



May 2017 – SUPPORT Summary of a systematic review

Does collaboration among health and social care professionals improve practice or patient outcomes?

Interprofessional collaboration is the process by which two or more health or social care professionals work together to improve the delivery of health and social care and health outcomes. Practice-based interventions to promote interprofessional collaboration (i.e. better work interactions and teamworking among providers) in healthcare delivery are intended to respond to the needs of restructuring, reorganisation, and cost containment, and to the increasing complexity of healthcare knowledge and work.

Key messages

- **Four types of interprofessional collaboration interventions were identified by the review: externally facilitated interprofessional activities, interprofessional meetings, interprofessional checklists and interprofessional rounds.**
- **It is uncertain if externally facilitated interprofessional activities improve collaborative working, team communication, co-ordination, patient-assessed quality of care or continuity of care.**
- **The use of externally facilitated interprofessional activities or interprofessional meetings may slightly improve adherence to recommended practices and prescription of drugs.**
- **None of the included studies assessed outcomes related to patient mortality, morbidity or complication rates.**
- **Interprofessional checklists, interprofessional rounds and externally facilitated interprofessional activities may slightly improve overall use of resources and slightly decrease length of hospital stay and costs.**
- **The studies included in the review were very varied in terms of the types of professionals included, the tasks performed, the degree of interaction, and the populations and health issues considered. In addition, all of the studies were conducted in high-income countries.**



Who is this summary for?

People making decisions about the implementation of interventions to foster or improve interprofessional collaboration in healthcare.

! 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:

Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M. Interprofessional collaboration to improve professional practice and healthcare outcomes. Cochrane Database of Systematic Reviews 2017 Forthcoming.

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

Interprofessional collaboration (IPC) is the process by which two or more health or social care professionals work together to deliver health and social care. Such collaboration is widely promoted on the assumption that by working well together healthcare providers will improve their performance and thereby improve the quality of the health and social care that they deliver.

This summary is based on a systematic review focusing on interventions introduced to a practice setting with the explicit objective of improving collaboration between two or more health and/or social care professionals (e.g. midwives, nurses, doctors/physicians, pharmacists, physiotherapists, psychologists, and social workers).

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 practice-based interventions to improve collaboration between professionals on patient satisfaction, health outcomes and the effectiveness and the efficiency of the healthcare provided.

Types of	What the review authors searched for	What the review authors found
Study designs & Interventions	Randomised trials that evaluate practice-based interventions that are designed to improve collaboration between two or more health and/or social care professionals.	9 randomised trials: 8 studies compared an IPC intervention with no intervention and evaluated the effects of different practice-based IPC interventions: externally facilitated interprofessional activities (4 studies), interprofessional rounds (2), interprofessional meetings (1), and interprofessional checklists (1). One study compared one type of interprofessional meeting with another type of interprofessional meeting.
Participants	Healthcare teams/groups composed of more than one type of health and social care professional, in any patient population.	Teams/groups involving a combination of doctors, nurses, pharmacists, nutritionists/dietitians, social workers, case managers, physical therapists, speech pathologists, occupational therapists, service support staff and managers.
Settings	Any health or social care setting	Acute care or general hospital care (6 studies), telemetry unit of a community hospital [technology that allows remote measurement and reporting of information] (1), nursing home (1) and family medicine practices (1). Country settings: Australia (2), Belgium (1), Sweden (1), United States of America (USA) (4) and the United Kingdom (UK) (1).
Outcomes	Patient/client health measures (e.g. mortality, cure rates); healthcare process outcomes (e.g. readmission rates, continuity of care, use of resources; patient or family satisfaction; interprofessional collaboration.)	All studies reported at least one patient/client or healthcare process outcome. Four studies assessed collaborative behaviour.

Date of most recent search: November 2015

Limitations: This is a well-conducted systematic review with only minor limitations.

Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M. Interprofessional collaboration to improve professional practice and healthcare outcomes. Cochrane Database of Systematic Reviews 2017; Forthcoming.

Summary of findings

The review found nine studies of practice-based interprofessional teams/groups, all conducted in high-income countries. Six of the studies were conducted in acute care or general hospitals.

1) Practice-based interventions to improve collaboration between different health and social care professionals compared to usual care or no intervention

Eight studies assessed this comparison.

- It is uncertain if externally facilitated interprofessional activities improve collaborative working, team communication, co-ordination, patient-assessed quality of care or continuity of care because the certainty of this evidence is very low.
- The use of externally facilitated interprofessional activities or interprofessional meetings may slightly improve adherence to recommended practices and prescription of drugs. The certainty of this evidence is low.
- None of the included studies assessed outcomes related to patient mortality, morbidity or complication rates.
- Interprofessional checklists, interprofessional rounds and externally facilitated interprofessional activities may slightly improve overall use of resources and slightly decrease length of hospital stay and costs. The certainty of this evidence is 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.

Practice-based interventions to improve collaboration between different health and social care professionals compared to usual care or no intervention			
People	Health or social care teams involving more than one type of health or social care professional		
Settings	Primary, secondary, tertiary and community-care settings in Australia, Belgium, Sweden, the UK and the USA		
Intervention	Practice-based interventions with the explicit objective of improving collaboration between professionals		
Comparison	Usual care or no intervention		
Outcomes	Impact	Number of participants (studies)	Certainty of the evidence (GRADE)
Patient/client health	Externally facilitated interprofessional activities may slightly improve stroke patients' motor function. None of the included studies reported patient mortality, morbidity or complication rates.	464 (1 study)	⊕⊕○○ Low
Patient-assessed quality of care	It is uncertain if externally facilitated interprofessional activities improve patient-assessed quality of care because the certainty of this evidence is very low	1185 (1 study)	⊕○○○ Very low
Clinical processes – adherence to recommended practices	The use of externally facilitated interprofessional activities with or interprofessional meetings may slightly improve adherence to recommended practices and prescription of drugs	2576 (3 studies)	⊕⊕○○ Low
Clinical processes – continuity of care	It is uncertain if externally facilitated interprofessional activities improve continuity of care because the certainty of this evidence is very low	464 (1 study)	⊕○○○ Very low
Collaborative working	It is uncertain whether externally facilitated interprofessional activities improve collaborative working, team communication, and co-ordination because the certainty of this evidence is very low	1954 (4 studies)	⊕○○○ Very low
Use of resources	Interprofessional checklists, interprofessional rounds and externally facilitated interprofessional activities may slightly improve overall use of resources and slightly decrease length of hospital stay and costs	2697 (4 studies)	⊕⊕○○ Low
GRADE: GRADE Working Group grades of evidence (see above and last page)			

2) Practice-based interprofessional collaboration interventions compared with alternate IPC intervention

One study undertaken in hospital settings in Australia compared video and audio conferencing, both involving a wide range of health and social care professionals.

- Video conferencing may reduce the average length of treatment and may improve clinical processes, compared to audio conferencing. The certainty of this evidence is low.
- There may be little or no difference between video and audio conferencing in the number of communications between health professionals. The certainty of this evidence is low.

Practice-based interprofessional collaboration interventions compared with alternate IPC intervention			
People	Health and social care professionals involved in the delivery of health services and patient care		
Settings	Two hospitals in Australia		
Intervention	Video conferencing involving a range of health and social care professionals		
Comparison	Audio conferencing involving a range of health and social care professionals		
Outcomes	Impact	Number of participants (studies)	Certainty of the evidence (GRADE)
Patient/client health	The included study did not assess this outcome	-	-
Clinical process and efficiency	Video conferencing may reduce the average length of treatment, compared to audio conferencing, and may improve process/efficiency outcomes by reducing the number of multidisciplinary conferences needed per patient and patient length of stay	100 (1 study)	⊕⊕○○ Low
Collaborative working	There may be little or no difference between video and audio conferencing in the number of communications between health professionals	100 (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	
<ul style="list-style-type: none">→ The review identified nine studies evaluating interventions to improve collaboration between health and social care professionals. These studies differed in terms of the type of professionals, tasks performed, degree of interaction, population or disease of interest, study design, etc.→ We are uncertain about the many of the effects of interventions to promote collaboration between health professionals.→ All the studies were conducted in high-income countries.	<ul style="list-style-type: none">▷ The structures and processes through which health and social care professionals work together vary widely by type of professional, healthcare and geographic setting, scope of work, and healthcare tasks▷ The effects and costs of interventions to improve collaboration between professionals are uncertain. Caution should therefore be applied in making decisions on promoting different forms of collaboration▷ Some interventions used to facilitate interprofessional collaboration, such as video and audio conferencing, may not be easily available in some settings
EQUITY	
<ul style="list-style-type: none">→ The included studies did not address the issue of equity directly.	<ul style="list-style-type: none">▷ Better collaboration between health and social care professionals may have a positive impact on equity: increased staff satisfaction may, for example, improve the retention of healthcare professionals in underserved areas. Better collaboration may also lead to the use of fewer health resources and may increase access to comprehensive care for all patients▷ These potential positive effects on equity need to be evaluated in rigorous studies
ECONOMIC CONSIDERATIONS	
<ul style="list-style-type: none">→ There is little evidence on the costs and cost-effectiveness of interventions to improve collaboration between professionals, and the available evidence is of low certainty.	<ul style="list-style-type: none">▷ The costs of improving collaboration between professionals are likely to vary according to setting, the range of professionals, their ways of working and the tasks performed▷ Better interprofessional collaboration may decrease costs and improve the cost-effectiveness of care through, for example, reducing the length of hospital stays and the effectiveness of referrals. Until more evidence is available on the costs and cost-effectiveness of these interventions, implementation decisions will need be made on a case-by-case basis, taking local conditions into account
MONITORING & EVALUATION	
<ul style="list-style-type: none">→ For many outcomes, the effects of interventions to improve interprofessional collaboration are uncertain because the certainty of the available evidence is very low or low.	<ul style="list-style-type: none">▷ Implementation of these interventions should be accompanied by rigorous evaluation. Future studies should describe clearly the intervention/s used to promote collaboration, the professionals, settings and health processes involved, and the outcomes assessed▷ More robust evidence is needed before implementation is attempted on a large scale in low-income countries.

*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

Kim S, Bochatay N, Relyea-Chew A, Buttrick E, Amdahl C, Kim L, Frans E, Mossanen M, Khandekar A, Fehr R, Young-Mee Lee YM. Individual, interpersonal, and organisational factors of healthcare conflict: A scoping review, *J Interprof Care*. 2017; 31:3, 282–290.

McInnes S, Peters K, Bonney A, Halcomb E. An integrative review of facilitators and barriers influencing collaboration and teamwork between general practitioners and nurses working in general practice. *J Adv Nurs*. 2015;71(9):1973–85.

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Conflict of interest

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

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The summary 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](http://www.cochrane.org). 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 (EVIPONet) 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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