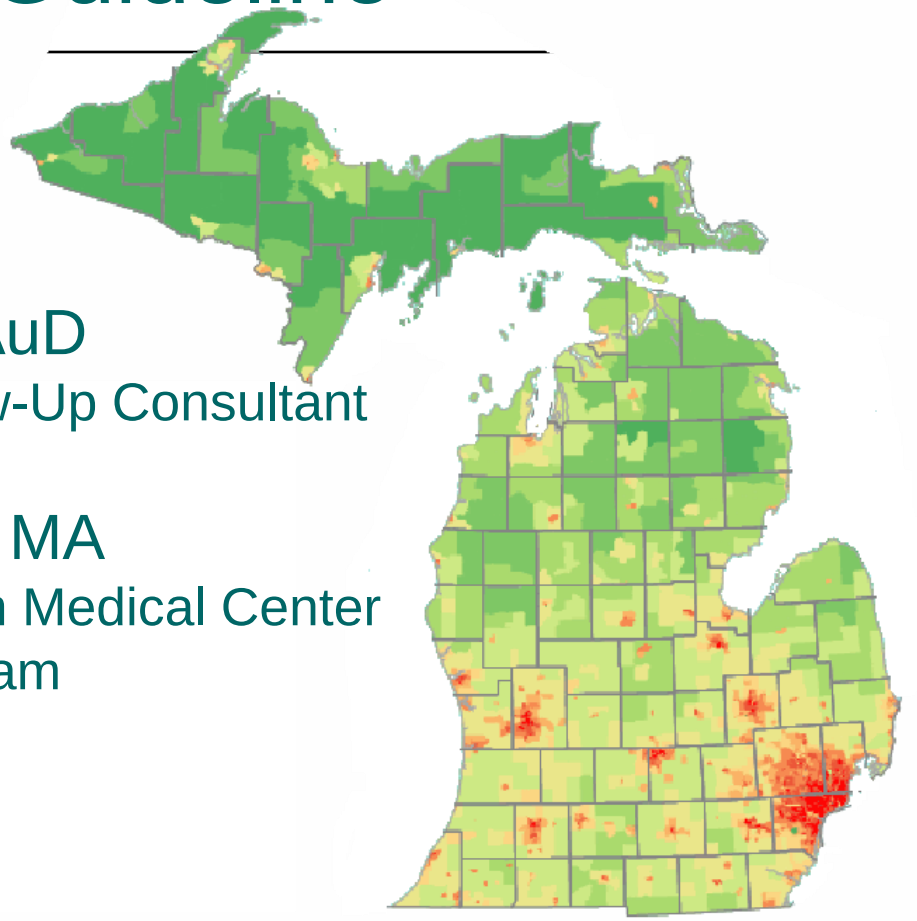
It Takes a State (& a Long Time) to Create a Guideline



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SOUND SUPPORT

National EHDI Goal 2: 2.3

List of diagnostic audiologic providers.

Each state will maintain a **current resource list of diagnostic centers and/or pediatric audiologists** who have experience and expertise in administering diagnostic audiologic evaluations for infants, according to the protocol and guidelines.

a. List of diagnostic centers and audiologists that have **experience or expertise** in conducting pediatric audiologic assessments.

b. Number of centers and audiologists that have **appropriate equipment** for diagnostic evaluation of infants.

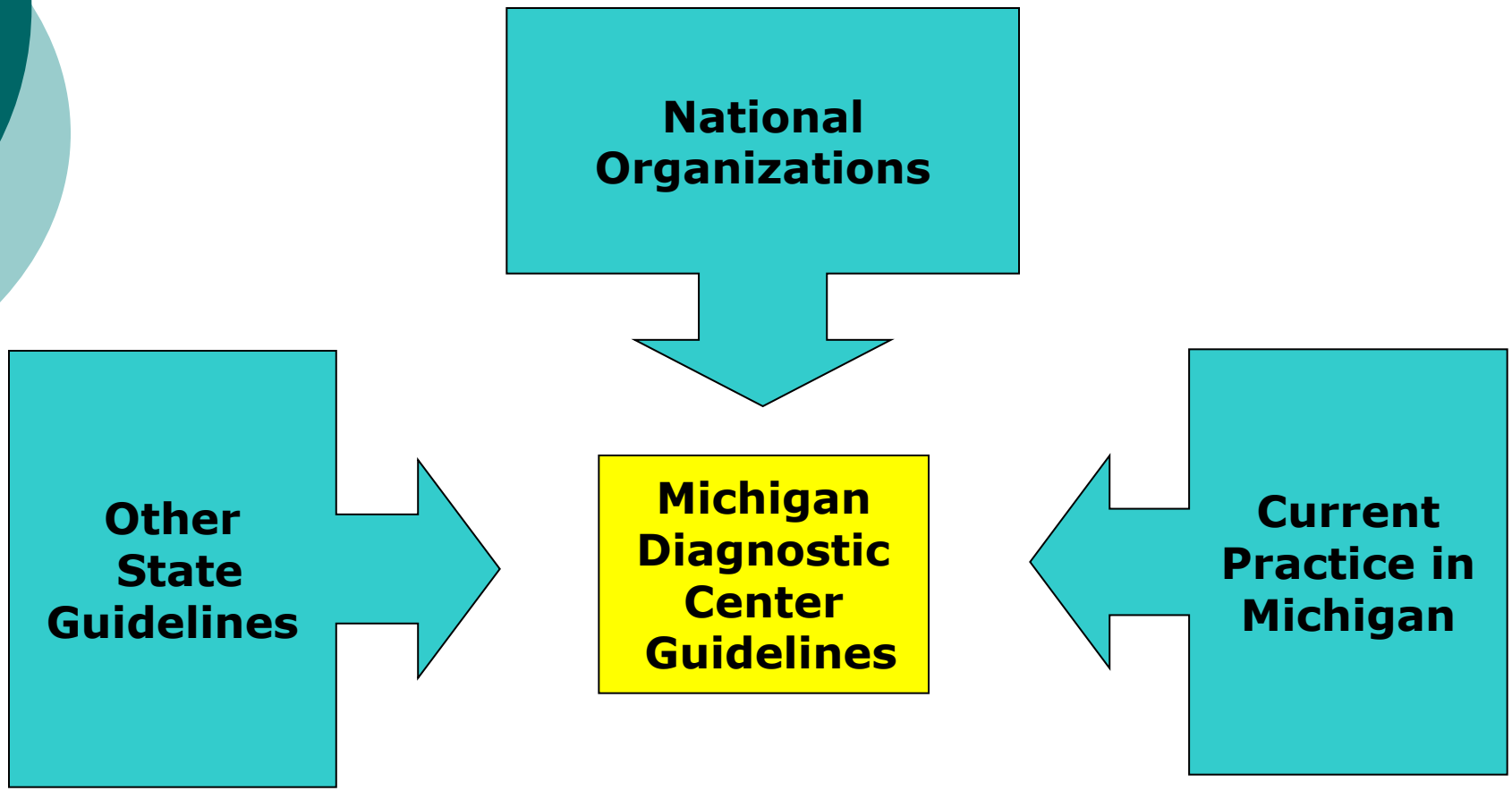
In the beginning, there was a list…

- First created in 2003.
- Based upon survey of available equipment.
- Did not consider
  - How often equipment used.
  - Experience or expertise of audiologists.

Then there was a subcommittee…

- Committee formed in Feb, 2009
- Update/create guidelines to use as basis for inclusion on diagnostic center list.
- Guidelines Categories Established:
  - Equipment requirements.
  - Recommended evaluation battery.
  - Minimal staff requirements.
  - Procedures following diagnosis.
  - Required protocols/tracking.

The committee began to collect information from…



National Organizations/Guidelines

- AAA.
- ASHA.
- NCHAM.
- 2007 JCIH Position Statement.

Information from Other States:

- Review of information on NCHAM website.
- Question posted on CDC listserv.

Current Practice in Michigan

- June, 2009.
- 7 question survey sent to list of diagnostic centers.
  - Diagnostic battery
  - Timelines
  - Suggestions for guideline parameters
- 14 surveys returned.

Initial Survey of Diagnostic Centers:

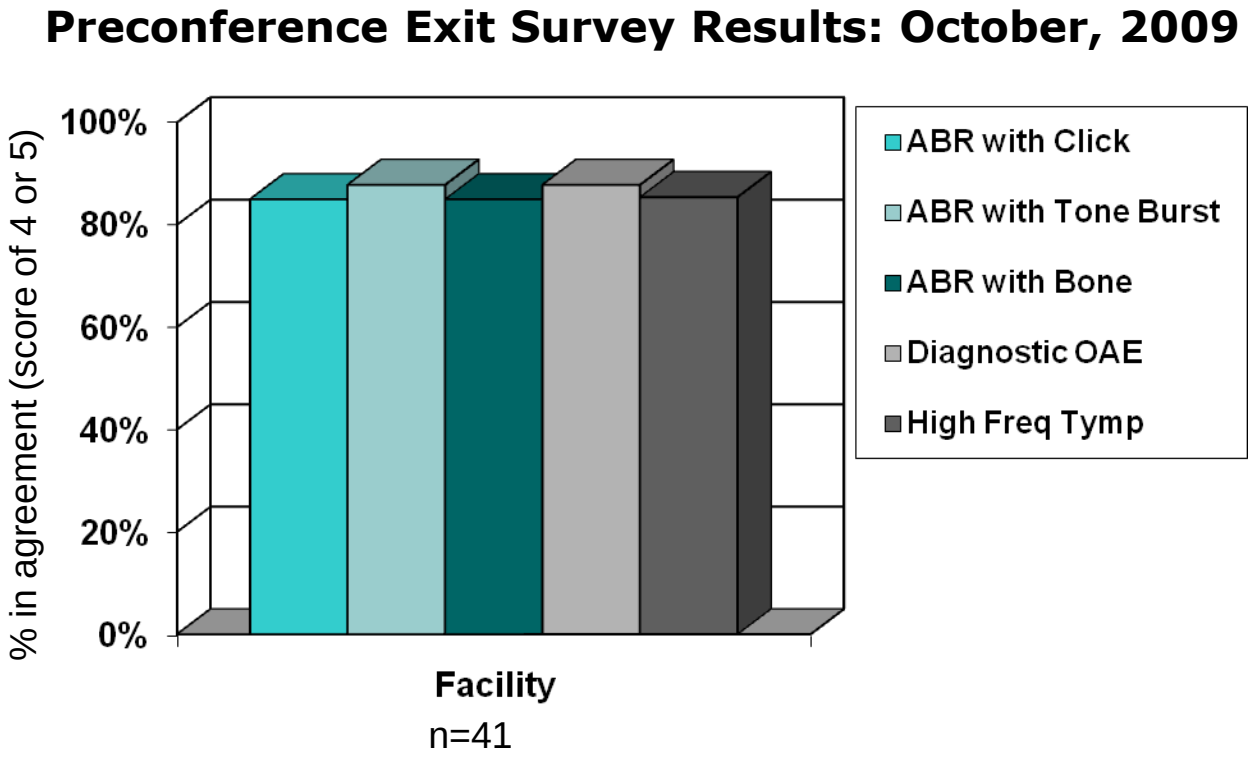
"What parameters would you suggest to classify a diagnostic center?"

Category	#	Sample Comments
Equipment	12	
Experience	9	• At least one year experience testing infants • The more testing performed, the more accurate the results are. Infants tested weekly.
Training	7	•Clinicians that have been trained in pediatric diagnostics. •Ideal would be PhD/AuD.
Caseload	6	•We perform 100 ABRs per year. •Sees infants ≥ 3-5 times/week.

EHDI Sponsored Workshop

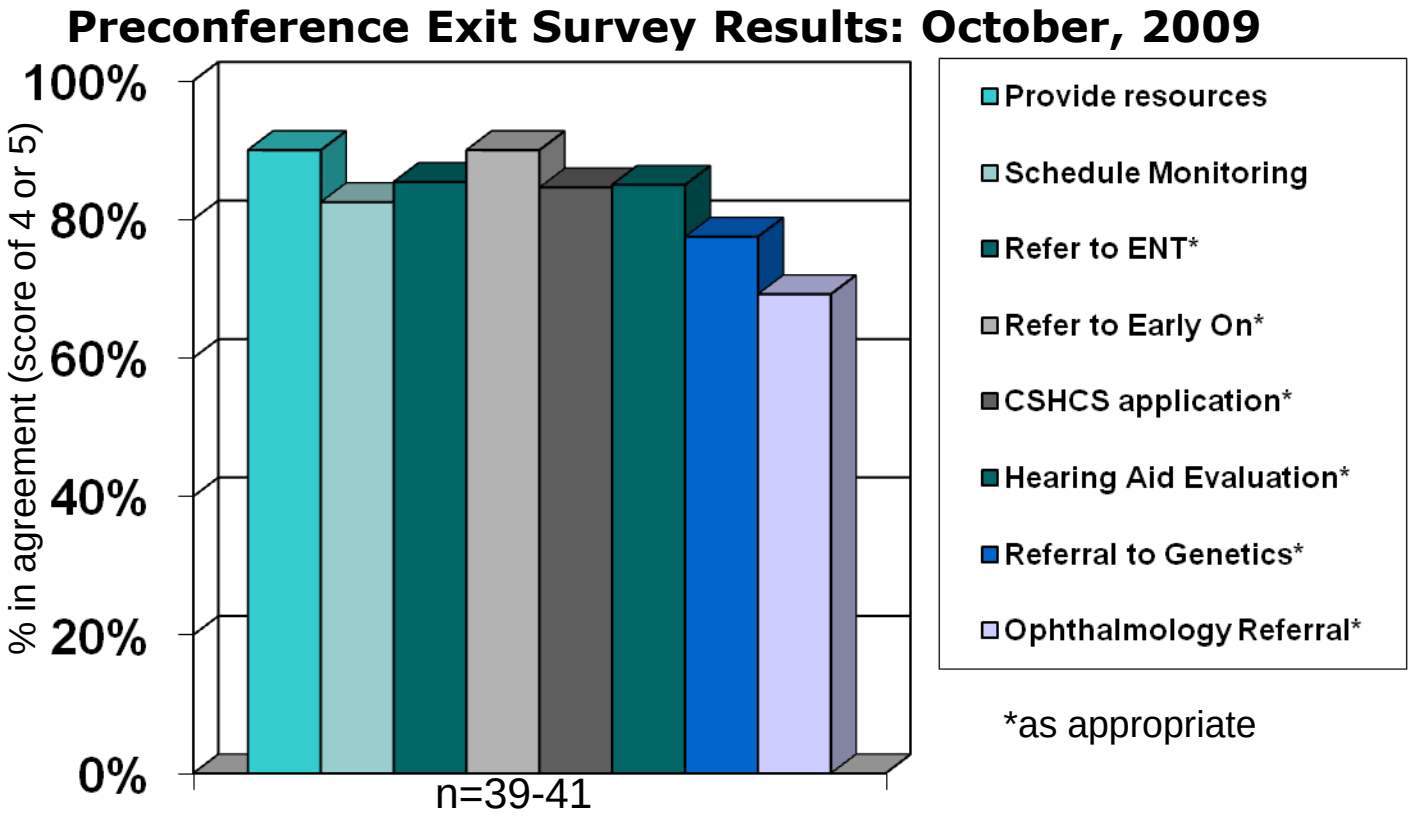
- October, 2009.
- Half-day workshop prior to statewide audio meeting.
- Participants provided feedback through:
  - Small group discussion in which comments to specific questions were collected.
  - Survey completed at workshop conclusion.

Exit Survey Results: Equipment/Minimal Protocol



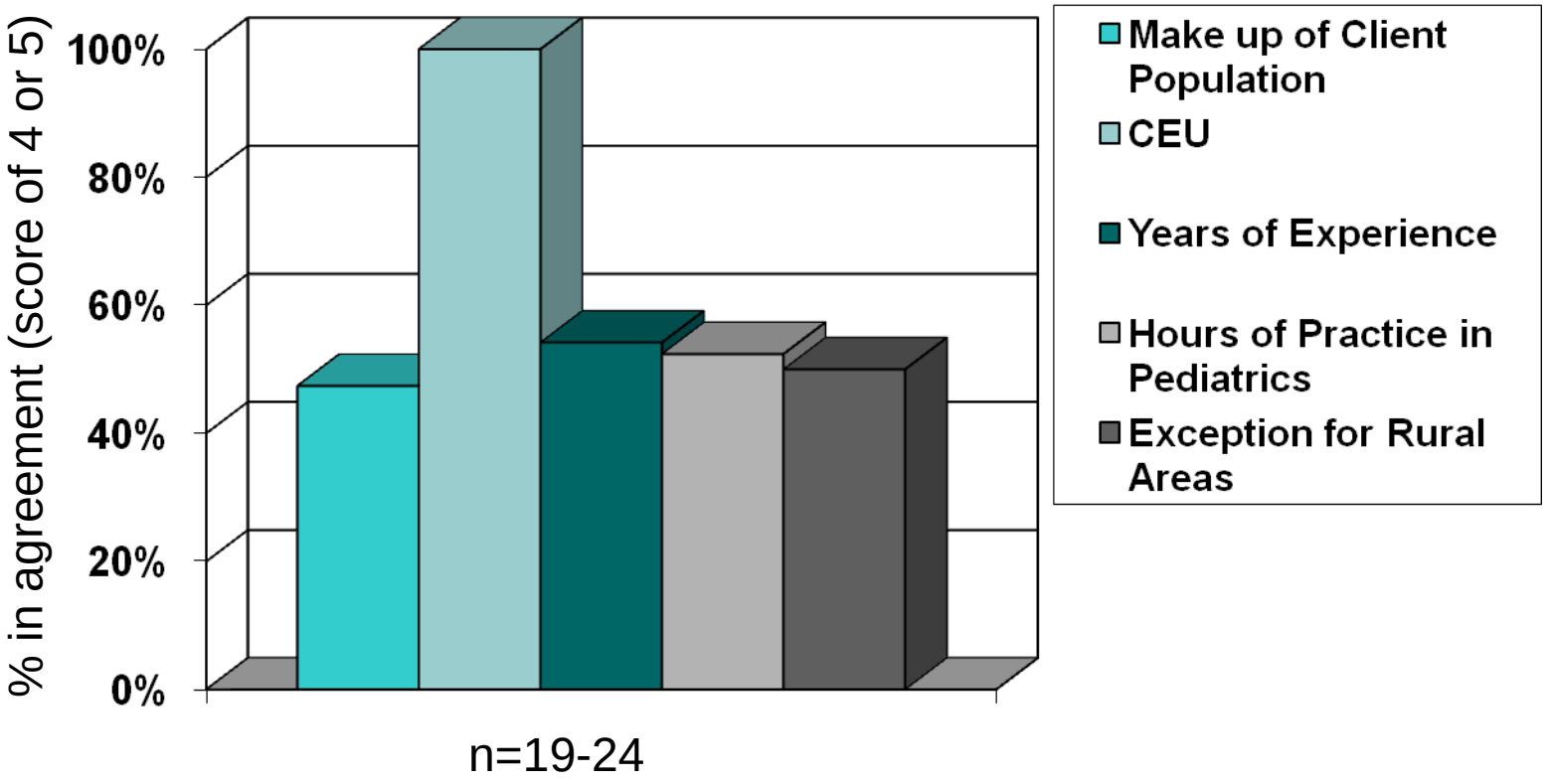
Overall, high levels of agreement regarding equipment and test battery needed to complete diagnostic evaluation.

Exit Survey Results: Procedures following Diagnosis



Overall, high levels of agreement regarding what should be done following diagnosis.

Exit Surveys: Minimal Staff Requirements



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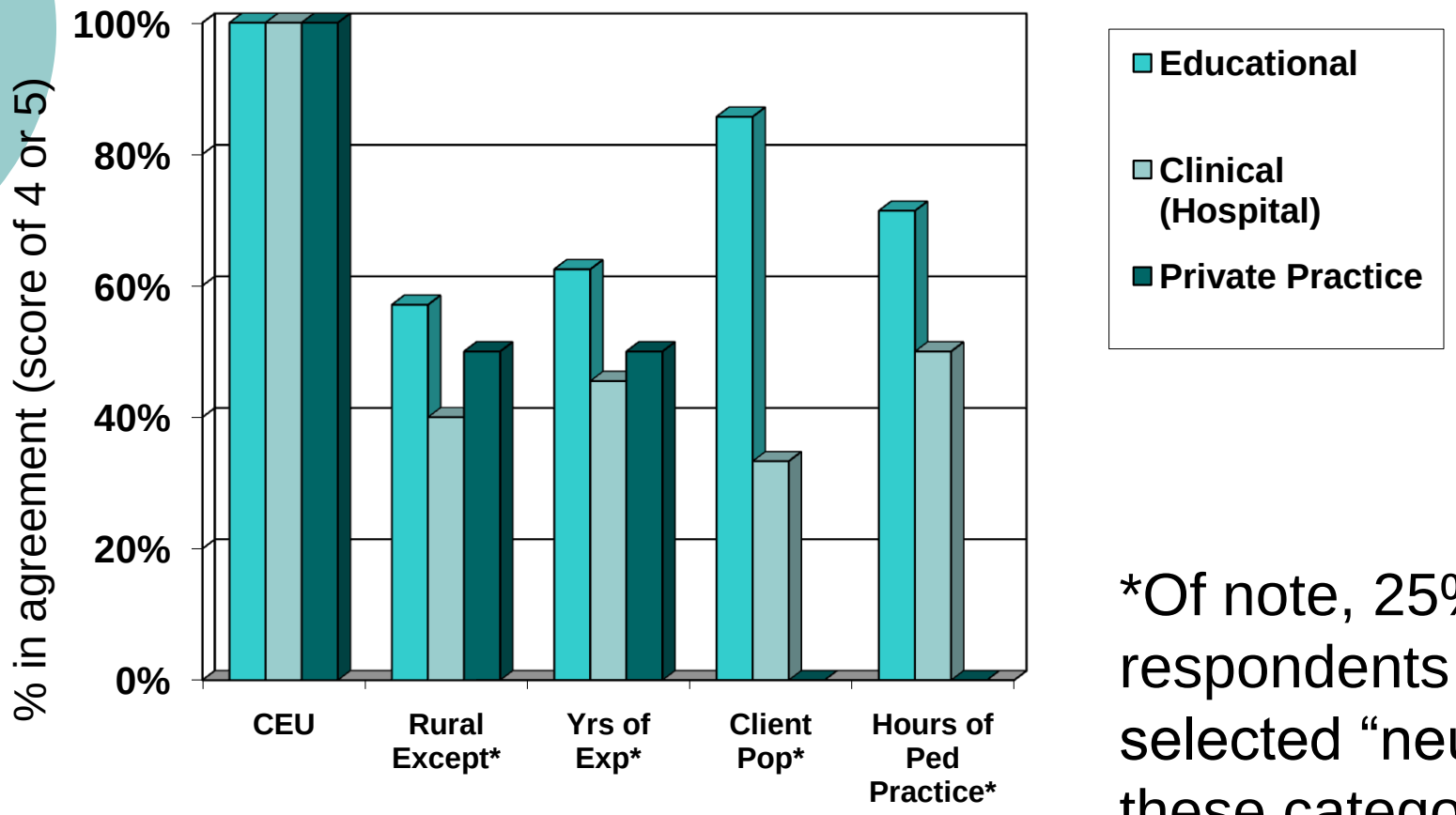
Minimal Staff Requirements



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*Of note, 25% of respondents selected “neutral” in these categories

Audiology Workshop: Comments from Small Groups

Make up of total client population:

- Total Client Population – **NO**.
- Experience/Training rather than numbers seen.
- Client population, distribution and frequency are crucial.
- Affirm – makeup of total client population.

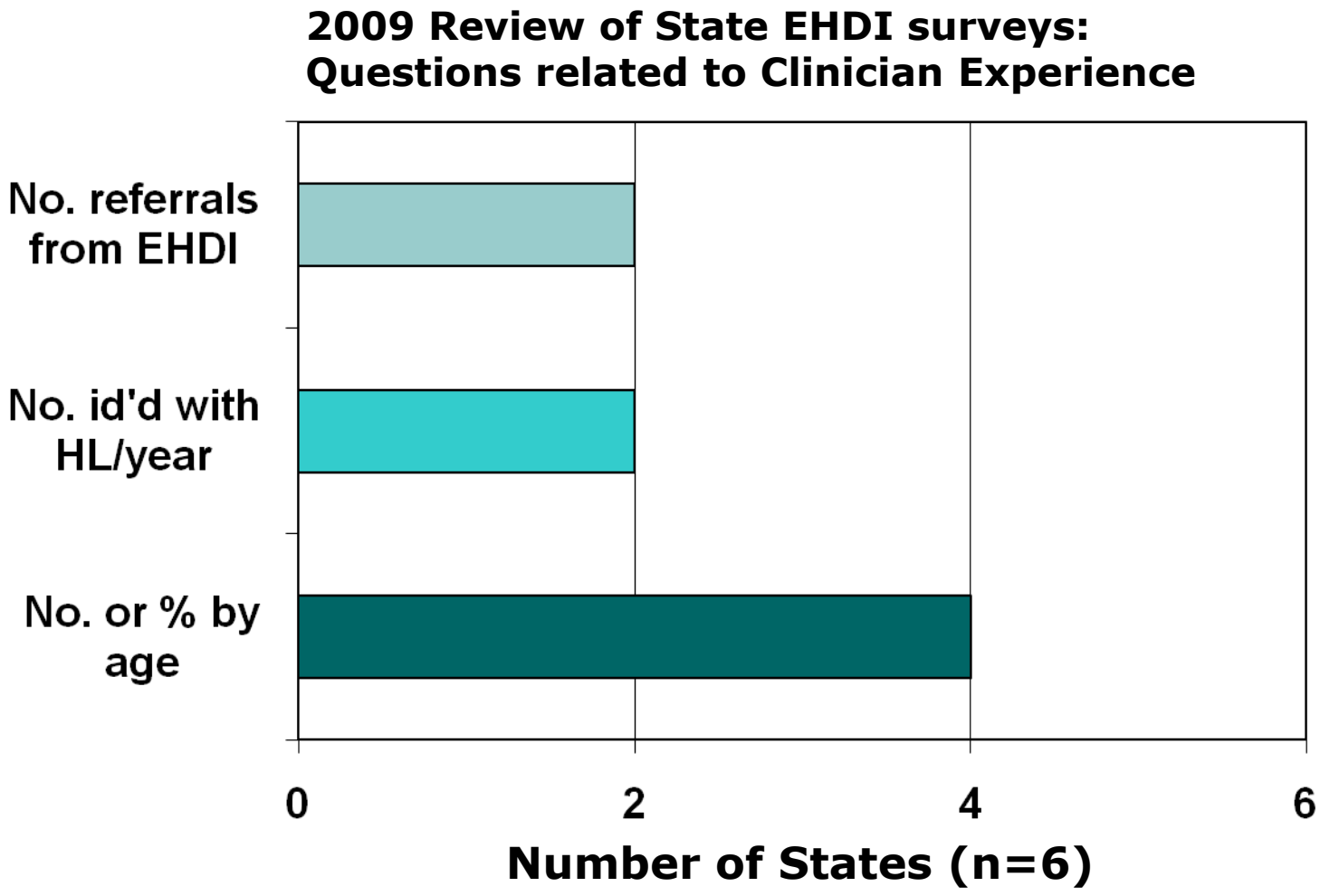
Minimal Staff Requirements: National Resources

- NCHAM: "…has the technical expertise and *desire* to work with the infant population."
- JCIH: "Audiologists with skills and expertise in evaluating newborn and young infants with hearing loss…"
- ASHA: "…child-friendly and child-knowledgeable staff, facilities, services, and equipment…"

Minimal Staff Requirements:

- Importance of experience and expertise well documented.
- Criteria to measure is not defined.

How Other States Measure "Experience"



Other “experience” factors

- Number of diagnostic ABR/week.
- Number of infants tested in last 2 years.
- Number of infants identified with hearing loss.
- Number of years experience per audiologist.
- Age of identification.

Defining Experience/Expertise: Considerations

- Is evidence of professional training adequate (graduate work, CEU)?
- Can skills be assessed objectively through written exam or portfolio?
- How can experience be quantified?
- Does caseload with high percentage of pediatrics equal high quality?
- Should rural areas have different standards?

Final Guideline: Minimal Staff Requirement

- Michigan audiology licensure.
- At least one staff member has two years of experience working with children. Mentorship of staff members with less experience is encouraged.
- Experience and expertise in assessment of hearing in infants, defined as…

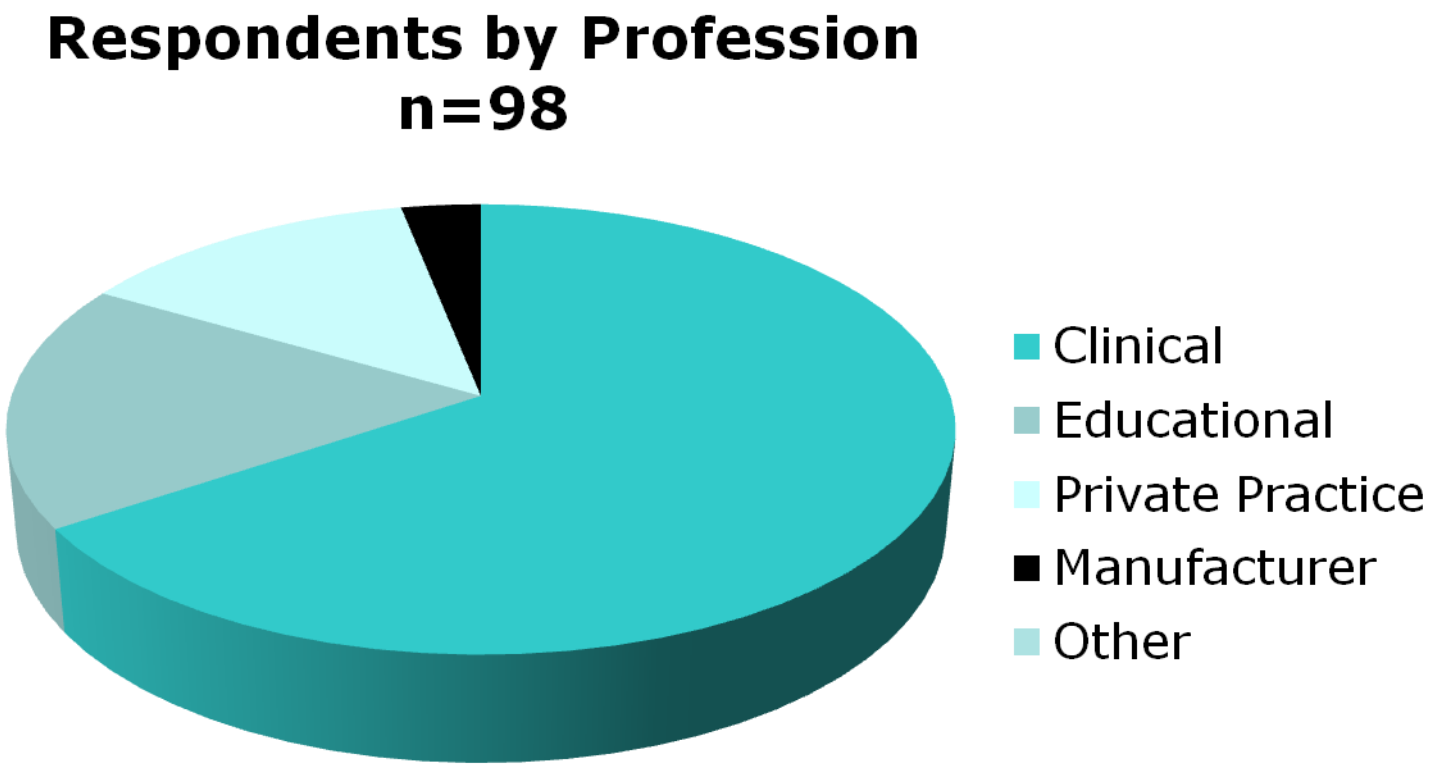
Experience and Expertise:
Must meet at least 3

- > 20% of client population is younger than 24 months.
- On average each week, > 3 patients under the age of 24 months.
- At least two diagnostic threshold ABRs completed each month.
- Identification of hearing loss in children less than 12 months of age should be commensurate with area birth rates.

Next Steps:

- April, 2010 – Draft guidelines completed.
- June, 2010 - Public Comment obtained through Survey Monkey.
- Respondents asked to state level of agreement with specific sections of guideline.

Public Comment Results:

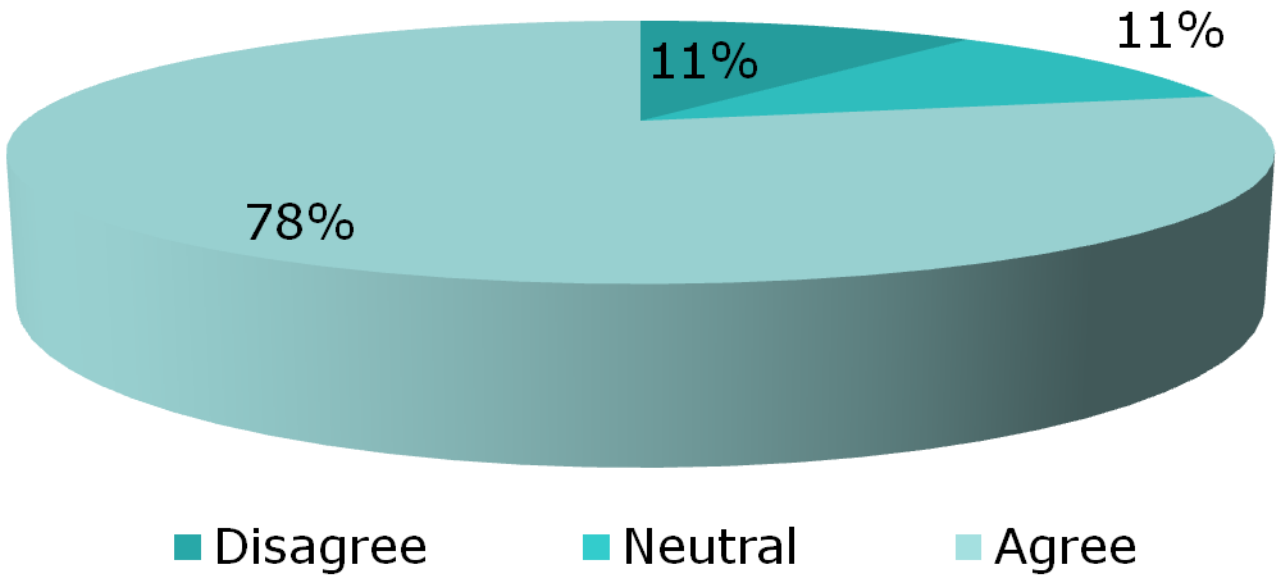


Public Comment Results:

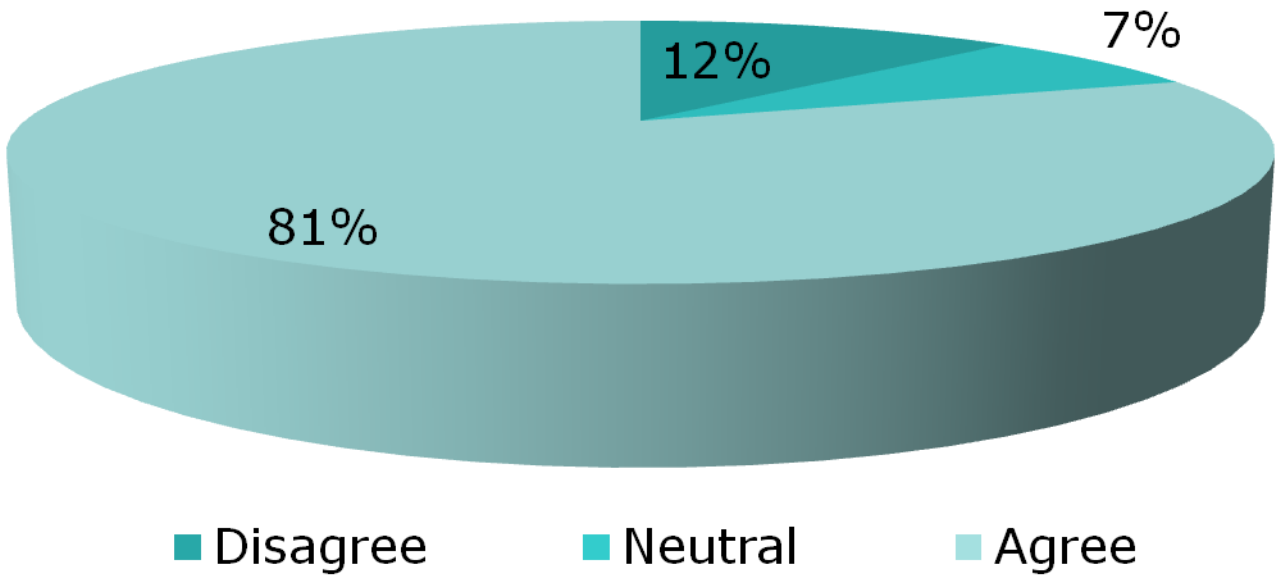
- Overall, ratings indicated strong agreement among respondents.
- A few areas indicated greater than 10% of responses being “disagree”.

Diagnostic Battery:

To rule out neural hearing loss- recording of cochlear microphonic (preferred) or reflex testing.



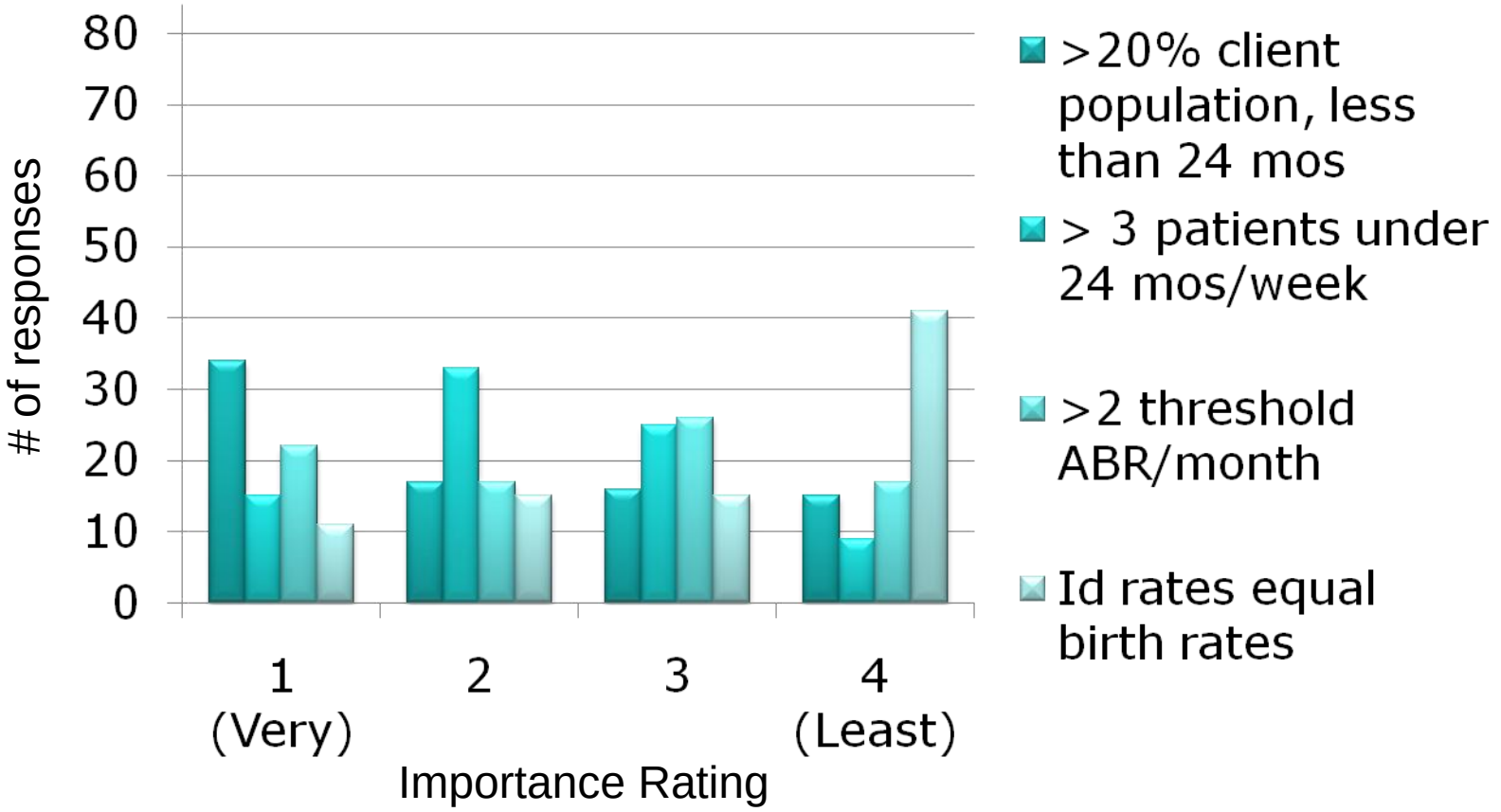
At least one staff member has two years of experience working with children.



Comments: Years of Experience

- "Why 2 years? Why not 1? Why not 5? Many students graduating from AuD programs now have exceptional experience."
- "Would want at least 1 audiologist to have at least 3, preferably 5, years of experience with working with children."
- "w/ AuD degree for new audiologists, asking for them to work for 2 more yrs. w/out independence is too limiting. I know most of the grad have had great experience and knowledge to diagnose."

Experience and Expertise:
Must meet at least 3



Public Comment: Expertise

- "None of these criteria ensure anything. You can repeatedly do a lousy job in assessing infants. Conversely, you can do an excellent job, even if you do it once a week. This is a bad way to judge competence."
- "This entire list should be required of the facility as each focuses on different aspects of hearing loss. (ie., diagnosis, test method, skill)"

Final Guideline

- 9-23-10: Approved by EHDI Advisory Committee.
- Subcommittee created “EHDI Infant Diagnostic Facility Application”.

Infant Diagnostic Center Application

- Contact Information.
- Checklist of equipment and staff resources.
  - Relies upon self report
- Protocol.

Required Components of Protocol:

- Outline of steps from time of referral on EHDI screen to final diagnosis with timeframe consistent with National EHDI goals.
- Collection parameters for diagnostic ABR.
- Pass/Refer criteria for OAE measurements.
- Established routine for reporting to Michigan EHDI.

Required Components of Protocol:

- Established routine for making referrals to facilitate early intervention.
  - Part C, ENT, medical home, CSHCS
- Routine monitoring and tracking of infants to ensure timelines are consistently being met.
- List of risk indicators for delayed onset hearing loss and monitoring schedule.
- Schedule for equipment calibration used for diagnostic evaluations.

Infant Diagnostic Center Application

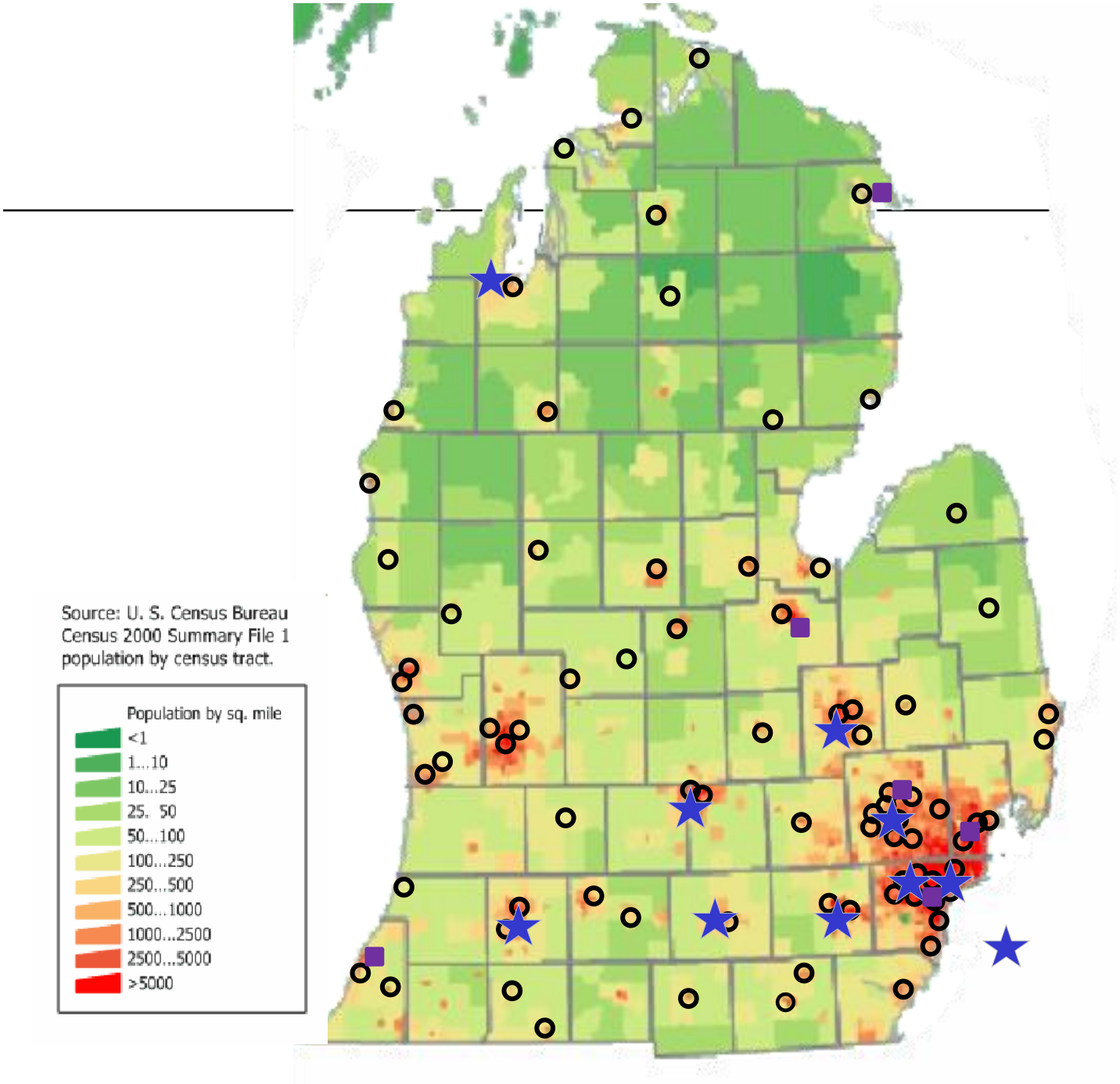
- November 12, 2010
  - Guideline and application provided to existing diagnostic centers.
- December 20, 2010
  - Applications due.

Application Results as of 2-1-11

- Re-Screen Facilities
  - 50 centers on previous list.
  - 7 submitted applications.
  - 7 centers approved.
- Diagnostic Centers.
  - 22 centers on previous list.
  - 13 submitted applications.
  - 9 Centers approved.

Applications declined

- Did not fill expertise criteria.
- Did not submit complete protocols.


Source: U. S. Census Bureau
Census 2000 Summary File 1
population by census tract.
Population by sq. mile
<1
1...10
10...25
25. 50
50...100
100...250
250...500
500...1000
1000...2500
2500...5000
>5000

Future Needs/Directions

- Continued recruitment of rescreen facilities.
- Recruitment of diagnostic centers in areas needed.
  - Consider mentorship if needed.
- Distribution of final lists to birthing hospitals, medical home, Part C agencies.

What's next?

- Sample Protocols based upon diagnostic center submissions.
- Subcommittee to create similar guidelines for amplification.
  - Expected completion date sometime in this decade.