Community-linked maternal death review (CLMDR) to measure and prevent maternal mortality: a pilot study in rural Malawi

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Key messages

CLMDR identified twice as many maternal deaths

More actions were taken

Communities and facilities can work together

Confidentiality is an issue but we found no adverse effects

Background

Maternal mortality in Malawi is still high

Existing maternal death reviews are insufficient:

- inadequate review and action at facility
- community deaths missed

Weaknesses of the current MDR system

1. Maternal death identification

   Only hospital deaths are notifiable

2. Review of maternal deaths

   29% of facilities in Malawi in 2010 conducted MDRs these included only 26% of recorded deaths [1]

   Barriers: poor record keeping; staff/resource/skills shortages [2-4]

Weaknesses of the current MDR system cont'd

3. Quality & Quantity of Information Available

   Patient history, examination, monitoring, management not well recorded [4]

   Culture of blame prevent sharing of info

4. Stakeholder Involvement

   Needs non-clinical staff too e.g. pharmacists, lab workers, transport co-ordinators

Weaknesses of the current MDR system cont'd

5. The Potential of the Community is Overlooked

6. Accountability of Health Workers

    No check on whether actions are taken

Design of CLMDR

MaiMwana, UCL, MoH

Based on social autopsy studies in Indonesia, India [5-7]

Input from Local Leaders, national Safe-Motherhood Task Force

Design of CLMDR

350 community teams formed + trained

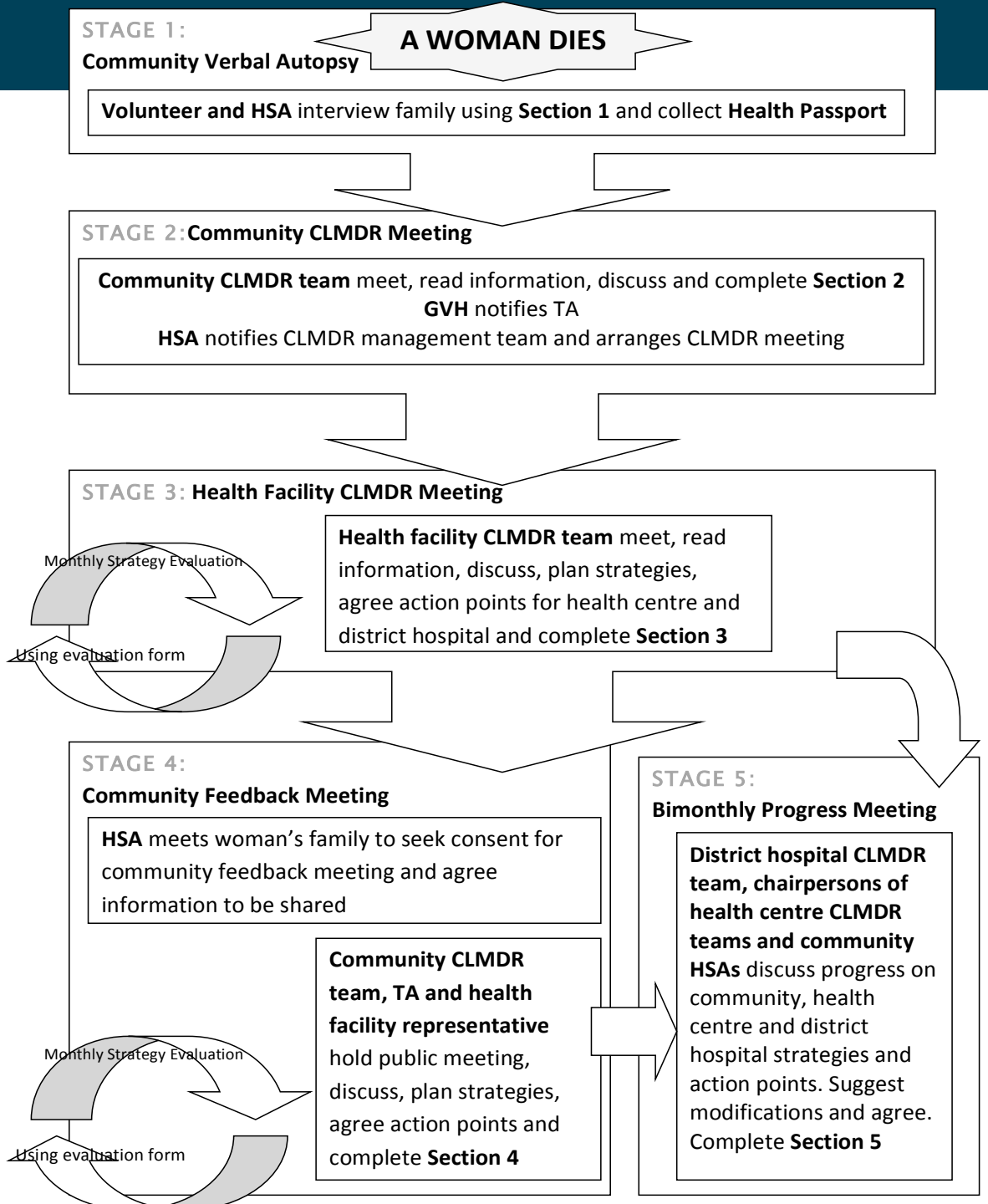
(GVH, HSA, volunteered)

12 Health Centre teams formed + trained

Exisiting MDR team at Mchinji DHO expanded to also include drivers, pharmacy, laboratory, support staff

+ further training on roles and responsibilities

The CLMDR Process



Sample

1 year implementation: July 2011 to June 2012

Whole of Mchinji district (around 500,000 people)

Maternal deaths of women resident in Mchinji

Results

1. Maternal Death Identification

52 in total

Only 25 (48%) identified by existing system

43 deaths (83%) identified by community CLMDR teams, including 4 that happened at DH but were overlooked by existing system

Estimated MMR: 300 per 100,000 similar to MaiMwana trial [8]

CLMDR accurate method of measuring MMR

2. Review of Maternal Deaths

45 / 52 (86%) subject to review

- 37 (71%) at community CLMDR meeting
- 44 (85%) at health facility CLMDR meeting
- 32 (62%) at community feedback meeting
- 35 (67%) at bimonthly review meeting

28 cases completed all 5 stages

Non-completion due to:

family declining community feedback meeting (5 cases); community meeting not happening (3); HSA failing to organise meeting (2); form lost (1); death outside of Mchinji (2)

3. Quantity of Information

Verbal Autopsy form available in 39 of 44 cases discussed at health facility CLMDR meeting

Open-ended free text questions → more information on delays: disrespectful treatment by health workers, being turned away from health centres, misdiagnoses, slow referral pathways, lack of hospital transport and unavailability of life-saving treatments

"Using information from the deceased family together with hospital records during reviews assists to come up with a root cause of the problem which enables us to come up with real contributing factor and good strategies" [Midwife, HC]

4. Stakeholder Involvement

Lots of people involved!

- Community members
- Health Facility staff

5. Community Mobilisation & Action

Action points:

- Community meetings to explore traditional beliefs
- Bye-laws to prevent traditions posing a risk to pregnant women
- Educating men on their roles and responsibilities
- Lobbying health facility for more respectful treatment of women
- Establishing mobile antenatal clinic
- Mobilising community funds for bicycle ambulance maintenance
- Establishing youth club
- Organising female counsellors to support pregnant women

Ave. 2.2 action points (range 1– 4) made per community feedback meeting
→1.8 action points (range 0–4) reported completed

82% of all proposed community action points were reported completed

6. Accountability of Health Workers

Action points:

- Designing new antenatal form to better capture risk factors
- Improving drug supplies (antihypertensive drugs)
- Training for clinicians following maternal deaths
- Health education events for communities
- Improved emergency transport, incl. motorcycle ambulance
- Increased fuel allowance
- Changing protocols to improve access to rural hospitals

HC: Ave. 2.4 action points (range 1– 4) made per meeting (2.2 for DH)

→1.5 action points (range 0–3) reported completed (HC & DH)

65% of all proposed HC action points reported completed (67% for DH)

Discussion

Community elevated from passive ‘data collectors’ to active partners in Maternal Death Surveillance and Response (MDSR)

CLMDR **doubled** number of deaths reviewed

Valuable **Discussions & Action** to address the Three Delays

Discussion

Improved Data → Evidence-based Decision Making

Lots of people involved → creative solutions & more action points completed

Publicised actions → increased motivation to fulfil commitments; increased trust in system

CLMDR challenges power hierarchy → positive change to patient-provider relationships

Issues to consider for scale-up

CLMDR adds to existing workload (but in long term: actions from CLMDR → less deaths → less work)

CLMDR not started for some cases (HIV? Abortion?)

Raising the status of the community is essential for sustainability of CLMDR

Communities can transform maternal health challenges when given an opportunity to do so

Zikomo Kwambiri!

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