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KEY FINDINGS

- Exposure to women's groups significantly reduces maternal and newborn mortality, with a 37% reduction in maternal mortality and a 23% reduction in neonatal mortality.
- The most significant improvement is with the participation of at least a third of pregnant women and adequate population coverage and in high mortality settings: where at least 30% of pregnant women participated in groups, there was a 55% reduction in maternal mortality and a 33% reduction in neonatal mortality
- The intervention was cost-effective, as measured by WHO standards.
- The implementation of participatory women's groups in rural areas of Countdown countries could save many lives - an estimated 41,100 mothers and 283,000 newborn infants

The role of women's groups in improving maternal and newborn health

Introduction

Maternal and neonatal mortality rates remain high in many low-income and middle-income countries, with an estimated 273,465 women dying from complications of pregnancy and childbirth, and 2.9m infants not surviving the first month of life in 2011. Achieving Millennium Development Goals 4 and 5 of reducing child mortality and improving maternal health requires further reduction in the maternal mortality ratio and a renewed focus on neonatal survival. Community based interventions are crucial for the attainment of these goals.

Maternal and neonatal survival in low-resource settings can be significantly improved by the intervention of women's groups practising participatory learning and action.

Summary of the research

This study investigated the effect of community-based interventions via women's groups using a participatory learning and action cycle.

An analysis of randomised controlled trials undertaken in Bangladesh, India, Malawi and Nepal examined the effects of participatory women's groups on maternal and neonatal mortality and stillbirths. The analysis reviewed the cost-effectiveness of women's groups interventions and estimated the potential effect at scale in Countdown countries.

Women's groups can build the capacities of communities to take individual, group and community action to address the structural and intermediary determinants of health.

Findings

Community-based intervention through participation in women's groups had a significant impact on the reduction of maternal and newborn mortality

- Exposure to women's groups was associated with a 37% reduction in maternal mortality and a 23% reduction in neonatal mortality.
- In areas where over 30% of pregnant women participated in women's groups, this was associated with a 55% fall in maternal mortality and a 33% reduction in neonatal mortality.

Implementing such interventions at scale could save many lives

- With high coverage (at least 30% of pregnant women participating), it is estimated that the intervention could prevent the deaths of up to 58,800 women and 404,000 children annually.
- With a 30% loss of efficacy through scale-up, it is estimated that the deaths of 41,1000 women and 283,000 children could be prevented.
- In rural areas of India and Bangladesh where women's group interventions have been tested and implementation guides already exist, a scale-up could prevent the deaths of about 130,000 newborn infants and 11,400 mothers.

The intervention is a cost-effective strategy

- Women's group interventions represented a cost-effective method of improving birth outcomes
- Women's group interventions compare well to other interventions to reduce mortality, and might be easier to implement where health services are weak.
- Cost-effectiveness is expressed as the incremental cost per neonatal death averted and life-year saved and is consistent with WHO standards.

Interventions are more effective with increased participation and in high mortality settings

- The proportion of pregnant women participating in groups and the population coverage of groups were key indicators of the effect of the intervention on birth outcomes.
- No effects were noted in low-coverage studies for birth outcomes.
- The largest impact of the intervention was on deliveries without skilled birth attendants and in high mortality settings.

HOW INTERVENTIONS CAN AFFECT BEHAVIOURAL MECHANISMS

In South Asia, women's groups had strong effects on clean delivery practices for home deliveries (such as hand washing and use of clean delivery kits) and breastfeeding. The largest behavioural effects on mortality are likely to have been determined by clean delivery practices and improved immediate postnatal care at home.

APPROACHES TO COMMUNITY INTERVENTIONS

Three approaches to community interventions were observed:

- Home visits to counsel mothers, provide newborn care and facilitate referral
- Home-based counselling and community activities to improve newborn care.
- A four-phase participatory learning and action cycle which involved **identifying problems** during pregnancy, delivery and post partum, **developing strategies** to address these problems, **implementation** and **evaluation**

This research focused on the third approach where women's groups aimed to increase appropriate care-seeking and home prevention and care practices for mothers and newborns.

Key issues for consideration

What is the potential of community-based participatory interventions to reduce maternal mortality?

The reduction of maternal mortality could be driven by reduced infection through improved uptake of antenatal care and hygiene during delivery, and small changes in the rapidity of response and care-seeking that make the difference for survival.

Does participatory learning and action have a role in maternal and newborn health in urban contexts?

In cities, rates of antenatal care and institutional delivery tend to be higher, delays in care-seeking shorter, and mortality rates lower. Therefore, there may be less impact from non-clinical interventions and an argument for focusing on improved links between communities and facilities and on the quality of clinical care. If urban women are more isolated and reluctant to commit to group action this may require moving beyond women's groups as agents of change.

How can effective community strategies be combined at scale?

Using participatory women's groups as a community engagement strategy for maternal and newborn health, alongside other evidence-based strategies (including home visits) could alter both the demand and supply side of health care. There is a need to consider how interventions could be taken to scale and fully integrated with health systems.

Limitations of the analysis

- Only seven trials were reviewed, which limits the extent of the assessment and analysis.
- Because the intervention is complex, the attribution of mortality reductions to discrete mechanisms is not straightforward.
- There was no meta-regression analysis for individual participants which would have allowed a more in-depth assessment
- The comparative cost-effectiveness analysis is only a starting point and does not include determinants of differences in costs or the effect of scale on costs.