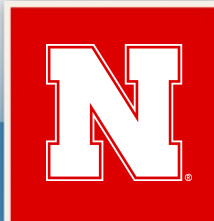


EHDI at a Global Level:

Lessons Learned and Where Do We Go From Here?

Hannah Ditmars, Au.D

Stacie Ray, Au.D.



Disclosures

- Employed by the University of Nebraska-Lincoln
- Coordinators of *HearU International*
 - A non-profit to support hearing devices, earmolds, batteries, and supplies for patients in Nicaragua.
- Stacie Ray: Member of the Nebraska Early Hearing Detection and Intervention Committee
- Partial funding for *HearU Nebraska* comes from EHDI



Case Studies (current 5 year olds)

Nebraska:

- Newborn screen 1mo
- Diagnostic ABR 3mo
- Immediate access to ASL
- Fit with HA's 6mo



Nicaragua:

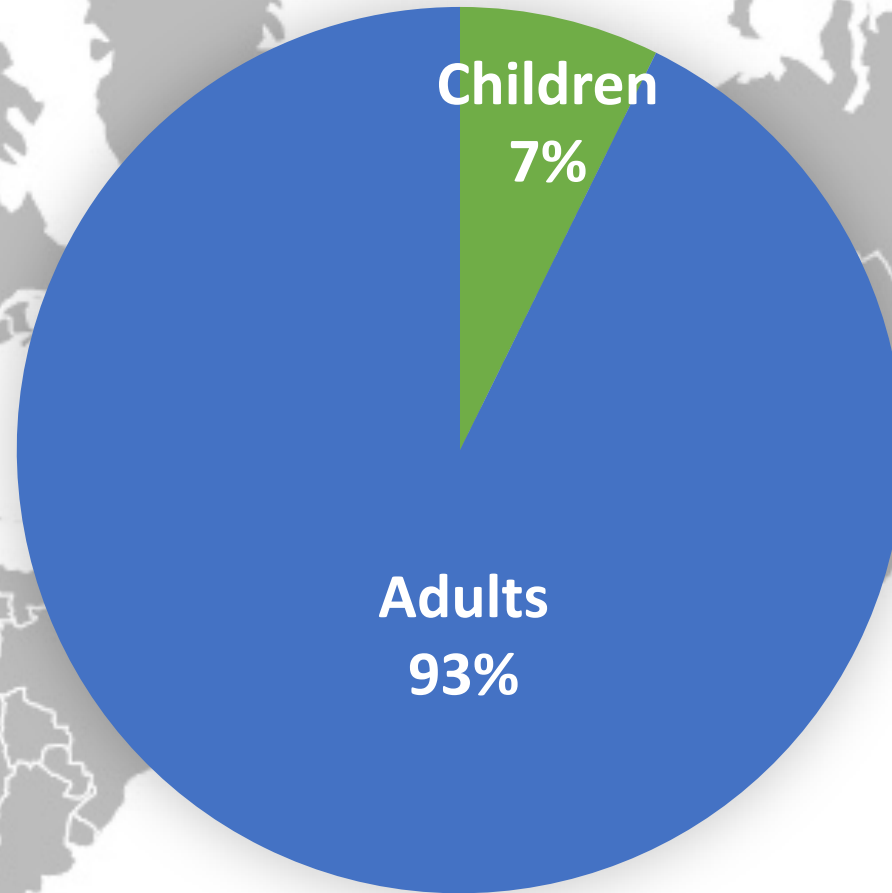
- Identify HL via CPA 5yr
- “Very little” spoken or signed language
- Fit with HA's 5yr



Pictures do not correspond with the case study patients, in order to protect their identity.

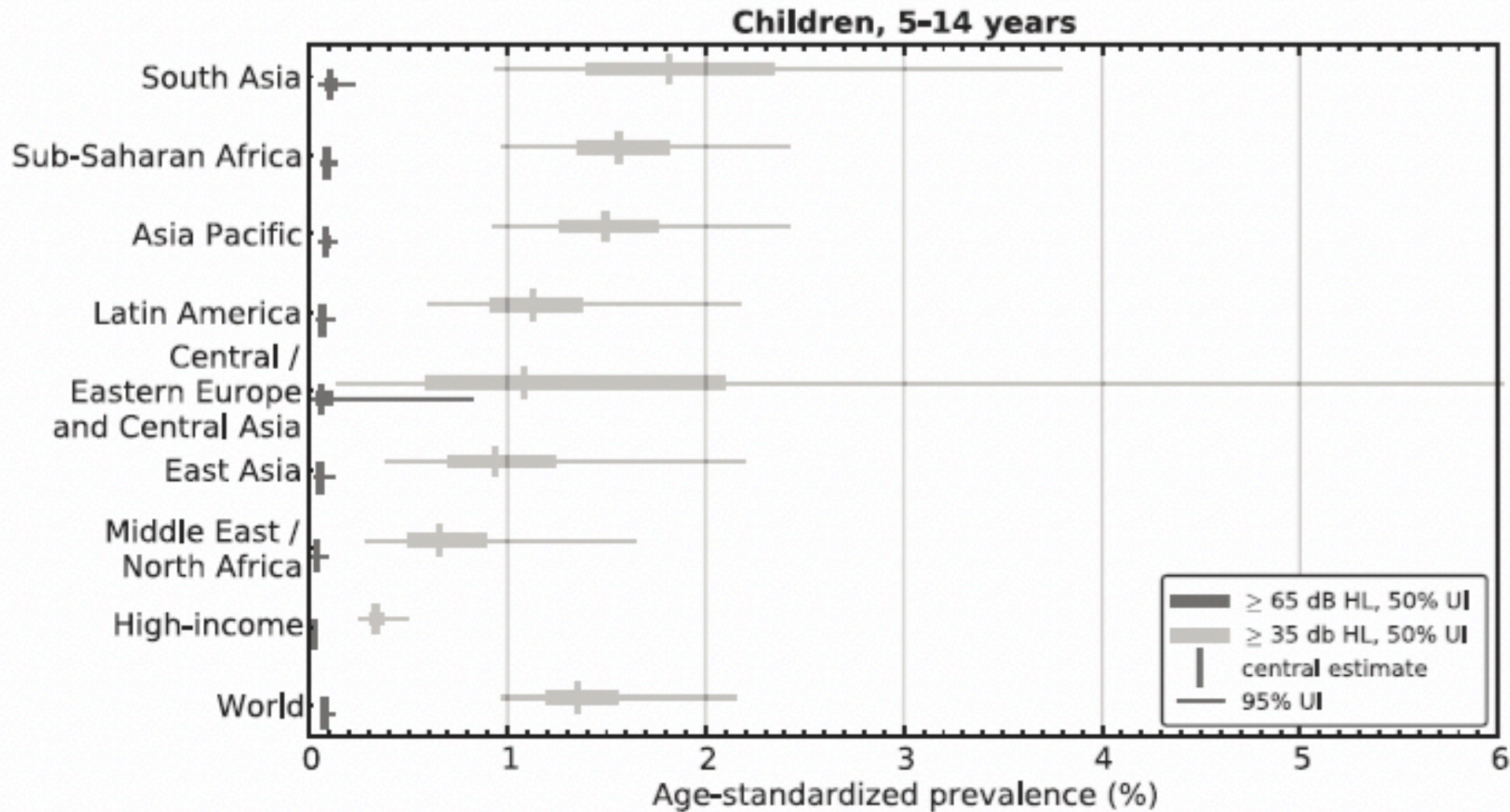
466 Million People Worldwide Have Disabling Hearing Loss

Disabling Hearing Loss



■ Children ■ Adults

Global Hearing Loss



Stevens et al. 2011



Hearing Loss on a Global Level

- In 1995, WHO recommended “that a policy of universal neonatal screening be adopted in **all countries** and communities with available rehabilitation services and that the policy be extended to other countries and communities as rehabilitation services are established”
- The World Health Organization estimates that the number of individuals with disabling hearing loss increased from 42 million in 1985 to 360 million in 2011
- This includes 7.5 million children less than 5 years of age
- Annual global cost of 750 billion international dollars



2015 Global Survey: Results Summary

- 143 countries replied
- More than half of the replying countries have implemented newborn or infant hearing screening programs on a regional or national level
- The effectiveness of NIHS is higher if there is a national program and the screening is mandated
- There is a lack of such programs in low-income countries
- Region-dependent prevalence of permanent infant hearing loss ranged from >1 to 15 per 1000



Successes in the United States

- In 1989 less than 3% of all newborns were screened, now more than 98% are screened

Factors contributing to success:

- Policy initiatives by governments, professional associations, and advocacy groups
- Healthy People 2010 objectives (1-3-6)
- Financial assistance from the federal government
- Improvements in technology
- Legislative initiatives
- The demonstrated success to early implementations



Jasmine, fit through HearU Nebraska 2008

Challenges in low-income countries



- Limited financial resources
- Limited training for personnel
- Difficulty linking to existing health care because of poorly developed health care systems
- Difficulties with transportation, ability to pay, and motivation on the part of families.
- Lack of epidemiological data
- Lack of rehabilitation services
- Absence of political will

Note: Some of these same issues existed in the U.S. a few years ago, and some remain today in certain parts of the country

How Do We Increase EHDI Globally?

- Educate health care providers on importance of early identification and hearing screening
- Certification process needed to maintain quality for screening, diagnosis, and early intervention
- Involve local governments
 - Data management
 - Financing
 - Quality control
- Collaboration to design and implement
 - public-private partnerships
 - nongovernmental organizations

NCHAM Chapter 1: The Evolution of EHDI From Concept to Standard of Care



How to Eat an Elephant

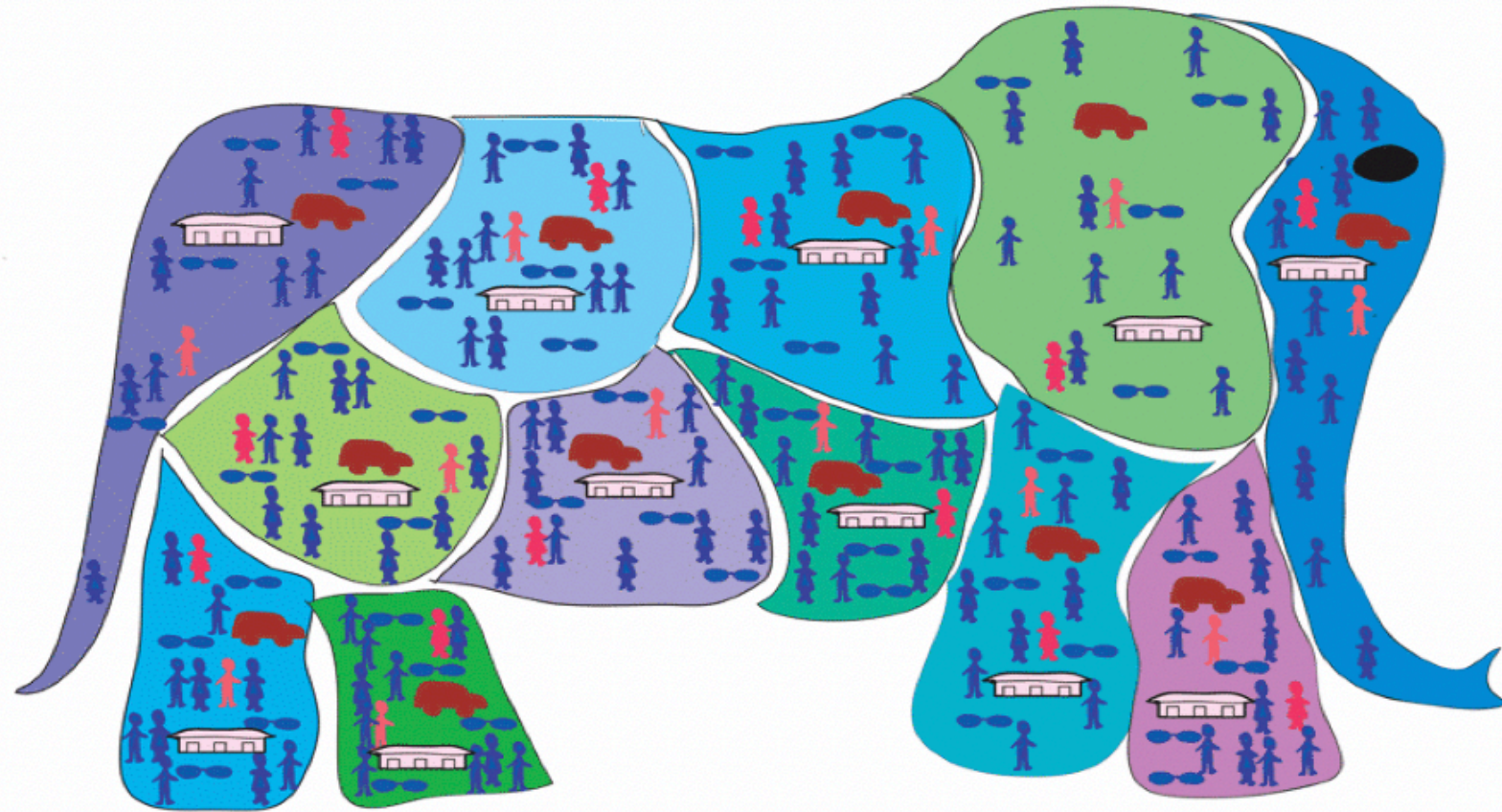


Illustration: Victoria Francis


KEY Secondary level services

 Ophthalmologists/
cataract surgeons

 Ophthalmic nurses/
assistants

 Optometrists

 Managing services

 Eye surgical unit within
district hospital

Can Humanitarian Efforts Help Build Capacity in Low-Income Countries?

- Funding
 - Raising operational capital for equipment and training
 - Fundraising for hearing devices and supplies
 - Grants
- Working with local governments
- Providing training
- Alternative levels of care delivery
- Building community-based programs
- Connecting with intervention services (if available)



From Nebraska to Nicaragua: Delivering services to underserved populations

Novel Funding Nebraska:

- HearU Nebraska
- Grants
- Donations
- Negotiating Costs
- Sliding Fee Scale

Novel Funding Nicaragua:

- HearU International
- Grants
- Donations
- International Hearing Aid Purchasing Plan
- “Judy Molds”



From Nebraska to Nicaragua: Delivering services to underserved populations

Alternative Care Delivery Models for Nebraska:

- Educational Service Units (Nebraska)
- Tele-health

Alternative Care Delivery Models for Nicaragua:

- Training of audiology technicians
- Tele-health



From Nebraska to Nicaragua: Delivering services to underserved populations

Collaboration with Stakeholders Nebraska:

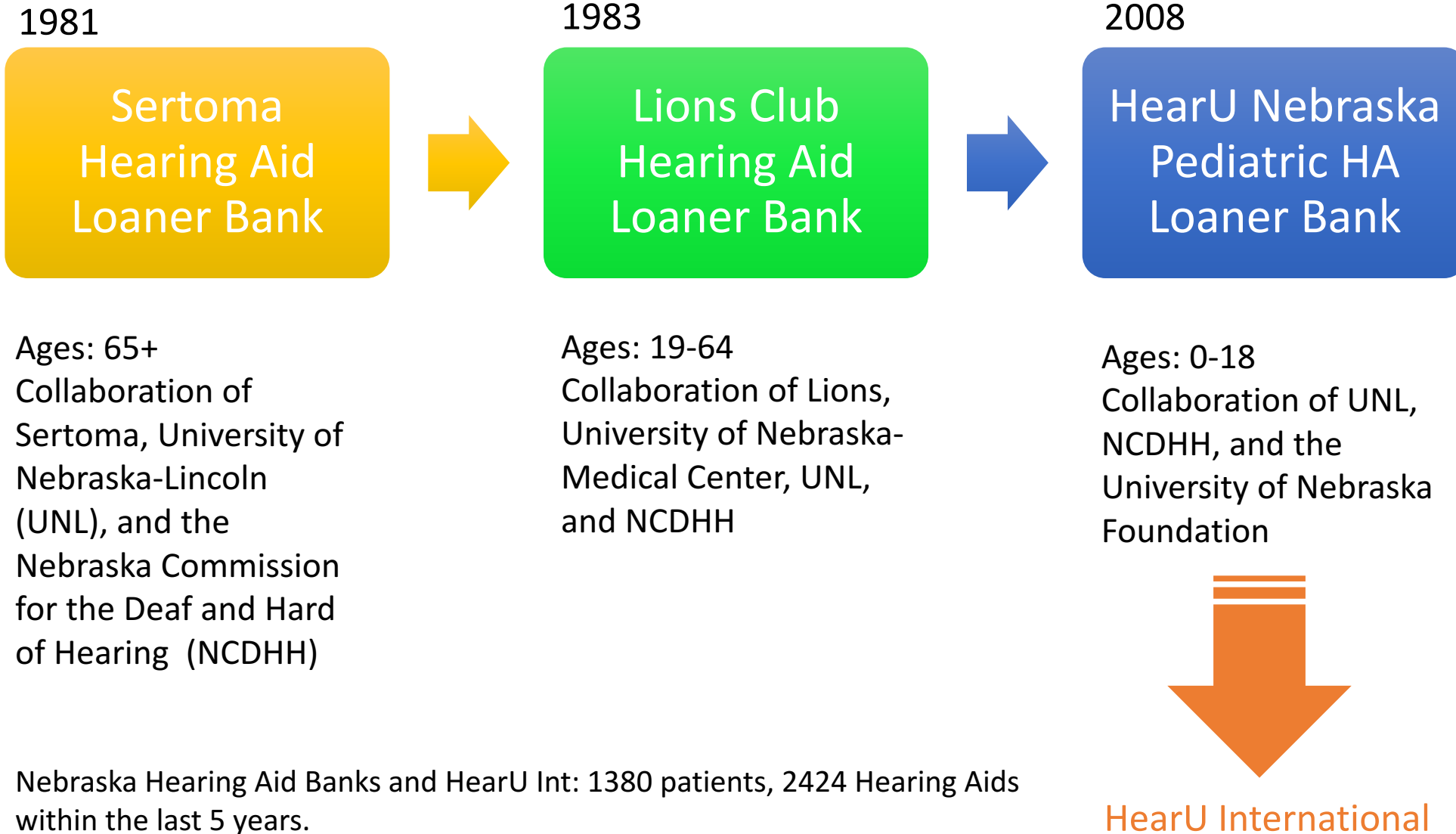
- EHDI
- Audiologists
- Parents
- Nebraska Commission for the Deaf and Hard of Hearing

Collaboration with Stakeholders Nicaragua:

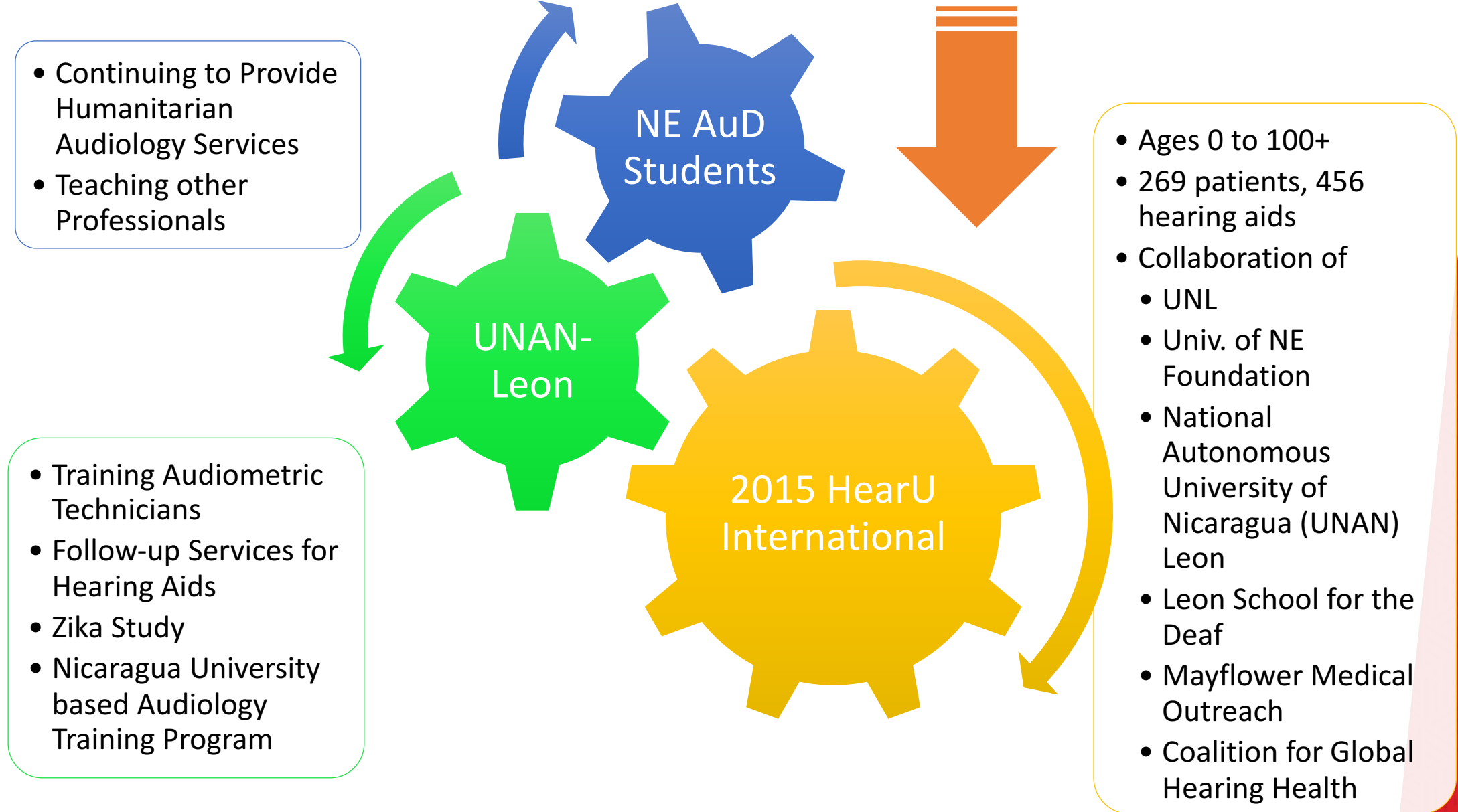
- University to University
- NGO
- Deaf Schools
- Parents

Capacity Building:

The Nebraska to Nicaragua Model



Capacity Building: The Nebraska to Nicaragua Model



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