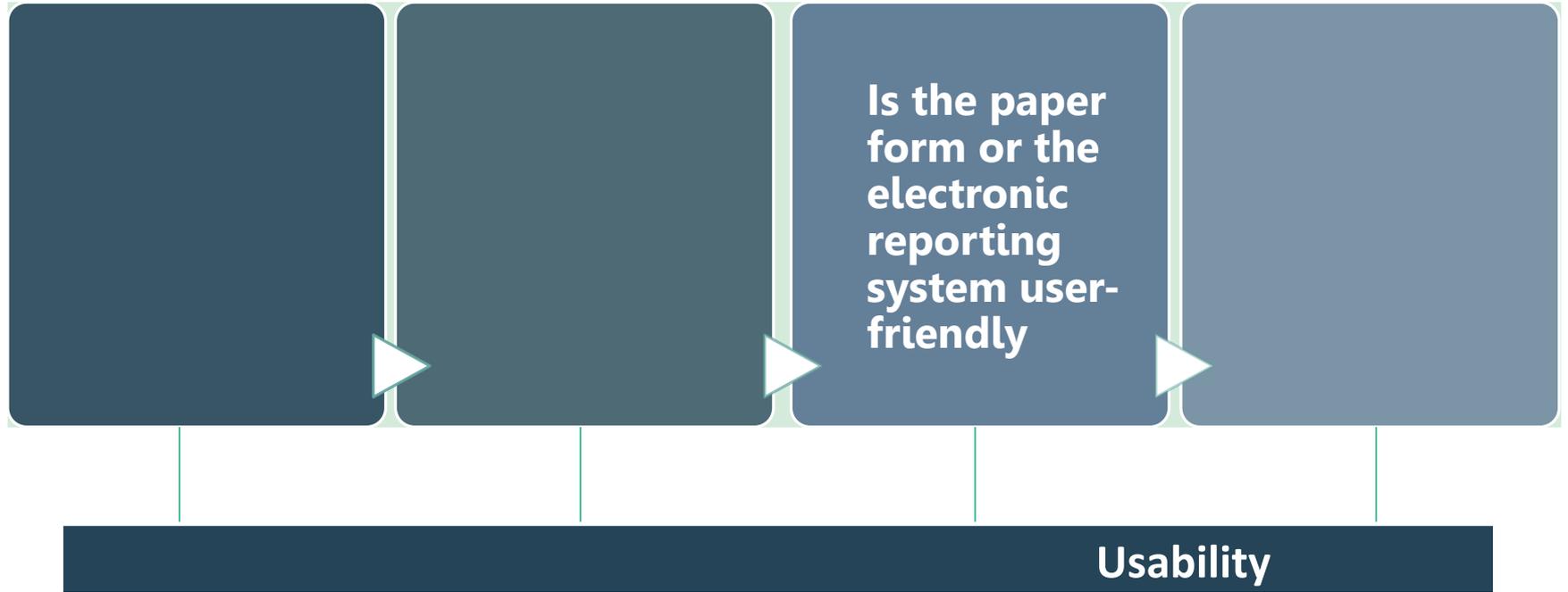
FLOW CHART OF EVALUATION QUESTIONS AND GAPS ON THE AUDIOLOGY REPORTING



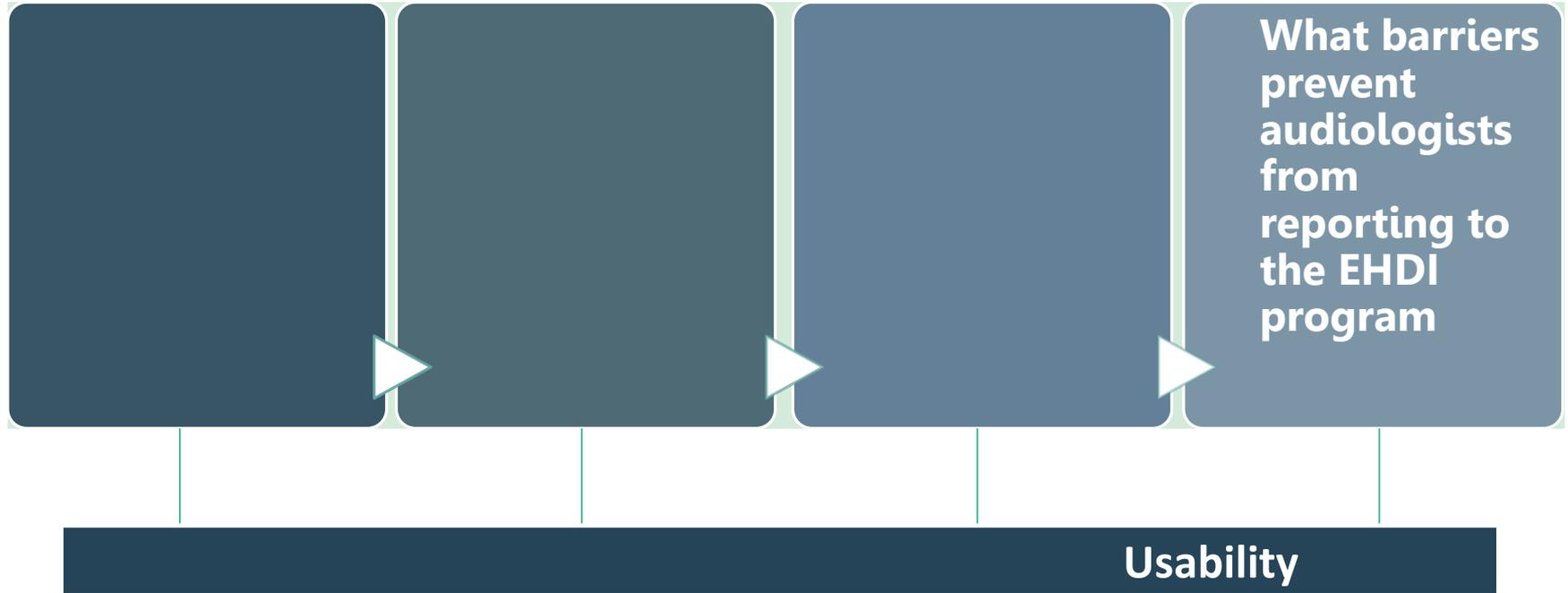
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Evaluation Design

System Attribute: Acceptability

Evaluation Questions	Data Collection Methods	Data Collection Sources	Indicator of success	Criteria
To what extent do audiologists in the state know about the jurisdictional EHDI program and use the EHDI data reporting system?	Document review Surveys	State licensure list Audiology Board list Speech-Language Pathology & Audiology list EHDI-IS Data Base	High Moderate Low Unable to determine	>75% >50%-74% <49% or don't know
What barriers prevent audiologists from reporting diagnostic data?	Surveys Focus groups Interviews	Pediatric audiologist/ Pediatric audiology practices/ Audiologic clinics	Descriptive	
Is the data reporting system or the paper form user-friendly for audiologists to report diagnostic results?	Surveys Focus groups Interviews	Pediatric audiologist	Yes overall Moderate No	Several issues reported
How could the EHDI program increase awareness among the audiology community about the importance of communicating the results?	Surveys Focus groups Interviews	Pediatric audiologist	Descriptive	

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Evaluation Design

System attribute	Indicator of Success	Criteria
Acceptability	High	<ul style="list-style-type: none">• If >75% of pediatric audiologists in the state report data to the EHDI-IS• Total of pediatric audiologist is based on an official list• Own list but EHDI program has procedures in place to update it on a regular basis.
	Moderate	<ul style="list-style-type: none">• If 50% -74% of the pediatric audiologists in the state report data to the EHDI-IS
	Low	<ul style="list-style-type: none">• If less than the 49% of the pediatric audiologist in the state report data to EHDI-IS
	Unable to determine	<ul style="list-style-type: none">• State didn't provided enough information• State used its own data list and lack on explanation how the list is regular updated• Very low response rate

Evaluation Design

System attribute

Indicator of Success

Criteria

Usability

Friendly overall

- Majority >70% of responses satisfied with the reporting process, manual or Electronic
- Few issues identified

Need Improvement

- A number of issues identified with the data reporting process.

Unable to determine

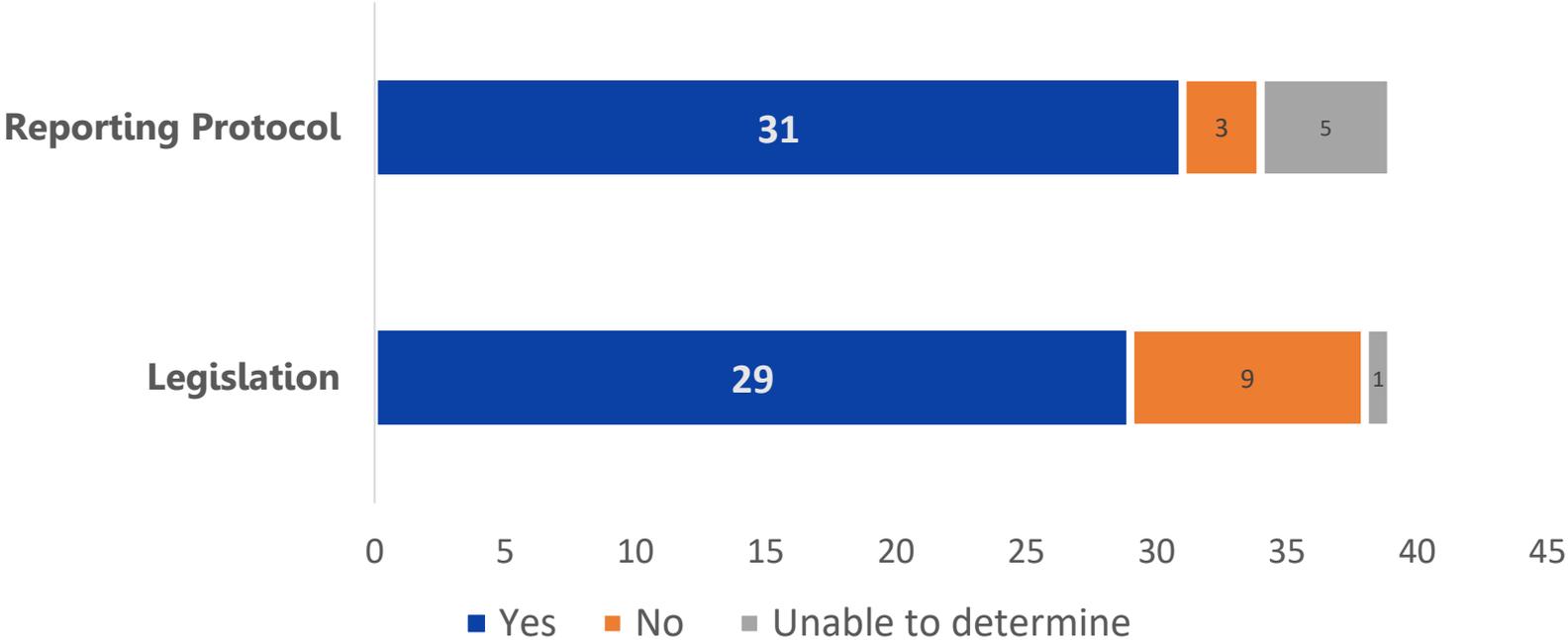
- State didn't provided enough information
- Very low response rate

Preparing evaluation results for analysis

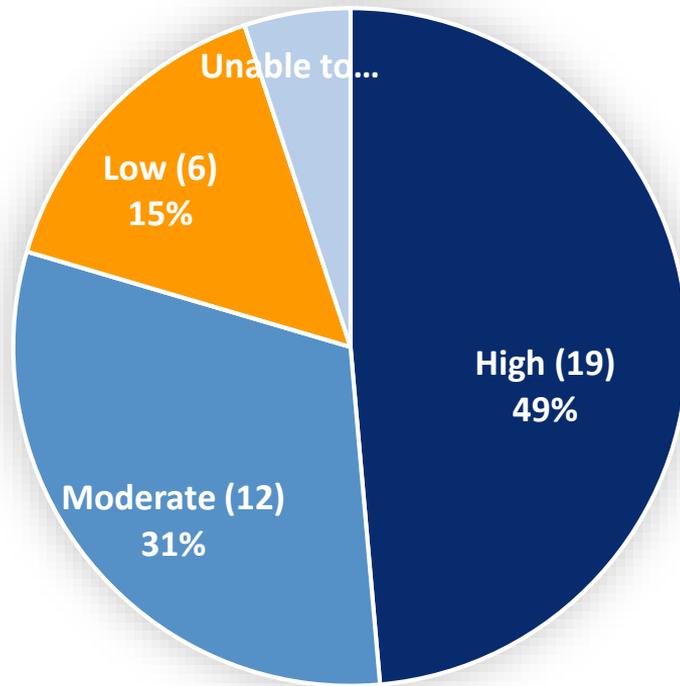
- 43 out of 44 funded state EHDI programs (97%) completed their evaluations, shared results with stakeholders and sent their final evaluation report to CDC in October 2018.
- Thirty nine (39) evaluation reports were included in the analysis.
 - Excluded four territories, which had just one audiologist that report data.
- All reports were reviewed; codes and categories were developed to analyze qualitative and quantitative data. Descriptive statistics were calculated using Excel.

Review of the evaluation findings

States with Diagnostic Reporting Protocol and/or Legislation (n=39)

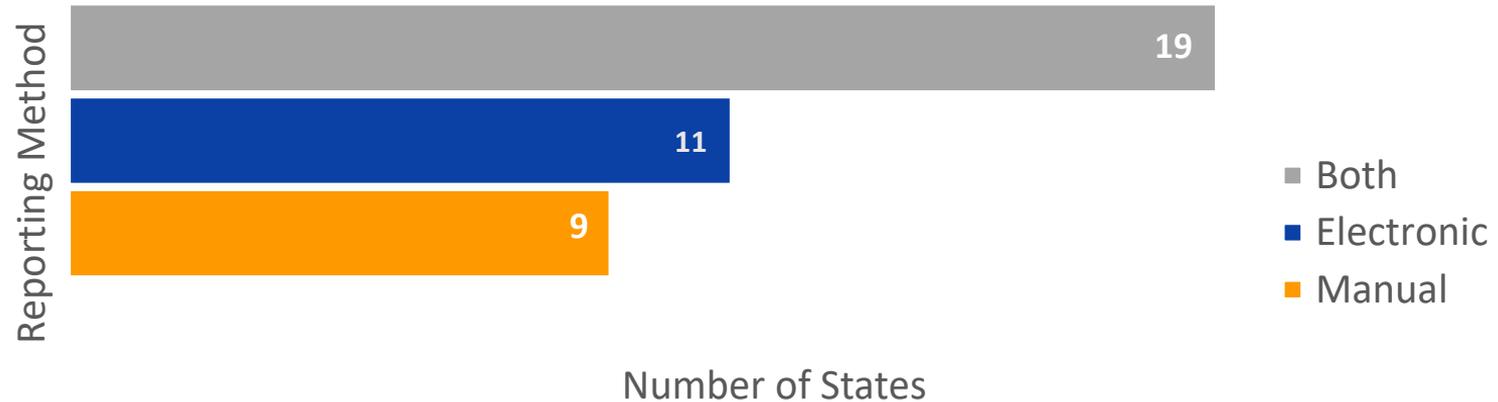


Acceptability of EHDI-IS Reported by State EHDI Programs (n=39)

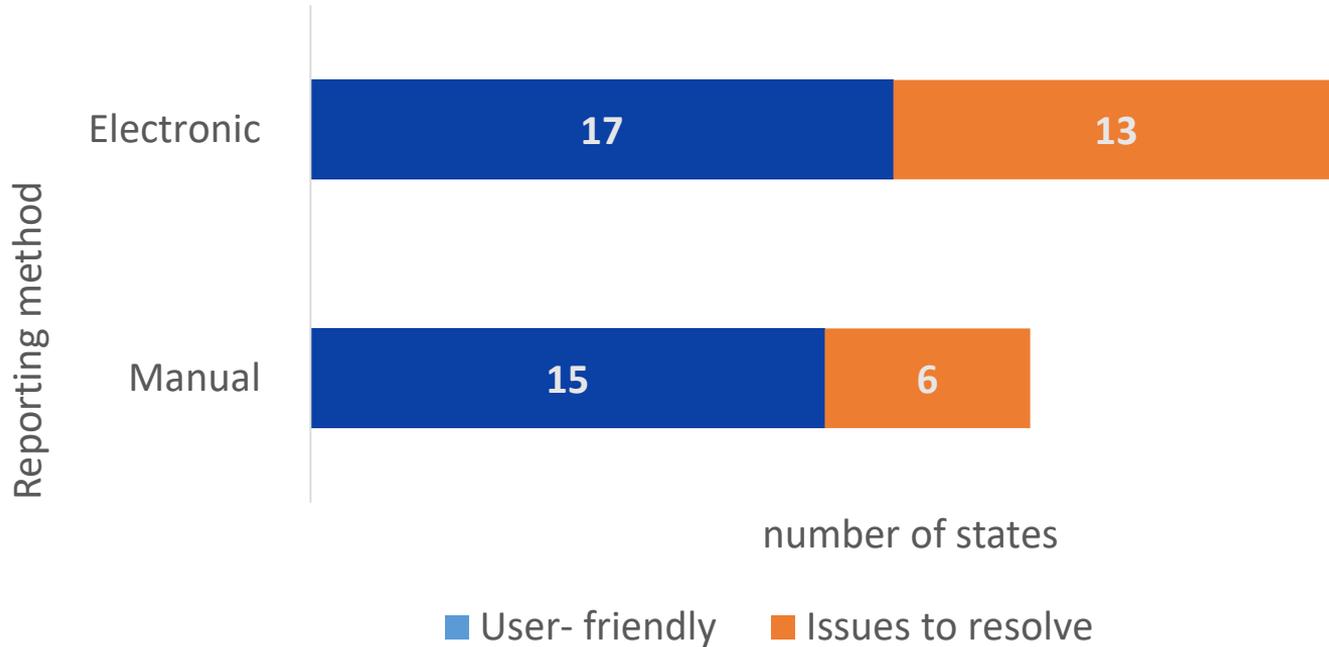


■ High (19) ■ Moderate (12) ■ Low (6) ■ Unable to determine (2)

Reporting Method Used by Audiologists to State EHDI Programs (n = 39)

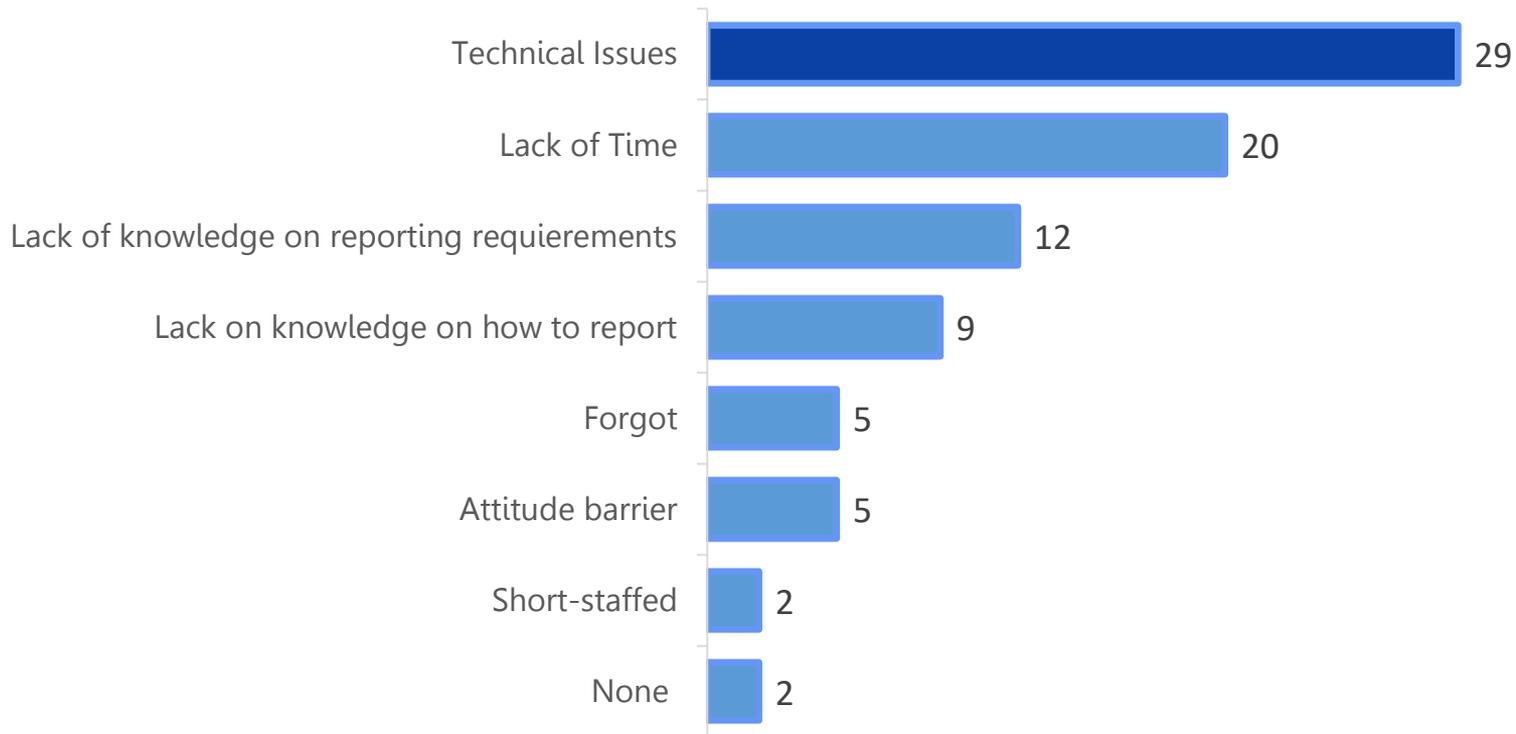


Usability of Reporting method reported by audiologists (n = 39)

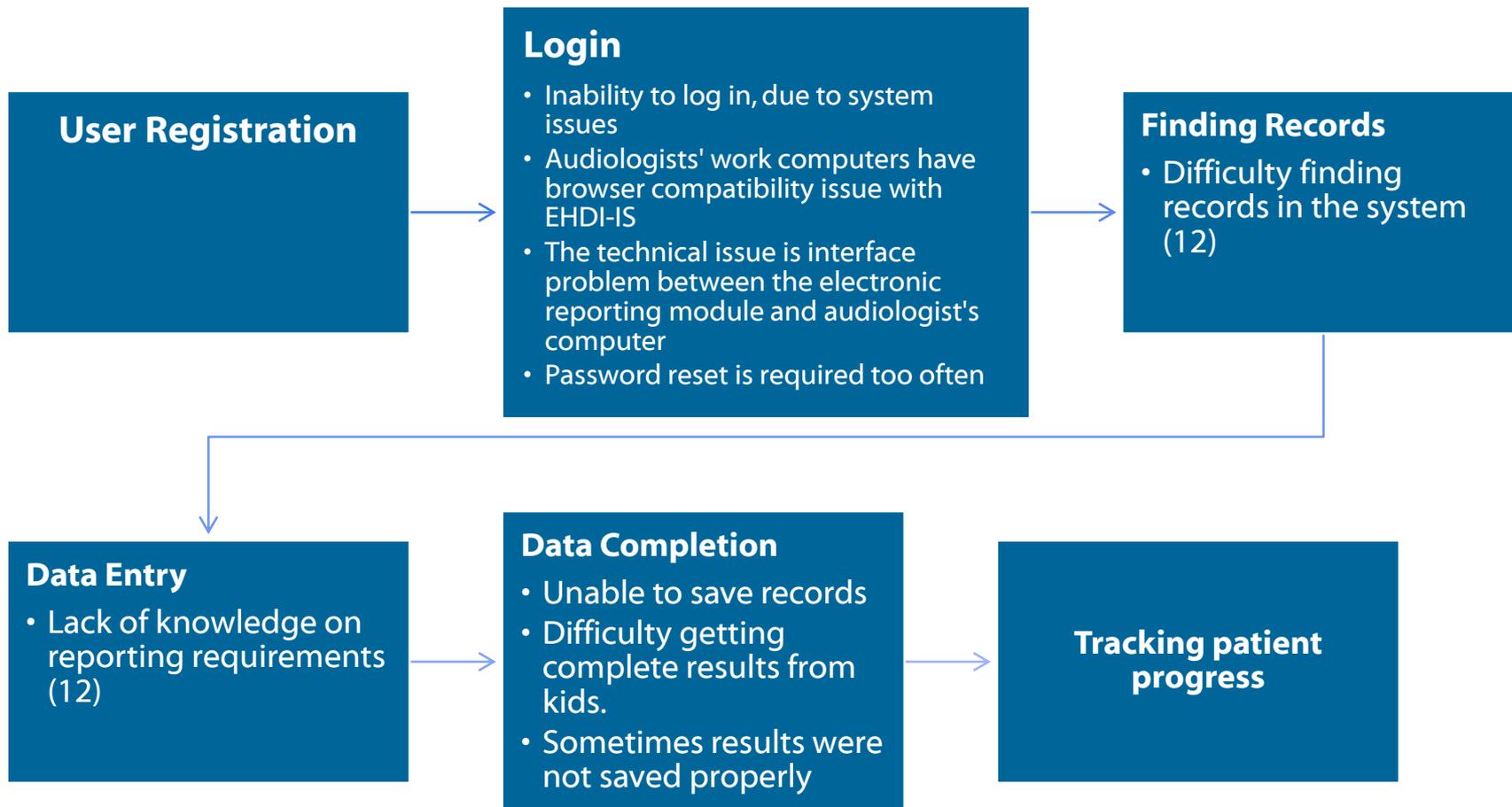


Barriers for Audiologists to Report

Total of States



Technical Issues in detail



Barriers preventing audiologists from reporting

Lack of knowledge on reporting requirements (12)

- Unaware of the required timeline for reporting
- Does not know if certain ages need to be reported
- Unsure if certain conditions or severities need to be reported.
- Does not know who should be reporting
- Unsure if they are to report late onset/progressive loss

Lack on knowledge on how to report (9)

- Lack of access

Attitude (5)

- Audiologists assume children are moving through the process even if they don't report.
- They do not feel an urgency and need to report all.
- Reporting has no meaning or value to the clinic or their clinical practice

Issues with manually reporting

Faxing

- Reporting form too old.
- Faxes get rejected, or busy.
- Reporting takes too much time.
- The form for manual reporting cumbersome and faxing takes time

User-friendly electronic reporting

13 State EHDI programs

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graph TD; A[13 State EHDI programs] --> B[EHDI-IS is very easy to navigate]; B --> C[Audiologist very satisfied with the reporting process, easy to report]; C --> D[Audiologist would like to see more data reports, from the EHDI programs]
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EHDI-IS is very easy to navigate

Audiologist very satisfied with the reporting process, easy to report

Audiologist would like to see more data reports, from the EHDI programs

Opportunities

Opportunities in the EHDI Information Systems

- Improve the usability of the EHDI system
- Simplify reporting
 - ✓ Reduce the burden
 - ✓ Increase frequency/consistency of reporting
- Audiologists suggest improving the reporting process by:
 - ✓ Providing clarity on the types of information the EHDI program needs for follow-up.
 - ✓ Providing clear and consistent guidance/training to audiologists on how to report.

Strategies Recommended by Audiologists

- Collaborate with local or state Audiology groups (such as Academy of Audiology) to increase awareness and reporting.
- Having another audiologist reach out to the audiology community.
- Develop infographics or other visuals to accompany reporting protocol
 - ✓ Illustrating types of visits, results, and cases that should be reported.

Opportunities within the Audiology Community

- Increase connection with the audiology community and facilities.
- Develop training video on how to report.
- Educate recent graduates

Opportunities with the Audiology Community

- Motivate by demonstrating to audiologists how the information they provide are used to help children who are deaf or hard of hearing
 - ✓ Enables follow-up.
 - ✓ Screening without follow-up = minimal benefit.
- Also consider educating administrative personnel in audiology clinics to assist in reporting (when needed).
- Identify program contact that audiologists can ask questions about reporting.

Other Opportunities

Educate other key health care professionals on the importance of a timely evaluation for infants who do not pass the hearing screen and referral to intervention. Health care professionals such as:

- Speech and Language Pathologists
- Ear, Nose, and Throat physicians
- Etc.

Questions?

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