Improving Quality of Maternal and Newborn Care in Selected Districts in Three sub-Saharan Countries: Quality Assessment Results of an Intervention Study

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QUALMAT Project

Clinical Decision Support System (CDSS)

Performance Based Incentives

Bridging the Gap

Knowing what to do

Doing what you know

Improved Quality of MNC

Improved Mother and Newborn Health
Boucle du Mouhoun Region

Solenzo Health District

Upper East Region

Buialsa District

Kassena-Nankanana District

Nouna Health District

Burkina Faso

MMR: 310.5
NMR: 28.7

Ghana

MMR: 293.4
NMR: 27.8

Tanzania

MMR: 389.6
NMR: 23.8

Lindi Region

Lindi Rural District

Mtwarra Rural District

Mtwarra Region

Source:

Study Setting (2)

• Rural primary health care facilities
  ➢ at least 10 km from town - no more than 2 hours drive from a district hospital
  ➢ electricity present or installable
  ➢ maternity facilities equipped for 24-hour stay
  ➢ **no** full emergency obstetric care (no assisted vaginal delivery)

• Staff: health professionals with 1-3 years of training - no physicians

• Emergency transport available upon request or not available
Objective

• Assess quality of antenatal and childbirth care
• Document changes in the quality of antenatal and childbirth
  ➢ intervention and non-intervention
  ➢ before and after
Methodology Quality Assessment

• Availability of material and human resources
  ➢ Health facility survey

• Actual care given
  ➢ Direct observation study
  ➢ Review of patient records and routinely collected data

• Women’s experience of care
  ➢ Satisfaction survey
Compiling Quality Scores

• Health facility survey and direct observation study
  ➢ Commodity available or activity observed=1 / not available or observed=0
  ➢ Variables grouped
  ➢ Mean score for each variable, each group and total score

• Satisfaction survey
  ➢ 5-point Likert scale
  ➢ Factor analysis => variables grouped
  ➢ Mean score for each variable, each group and total score
Assessment of Quality Changes

- Same quality assessment tools used
  - 2010 and 2013/14
  - All intervention and non-intervention facilities
- Wilcoxon–Mann–Whitney test used for assessing statistically significant differences in quality of care
Main Findings

• Critical gaps
  - Counselling and health education
  - Laboratory investigations
  - Examination and monitoring of mother and newborn during childbirth
  - Partographs not (correctly) used
  - Equipment to provide assisted vaginal deliveries absent in almost all surveyed facilities

• QUALMAT intervention did not have an impact on the quality of ANC and childbirth care
Quality of Routine ANC Care

Burkina Faso

Ghana

Tanzania

ANC health facility survey
ANC observation study
ANC patient record review
Quality of Routine ANC Care

Burkina Faso

Quality Score (min:0.00 - max:1.00)

Nouna

2010  2013/14  2010  2013/14

Solenzo

ANC health facility survey
ANC observation study
ANC patient record review

Ghana

2010  2013/14  2010  2013/14

Kassena-Nankana

Builsa

Tanzania

2010  2013/14  2010  2013/14

Lindi Rural

Mtwara Rural

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Quality of Routine ANC Care

Burkina Faso

Quality Score (min:0.00 - max:1.00)

ANC health facility survey
ANC observation study
ANC patient record review

Ghana

Tanzania

Kassena-Nankana

Builsa

Lindi Rural

Mtwara Rural
Quality of Routine ANC Care

Satisfaction Survey

**Burkina Faso**

- Nouna 2010
- Nouna 2013/14
- Solenzo 2010
- Solenzo 2013/14

**Ghana**

- Kassena-Nankana 2010
- Kassena-Nankana 2013/14
- Builsa 2010
- Builsa 2013/14

**Tanzania**

- Lindi Rural 2010
- Lindi Rural 2013/14
- Mtwara Rural 2010
- Mtwara Rural 2013/14
Quality of Routine ANC Care

Satisfaction Survey

**Burkina Faso**

- Nouna 2010
- Nouna 2013/14
- Solenzo 2010
- Solenzo 2013/14

**Ghana**

- Kassena-Nankana 2010
- Kassena-Nankana 2013/14
- Builsa 2010
- Builsa 2013/14

**Tanzania**

- Lindi Rural 2010
- Lindi Rural 2013/14
- Mtwara Rural 2010
- Mtwara Rural 2013/14
Quality of Routine Childbirth Care

Burkina Faso

Ghana

Tanzania

Quality Score (min:0.00 - max:1.00)

Childbirth health facility survey
Childbirth observation study

Kassena-Nankana
Builsa

Lindi Rural
Mtwara Rural
Quality of Routine Childbirth Care

**Burkina Faso**

- **Nouna**: Quality Score (min:0.00 - max:1.00)
- **Solenzo**: Quality Score (min:0.00 - max:1.00)

**Ghana**

- **Kassena-Nankana**: Quality Score (min:0.00 - max:1.00)
- **Builsa**: Quality Score (min:0.00 - max:1.00)

**Tanzania**

- **Mtwara Rural**: Quality Score (min:0.00 - max:1.00)
- **Lindi Rural**: Quality Score (min:0.00 - max:1.00)

Legend:
- Blue bar: Childbirth health facility survey
- Pink bar: Childbirth observation study
Quality of Routine Childbirth Care

*Satisfaction Survey*

**Burkina Faso**

- Nouna 2010
- Nouna 2013/14
- Solenko 2010
- Solenko 2013/14

**Ghana**

- Kassena-Nankana 2010
- Kassena-Nankana 2013/14
- Builsa 2010
- Builsa 2013/14

**Tanzania**

- Lindi Rural 2010
- Lindi Rural 2013/14
- Mtwara Rural 2010
- Mtwara Rural 2013/14
Conclusion

• Quality assessment results quite similar at the three study sites

• QUALMAT intervention no impact on the quality of ANC and childbirth care - no trend in change of quality identified

• Supportive environment addressing know-do gap needed
  ➢ context specific interventions
  ➢ genuine involvement of all stakeholders

• Urgent action to improve quality of ANC and childbirth needed