April 2017 – SUPPORT Summary of a systematic review

# Does managerial supervision improve the quality of primary healthcare?

The expansion of primary healthcare has been accompanied by the shifting of responsibilities for healthcare delivery across to more geographically peripheral health workers. Such health workers, including those with limited formal training, often work in remote areas. Managerial supervision has been identified as a mechanism through which these health workers could be supported, thereby helping to maintain or improve the quality of primary healthcare.

## Key messages

- **Managerial supervision may improve provider practices and knowledge compared with no supervision.**
- **It is uncertain whether managerial supervision improves drug stock management.**
- **It is uncertain whether 'enhanced' managerial supervision (e.g. increased supervision, the use of tools such as checklists) improves the performance of lay or community health workers or midwives; the proportion of children receiving adequate care; or patient and health worker satisfaction.**
- **'Less intensive' managerial supervision (e.g. fewer visits) may lead to little or no difference in the number of new family planning client visits or the number of clients that re-visit.**
- **The need for additional resources for managerial supervision needs to be addressed when developing policies for and implementing supervision strategies.**
- **When implementing managerial supervision, other factors such as whether the healthcare system and organisational culture of healthcare teams are centralised or decentralised should also be considered.**

### Who is this summary for?

People making decisions concerning primary healthcare supervision in low- and middle-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

### 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:

Bosch-Capblanch X, Liaqat S, Garner P. Managerial supervision to improve primary health care in low- and middle-income countries. Cochrane Database of Systematic Reviews 2011, Issue 9. Art. No.: CD006413. DOI: 10.1002/14651858.CD006413.pub2.

### 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

Managerial supervision provides a link between district and geographically peripheral health staff, and is important to both staff performance and motivation. Managerial supervision often includes problem solving, reviewing records, and observing clinical practice, and is undertaken during staff visits to supervisers as well as during meetings held at peripheral health centres.

It is important to differentiate managerial supervision from educational and clinical supervision. For the latter, supervisors are not necessarily staff from a more central level; supervision is not the main link between health system tiers; the supervision has a clinical and educational rather than a managerial focus; and the supervision is not focused mainly on administrative or managerial activities and does not form part of regular management procedures.

## 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 summarise opinions on the definition of supervision of primary healthcare; to compare these definitions to supervision in practice; and to appraise the evidence of effects of supervision on sector performance.

| | What the review authors searched for | What the review authors found |
|---|---|---|
| **Study designs & Interventions** | Routine supervision visits by health staff from a centre (such as a district office) to Primary Health Care (PHC) staff in both urban and rural areas. Randomised trials, non-randomised trials, controlled before-after studies, and interrupted time series studies. | 5 cluster randomised trials and 4 controlled before-after studies. The interventions were: routine supervision, enhanced supervision, less intensive supervision, and no supervision. |
| **Participants** | Healthcare units (health centres) or providers (including lay health workers) at the PHC level. | Studies were conducted in Africa (Benin, Ethiopia, Kenya, South Africa, Zimbabwe), Asia (Nepal, the Philippines, Thailand) and Latin America (Brazil). |
| **Settings** | Health services, rural or urban, in low- and middle-income countries. | Rural areas (5 studies) and settings that were both rural and urban (3 studies). One study did not specify the study area. |
| **Outcomes** | Service quality measures, including changes in provider practice, adherence to guidelines or service coverage. Also, population or patient satisfaction, change in provider knowledge and provider satisfaction with supervision. | Service quality, user satisfaction, provider knowledge and satisfaction. Other outcomes included the cost of supervision and service utilisation. |
| **Date of most recent search:** March 2011 | | |
| **Limitations:** This is a well-conducted systematic review with only minor limitations. | | |

Bosch-Capblanch X, Liaqat S, Garner P. Managerial supervision to improve primary health care in low- and middle-income countries. Cochrane Database of Systematic Reviews 2011, Issue 9. Art. No.: CD006413.

# Summary of findings

The review included nine studies. These were conducted in Africa (Benin, Ethiopia, Kenya, South Africa, Zimbabwe), Asia (Nepal, the Philippines, Thailand) and Latin America (Brazil). Five were based in rural areas, three in both rural and urban areas, and one did not specify the setting.

## 1) Managerial supervision versus no supervision

Three studies were included in this comparison.

➔ **Managerial supervision may improve provider practices and knowledge compared with no supervision. The certainty of this evidence is low.**

➔ **It is uncertain whether managerial supervision improves drug stock management as the certainty of this evidence is very low.**

### 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.

**Managerial supervision versus no supervision to improve the quality of primary health care**

| | |
|---|---|
| **People** | Primary care providers |
| **Settings** | Health services in low- and middle-income countries |
| **Intervention** | Managerial supervision |
| **Comparison** | No supervision |

| Outcomes | Impact | Number of participants (Studies) | Certainty of the evidence (GRADE) |
|---|---|---|---|
| **Provider prescribing practices** | Managerial supervision may improve provider prescribing practices, including the percentage of prescriptions issued according to guidelines. | 114 clinics (2 studies) | ⊕⊕◯◯ Low |
| **Provider knowledge** | Supervision may be associated with higher post-intervention prescribing and family planning knowledge scores. | 114 clinics (2 studies) | ⊕⊕◯◯ Low |
| **Drug supply** | It is uncertain whether supervision improves drug stock management because the certainty of this evidence is very low. | 21 health facilities (1 study) | ⊕◯◯◯ Very low |

GRADE: GRADE Working Group grades of evidence (see above and last page)

## 2) 'Enhanced' versus routine managerial supervision

Five studies compared 'enhanced' versus routine managerial supervision. Examples of 'enhanced managerial supervision' included: regular, monthly, supportive supervision; the use of checklists; providing a package of support; community involvement in supervision; and the use of different models of supervisory training. Routine managerial supervision, in contrast, included visits every two months without the training of supervisors or the use of checklists.

➔ **It is uncertain whether 'enhanced' managerial supervision improves the performance of lay or community health workers or midwives; the proportion of children receiving adequate care; or patient and health worker satisfaction. The certainty of this evidence is very low.**

**'Enhanced' versus routine managerial supervision to improve the quality of primary healthcare**

**People** Providers and users of health care
**Settings** Health services in low- and middle-income countries
**Intervention** 'Enhanced' managerial supervision
**Comparison** Routine managerial supervision

| Outcomes | **Impact** | Number of participants (Studies) | Certainty of the evidence (GRADE) |
|---|---|---|---|
| **Performance of lay or community health workers** | It is uncertain whether the performance of lay health workers improved. Performance was assessed using a scoring system including number of outreach visits, home visits, maternal-child health activities, etc. | 102 providers (1 study) | ⊕◯◯◯ Very low |
| **Overall performance of midwives** | It is uncertain whether midwives' overall performance score increased, based on indicators of service quality. | 112 health facilities (1 study) | ⊕◯◯◯ Very low |
| **Children receiving recommended or adequate care** | It is uncertain whether there were any differences in the proportions of children receiving recommended or adequate care. | (1 study) | ⊕◯◯◯ Very low |
| **Health worker job satisfaction** | It is uncertain whether health workers' job satisfaction scores improved. | 6 health workers (1 study) | ⊕◯◯◯ Very low |
| **Patient satisfaction** | It is uncertain whether patient satisfaction improved. | 390 patients (1 study) | ⊕◯◯◯ Very low |

GRADE: GRADE Working Group grades of evidence (see above and last page)

## 3) 'Less intensive' versus routine managerial supervision

One study evaluated a reduction in the frequency of supervisory visits (from monthly to quarterly) on the performance of community-based family planning distributors (CBD). The intervention group received quarterly supervisory visits plus supplementary visits to deal with emergencies or to improve staff performance. The control group received the standard, monthly supervisory visits.

➔ **'Less intensive' managerial supervision may lead to little or no difference in the number of new family planning client visits in either health facilities or the community, or in the number of clients that re-visit. The certainty of this evidence is low.**

**'Less intensive' supervision compared with routine supervision to improve the quality of primary healthcare**

**People** Providers and users
**Settings** Health services in low- and middle-income countries
**Intervention** 'Less intensive' managerial supervision
**Comparison** Routine managerial supervision

| Outcomes | **Impact** | Number of participants (Studies) | Certainty of the evidence (GRADE) |
|---|---|---|---|
| **New family planning clients enrolled via health facility-based posts (hospitals, clinics)** | There may be little or no difference in the numbers of new patients enrolled in family planning in health facility-based posts. | 247 centres (1 study) | ⊕⊕◯◯ Low |
| **New family planning clients enrolled via community-based posts (private homes, schools, community centres, town halls and rural villages)** | There may be little or no difference in the numbers of new patients enrolled in family planning in community-based posts. | 247 centres (1 study) | ⊕⊕◯◯ Low |
| **Average number of client revisits per quarter (health facility-based posts)** | There may be little or no difference in the number of family planning client revisits. | 247 centres (1 study) | ⊕⊕◯◯ Low |
| **Average number of client revisits per quarter (community-based posts)** | There may be little or no difference in the number of family planning client revisits. | 247 centres (1 study) | ⊕⊕◯◯ Low |

GRADE: GRADE Working Group grades of evidence (see above and last page)

# Relevance of the review for low-income countries

| ➔ Findings | ▷ Interpretation* |
|---|---|
| APPLICABILITY | |
| ➔ **All the studies were conducted in low- and middle-income countries. However, the nature of the interventions and the outcomes assessed differed widely.**<br>➔ **'Enhanced' managerial supervision (for example, more frequent visits) is not necessarily more beneficial. 'Less intensive' mangerial supervision may have the same effects as routine supervision.** | ▷ *How centralised or decentralised a healthcare system is may be important when implementing managerial supervision. For instance, in a more decentralized system, managerial supervision from higher levels of the health system may be less acceptable to local professionals who are used to managing their own work.*<br>▷ *Understanding the organisational culture of healthcare teams may be important when implementing managerial supervision (for instance, when deciding on the intensity required).*<br>▷ *Policymakers and managers may need to consider a wider range of options to support connections between peripheral and central health services. Costs and feasibility will need to be balanced when deciding whether, for example, meetings could be held at a district centre; whether managerial supervision could be integrated into the managerial activities of other sectors at a district level; and whether peer-to-peer support is an option.*<br>▷ *In practice, separating managerial, clinical and educational supervision might be difficult and it may be helpful to consider these different types of supervision together.* |
| EQUITY | |
| ➔ **No equity related findings were explicitly reported in the included studies.** | ▷ *Managerial supervision may improve health worker satisfaction and, by so doing, help to retain health workers in rural or peripheral health units and so improve access to healthcare to underserved areas.* |
| ECONOMIC CONSIDERATIONS | |
| ➔ **Only some descriptive economic data were reported in the review. No economic evaluations were found.** | ▷ *Supervision requires additional resources such as rewards for lay or community health workers, training, supervisory staff time, and other associated costs. Resource use and costs need to be addressed in the planning and implementation of supervision strategies.* |
| MONITORING & EVALUATION | |
| ➔ **The benefits of supervision were not consistent across the studies included in the review, partly because of the differences in the interventions, and the methodological limitations of the studies. No harms were explicitly reported.** | ▷ *More rigorous studies of supervision need to be undertaken. If managerial supervision is implemented, consideration should be given to ways to monitor and evaluate its effects and costs.* |

*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: http://www.support-collaboration.org/summaries/methods.htm

# Additional information

## Related literature

Bailey C, Blake C, Schriver M, Cubaka VK, Thomas T, Martin Hilber A. A systematic review of supportive supervision as a strategy to improve primary healthcare services in Sub-Saharan Africa. International Journal of Gynecology & Obstetrics. 2016; 132(1): 117-25.

Clements CJ, Streefland P. Malau C. Supervision in primary health care – can it be carried out effectively in developing countries? Current Drug Safety. 2007; 2: 19-23.

Kleiser H, Cox DL. The Integration of Clinical and Managerial Supervision: a Critical Literature Review. The British Journal of Occupational Therapy. 2008; 71 (1): 2-12(11).

Moran AM, Coyle J, Pope R, Boxall D, Nancarrow SA, Young J. Supervision, support and mentoring interventions for health practitioners in rural and remote contexts: an integrative review and thematic synthesis of the literature to identify mechanisms for successful outcomes. Human resources for health. 2014;12(1):10.

Yegdich T. Clinical supervision and managerial supervision: some historical and conceptual considerations. Journal of Advanced Nursing. 1999; 30: 1195–1204.

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## Conflicts of interest

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

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This summary has been peer reviewed by: David Yondo, Xavier Bosch-Capblanch, and Simon Goudie.

## The review should be cited as

Bosch-Capblanch X, Liaqat S, Garner P. Managerial supervision to improve primary health care in low- and middle-income countries. Cochrane Database of Systematic Reviews 2011, Issue 9. Art. No.: CD006413.

## The summary should be cited as

Herrera C, Lewin S. Does managerial supervision improve the quality of primary healthcare? A SUPPORT Summary of a systematic review. April 2017. www.support-collaboration.org/summaries.htm

## 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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