



Synthesizing Data From Staff Interviews and Performance Observations: An Evaluation of a Quality Assurance Intervention on HIV-Related Care in Zambia

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Outline of Session

- Background
- Objectives and Methods of the Evaluation
- Synthesis of Results
- Challenges
- Lessons Learned



Objective of this session: learn how the project used multiple data sources and aimed to synthesize the results, and review the challenges and lessons learned

Background (1)

- HIV prevalence: 16.1% of women/ 12.3% of men
 - Use of prenatal care, 4 visits: 59% (DHS 2007)
 - Provider-initiated HIV testing and counseling model in prenatal care
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- A map of the African continent is shown in a light orange color. The country of Zambia is highlighted in a darker red color. A small black line with the word 'ZAMBIA' in all caps points to the highlighted area.
- **Zambia Defence Forces (ZDF)** offers health services to military personnel, families, & surrounding communities
 - 80% clients are civilian
 - Jhpiego assisted ZDF to implement a quality improvement approach in health facilities called **Standards-Based Management and Recognition (SBM-R®)**
 - By 2010, 20 out of 54 sites had implemented SBM-R

Background (2): Evaluation

Objectives

To generate evidence of SBM-R's effects on:

- Provider performance of services (anti-retroviral therapy (ART) and prevention of mother to child transmission (PMTCT))
- Facility readiness
- Providers' perceived work environment
- Service use and health outcomes

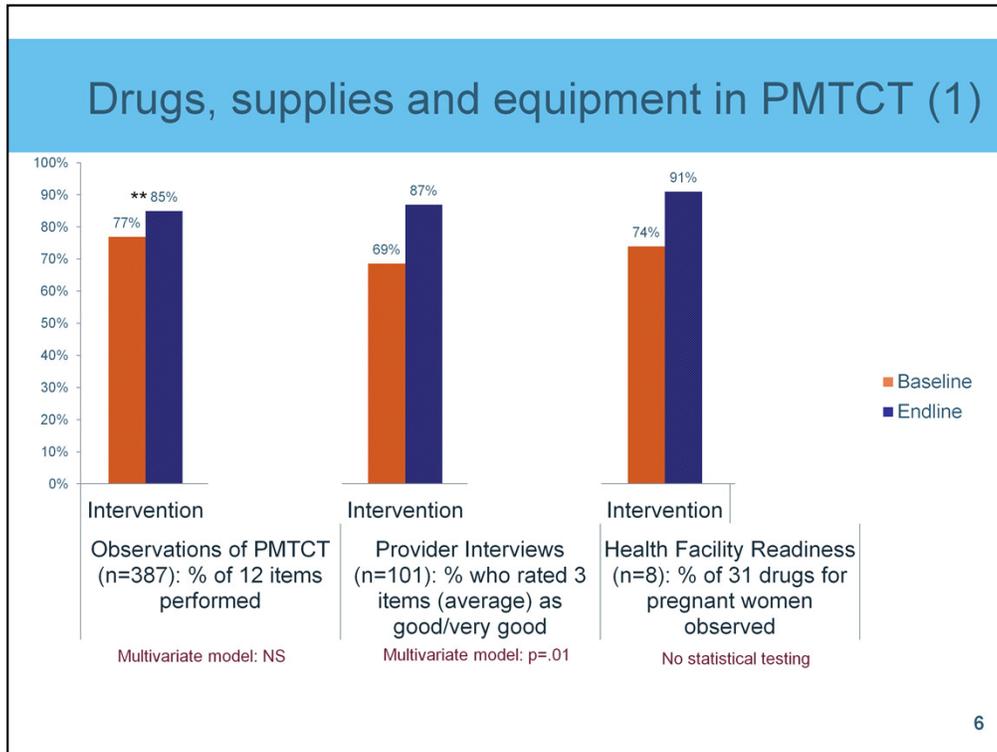
Study Design

- Quasi-experimental with 4 intervention & 4 comparison sites
- 8 sites matched on ZDF Branch (Army, Air Force, National Service), urban/rural, service volume, and size of catchment population
- Baseline & endline (~15 mo. apart)
- Data Sources:
 - Observations of and interviews with all providers by trained, external clinicians
 - Facility assessments & service records use

Results and Synthesis

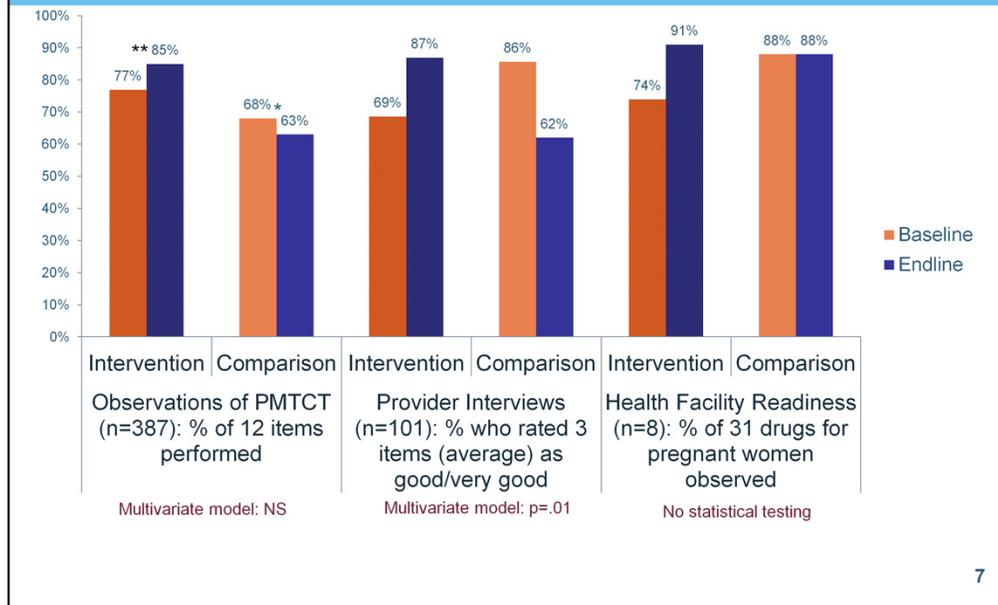


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multivariate linear regression models were estimated. Dependent variable—providers’ ratings of work environment and service quality— were modelled as a function of: intervention status (intervention group and comparison group), time period (baseline and endline), and their interaction. In the multivariate models, the interaction term p-value assesses whether changes from baseline to endline differed significantly between the intervention and comparison groups. The multivariate models controlled for provider’s cadre (a binary variable of clinical or non-clinical) and number of years at the facility. Standard errors were adjusted for clustering within each facility [Williams, 2009]. All analyses were performed in Stata 11.0 [StataCorp, College Station, TX].

Drugs, supplies and equipment in PMTCT (2)



12 items (Observations)

Q113 - PMTCT Guidelines

Q114 - STI Guidelines

Q115 - Clinical Records (SMH, PMTCT registers, ANC cards, etc.)

Q124 - HIV testing kits

Q125 - Hb testing kits

Q126 - AZT tablets

Q127 - NVP tablets

Q128 - NVP suspension + dispensers

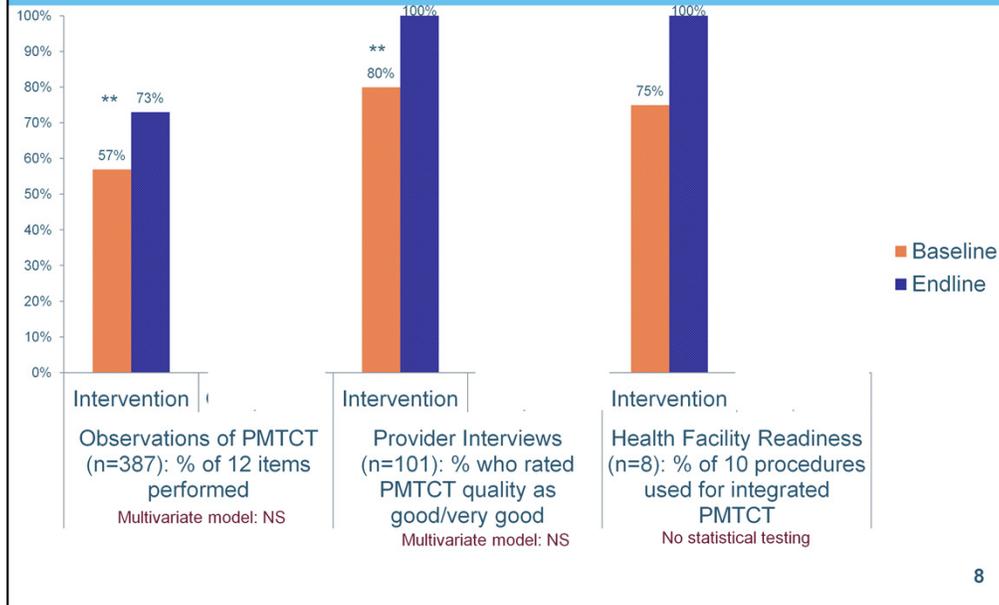
Q129 - Benzathine Penicillin

Q130 - Erythromycin

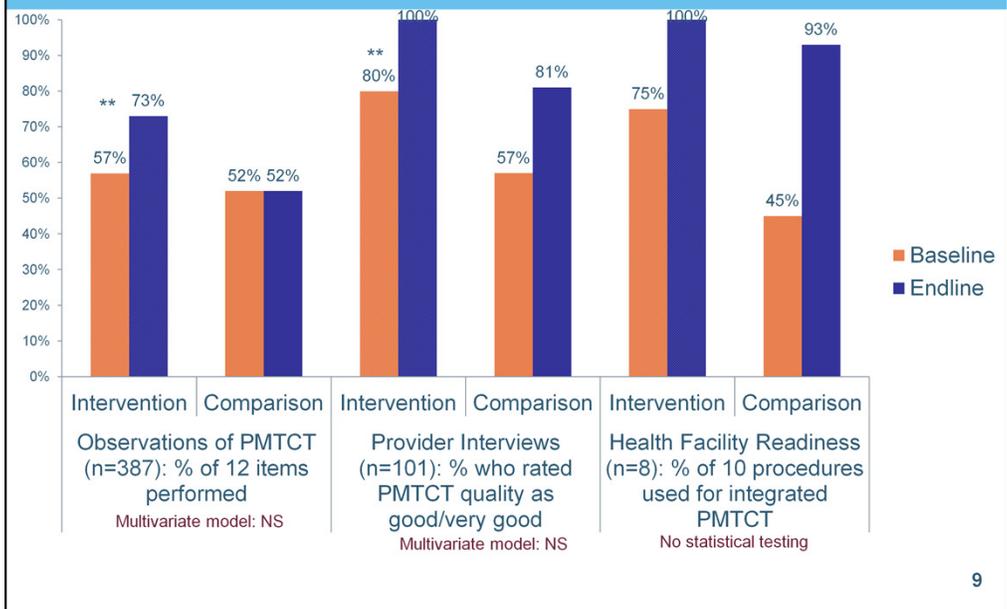
Q132 - Maternity counseling kit

Q133 - Birth Plan

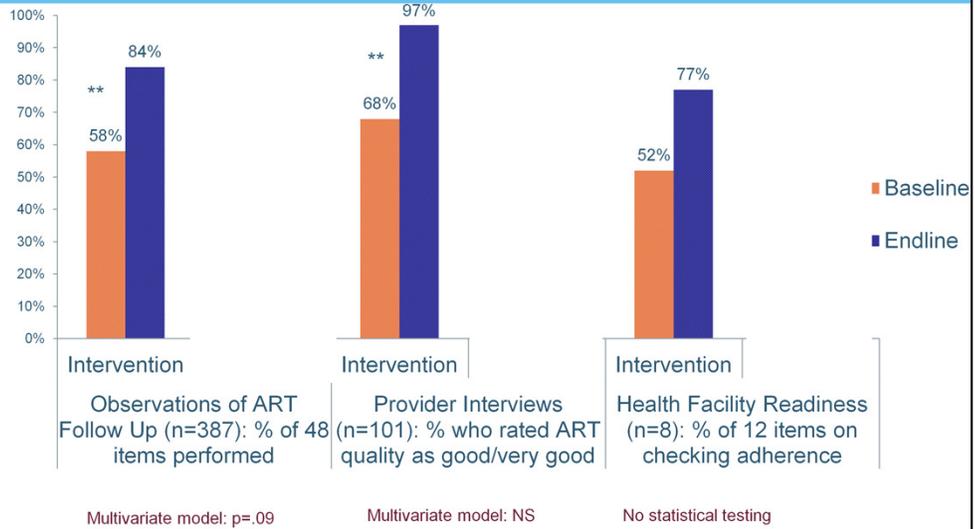
Quality of PMTCT Services (1)



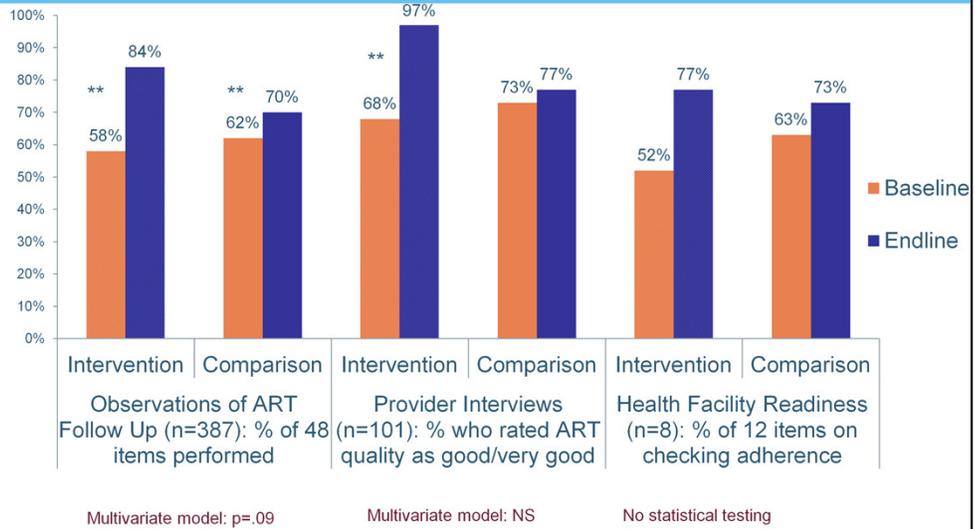
Quality of PMTCT Services (2)



Quality of ART Follow-up Services (1)



Quality of ART Follow-up Services (2)



M&E Challenges (1)

- For Synthesis: Tools had different levels of detail on the same topic
 - i.e. 'Overall PMTCT quality' is based on 30 tasks performed in observation tool, but provider's perceived quality of PMTCT is only 1 question in interview tool
 - Triangulation and synthesis was emergent
- Observation tools, used as both job aids and for assessment, have clinical standards with all essential tasks ("verification criteria"). Result is long checklists (fatigue?)
- Provider interview tool on work environment was limited in detail related to the SBM-R intervention or HIV-services
- Limited budget and time precluded client interviews

M&E Challenges (2)

- Routine service data for PMTCT and ART clients were unreliable and poor quality
 - Not possible to track individuals' adherence to treatment regimens and mother & newborn outcomes



Way Forward (1)

- Consider length of observation tools, and where appropriate, develop shorter tools and validate the tools
- Consider at the start data synthesis/triangulation and how the data can be used
- Tailor tools to the intervention and service type
 - while still allowing comparability of findings across studies
- Include client interviews and qualitative assessments, where possible

Way Forward (2)



- SmartCard electronic medical record system is currently being rolled out in Zambia
 - In 2013, 750 health facilities (out of 1,883) have the SmartCard System, including ZDF sites



Smart Card carried by the client/patient from facility to facility



A Nurse using a touch screen for data entry
Slides courtesy of G. Muyunda, Jhpiego/Zambia

Key Points

- Synthesis across data sources was helpful to improve acceptance and validity of findings
 - Gains or declines were larger in interview items than with 3rd-party observations of care, but trends similar
- Data synthesis and tools development requires advance planning
- Zambia's National electronic medical record system SmartCare system will help measure service use and health outcomes
- Providers' perspectives are essential understand how intervention is working

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Thank you



Supplemental Slide: Study Sites

