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How Well Does Pre-service Education Prepare Midwives for Practice: Competence Assessment of Midwifery Students

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Presentation Outline

- Background
- Methods
- Results
- Conclusions and Recommendations

BACKGROUND

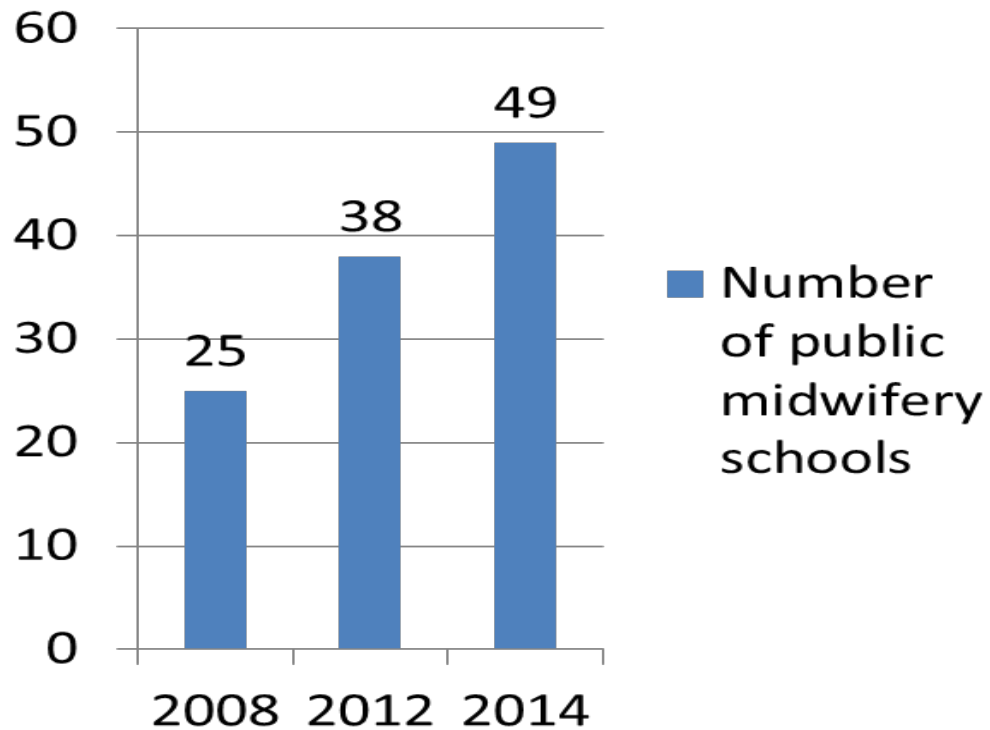
USAID's Strengthening Human Resources for Health (HRH) Project (2012-2017)

- **Goal:** Improve health outcomes with emphasis on MNCH and infectious diseases

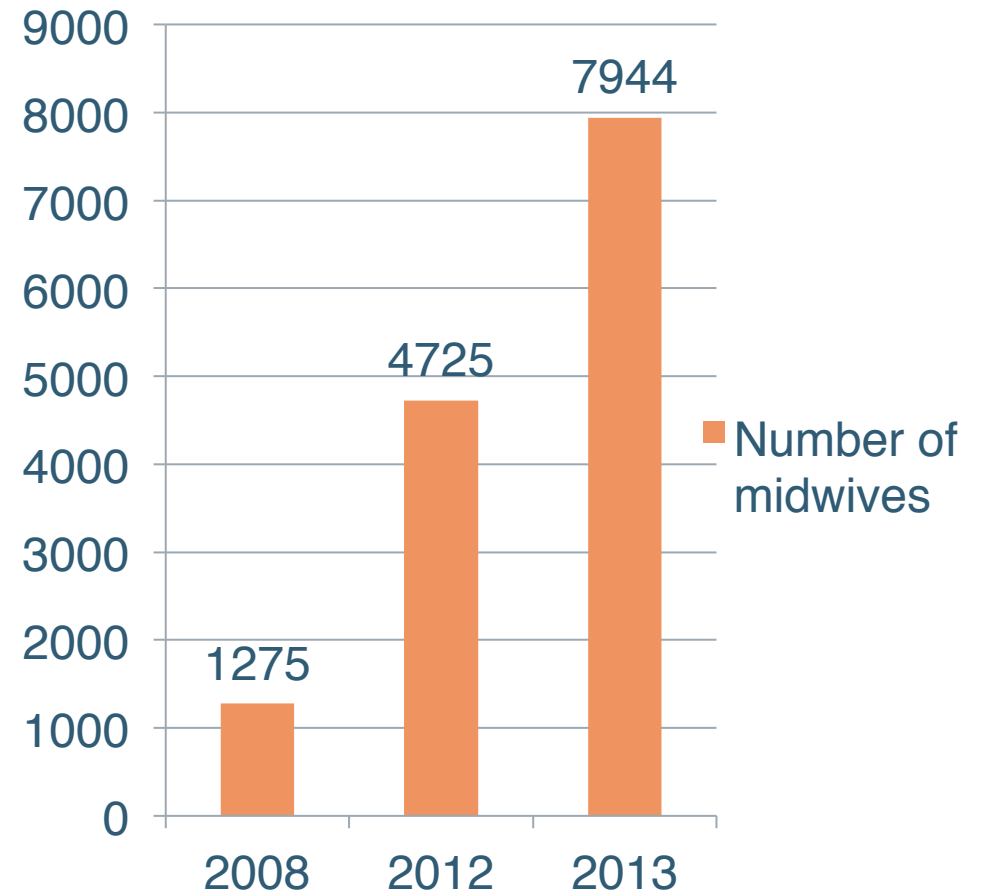
- **Four Result Areas**
 1. Improve HRH management
 2. Increase availability of midwives, anesthetists, health extension workers and others
 3. Improve quality of education and training
 4. Program learning, research and evaluation evidence on HRH

Ethiopia is Increasing Availability of Midwives

Number of public midwifery schools



Number of midwives



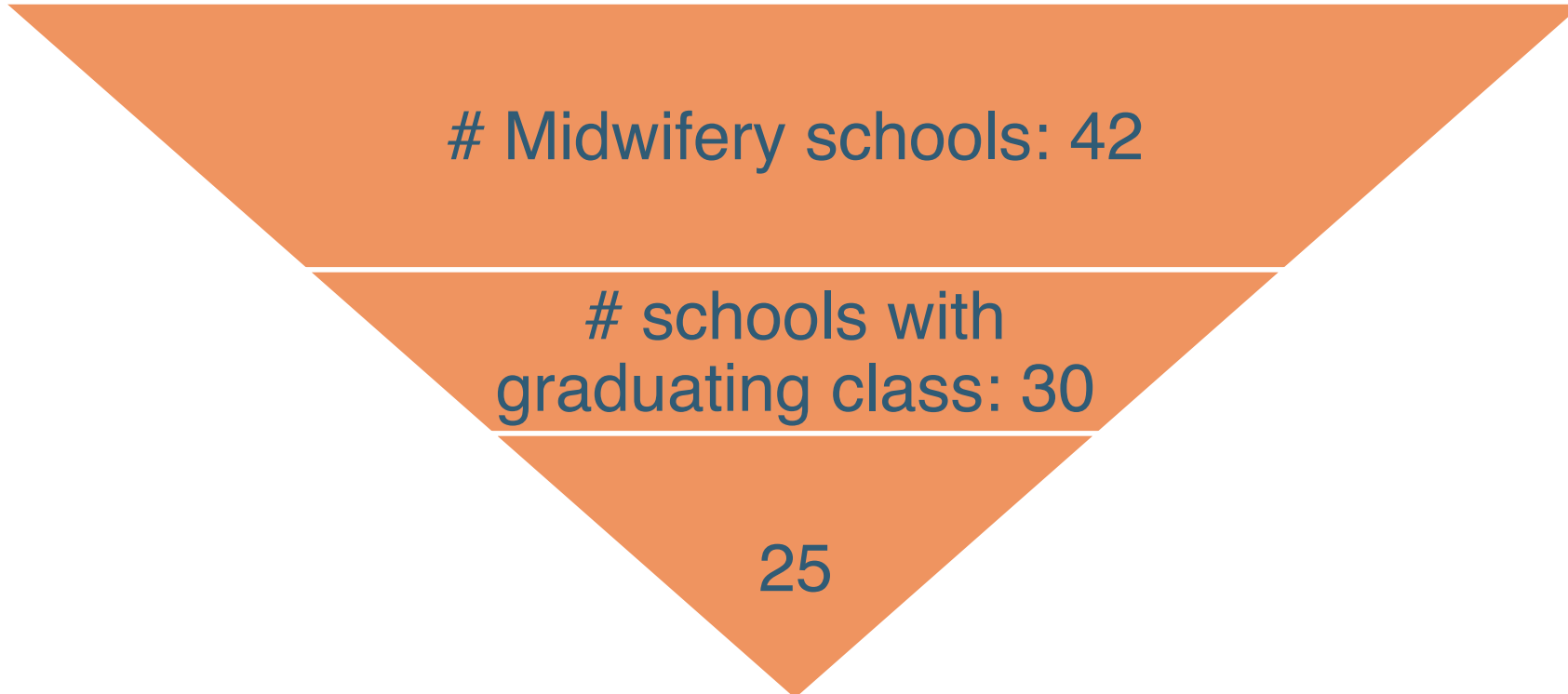
Objective of the Study

- Generate evidence on competence of midwifery students to inform health workforce strengthening strategies

METHODS

Study Design and Sample #1

- **Cross-sectional study, pre/post design**
- **25 schools sampled**



Study Design and Sample #2

- Sample size calculation
 - Number of graduating students: 2340 (1,988 vocational and 352 university students)
 - 95 % confidence interval and 80 % power
 - 44 % competence level
 - Expected percent of increment: 10 %
 - Sample size: 185 university and 326 vocational students

Data Collection

- Period: June/July 2013
- Mixed techniques
 - Direct observation: 10-station objective structured clinical examination
 - Interview
- Senior midwives conducted the performance assessment

Data Analysis

- Computed proportion, mean and range
- Competence scores calculated by mean percentage score at a station and averaging all station scores
- Associations checked by X^2 , t-test and linear regression

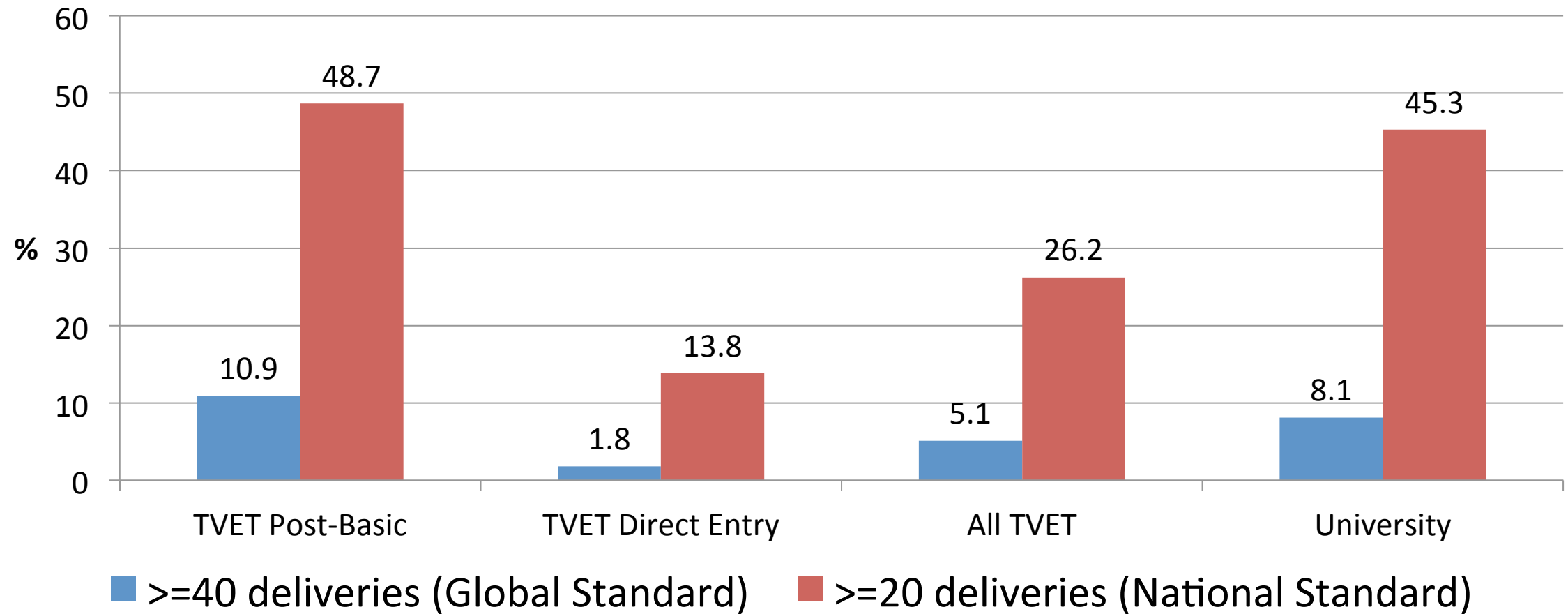
RESULTS

Background Characteristics

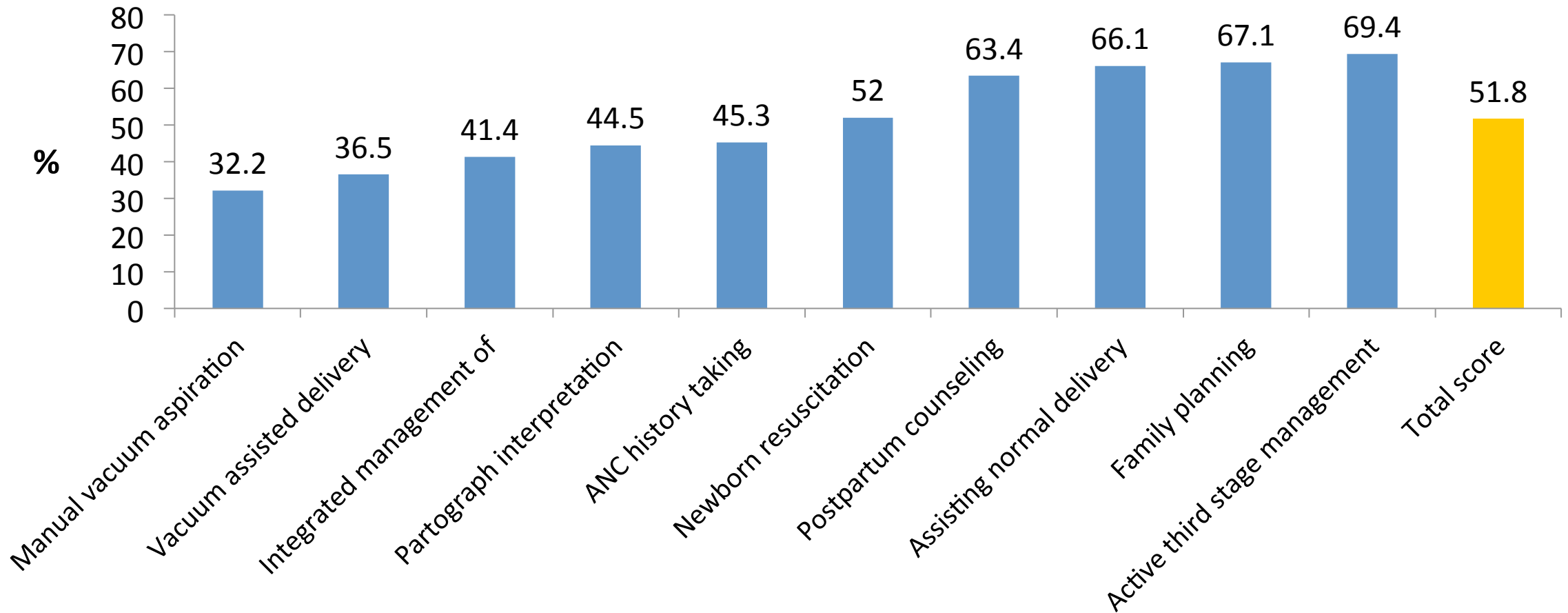
- 484 students assessed (91 % response rate)
 - 217 vocational students (direct entry)
 - 119 vocational students (post-basic)
 - 148 university students
 - Females accounted for 64.9 %
 - Mean age was 21.7 years

Median Number of Births Managed by Students was 11

One-third Attended 20+



Average Performance Score was 51.8 %



Male Gender and Practical Experience Associated with Higher Score

- Male students outperformed their female counterparts by **5.4 points** (95% CI=2.5, 8.3; $p<0.001$)
- Students who reported enough practical experience scored **4.7 points** higher (95% CI=1.863, 7.437, $P=0.001$)
- With each additional birth attended, students' average performance score increased by **0.164 points** (95% CI=0.055, 0.273; $p=0.003$).

Students Felt Learning Environment was Poor

Perceptions	TVET programs (n=336)	University programs (n=148)	All programs (n=484)	P-value (TVET versus university)
Classroom resources and learning				
Classroom learning resources were available and helpful	53.6	21.6	43.8	<0.001
Number of instructors was adequate	52.7	20.9	43.0	<0.001
Instructors were effective in facilitating learning	67.0	31.8	56.2	<0.001
Instructors were fair and unbiased in assessing learning	76.2	47.3	67.4	<0.001
Skills learning lab resources and learning				
Skills lab resources were available and helpful	37.8	6.8	28.3	<0.001
Number of skills lab assistants was adequate	38.4	7.4	28.9	<0.001
Skill lab assistants effective in supporting students	57.1	16.2	44.6	<0.001
Clinical resources and learning				
Preceptor number in practicum sites was adequate	27.1	8.8	21.5	<0.001
Clinical teachers and preceptors were available during the scheduled time and supported students	23.5	9.5	19.2	<0.001
Practical experience was sufficient to master midwifery competencies	59.2	27.7	49.6	<0.001

Limitations

- Coverage gaps
 - Private colleges
 - Vocational colleges from two less developed regions
- Actual unobserved performance in a clinical setting may be different

Conclusions

- Competence of midwifery students is inadequate likely due to gaps in the learning environment
- Being male and having greater clinical experience predicted higher competence

Recommendations

- Strengthen skills of new midwives entering the workforce through on-the-job mentoring, training and supervision
- Strengthen quality of pre-service education focusing on clinical practice and assessment
- Provide tutorial support to female students
- Revise the higher education proclamation about accreditation
- Beware of assuring quality during rapid scale up

- You can read the full article at:
<http://www.biomedcentral.com/1472-6920/15/130#>

