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# Task Analysis: Adaptation and Application in Africa, Asia and the Caribbean for Health Workforce Strengthening

Global Maternal Newborn Health Conference

Mexico City

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# Presenters and Country/Region of Focus

- Leah Hart                      Lesotho
- Tegbar Yigzaw                Ethiopia
- Thida Moe                     Myanmar
- Lastina Lwatula              Zambia
- Judith Fullerton              Caribbean

Catherine Carr

Moderator

# Definition

- A descriptive research methodology
- Wide application in the health professions
- Particularly useful in assessment and definition of the knowledge, skills and behaviors that define the scope of practice of a health profession or occupation.

# The Task Analysis Process

- Feedback is solicited from a cohort of interest, e.g.
  - recent graduates
  - health care staff members
- A task list is developed from
  - relevant and available national/international documents—
    - national treatment guidelines
    - curricula
    - job descriptions
    - scope of practice statements
    - regional and international clinical practice guidelines.

# Response Variables

- **Frequency** [how often the task is performed]
- **Criticality/impact** [what effect there would be on patient or community health if the practitioner was not able to perform the task]
- **Ability to perform** [self-rated competency]
- **Where educated/trained** to perform the skill

# Approaches to Data Analysis

- A combination of frequencies and cross-tabulations are applied to the data
- Results can be aggregated by groups of interest, for example,
  - by health center
  - educational institution
  - geographic region
  - educational level of health care providers

# Approaches to Data Analysis

- The nature of the quantitative data lends itself to higher analytical approaches, as relevant to the study interest.
- A qualitative inquiry can be used to obtain additional task information, e.g., *Is there any task that you are required to perform for which you feel you have not been adequately prepared?*

# Exploring the Data

- The most informative results of the task analysis study came from analyzing combinations of variables
  - frequency and criticality
  - criticality and performance.





# Task Analysis Study of Midwives, Doctors and Nurses in Provision of MNH Services

Presented by Tegbar Yigzaw  
Ethiopia

# Presentation Outline

- Background
- Methods
- Results
- Conclusions and Recommendations

# Background

# USAID's Strengthening Human Resources for Health (HRH) Project (2012-2017)

- **Goal:**
  - Improve health outcomes with emphasis on MNCH and infectious diseases
- **Result Areas**
  - Improve HRH management
  - Increase availability of midwives, anesthetists, health extension workers and others
  - Improve quality of education and training
  - Generate program learning and research evidence on HRH

# Study Objective

- Conduct multi-cadre task analysis studies to inform health workforce strengthening strategies

# Methodology

# Cross-Sectional Study of Recently Qualified Health Workers

Sampling Variables	Midwives	Doctors	Nurses
# Regions	7/11	11/11	11/11
#Facilities	? hospitals and ? health centers	66 public hospitals	19 public hospitals and 93 health centers
#Providers	140	198	224
Sampling Technique	Purposive	Random	Random

# Data Collection and Analysis

- Data collected using structured interview
  - Midwives: December 2013
  - Doctors and nurses: February 2015
- Analysis approach
  - Descriptive statistics
  - Examining combination of responses



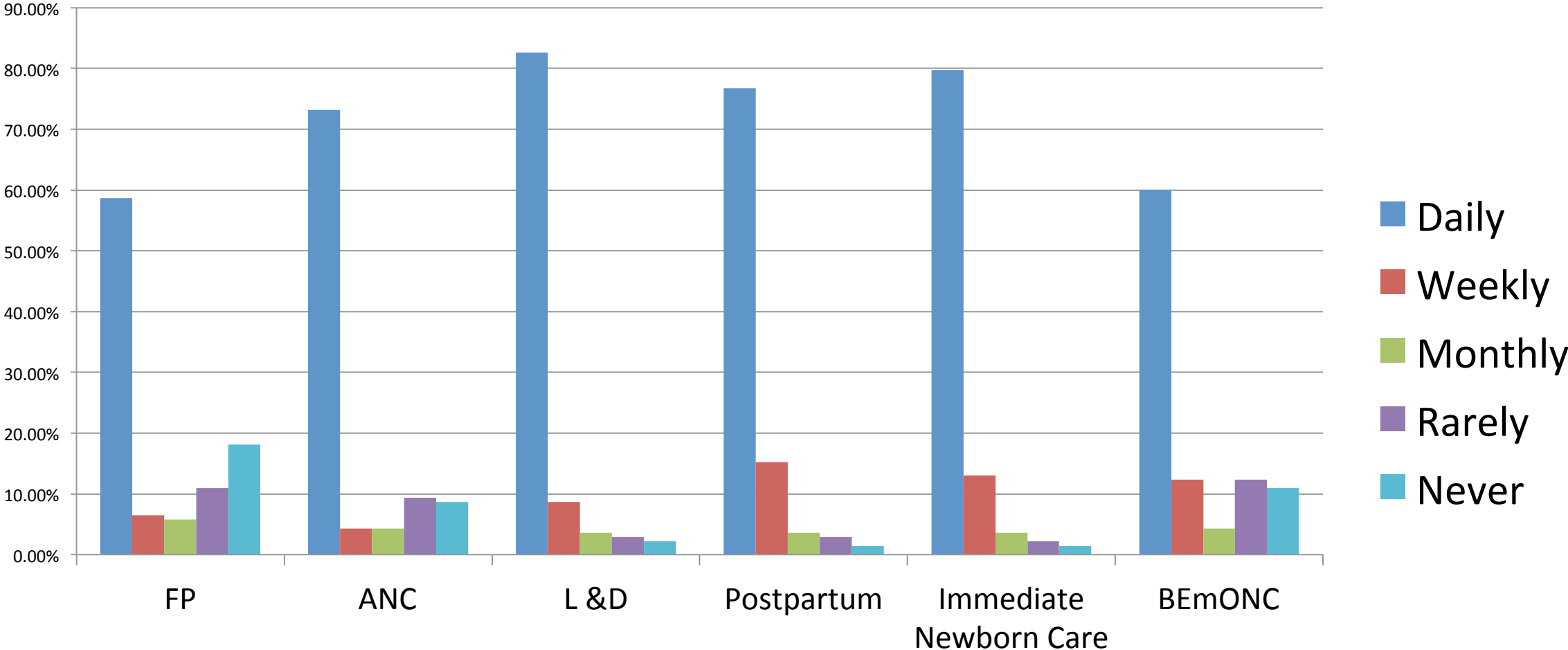
# Results

# Socio-demographic Characteristics

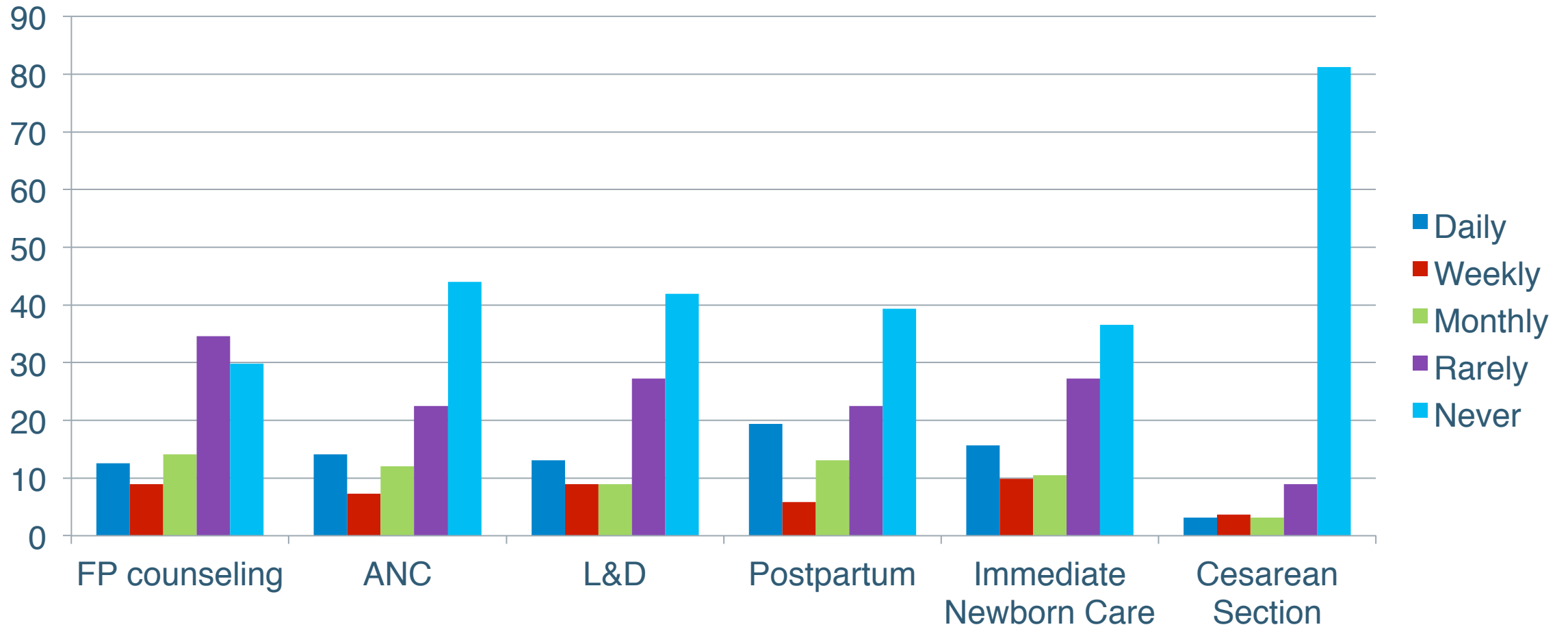
Variable	Midwives (n=138)	Doctors (n=191)	Nurses (n=223)
Gender			
-Male	19.6 %	73.8 %	45 %
-Female	80.4 %	25.1 %	55 %
Age (Mean)	24.5 years	26.4 years	27 years
Educational Status			
-Diploma	81.9 %	NA	79.4 %
-Bachelor	18.1 %	NA	20.6 %
-Doctor of Medicine	NA	100 %	NA
Facility			
-Health center	60.9 %	NA	74.9 %
-Hospital	39.1 %	100 %	25.1 %
Service (Mean)	2.6 years	1.7 years	2.9 years

# Frequency of Performance of MNH Tasks

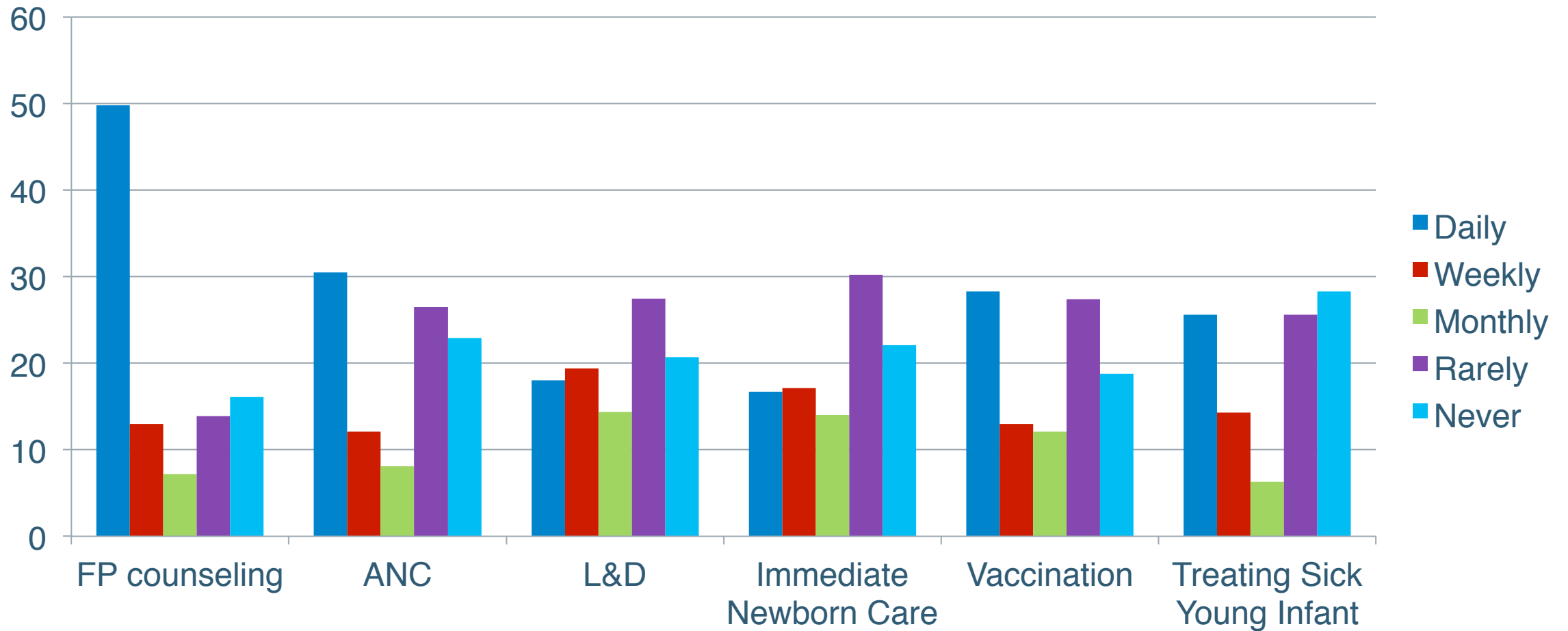
# Midwives Provide Basic MNH Services Routinely



# Doctors Provide MNH Services Occasionally



# Nurses Provide MNH Services Less Often Than Midwives, More Often Than Doctors



# Pre-service Education Gaps for MNH Services

# Midwifery Education Gaps

Tasks	% unable to perform task	% rate task important	% trained in PSE
Manual vacuum aspiration	37.7 %	82.7 %	31.2 %
Identify pelvic muscle injuries	25.4 %	83.3 %	47.8 %
Manage abortion	21.7 %	84.1 %	49.3 %
Educational outreach	18.8 %	81.2 %	34.1 %
ARV for PMTCT	16.7 %	88.4 %	34.8 %
Operative vaginal deliveries	13.8 %	89.1 %	56.5 %
BEmONC	5.8 %	93.5 %	47.1 %



# Medical Education Gaps

Tasks	% unable to perform task	% rate task important	% Never/Rarely Performed
Vasectomy	82.7%	80.6%	98.4%
Tubal ligation	77 %	86.8 %	96.9 %
IUCD	39.3 %	93.2 %	92.7 %
Implants	34.6 %	94.8 %	90.1 %
Cesarean section	70.7 %	98.9 %	90.1 %
Culdocentesis	58.1 %	94.8 %	94.3 %
Vacuum assisted delivery	19.4 %	100 %	78.5 %

# Nursing Education Gaps

Tasks	% unable to perform task	% rate task important	% Never/Rarely Performed
IUCD	68.9 %	92.3 %	90.1 %
Implant	48.4 %	93.3 %	74.4 %
Vacuum assisted delivery	61.4 %	98.7 %	91 %
Bimanual compression of uterus	49.8%	96 %	87 %
1 <sup>st</sup> and 2 <sup>nd</sup> degree tear repair	36.9 %	97.7 %	87 %
Manual removal of placenta	29.6 %	98.7 %	77.2 %
Manage face/breech presentation	51.1/61.4 %	98.2 %	93.2/95.5%
Post-abortion care	46.2 %	100 %	86.6 %
Assess and treat young infant	19.1 %	99.6 %	53.9 %

# Conclusions and Recommendations

1 Conclusion: Midwives are principal MNH providers  
Recommendation: Continue to train more midwives to reduce maternal and newborn deaths

2 Conclusion: Gaps in MNH competence of health workers  
Recommendations: Strengthen pre-service and in-service training; review scope of practice to make it more realistic

# Thanks!

