KEMRI | Wellcome Trust HERU HEALTH ECONOMICS RESEARCH UNIT QuEST Quality Evidence for Health System Transformation NAKURU COUNTY COUNTY OF UNLIMITED OPPORTUNITIES

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# Maternal and Newborn Health Service Delivery Redesign (SDR) Feasibility Assessment

**ISSUE BRIEF**

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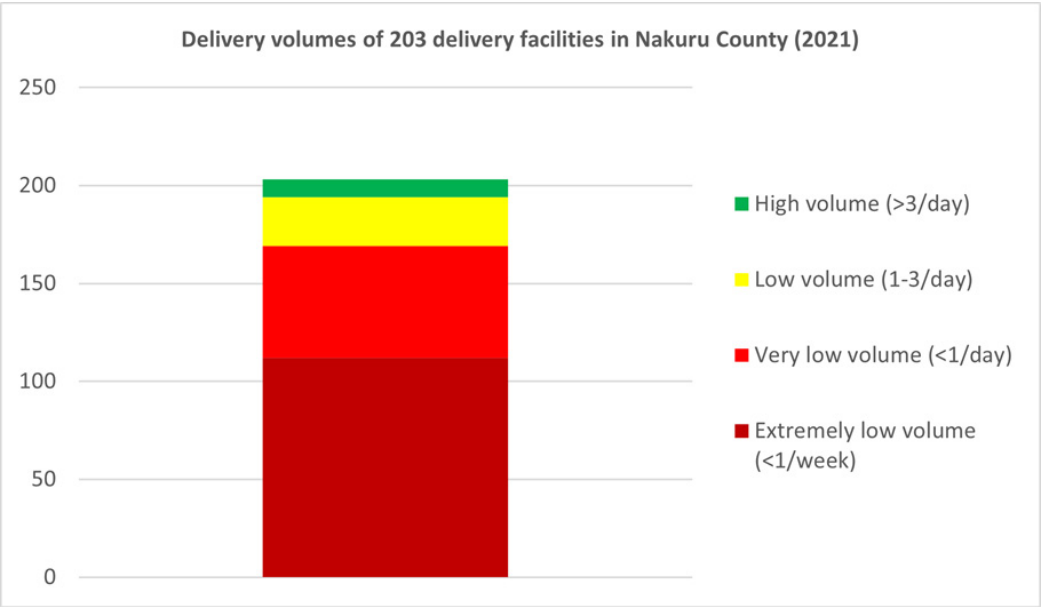
## BACKGROUND AND APPROACH

Recent estimates show that 96% of Kenya's women receive skilled antenatal care during pregnancy and 61% deliver in a facility, but these improvements and access to care have not translated to improved maternal and newborn outcomes.

Service delivery redesign is a systems-level approach proposed by the Lancet Global Health Commission on High Quality Health Systems to improve survival and accelerate progress towards achieving the sustainable development goals; it is a strategy to rationalize the health system such that high quality services are provided at the right level, by the right provider and at the right time

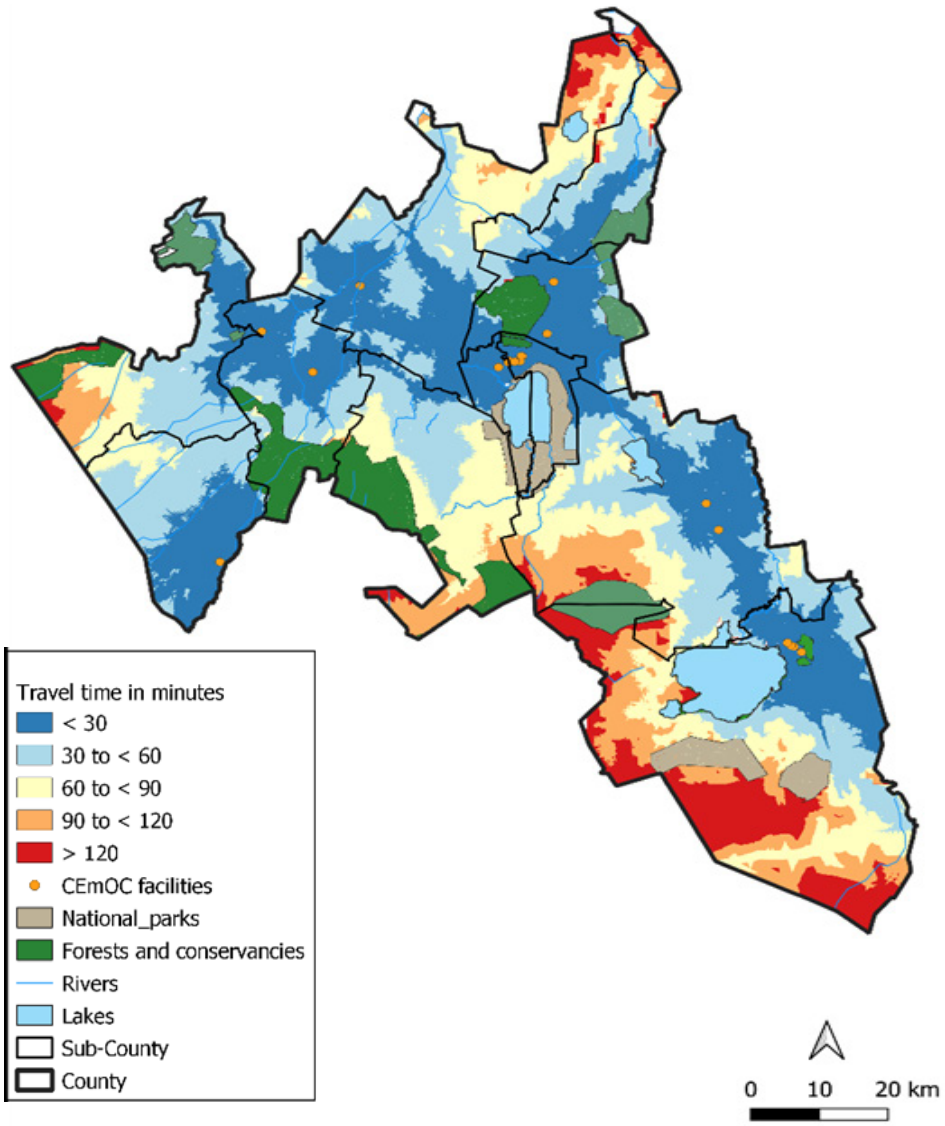
| Methods | Sampling/analysis approach | Data sources/Sample size |
|---|---|---|
| **Health System Mapping** | Document review, Secondary data, primary data collection | DHIS, KMHFL, CIDP, Policy documents, Reports, CDOH, conversation with stakeholders |
| **Geographic analysis** | GIS mapping – WHO's AccessMod tool | Health facilities, Distribution of pregnancies, Road and road classification, Landcover, Digital elevation dataset, Water bodies, Protected |
| **Facility assessment** | Census of all level 4 health facilities<br>Purposive sampling of level 2/3 facilities based on delivery volumes<br>Client exit interview | • 32 level 4 facilities<br>• 29 level 3 facilities<br>• 9 level 2 facilities |
| **Provider survey** | All staff (doctors, nurses/midwives and clinical officers) on duty in the maternity unit during the day of the facility assessment | • Nurses – 267<br>• CO – 14<br>• MO & Consultants - 6 |
| **Community focus group discussions & KIIs** | Qualitative approach<br>purposive sampling | • **16 FGDs**:<br>  • *women with recent facility deliveries (4)*<br>  • *women with recent home deliveries (4)*<br>  • *grandmothers, mothers-in-law & TBAs (4)*<br>  • *Male partners and other male community members (4)*<br>• **20-25 KIIs**<br>  • *Health providers (7) & Health managers (4), Key stakeholders* |

## KEY FINDINGS




- Majority of the deliveries happens at the hospitals (68%) – Level 4/5 facilities
- Majority of the clients obtain ANC and PNC services at primary care facilities (59% & 73% respectively)

| Delivery volumes | No. of facilities (n=203) | % | No. of deliveries (n) | % |
|---|---|---|---|---|
| High volume (>3/day) | 9 | 4% | 33412 | 55% |
| Low volume (1-3/day) | 25 | 12% | 16057 | 26% |
| Very low volume (<1/day) | 57 | 28% | 9557 | 16% |
| Extremely low volume (<1/week) | 112 | 55% | 1702 | 3% |




About 78% of all pregnant women in Nakuru currently live within 1-hour travel time to a CEMOnC facility

- There is also a clear variation in term of access to health facilities across the 11 sub-Counties in Nakuru County.

Map 1, shows the travel time to any of the nearest health facility (Level 4) providing CEmOnC (n=20) services

## A huge current gap in terms of infrastructure required to offer quality delivery and newborn care

- There were 572 maternity beds in the 32 level 4 facilities, which represents an excess of 202 beds according to hospital norms.
- Of the 32 facilities, 16 had functional newborn units, 25 facilities had functional operating rooms, 24 facilities provide CS services while 20 provide blood transfusion.
- Within the current context, all these services need to be offered across all 32 facilities (Table 1).

**Table1:** Health infrastructure capacity

| | Current Available (n=32) | Current gap (All) (n=32) | Current gap (MoH) (n=15) |
|---|---|---|---|
| **Total maternity beds (Including delivery beds)** | **572 in 32 facilities** | 202* | 6 |
| **Facilities with functional newborn units** | 16 in 16 facilities | 16 | 11 |
| **Functional operating rooms** | 42 in 25 facilities | 7 | 7 |
| **Facilities providing CS services** | 24 | 8 | 8 |
| **Facilities providing blood transfusion** | 20 | 12 | 8 |

## A huge current gap in terms of the number of HCPs required to offer quality delivery and newborn care

- There were 292 medical officers and obstetricians and 850 nurses and clinical officers providing delivery/newborn care in the 32 level 4 facilities (Table 2)

**Table2:** Number of Health Care Providers (HCPs)

| | Current available (n=32) | Current gap (All) (n=32) | Current gap (MOH) (n=15) |
|---|---|---|---|
| **Medical officers (GPs) and Obstetricians/Gynecologists** | 292 | 220 | 197 |
| **Clinical officers and Nurses/Midwives** | 850 | 5975 | 4163 |
| **Paediatrician** | 32 in 14 facilities | 18 | 11 |

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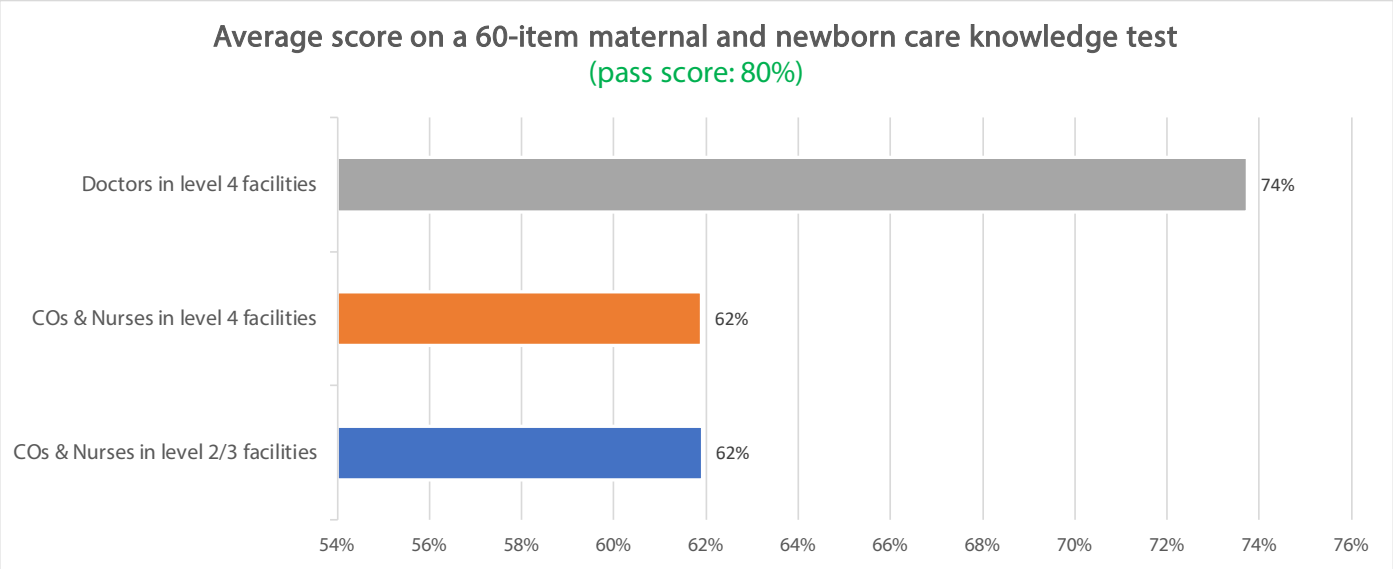
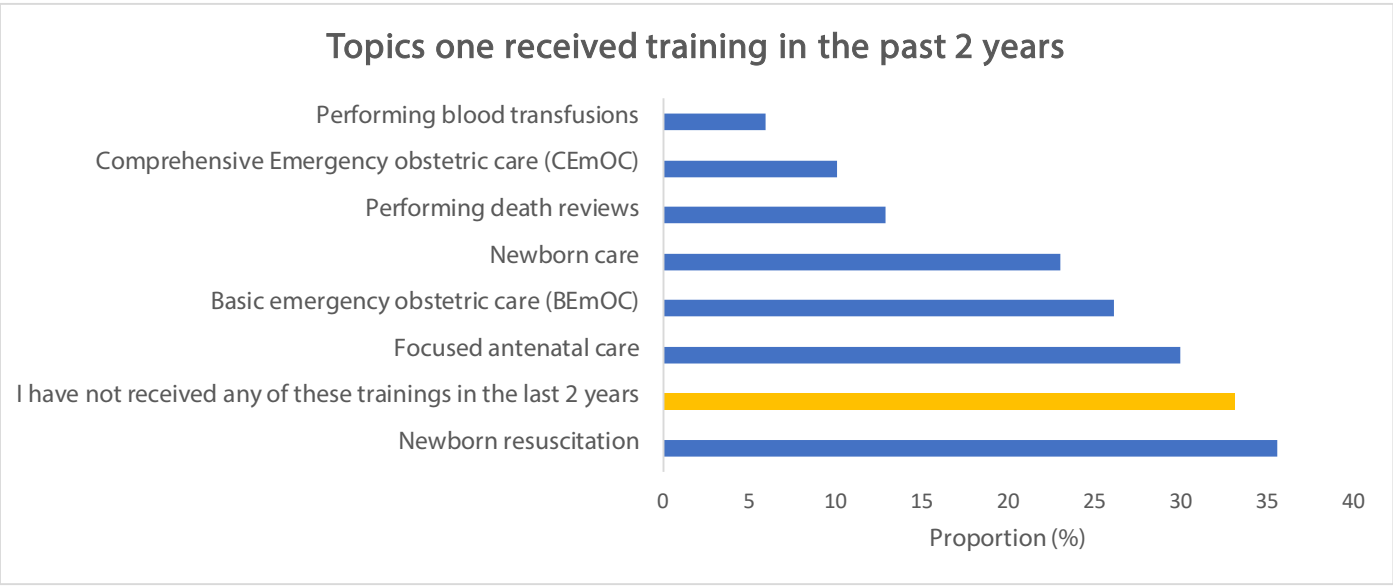
**None of the HCPs groups achieved the required pass score of 80% in the maternal and newborn care knowledge assessment**




## IMPLICATIONS

**How can Geographic accessibility to CEMOnC facility be improved?**

- To maximize coverage and
- Improve accessibility for quality maternal and newborn care services in the County

**What interventions are needed to improve quality of care?**

- Structural capacity
- Improving process of care

**How can Maternal and newborn care Competences be improved?**

- Knowledge and skills of health care providers


## ACKNOWLEDGEMENT

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