March 2017 – SUPPORT Summary of a systematic review

What is the impact of women's groups practising participatory learning and action on maternal and newborn health outcomes in low-resource settings?

Women's groups are one strategy to help improve maternal and newborn health outcomes. They aim to do this by increasing appropriate home prevention and care practices for mothers and newborns, and by increasing appropriate care-seeking (including antenatal care and skilled birth attendance).

Key messages

➔ **Women's groups practising participatory learning and action probably improve newborn survival, may improve maternal survival, and may be a cost-effective strategy in rural areas in low- and middle-income countries.**

➔ **The effectiveness of women's groups may depend on participation of a substantial proportion of pregnant women, adequate supervision and support, home visits, access to care, improving the quality of care, and adequate resources.**

Who is this summary for?

People making decisions concerning maternal and child health in low-income countries

! This summary includes:

- **Key findings** from research based on a systematic review
- **Considerations about the relevance of this research** for low-income countries

X Not included:

- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

Prost A, Colbourn T, Seward N, et al. Women's groups practicing participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis. Lancet 2013; 381:1736-46.

What is a systematic review?

A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies

SUPPORT was an international project to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries, funded by the European Commission (FP6) and the Canadian Institutes of Health Research.

Glossary of terms used in this report: www.supportsummaries.org/glossary-of-terms

Background references on this topic: See back page

Background

Maternal and neonatal mortality are major health priorities in many rural areas in low-income countries. Women's groups aim to improve appropriate care-seeking (including antenatal care and skilled birth attendance) and appropriate home prevention and care practices for mothers and newborns . Women's groups practising participatory learning and action cycles could play an important role in improving maternal and neonatal outcomes in comparison to usual care.

Action cycles include four phases: (i) identifyining and prioritising problems during pregnancy, delivery, and post partum; (ii) planning; (iii) implementing locally feasible strategies to address the priority problems; and (iv) assessing the group's activities.

How this summary was prepared

After searching widely for systematic reviews that can help inform decisions about health systems, we have selected ones that provide information that is relevant to low-income countries. The methods used to assess the reliability of the review and to make judgements about its relevance are described here: www.supportsummaries.org/how-support-summaries-are-prepared/

Knowing what's not known is important

A reliable review might not find any studies from low-income countries or might not find any well-designed studies. Although that is disappointing, it is important to know what is not known as well as what is known.

A lack of evidence does not mean a lack of effects. It means the effects are uncertain. When there is a lack of evidence, consideration should be given to monitoring and evaluating the effects of the intervention, if it is used.

About the systematic review underlying this summary

Review objective: To assess the impact of women's groups practising participatory learning and action cycles on birth outcomes in low- and middle-income countries

Types of	What the review authors searched for	What the review authors found
Study designs & Interventions	Randomised trials of participatory women's groups in low- and middle-income countries	7 cluster-randomised trials of participatory women's groups in low- and middle-income countries
Participants	Women's groups in which most of the participants are of reproductive age (15–49 years)	7 studies that included a total of 111 women's groups and 119,428 births
Settings	Low- and middle-income countries	Rural areas in Bangladesh (2), India (2), Malawi (2), and Nepal (1)
Outcomes	Maternal mortality, neonatal mortality, and stillbirths	Maternal mortality (7 studies), neonatal mortality (7), and stillbirths (7)
Date of most recent search: October 2012		
Limitations: This is a well-conducted systematic review with only minor limitations.		

Prost A, Colbourn T, Seward N, et al. Women's groups practicing participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis. Lancet 2013; 381:1736-46.

Summary of findings

The review included 7 randomised trials with a total of 111 women's groups and a total of 119,428 births. The studies were conducted in rural areas in low- and middle-income countries. All of the studies compared women's groups practising participatory learning and action compared to usual care.

➔ **Women's groups practising participatory learning and action may improve survival in mothers. The certainty of this evidence is low.**

➔ **Women's groups practising participatory learning and action probably improve survival in newborn babies. The certainty of this evidence is moderate.**

➔ **Women's groups practising participatory learning and action may slightly reduce stillbirths. The certainty of this evidence is low.**

➔ **Women's groups practising participatory learning and action may be cost-effective.**

➔ **These outcomes depended on participation of at least one third of pregnant women in the targeted areas.**

About the certainty of the evidence (GRADE) *

⊕⊕⊕⊕
High: This research provides a very good indication of the likely effect. The likelihood that the effect will be substantially different† is low.

⊕⊕⊕◯
Moderate: This research provides a good indication of the likely effect. The likelihood that the effect will be substantially different† is moderate.

⊕⊕◯◯
Low: This research provides some indication of the likely effect. However, the likelihood that it will be substantially different† is high.

⊕◯◯◯
Very low: This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different† is very high.

* This is sometimes referred to as 'quality of evidence' or 'confidence in the estimate'.

† Substantially different = a large enough difference that it might affect a decision

See last page for more information.

Women's groups practicing participatory learning and action compared to ususal care

People Women of reproductive age
Settings Rural areas in low- and middle-income countries
Intervention Women's groups practicing participatory learning and action
Comparison Usual care

Outcomes	Absolute effect*		Relative effect (95% CI)	Certainty of the evidence (GRADE)
	Without Women's groups	With Women's groups		
Maternal mortality	678 per 100,000	428 per 100,000	OR 0.77 (95% CI 0.48 to 1.23)	⨁⨁◯◯ Low
	Difference: 155 fewer per 100,000 (Margin of error: 351 fewer to 155 more per 100,000)			
Settings with higher maternal mortality				
Settings with lower maternal mortality	242 per 100,000	153 per 100,000		
	Difference: 56 fewer per 100,000 (Margin of error: 126 fewer to 55 more per 100,000)			
Neonatal mortality				
High risk	5913 per 100,000	4616 per 100,000	OR 0.77 (95% CI 0.65 to 0.90)	⨁⨁⨁◯ Moderate
	Difference: 1297 fewer per 100,000 (Margin of error: 1988 to 560 fewer per 100,000)			
Low risk	3026 per 100,000	2346 per 100,000		
	Difference: 680 fewer per 100,000 (Margin of error: 1038 to 294 fewer per 100,000)			
Stillbirths	2659 per 100,000	2477 per 100,000	OR 0.93 (95% CI 0.82 to 1.05)	⨁⨁◯◯ Low
	Difference: 182 fewer per 100,000 (Margin of error: 468 fewer to 129 more per 100,000)			

Margin of error and 95% CI = 95% confidence interval
OR: Odds ratio
GRADE: GRADE Working Group grades of evidence (see above and last page)
* The risk WITHOUT the intervention is based on control groups in the trials. The corresponding risk WITH the intervention (and the 95% confidence interval for the difference) is based on the overall odds ratio (and its 95% confidence interval).

Relevance of the review for low-income countries

➔ Findings	▷ Interpretation*
APPLICABILITY	
➔ **All seven studies were conducted in low- and middle-income countries (LMICs); including Bangladesh, Malawi, India, and Nepal**.	▷ *The use of women's groups practicing participatory learning and action probably decreases newborn mortality and may reduce maternal mortality in rural areas in low-income countries. However, its effectiveness may depend on participation of a substantial proportion of pregnant women. It might also depend on adequate supervision and support, home visits, access to care, improving the quality of care, and adequate resources.* ▷ *The intervention might be less effective in urban areas if there is less community cohesion and interaction among women included in women's groups, and higher baseline use of health services.*
EQUITY	
➔ **The studies were primarily conducted among disadvantaged populations, particularly women in rural areas.**	▷ *Women's groups promote gender equality through empowerment of women, especially in rural areas.* ▷ *Women's groups probably reduce inequities by improving health service utilisation and health outcomes in underserved areas.*
ECONOMIC CONSIDERATIONS	
➔ **Four of the seven studies assessed the cost-effectiveness of the intervention.**	▷ *Required resources include training and capacity building, especially for birth attendants for antenatal, intrapartum, and post-partum home visits; equipment, including delivery kits for home deliveries; and increasing capacity for referrals and transportation to trained health professionals and well-equipped facilities, if needed.* ▷ *The intervention may be cost-effective according to the WHO standards.*
MONITORING & EVALUATION	
➔ **Costs linked to health-service strengthening, monitoring, and evaluation were not included in the cost-effectiveness analyses.**	▷ *The effects and costs of implementing women's groups should be monitored, including maternal and perinatal mortality, health service utilisation, the quality of care, operational costs, participation in women's groups, and the sustainability and functioning of the women's groups.* ▷ *The impact of women's groups in urban areas should be evaluated in randomised trials.*

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low-income countries. For additional details about how these judgements were made see: www.supportsummaries.org/methods

Additional information

Related literature

Mbuagbaw L, Medley N, Darzi AJ, et al. Health system and community level interventions for improving antenatal care coverage and health outcomes. Cochrane Database Syst Rev 2015; (12): CD010994.

Lassi ZS, Bhutta ZA. Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. Cochrane Database Syst Rev 2015; (3): CD007754.

Mangham-Jefferies L , Pitt C , Cousens S, et al. Cost-effectiveness of strategies to improve the utilization and provision of maternal and newborn health care in low-income and lower-middle-income countries: a systematic review. BMC Pregnancy Childbirth 2014; 14:243.

Nyamtema AS, Urassa DP, van Roosmalen J. Maternal health interventions in resource limited countries: a systematic review of packages, impacts and factors for change. BMC Pregnancy Childbirth 2011; 11:30.

Lewin S, Munabi-Babigumira S, Glenton C, et al. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochrane Database of Systematic Reviews 2010, Issue 3. Art. No.: CD004015.

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World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization, 2016. http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/

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Conflict of interest

None declared. For details, see: www.supportsummaries.org/coi

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This review should be cited as

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About certainty of the evidence (GRADE)

The "certainty of the evidence" is an assessment of how good an indication the research provides of the likely effect; i.e. the likelihood that the effect will be substantially different from what the research found. By "substantially different" we mean a large enough difference that it might affect a decision. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the study design (randomised trials versus observational studies), factors that reduce the certainty (risk of bias, inconsistency, indirectness, imprecision, and publication bias) and factors that increase the certainty (a large effect, a dose response relationship, and plausible confounding). For each outcome, the certainty of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE: www.supportsummaries.org/grade

SUPPORT collaborators:

The Cochrane Effective Practice and Organisation of Care Group (EPOC) is part of the Cochrane Collaboration. The Norwegian EPOC satellite supports the production of Cochrane reviews relevant to health systems in low- and middle-income countries . www.epocoslo.cochrane.org

The Evidence-Informed Policy Network (EVIPNet) is an initiative to promote the use of health research in policymaking in low- and middle-income countries. www.evipnet.org

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration that promotes the generation and use of health policy and systems research in low- and middle-income countries. www.who.int/alliance-hpsr

Norad, the Norwegian Agency for Development Cooperation, supports the Norwegian EPOC satellite and the production of SUPPORT Summaries. www.norad.no

The Effective Health Care Research Consortium is an international partnership that prepares Cochrane reviews relevant to low-income countries. www.evidence4health.org

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