

CREATING A UNIVERSITY–HOSPITAL PARTNERSHIP TO PREPARE EI PROFESSIONALS TO WORK WITH CHILDREN WITH COCHLEAR IMPLANTS AND THEIR FAMILIES

2019 Early Hearing Detection and Intervention Annual Meeting

March 5, 2019

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Office of Special Education Programs
U.S. Department of Education



U.S. Department of Education
Grant

AIM To Be Ahead™

Illinois State University



COLLEGE OF EDUCATION
Illinois State University



Office of Special Education Programs
U.S. Department of Education

AGENDA

- Needs in Illinois and design of program focused on needs
- Increase in identification of infants/toddlers with hearing loss
- National organizations issuing standards for practice (JCIH, DEC, AG Bell)
- Partner collaboration
- Audience identifies potential partners

An Inter-Disciplinary Model To
Offer Babies Early Auditory
Habilitation, Education, and
Development



Why Was Aim Needed in IL?

- Professionals desiring to increase skills in EI, CI and LSL
- Increase in EHDI identification
- Increase in parents choosing LSL as desired outcome (Brown, 2006)
- Increase in infant CI implantation (Punch and Hyde, 2011)



Joint Commission On Infant Hearing 2007 Supplement

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Organizational Principles to Guide and Define the Child
Health Care System and/or Improve the Health of all Children

STATEMENT OF ENDORSEMENT

Supplement to the JCIH 2007 Position Statement:
Principles and Guidelines for Early Intervention After
Confirmation That a Child Is Deaf or Hard of Hearing

Surveying Student Knowledge & Skills



Division for Early Childhood (2014). DEC recommended practices in early intervention/early childhood special education 2014.

<http://www.dec-sped.org/dec-recommended-practices>

LSLS Core Competencies

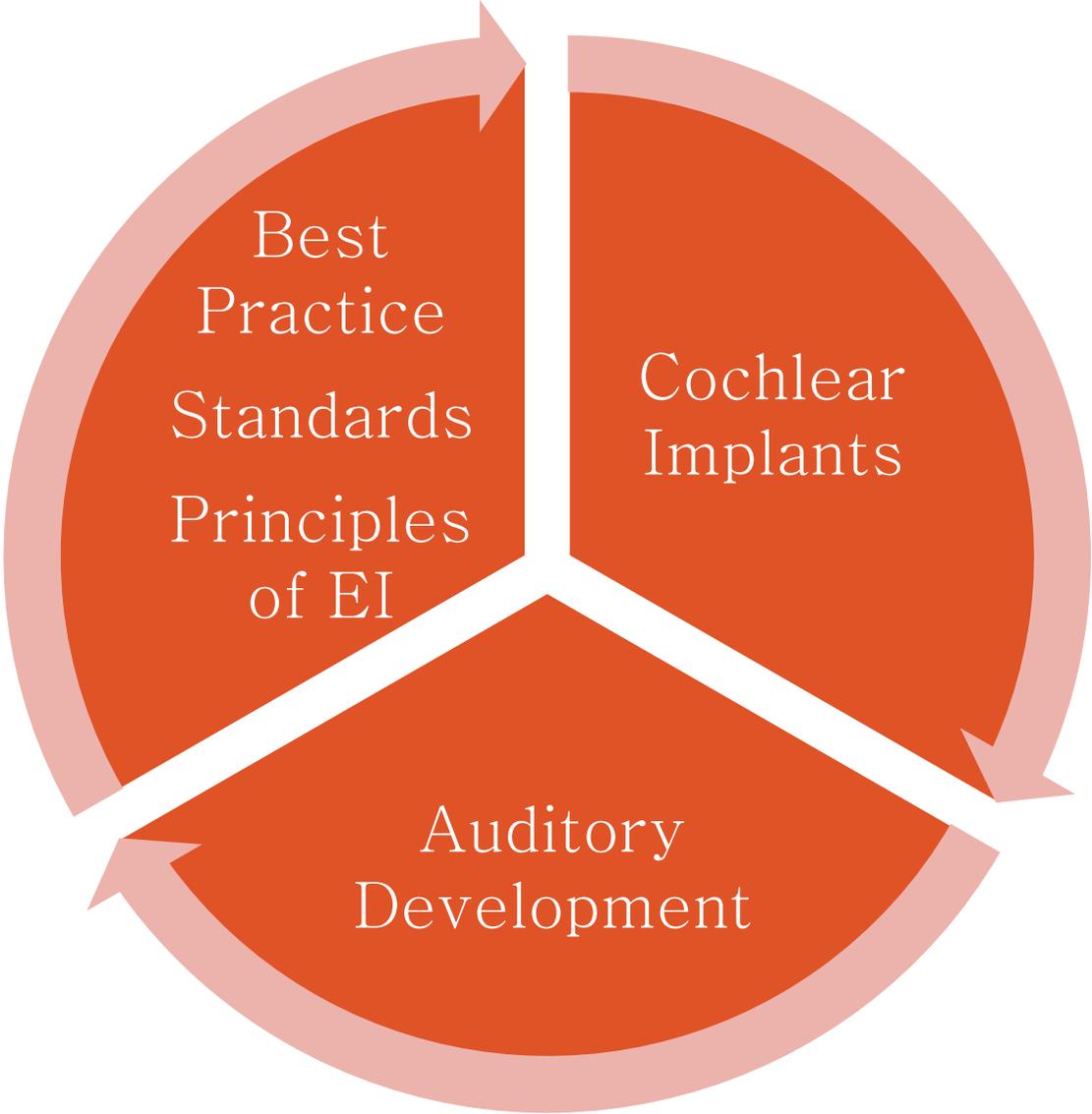
Domain 1. Hearing and Hearing Technology.....	12%
Domain 2. Auditory Functioning.....	16%
Domain 3. Spoken Language Communication.....	16%
Domain 4. Child Development.....	9%
Domain 5. Parent Guidance, Education and Support.....	13%
Domain 6. Strategies for Listening and Spoken Language Development.....	18%
Domain 7. History, Philosophy and Professional Issues.....	4%
Domain 8. Education.....	6%
Domain 9. Emergent Literacy.....	6%

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<https://www.agbell.org/AcademyDocument.aspx?id=541>

Aim to be Ahead™ Project Meets Need

- “EI providers may not have sufficient preservice course work and/or practicum experiences that address the needs of children who are D/HH from birth to age 3 years and their families. As a result, they may lack core knowledge and skills to work with this population effectively”



Developing & Evaluating our Students' Knowledge & Skills



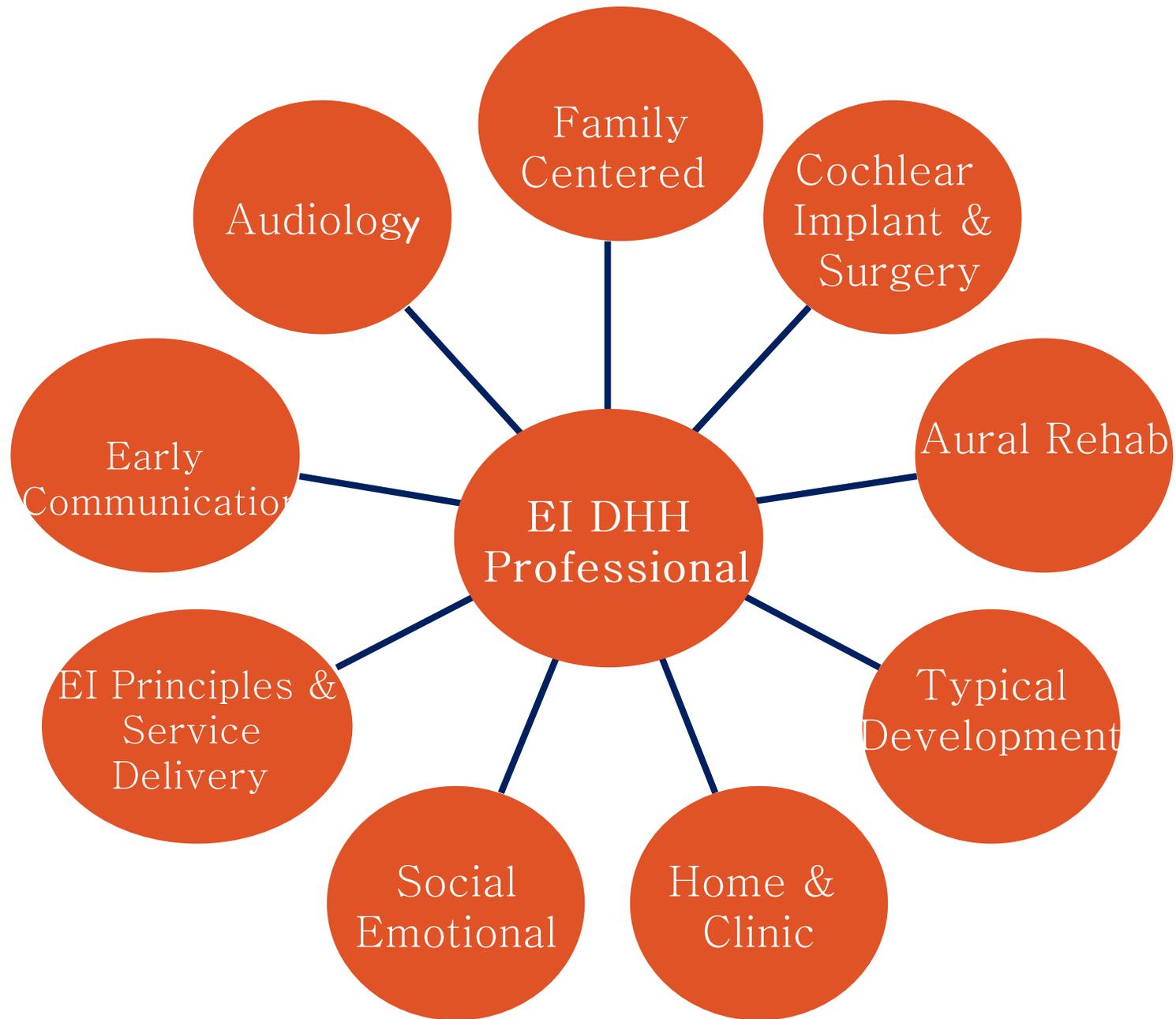
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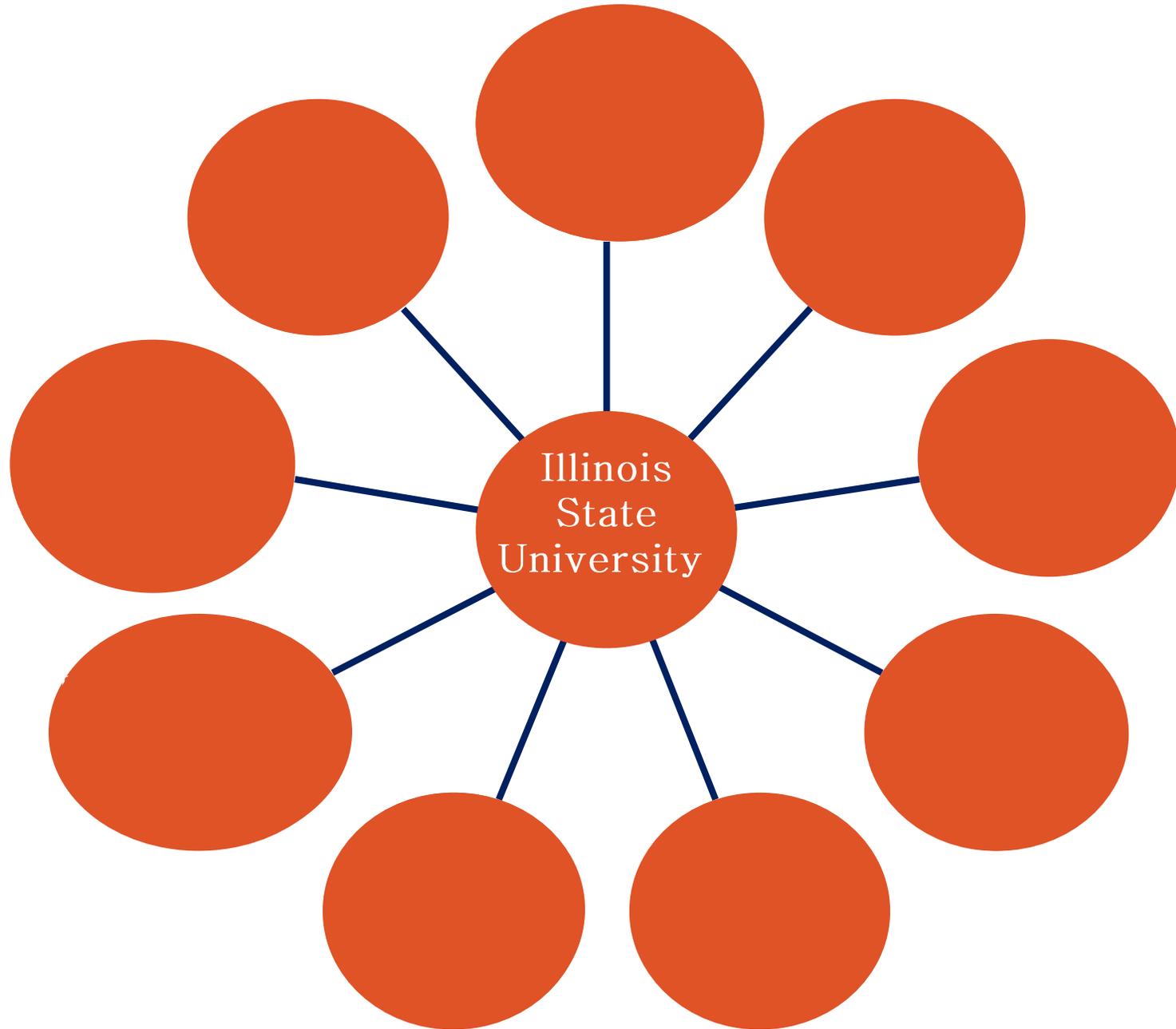
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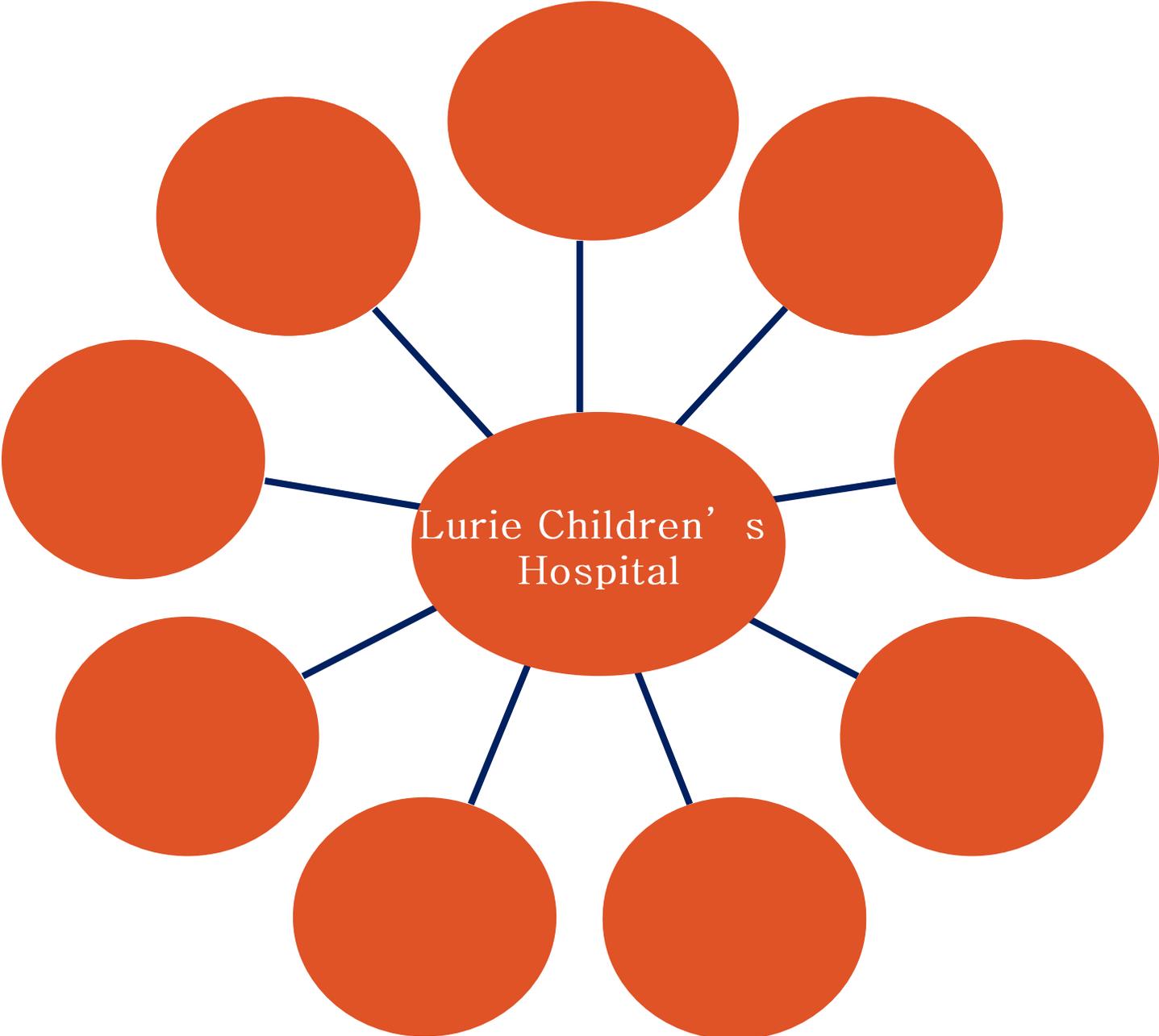
Division of Early Childhood (DEC) Recommended Practices	AG Bell Academy LSL Mentoring Categories and Items	Joint Commission on Infant Hearing (JCIH)	Notes
<p>DEC Ins2 Practitioners with the family identify skills to target for instruction that help a child become adaptive, competent, socially connected and engaged</p>	<p>LSL SP2 Practitioner uses wait time to encourage child to talk</p> <p>LSLA8 Uses wait time for child’s processing on input</p> <p>LSL A3 Practitioner uses appropriate acoustic highlighting</p>	<p>JCIH Goal 3 All Children Who Are DHH Have EI Providers Who Have the Professional Qualifications and Core Knowledge and Skills to Optimize the Child’s Development and Child/Family Well Being</p>	
<p>DEC INS2 Practitioners with the family identify skills to target for instruction that help a child become adaptive, competent, socially connected and engaged</p>	<p>LSL A1 Practitioner maximizes auditory stimulation through incidental learning and structured activities</p>	<p>JCIH Goal 6 Must assess and monitor progress through authentic assessments</p>	
<p>DEC INS13 Coaching primary caregiver to facilitate positive adult-child interactions</p>	<p>LSL A4 Promotes integration of listening and spoken language into the therapy/teaching activities</p> <p>LSL PG 5 Organizes session to support participation and engagement</p>		
<p>DEC F6 Opportunities that support and strengthen parenting knowledge and skills</p>	<p>LSL P6 Practitioner plans specific guidance and engagement content for sessions</p>	<p>JCIH Goal 6 Must assess and monitor progress through authentic assessments</p>	



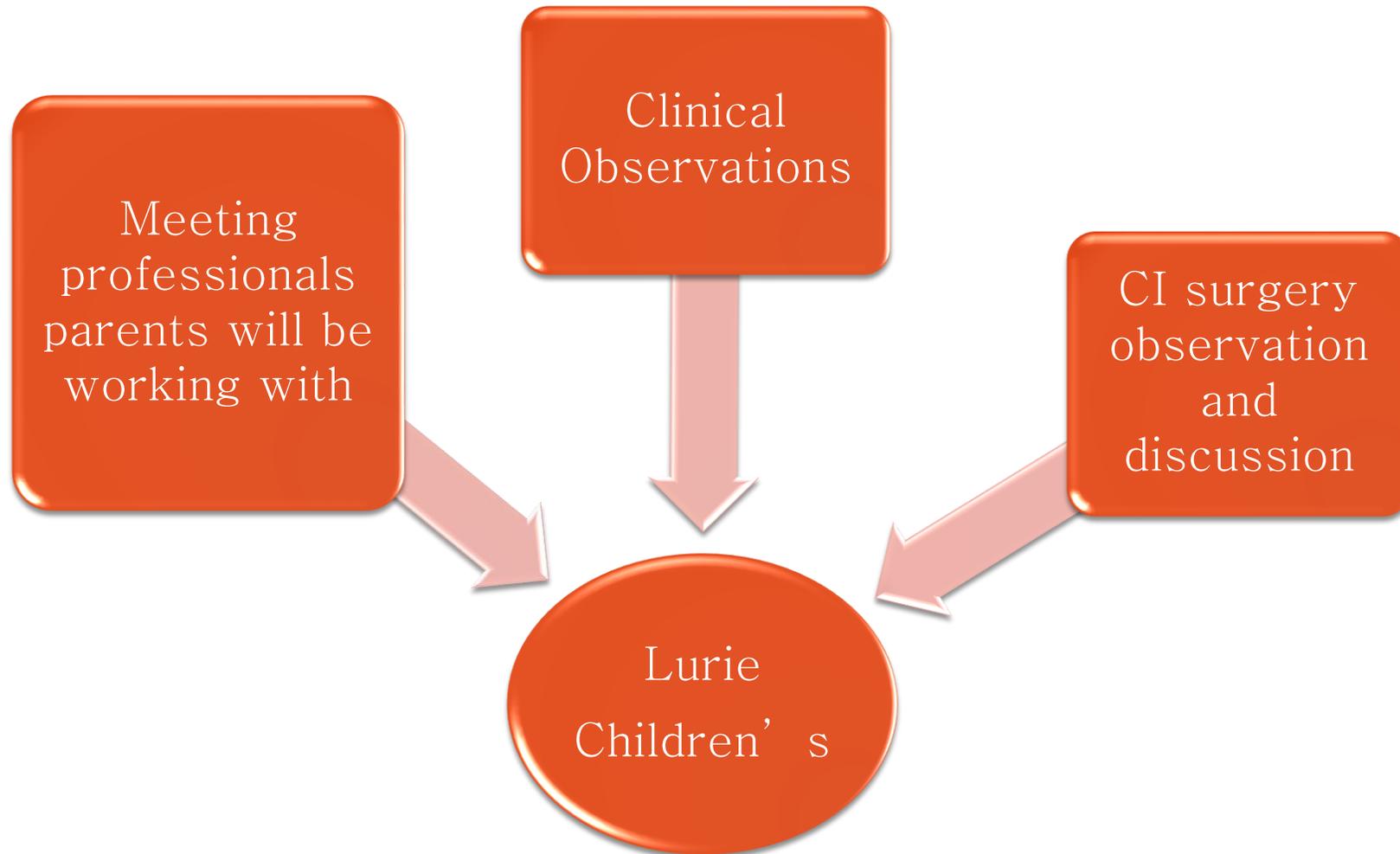


Developing grant partnerships

- Carle Auditory Oral School and Hospital
- Central Institute for the Deaf
- Current Providers in EI as Field Mentors
- Child's Voice School
- DHS
- DSCC
- EHDI
- UIC– Chicago
- University of Chicago– Hospital
- Washington University



Lurie Children's & AIM Collaboration



- Audiology/CI lectures
- EI Conference Participation



Ann & Robert H. Lurie Children's Hospital of ChicagoSM

Helping Children To Achieve Their Full Potential



More than 1800 implantations since 1991

- 7 CI Audiologists
- 4 SLPs – aural hab
- Social workers
- Deaf educator
- 2 Surgeons
- Nurses
- Support staff
- Pediatric anesthesia
- 3 sites (Chicago, north & west suburbs)

“Because early implantation can potentially impact the development of both language and cognitive skills and provide important contact with the environment, excluding certain children as candidates for cochlear implantation may deny them an intervention that might be uniquely suited to enhance communication and cognitive functioning, as well as adaptive functioning (daily living skills), and social and emotional well-being.”

- Redefining Cochlear Implant Benefits to Appropriately Include Children with Additional Disabilities Nancy Young, Constance Weil and Elizabeth Tournis in *Pediatric Cochlear Implantation*, Nancy Young and Karen Iler Kirk, editors Springer (2016).

CI Outcomes & Age at Implantation

- Dettman et al. Otololgy & Neurotology 2016. *Long-term communication outcomes for children receiving cochlear implants younger than 12 months*
 - Prospective study of 151 infants implanted < 12 months
 - Significantly better language and articulation at school entry and late primary school than children implanted 13 – 18 months & 19 to 24 months
- Hoff et al, Otology & Neurotology (in press). *Safety & effectiveness of cochlear implantation of young children, including those with complicating conditions.*
 - Retrospective study of 180 children < 36 month, including 37 < 12 months of age
 - Mean age at last follow up of 7.5 years
 - Open-set speech perception 1 year earlier if implanted < 12 month of age
 - Exclusive oral communication mode most likely for infants implanted < 12 months
 - **significant decline if implanted > 24 months**, especially if complicating conditions present
 - No increased anesthetic or surgical complications in infants

EI Aural Habilitation – Critical to Early CI & to Maximize LSL

- Advantages of effective LSL therapy before and after CI
 - Before CI:
 - Enable parents to “see the loss”
 - Consistent HA use
 - Conditioned response
 - After CI:
 - Consistent device use
 - Auditory skill and spoken language development
 - Early identification of potential CI candidates
 - Access to high frequency sounds contained in speech?
 - Language gap closing?
 - Decline in prior auditory skills or not functioning as expected based on prior audiogram?
 - OME; permanent threshold change; other complicating conditions

Effective Early Language Intervention For Children With Hearing Loss

- Who is qualified?
 - AIM Graduate Specialization Certificate as LSL professional – critical first step!
 - LSLS certification (AG Bell Academy)
- Early Intervention Research Group (EIRG) of Northwestern led by Megan Roberts, PhD
 - NIH/NIDCD grant to study effects of language intervention on toddlers with hearing loss & their parents
 - Eligible children:
 - 8 to 13 months
 - Bilateral loss (mild to profound) using hearing aids or cochlear implants
 - Mainly English heard in the home

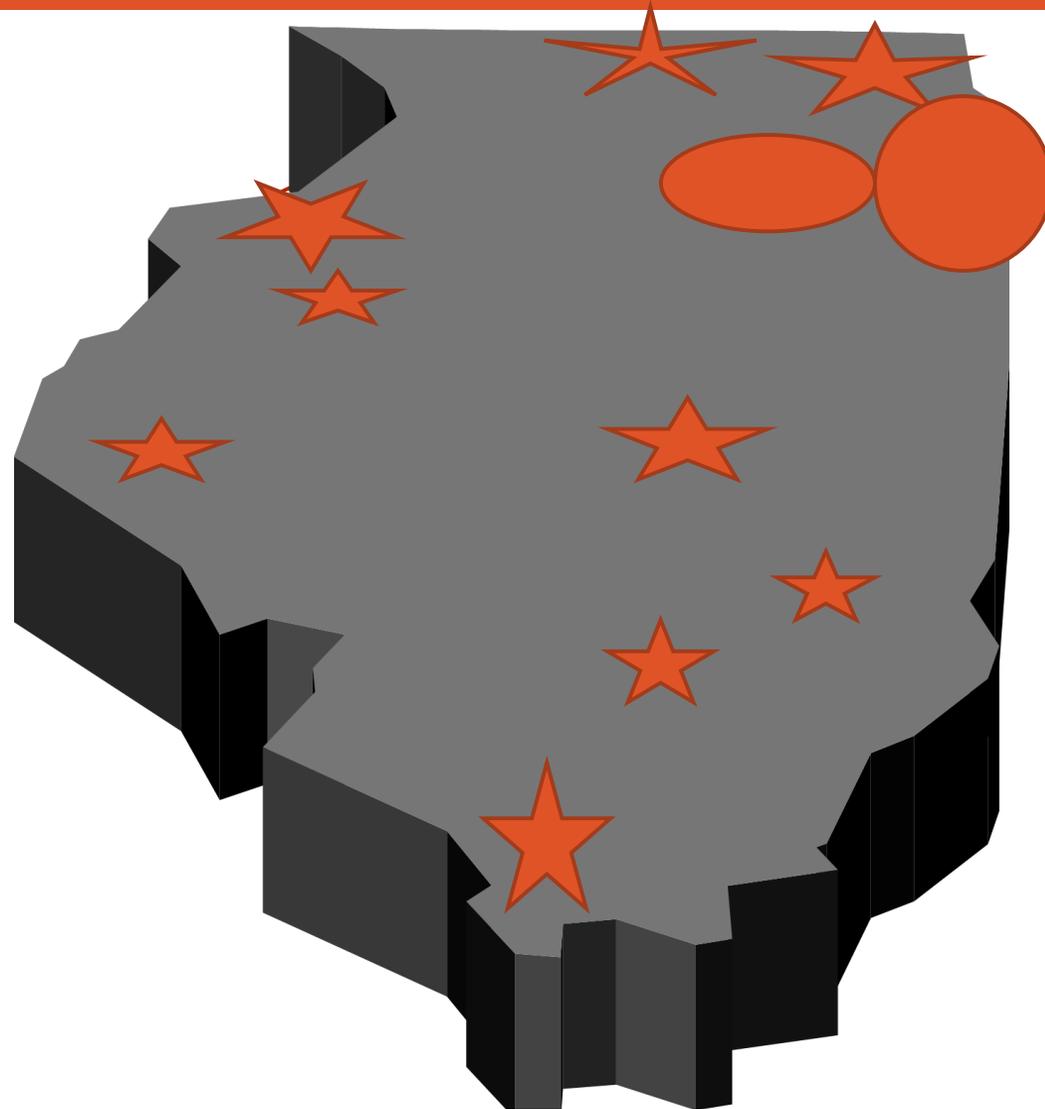
Effective Early Language Intervention For Children With Hearing Loss

- Who is qualified?
 - AIM Graduate Specialization Certificate as LSL professional – critical first step!
 - LSLS certification (AG Bell Academy)
- What EI techniques are most effective children with hearing loss?
 - Early Intervention Research Group (EIRG) of Northwestern led by Megan Roberts, PhD
 - Study of effectiveness of parent-implemented communication treatment
 - NIH/NIDCD grant to study effects of language intervention on toddlers with hearing loss & their parents
 - Roberts, M *Parent-implemented communication treatment for infants and toddlers with hearing loss: a randomized pilot trial*. J Speech Lang Hear Res, 2018





IMPACT OF the AIM Program



TRAINED: 49

Who Are Your Prospective Partners?

