Can investment in quality drive use? A cluster-randomised controlled study in rural Tanzania

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Maternal Survival 2

Strategies for reducing maternal mortality: getting on with what works

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The concept of knowing what works in terms of reducing maternal mortality is complicated by a huge diversity of country contexts and of determinants of maternal health. Here we aim to show that, despite this complexity, only a few strategic choices need to be made to reduce maternal mortality. We begin by presenting the logic that informs our strategic choices. This logic suggests that implementation of an effective intrapartum-care strategy is an overwhelming priority. We also discuss the alternative configurations of such a strategy and, using the best available evidence, prioritise one strategy based on delivery in primary-level institutions (health centres), backed up by access to referral-level facilities. We then go on to discuss strategies that complement intrapartum care. We conclude by discussing the inexplicable hesitation in decision-making after nearly 20 years of safe motherhood programming: if the fifth Millennium Development Goal is to be achieved, then what needs to be prioritised is obvious. Further delays in getting on with what works begs questions about the commitment of decision-makers to this goal.
To reduce maternal mortality: need high effective coverage of facility births

Recommended prioritizing a strategy based on **delivery in primary-level institutions**...backed up by access to referral-level facilities
Proportion of all births in facilities

Why is use of facilities for childbirth low?

Moyer and Mustafa 2013
Quality: optimizes health & valued by all

Donabedian 1988; Tuncalp et al. 2015; Kruk et al. 2017
Women prefer, but do not get high quality care

• Stated preference for both competent care and positive patient experience
• When women access maternal healthcare, they are not guaranteed high quality

Can investment in quality drive use?
Eligibility:
1. Government-managed primary health facilities (dispensaries)
2. At least one skilled provider (nurse or clinical officer)
3. Supported by implementing partner
4. Six busiest facilities in each district (average 7 deliveries/month)

Randomized 12 intervention 12 control
Three waves of household surveys

• Household surveys with women in 2012 (census), 2014 (sample), & 2016 (census)

• Eligible: delivered six weeks to one year ago; 15+ years old; live in facility catchment area

• Collected: Socio-demographic, birth history, experience of care
Study aims

1. Determine the effect of the intervention on the use of facilities for childbirth
2. Determine the effect of the intervention among women with last birth at home
3. Investigate three pathways between the intervention and increased use

Benova L, Macleod D, Radovich E, Lynch CA, Campbell OMR. Should I stay or should I go?: consistency and switching of delivery locations among new mothers in 39 Sub-Saharan African and South/Southeast Asian countries. *Health policy and planning* 2017; 32(9): 1294-308.
Aim 1: Effect on utilization for all women

Baseline
Midline
Endline

DID: 6.7 ppt increase over control group (95% CI: 0.6, 12.8)
Aim 2: Effect on women with prior home birth

DID: 18.3 ppt increase over control group (95% CI: 10.1, 26.6)
Aim 3: Pathways from quality to utilization

- **Investment in quality**
  - **ANC quality improves**
  - **Woman experiences improved ANC**
  - **Perception of quality increases**
  - **Use of facilities increases**

- **Investment in quality**
  - **Labor/delivery quality improves**
  - **Hear about improved quality**
  - **Perception of quality increases**
  - **Use of facilities increases**

- **Investment in quality**
  - **Link with community (peer outreach)**
  - **Told about importance of facility**
  - **Perception of quality increases**
  - **Use of facilities increases**
Aim 3: Pathways from quality to utilization

- Investment in quality
- ANC quality improves
- Woman experiences improved ANC
- Perception of quality increases
- Use of facilities increases

Additional 0.5 actions during ANC in intervention group
Discussion

• We found that investment in quality:
  1. Lead to 6.7 percentage point increase in utilization among full population
  2. Lead to 18.3 percentage point increase among previous non-users
  3. Likely pathway through improved antenatal care

• So what?
  1. Quality investment may serve a dual purpose
  2. Quality may be a mechanism for encouraging remaining non-system users to engage in the health system
  3. ANC may advertise the importance of services
Thank you

Women and healthcare providers of Pwani Region, Tanzania
The district and regional medical officers of Pwani Region, Tanzania

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References


Leslie et al. Effective coverage of primary care services in eight high-mortality countries. BMJ Global Health 2017; doi: 10.1136/bmjgh-2017-000424

ADDITIONAL SLIDES
Maternal factors

Availability of care

Past care experiences

Inputs of care

Processes of care

Outcomes of care

Stated preferences

Doctor is kind

Doctor has excellent medical knowledge

Modern medical equipment and drugs

Facility is clean and tidy

Facility has privacy

Women prefer high quality care

Expectations

Current care experience

34.1%

27.0%

19.8%

10.2%

8.8%
42% of women bypassed

Those who did, reported better quality of care

* p = 0.05; ** p = 0.01; *** p < 0.001
Results

Baseline Control
- Health Center or Hospital: 38
- MNH+ Dispensary: 22
- Not your own Dispensary: 12
- Home: 28

Endline Control
- Health Center or Hospital: 44
- MNH+ Dispensary: 24
- Not your own Dispensary: 13
- Home: 19

Baseline Intervention
- Health Center or Hospital: 29
- MNH+ Dispensary: 31
- Not your own Dispensary: 12
- Home: 28

Endline Intervention
- Health Center or Hospital: 38
- MNH+ Dispensary: 35
- Not your own Dispensary: 12
- Home: 15