SUPPORT summaries

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to improve the use of reliable research evidence in policy and management decision

to help fill in the gaps where there is a lack of reliable evidence

RESEARCHERS

Trial Protocol Tool

Trial Funding Tool

Trial Management Tool

POLICY MAKERS

Andrew D Oxman[1], John N Lavis[2], Simon Lewin[3] y Atle Fretheim[4]*

Oxman AD, Lavis JN, Lewin S, Fretheim A: **SUPPORT Tools for evidence-informed health Policymaking (STP). 1. What is evidence-informed policymaking?** Health Research Policy and Systems; 2009, **7(Suppl 1):S1** doi:10.1186/1478-4505-7-S1-S1.
http://www.health-policy-systems.com/content/pdf/1478-4505-7-S1-s1.pdf

STP

March 2009 – SUPPORT Summary of a systematic review

Are computerised reminders and feedback to support medication management effective?

Drug therapy often does not provide the intended benefits to patients. Doctors may prescribe the wrong drug or dosage and patients do not always understand the instructions they are given. One potential approach to reducing medication errors is to use a computerised decision support system. These systems can use existing electronic data from, for example, an electronic medical record, to give reminders (delivered at the time of, or before, decision-making) or feedback (generally aggregate information from multiple patients with the intention of altering future decisions) to healthcare providers or patients.

Key messages

- **Computerised reminders to healthcare providers probably improve the management of patient medication in outpatient settings.**
- **Computerised reminders to healthcare providers may not lead to any difference in the management of patient medication in inpatient settings.**
- **It is not known whether reminders directed at patients lead to an increase in patients taking medication as prescribed.**
- **The applicability of computerised reminders and feedback depends on the availability of computerised patient record systems for clinicians and on patients' access to telephone or mobile phones.**

Who is this summary for?
People making decisions concerning the use of computerised reminder and feedback systems to support medication management.

This summary includes:
- **Key findings** from research based on a systematic review
- **Considerations about the relevance of this research** for low and middle-income countries

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:
Bennett JW, Glasziou PP. Computerised reminders and feedback in medication management: a systematic review of randomised controlled trials. MJA 2003; 178: 217-222.

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 – an international collaboration funded by the EU 6th Framework Programme to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low and middle-income countries.
www.support-collaboration.org

Glossary of terms used in this report:
www.support-collaboration.org/summaries/explanations.htm

Background references on this topic:
See back page

Support Summaries

To make informed decisions, policy makers need:

- High quality, up-to-date evidence
- Know where evidence is lacking

Systematic reviews could help, but not always suitable:

- Too long
- Too full research jargon
- Too narrow in scope for policy decisions

Systematic reviews and other research relevant to policy may also be difficult to both find and access

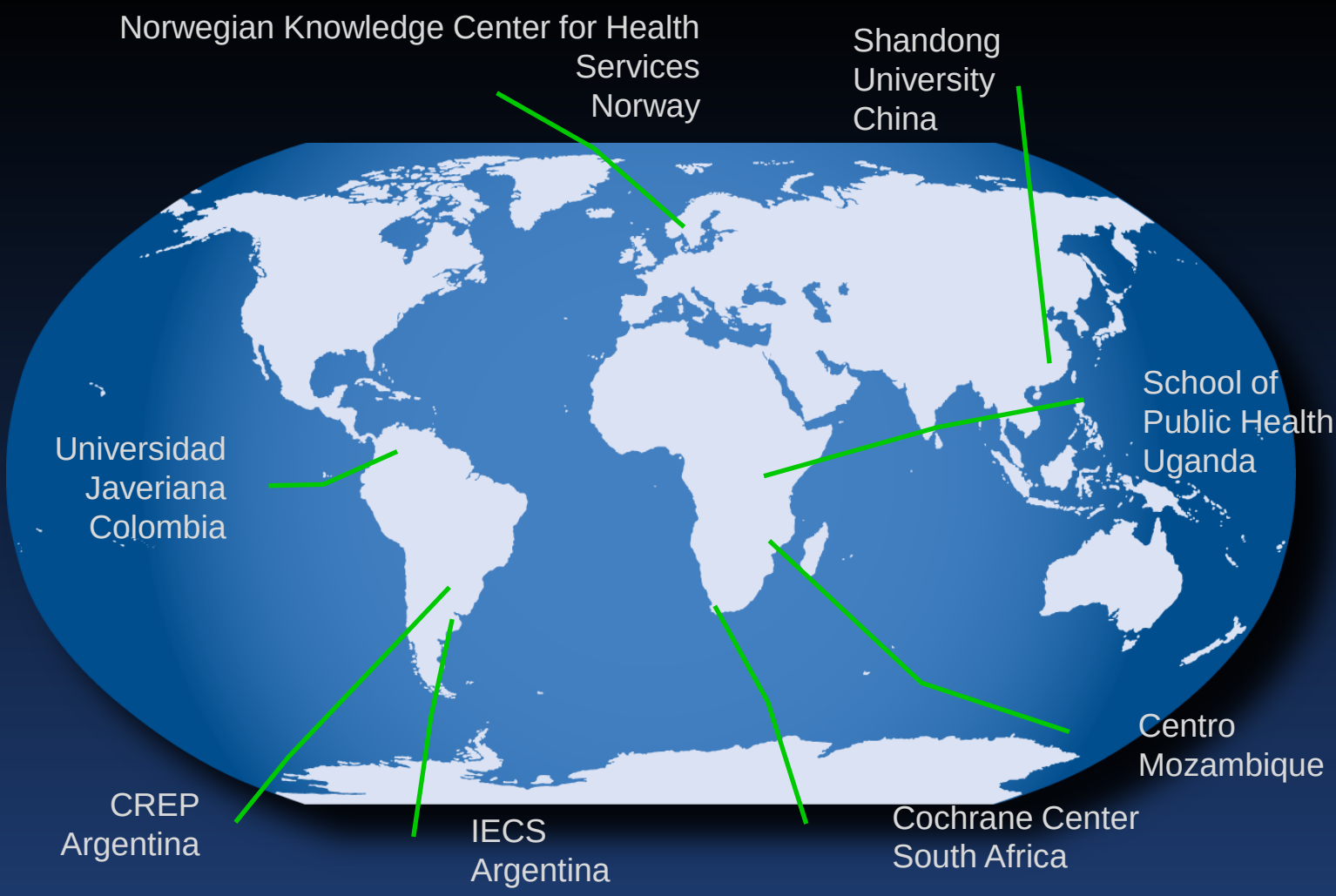
Answering “Does it work?” may not be enough for a policy decision

Summary should present:

- What we know
- What we don’t know
- How sure can we be?

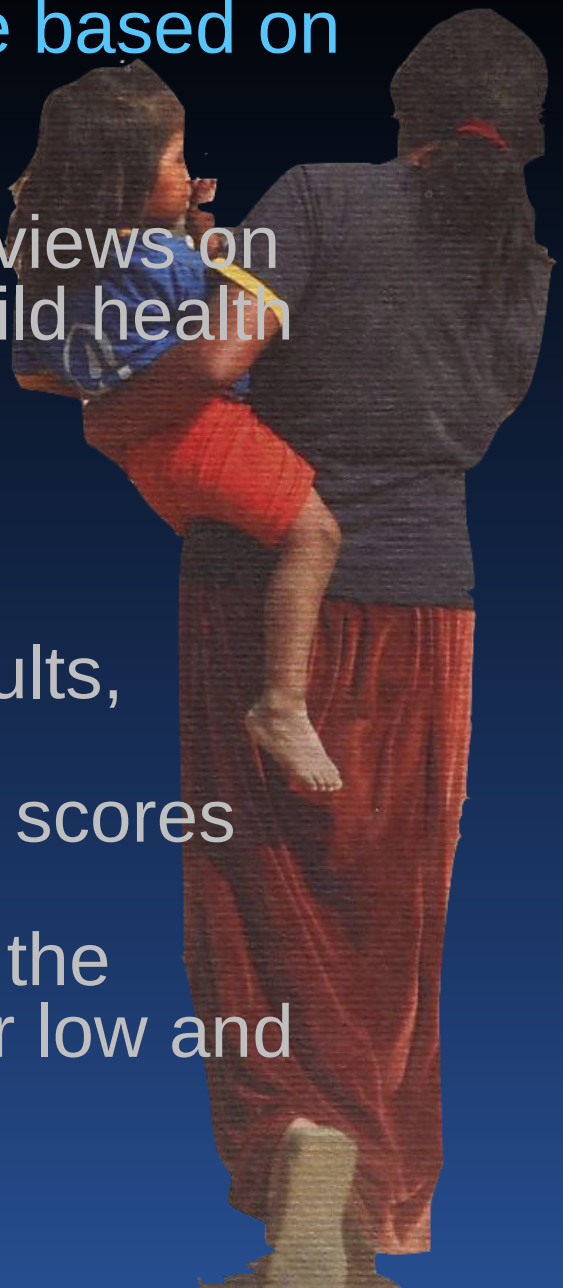
Also

- Applicability
- Equity
- Costs



Institutes involved in summaries testing and development

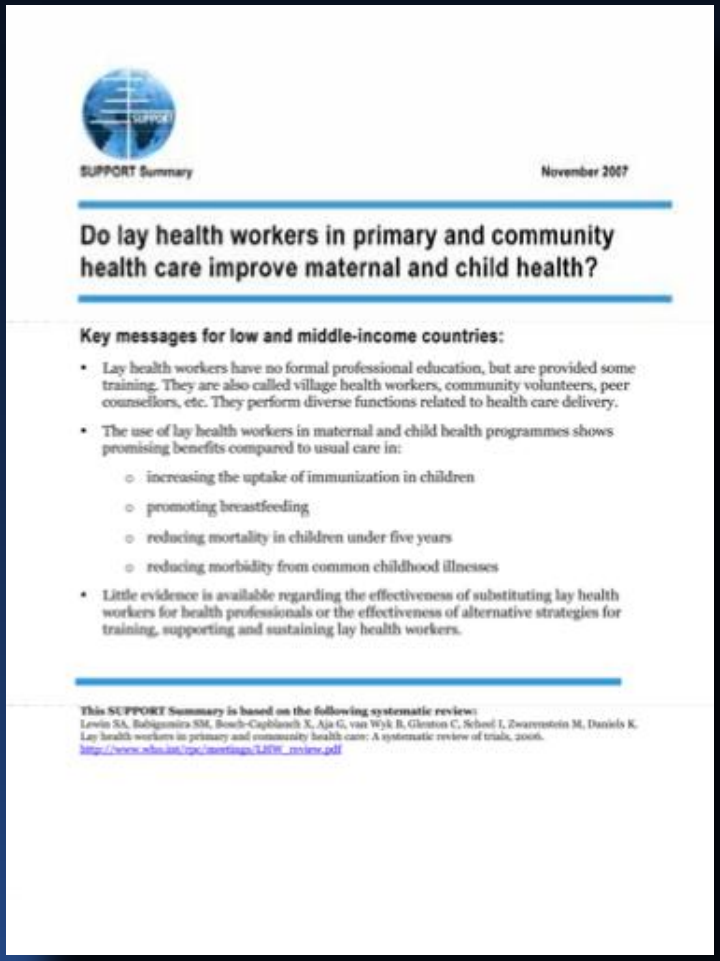
SUPPORT summaries are based on



High quality systematic reviews on topics on maternal and child health and Health systems

- Focus on presenting results, including Sof tables
- Provide evidence quality scores (from GRADE)
- Include assessments on the relevance of the review for low and middle-income countries

User testing of a preliminary version in 17 policy makers and managers



SUPPORT Summary November 2007

Do lay health workers in primary and community health care improve maternal and child health?

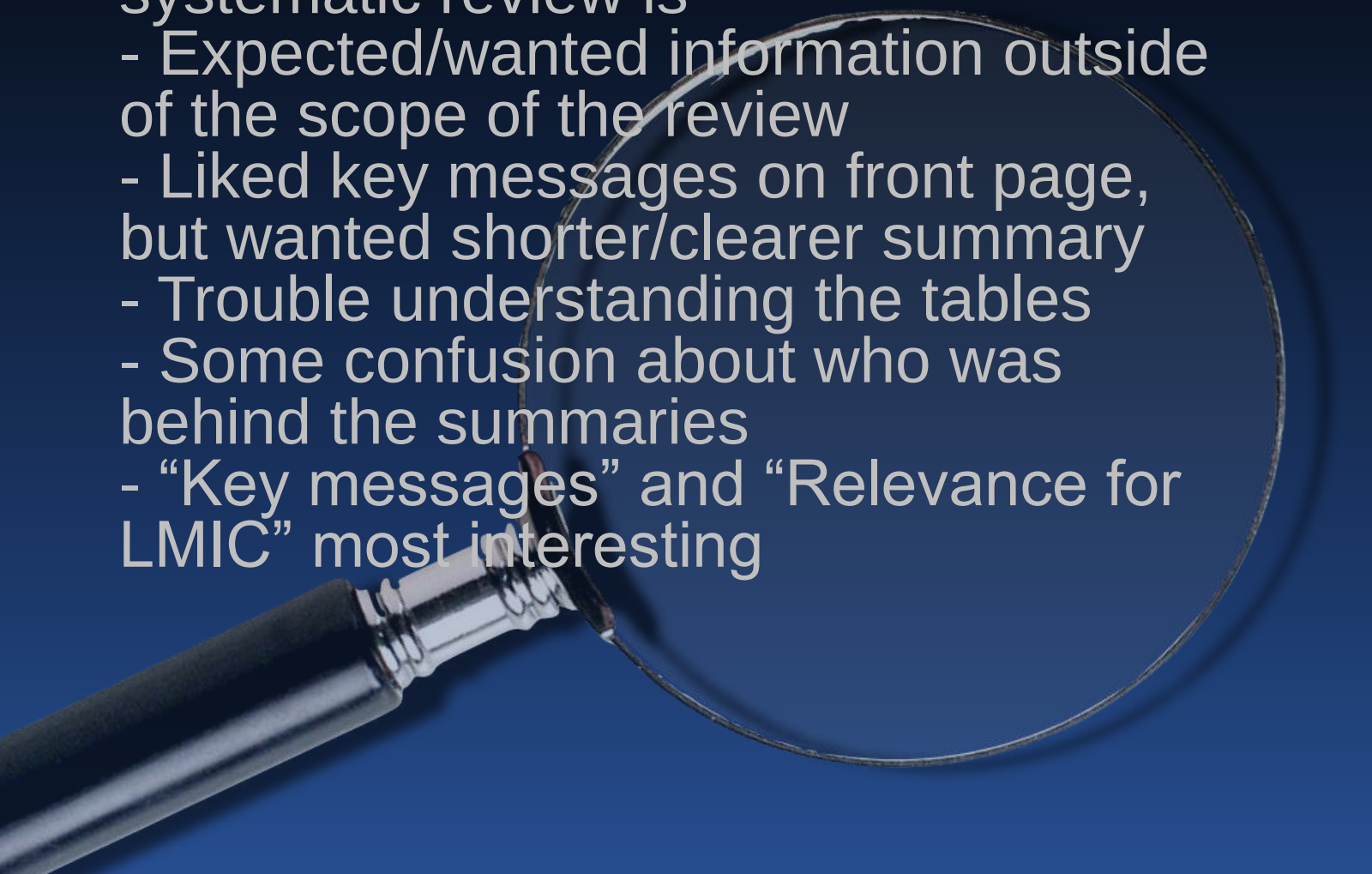
Key messages for low and middle-income countries:

- Lay health workers have no formal professional education, but are provided some training. They are also called village health workers, community volunteers, peer counsellors, etc. They perform diverse functions related to health care delivery.
- The use of lay health workers in maternal and child health programmes shows promising benefits compared to usual care in:
  - increasing the uptake of immunization in children
  - promoting breastfeeding
  - reducing mortality in children under five years
  - reducing morbidity from common childhood illnesses
- Little evidence is available regarding the effectiveness of substituting lay health workers for health professionals or the effectiveness of alternative strategies for training, supporting and sustaining lay health workers.

This SUPPORT Summary is based on the following systematic review:
Lewin SA, Babigumira SM, Bosch-Capblanch X, Aja G, van Wyk B, Glenton C, Scheel I, Zwarenstein M, Daniels K.
Lay health workers in primary and community health care: A systematic review of trials, 2006.
http://www.who.int/rpc/meetings/LHW_review.pdf

Main findings from user tests

- Poor understanding of what systematic review is
- Expected/wanted information outside of the scope of the review
- Liked key messages on front page, but wanted shorter/clearer summary
- Trouble understanding the tables
- Some confusion about who was behind the summaries
- “Key messages” and “Relevance for LMIC” most interesting

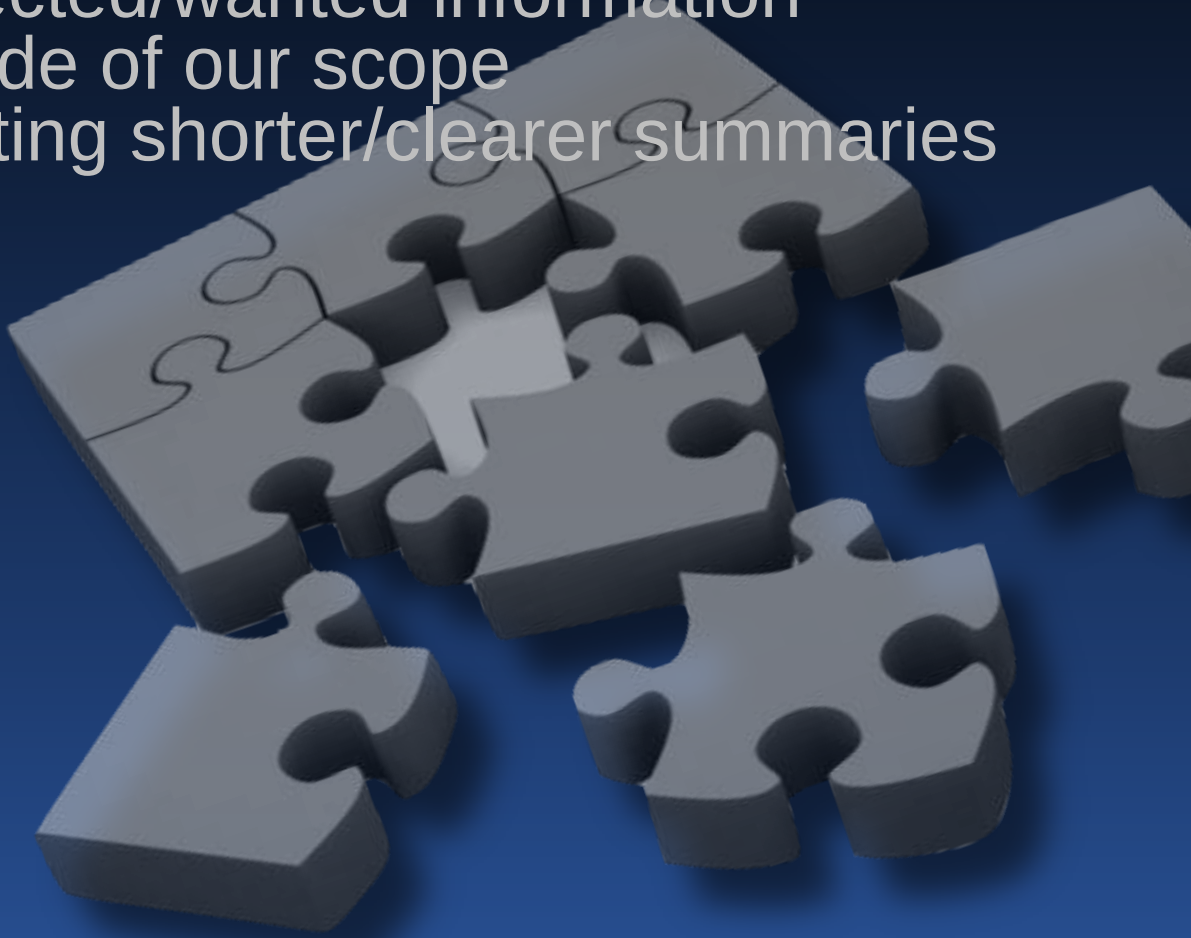


Some findings pointed to obvious solutions

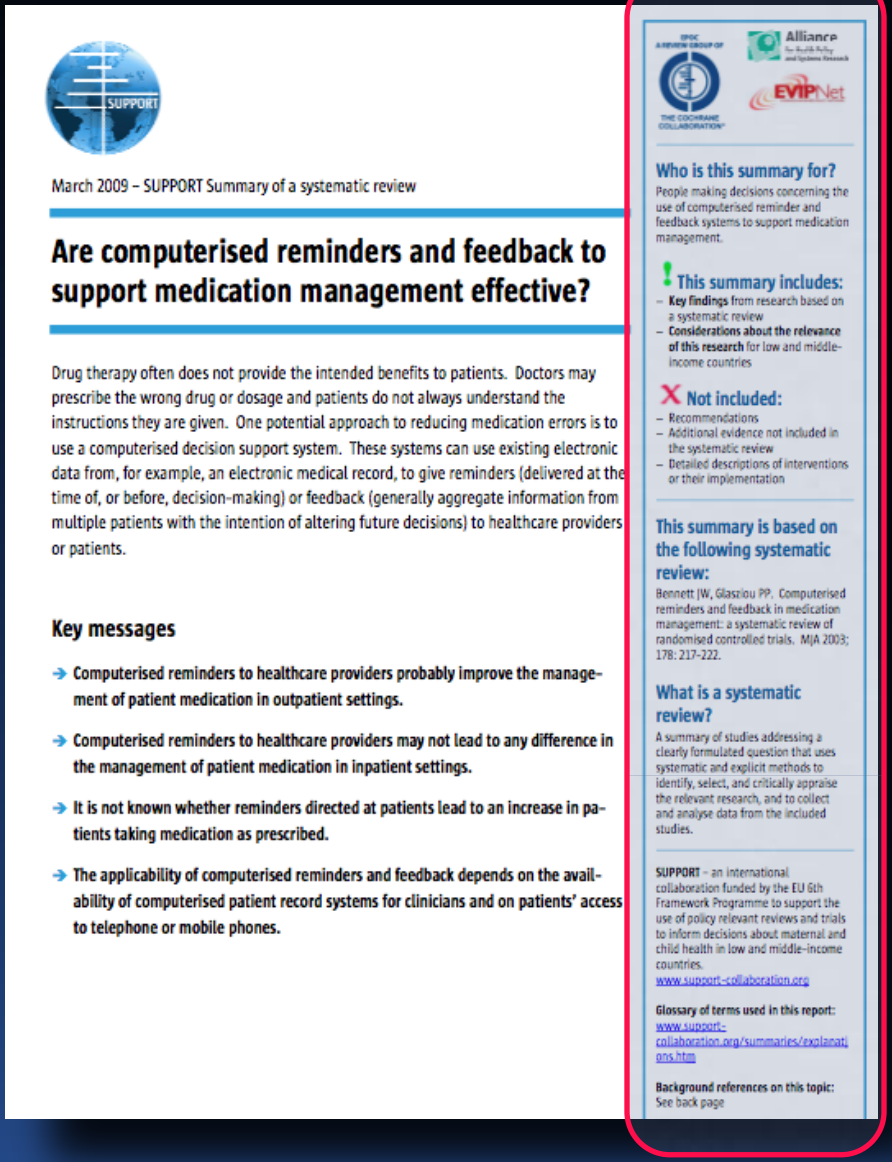
- Simplify text where possible
- Eliminate all abbreviations
- Results in tables should correspond with results in text
- No tables running over 2 pages
- Move partners logos to first page

Other were more difficult to solve

1) Poor understanding of concept “systematic review”
2) Expected/wanted information outside of our scope
3) Wanting shorter/clearer summaries



Front page



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Key messages

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self-contained overview of the summary and an outline of the summary and its key messages (3)

Boxes on the right give general information about a SUPPORT summary and the methods used to prepare it (1+2)

Second page

About the systematic review underlying this summary

Review objective: to assess the effects of additional training for traditional birth attendants (TBAs) on TBA and maternal behaviours thought to mediate positive pregnancy outcomes, as well as on maternal, perinatal, and newborn mortality and morbidity

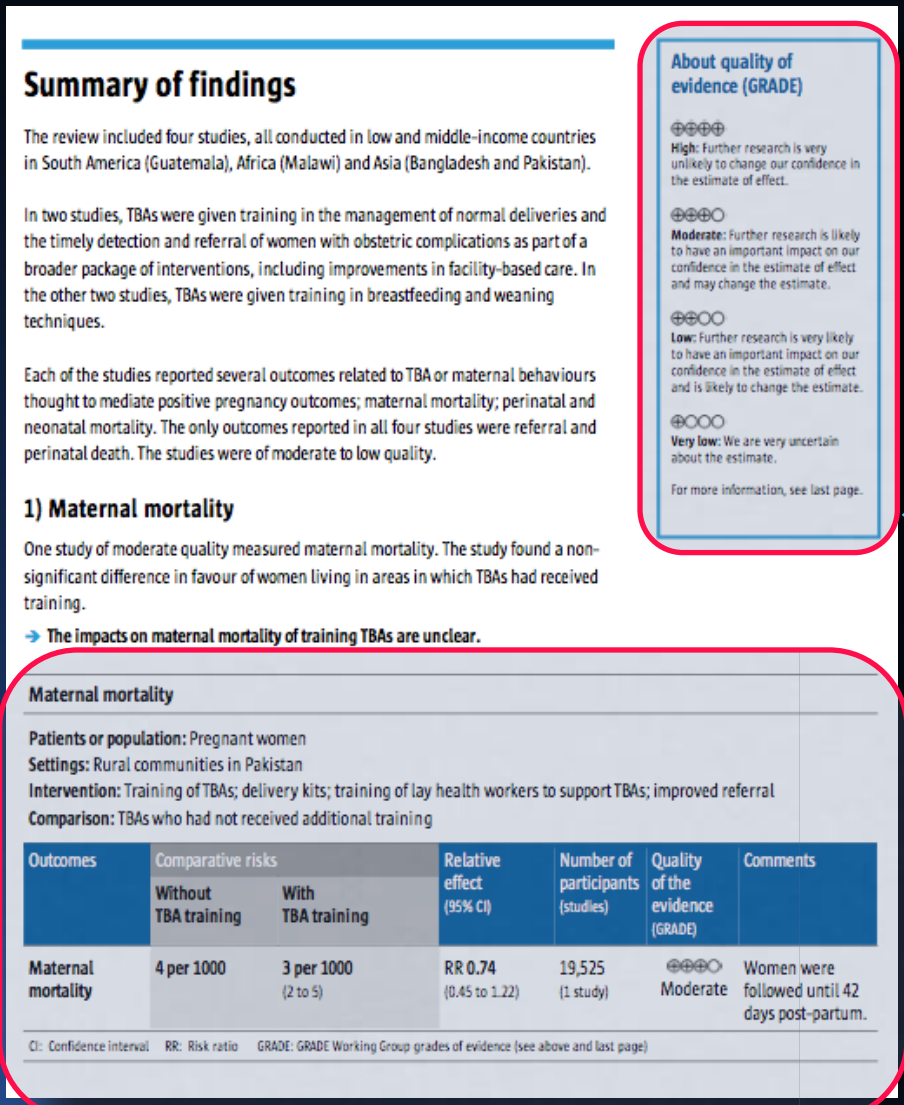
	What the review authors searched for	What the review authors found
Interventions	Randomized and quasi-randomized controlled trials (including cluster-randomized trials); interrupted time series studies; and controlled before/after studies of TBA training.	1 cluster-randomized controlled trial; 2 randomized controlled trials; and 1 controlled before/after study In two studies, training covered the management of normal deliveries and the referral of complications while in the remaining studies training focused on breastfeeding promotion. Duration of training was two to three days. Controls received no additional training.
Participants	TBAs: a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through an apprenticeship to other TBAs. Mothers and neonates cared for by trained and untrained TBAs or those who are living in areas where such TBAs attend a majority of births.	The TBAs were poorly described in the included studies. The TBAs were approximately 30 years of age, on average, and had low levels of education. Marital and socio-economic status was generally not reported.
Settings	Rural communities	Studies from rural communities in low-income countries: Bangladesh (1), Guatemala (1), Malawi (1), and Pakistan (1)
Outcomes	TBA or maternal behaviours thought to mediate positive pregnancy outcomes; maternal mortality; perinatal and neonatal mortality.	Most studies reported multiple outcomes and many did not specify a primary outcome.

Date of most recent search: June 2006

Limitations: This is a good quality systematic review with only minor limitations.

Table with brief details of the review upon which the summary is based.

Summary of findings



Summary of findings

The review included four studies, all conducted in low and middle-income countries in South America (Guatemala), Africa (Malawi) and Asia (Bangladesh and Pakistan).

In two studies, TBAs were given training in the management of normal deliveries and the timely detection and referral of women with obstetric complications as part of a broader package of interventions, including improvements in facility-based care. In the other two studies, TBAs were given training in breastfeeding and weaning techniques.

Each of the studies reported several outcomes related to TBA or maternal behaviours thought to mediate positive pregnancy outcomes; maternal mortality; perinatal and neonatal mortality. The only outcomes reported in all four studies were referral and perinatal death. The studies were of moderate to low quality.

1) Maternal mortality

One study of moderate quality measured maternal mortality. The study found a non-significant difference in favour of women living in areas in which TBAs had received training.

→ **The impacts on maternal mortality of training TBAs are unclear.**

About quality of evidence (GRADE)

⊕⊕⊕⊕
High: Further research is very unlikely to change our confidence in the estimate of effect.

⊕⊕⊕◯
Moderate: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

⊕⊕◯◯
Low: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

⊕◯◯◯
Very low: We are very uncertain about the estimate.

For more information, see last page.

Maternal mortality

Patients or population: Pregnant women
Settings: Rural communities in Pakistan
Intervention: Training of TBAs; delivery kits; training of lay health workers to support TBAs; improved referral
Comparison: TBAs who had not received additional training

Outcomes	Comparative risks		Relative effect (95% CI)	Number of participants (studies)	Quality of the evidence (GRADE)	Comments
	Without TBA training	With TBA training				
Maternal mortality	4 per 1000	3 per 1000 (2 to 5)	RR 0.74 (0.45 to 1.22)	19,525 (1 study)	⊕⊕⊕◯ Moderate	Women were followed until 42 days post-partum.

CI: Confidence interval RR: Risk ratio GRADE: GRADE Working Group grades of evidence (see above and last page)

Results are given as text, key messages and sometimes as a 'Summary of findings' table (3)

GRADE system to grade the quality of the research evidence behind the result (1+2)

Summary of findings (So table

SoF table – example

Maternal mortality

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Relevance to LMICs

Relevance of the review for low and middle-income countries

→ Findings	▷ Interpretation*
APPLICABILITY	
→ **All of the studies included in the review were done in high-income countries. Some computerised systems required an electronic medical record and others need patients to have a telephone. It is not clear what features these systems need if they are to produce improvements in medication management.**	▷ *Applicability of the findings will depend on the availability of computerised patient record systems for clinicians and on patients' access to telephone or mobile phones* ▷ *Reminders and feedback assume that poor medication management is due to a lack of knowledge or forgetfulness. Where the problem is poor physical or financial access to medications or health facilities, reminders or feedback are unlikely to be effective.* ▷ *In some situations a reminder requires a long-term relationship between clinician and patient, which is not always the case in low and middle-income countries.*
EQUITY	
→ **The included studies provided no data regarding differential effects of the interventions for disadvantaged populations.**	▷ *These interventions relied on technologies that may not be appropriate for some, or parts of, low and middle-income countries. Implementing these systems where the technology is available may exacerbate health inequities between individuals served by well-resourced clinics and those served by poorly-resourced clinics, or no clinic at all.*
ECONOMIC CONSIDERATIONS	
→ **The review provided no information on the cost, or cost-effectiveness of the different interventions.**	▷ *The implementation of these systems may require the provision of infrastructure (e.g. computers) and training (e.g. how to use a computer and the reminder systems installed), which may be very expensive. This infrastructure can often be assumed to already be in place in high-income settings.*
MONITORING & EVALUATION	
→ **Computerised reminder and feedback systems appear promising, especially to healthcare providers in outpatient settings but the heterogeneous results make it difficult to estimate the size of any benefit, or in some cases to say whether there is a benefit.**	▷ *If forms of computerized reminder and feedback systems appropriate to low and middle-income countries are considered, then evidence of the effectiveness of these systems should be evaluated rigorously in pilot projects before widespread implementation. Pilots should also consider cost-effectiveness.* ▷ *The potential for a differential effect on doctors and nurses should be evaluated, as should the effect of these systems on patient outcomes. Cost-effectiveness in low and middle-income settings should be evaluated.*

*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 and middle-income countries. For additional details about how these judgements were made see: http://www.support-collaboration.org/summaries/methods.htm

Findings are summarised on the left-hand side of the page, with an interpretation for LMICs on the right (1+2)

Additional information

Additional information

Related literature

This review summarises the evidence on the feasibility and effectiveness of community health worker (CHW) programmes in providing basic health services and addressing the shortage of health workers in low-income countries:
Lehmann U, Sanders D. Community health workers: what do we know about them? The state of the evidence on programmes, activities, costs and impact of health outcomes of using community health workers. World Health Organization, 2007.

This book summarises the findings of evaluations of large scale community health worker programmes in the 1980s, drawing out the implications for policy and practice:
Walt G. Community health workers in national programmes: just another pair of hands? Milton Keynes: Open University Press, 1990.

This review reports earlier findings regarding the effectiveness of lay health worker interventions, including for health issues not covered in the MCH report summarised here:
Lewin SA, Dick J, Pond P, Zwarenstein M, Aja G, van Wyk B, Bosch-Capblanch X, Patrick M. Lay health workers in primary and community health care. The Cochrane Database of Systematic Reviews 2005, Issue 1. Art. No.: CD004015. DOI:10.1002/14651858.CD004015.pub2.

This summary was prepared by
Simon Lewin, Health Systems Research Unit, Medical Research Council of South Africa, South Africa.

Conflict of interest
None declared. For details, see: http://www.support-collaboration.org/summaries/coi.htm

Acknowledgements
This summary has been peer reviewed by: Lynn Sibley, USA; Claire Glenton, Norway; Metin Gulmezoglu, Switzerland; Tracey Perez Koehlmoos, Bangladesh.

This summary should be cited as
Lewin S. Does training traditional bith attendants improve health behaviours and pregnancy outcomes? A SUPPORT Summary of a systematic review. August 2008. http://www.support-collaboration.org/summaries.htm

This summary was prepared with additional support from:

The **South African Medical research Council** aims to improve the South Africa's health and quality of life through promoting and conducting relevant and responsive health research.
www.mrc.ac.za/

The South African Cochrane Centre (SACC), the only centre of the international Cochrane Collaboration in Africa, aims to ensure that health care decision making in Africa is informed by high quality, timely and relevant research evidence.
www.mrc.ac.za/cochrane/cochrane.htm

About quality of evidence (GRADE)

The quality of the evidence is a judgement about the extent to which we can be confident that the estimates of effect are correct. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the type of study design (randomised trials versus observational studies), the risk of bias, the consistency of the results across studies, and the precision of the overall estimate across studies. For each outcome, the quality of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE:
www.support-collaboration.org/summaries/grade.pdf

SUPPORT collaborators:

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration aiming to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries.
www.who.int/alliance-hpsr

The Cochrane Effective Practice and Organisation of Care Group (EPOC) is a Collaborative Review Group of the Cochrane Collaboration: an international organisation that aims to help people make well informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions. www.epoc.cochrane.org

The Evidence-Informed Policy Netowrk (EVIPNet) is is an initiative to promote the use of health research in policymaking. Focusing on low and middle-income countries, EVIPNet promotes partnerships at the country level between policy-makers, researchers and civil society in order to facilitate both policy development and policy implementation through the use of the best scientific evidence available.
www.who.int/rpc/evipnet/en/

For more information, see:
www.support-collaboration.org

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www.support-collaboration.org/summaries/newsletter/

To provide feedback on this summary, go to:
http://www.support-collaboration.org/feedback/

other relevant reviews or studies,
authors and peer reviewers of the summary and details of the SUPPORT project.

Conclusions

- To make summaries usable clear simple language and self-explanatory tables are vital
- To make summaries useful for policy makers, more is needed than just presenting evidence
    - Relevance for target audience
    - Authors' interpretations
    - Information about the information
    - Addition references to other info sources
- First page is critical – "what's in it for me?"
- 5-7 pages is ok if clearly structured and easy to scan

SUPPORT summaries
http://www.support-collaboration.org/summaries.htm
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About SUPPORT Summaries
SUPPORT Tutorial
How SUPPORT Summaries are prepared
Judgements about the quality of evidence
Conflicts of interest
Glossary of terms
Tools -> Policy makers -> SUPPORT Summaries
SUPPORT structured summaries of systematic reviews
One reason for slow progress in achieving the maternal and child health Millennium Development Goals in low and middle-income countries is the difficulty policymakers and others have in accessing high quality information about potentially effective interventions to improve maternal and child health, and interventions to improve health systems. The SUPPORT Collaboration is searching global databases for systematic reviews of maternal and child health interventions, and of ways to effectively organise, finance and govern the delivery of effective interventions. To make this information more accessible to policymakers and other stakeholders we are preparing structured summaries of relevant reviews.
We have taken the following steps to ensure the relevance, quality and usefulness of SUPPORT Summaries:
We conduct extensive searches for systematic reviews that examine the effects of interventions on maternal and child
Maternal health (66)
Health systems (40)
Child health (10)

People involved in SUPPORT summary development

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www.support-collaboration.org

SUPPORT summaries

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