



August 2008 – SUPPORT Summary of a systematic review

Do specialist outreach clinics in primary care and rural settings improve care?

Specialist outreach clinics are planned and regular visits by specialist-trained medical practitioners from a usual practice location (hospital or specialist centre) to primary care or rural hospital settings. Specialist outreach clinics aim to improve access to specialists and hospital-based services, to strengthen the liaison between specialists and primary carer providers, and to give the benefits of consultations in primary care settings, such as familiarity and less stigma for patients.

Key messages

- Specialist outreach clinics in primary care and rural hospital settings can improve access to care, quality of care, health outcomes, patient satisfaction and use of hospital services.
- Rural communities possibly have the most to gain from outreach, since specialist services are usually disproportionately concentrated in major urban areas.
- However, this review found only nine studies that evaluated the effects of outreach clinics compared to usual hospital-based care, using robust research designs. None of these was from low or middle-income countries.
- While there may be significant potential benefits, the quality of studies seriously limits the ability to draw conclusions about whether specialist care leads to improved health outcomes and, if so, at what cost in low and middle-income countries.
- In urban settings in high-income countries specialist outreach as part of more complex interventions improved health outcomes and the quality of care, and reduced the use of inpatient services.



Who is this summary for?

People making decisions concerning use of specialist outreach clinics in primary care and rural settings.

! 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

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:

Gruen RL, Weeramanthri TS, Knight SE, Bailie RS. Specialist outreach clinics in primary care and rural hospital settings. *Cochrane Database of Systematic Reviews* 2003, Issue 4.

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.

Background

Specialist medical practitioners usually consult in outpatient areas of major hospital facilities or large metropolitan clinics. In some places, visiting specialist services, otherwise known as 'specialist outreach', have been established to improve access to specialist care, enhance primary-specialist care relationships, reduce pressures on hospitals, shift the balance of care to community-based services, or reduce health service costs. Specialist outreach has emerged as specific policy initiatives, as initiatives of individual practitioners or organisations, and as a secondary effect of other policies. "Special outreach" is a term that covers different activities.

Planning specialist outreach services requires detailed knowledge of the targeted population, the gaps in existing resources and the potential contribution of specialist medical practitioners.

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- and middle-income countries. The methods used to assess the quality of the review and to make judgements about its relevance are described here:

www.support-collaboration.org/summaries/methods.htm

Knowing what's not known is important

A good quality review might not find any studies from low- and middle-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.

About the systematic review underlying this summary

Review objective:

1. To undertake a descriptive overview of all studies of specialist outreach clinics (not included in the table below). *
2. To assess the effectiveness of specialist outreach clinics on access, quality of care, health outcomes, patient satisfaction, use of services and costs.

	What the review authors searched for	What the review authors found
Interventions	Specialist outreach clinics (planned and regular visits by specialist medical practitioners to primary care or rural hospital settings).	Nine studies (5 randomised trials, 2 controlled before-after studies and 2 interrupted time series analyses) met the inclusion criteria.
Participants	1. Patients who are eligible for specialist care 2. Primary healthcare practitioners 3. Specialists	Orthodontics (1 UK), psychiatry (3 USA and 2 UK), orthopaedics (1 Holland), oncology (1 USA), general surgery, gynaecology, ophthalmology and ENT (1 Australia)
Settings	All primary care and rural hospital settings globally	Urban non-disadvantaged populations (7 studies), a rural non-disadvantaged population in the USA (1), and a rural disadvantaged population in Australia (1).
Outcomes	Access, quality of care (guideline-consistent referral and treatment; adherence to treatment), health outcomes, patient and provider satisfaction, use of hospital and primary care services, costs.	No study reported provider satisfaction. The other outcomes were reported by one or more studies.

Date of most recent search: May 2002

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

Gruen RL, Weeramanthri TS, Knight SE, Bailie RS. Specialist outreach clinics in primary care and rural hospital settings. *Cochrane Database of Systematic Reviews* 2003, Issue 4.

*The descriptive overview included 105 articles reporting 73 outreach interventions. Nine of the descriptive studies were from low and middle-income countries, demonstrating that specialist outreach can be implemented where resources are available.

Summary of findings

This Cochrane review reported both a descriptive overview of all studies of specialist outreach clinics, and a review assessing the effectiveness of specialist outreach clinics compared to usual care. The descriptive overview included 105 articles reporting findings from 73 outreach interventions. Twenty-eight were from the UK, twelve from Australia, eleven from the USA, seven from Canada, four from South Africa, three from East Africa (Kenya, Tanzania and Uganda), three from Israel, and one each from Zimbabwe, Holland, Norway, Ecuador and Hong Kong. A wide range of settings, specialties and interventions were described.

Nine of the 73 studies met the inclusion criteria for the systematic review of effectiveness, 17 were comparative studies that did not meet the inclusion criteria, and 47 were descriptive only. None of the comparative studies were from low or middle-income countries.

1) Access to specialist care (attendance)

One study in a rural population in the USA reported that outreach led to 9% (28% vs. 19%) more breast cancer patients receiving an oncology consultation (difference in absolute change from baseline), and a study from Australia found a large relative increase in numbers of specialist consultations involving remote community patients (390%).

→ **Specialist outreach can increase access to specialist care.**

About the 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

2) Quality of care

The US study of outreach oncology service reported that 7% (5% versus -2%) more breast cancer patients received guideline-consistent care (difference in absolute change from baseline). Self-reported adherence to treatment was greater for outreach in three related studies by a psychiatry group in Seattle, USA. All three studies employed a similar complex collaborative care intervention involving weekly consultations alternating between the primary care physician and the psychiatrist, as well as primary care physician education, case conferences, patient education and individual treatment algorithms. The generalisability of their findings to different populations is unclear, although it seems reasonable to predict that a similar intervention would have benefit in other urban populations for patients with psychiatric disorders.

- **Specialist outreach clinics as part of more complex multifaceted interventions can improve quality of care compared to usual care.**
- **Outreach seems to facilitate engagement between specialists and primary care practitioners, although such engagement cannot be presumed. Interaction is greatest when outreach is part of a complex multifaceted intervention.**

Quality of care – adherence to treatment					
Patients or population: Patients with depression or panic disorder Settings: Seattle, USA Intervention: Specialist outreach involving collaborative care with education of patients and primary care physicians Comparison: Usual care					
Outcomes	Illustrative comparative risks*		Relative effect (95% CI)	Number of participants (studies)	Quality of the evidence (GRADE)
	Assumed risk (range) Usual Care	Corresponding risk (95% CI) Specialist outreach			
Nonadherence to treatment	550 per 1000	341 per 1000 (270 to 429)	RR 0.62 (0.49 to 0.78)	382 (3 studies)	⊕⊕○○ Low

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

3) Health outcomes

One Dutch study of joint consultations between orthopaedic surgeons and primary care physicians reported no improvement in objective clinical assessment or subjective measures of symptoms, other than “disorder free at one year” (35% of intervention versus 23% of control group patients). All three studies from the psychiatry group in Seattle reported substantive improvements in measures of symptom improvement and disease resolution.

→ **Specialist outreach clinics can improve health outcomes.**

Health outcomes					
Patients or population: Patients with depression or panic disorder					
Settings: Seattle, USA					
Intervention: Specialist outreach involving collaborative care with education of patients and primary care physicians					
Comparison: Usual care					
Outcomes	Illustrative comparative risks*		Relative effect (95% CI)	Number of participants (studies)	Quality of the evidence (GRADE)
	Assumed risk (range) Usual Care	Corresponding risk (95% CI) Specialist outreach			
Persisting symptoms	630 per 1000	397 per 1000 (334 to 485)	RR 0.63 (0.52 to 0.77)	382 (3 studies)	⊕⊕○○ Low

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

4) Patient and provider satisfaction

All three studies from the psychiatry group in Seattle reported greater patient satisfaction. No studies reported provider satisfaction.

→ **Specialist outreach can improve patient satisfaction.**

Patient satisfaction					
Patients or population: Patients with depression or panic disorder Settings: Seattle, USA Intervention: Specialist outreach involving collaborative care with education of patients and primary care physicians Comparison: Usual care					
Outcomes	Illustrative comparative risks*		Relative effect (95% CI)	Number of participants (studies)	Quality of the evidence (GRADE)
	Assumed risk (range) Usual Care	Corresponding risk (95% CI) Specialist outreach			
Unsatisfied with overall care	400 per 1000	172 per 1000 (116 to 248)	RR 0.43 (0.29 to 0.62)	382 (3 studies)	⊕⊕○○ Low

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

5) Use of services

It is uncertain whether specialist outreach clinics improve the use of services such as other non-hospital services, hospital-based outpatient services, laboratory and radiological tests, medication, planned inpatient services or primary care consultations.

6) Costs

Two studies found outreach to be more expensive to provide per patient, although one of these studies found that, despite being more costly to deliver, the multifaceted outreach intervention was 7.4% more cost-effective than usual care when health outcomes were considered. Two other studies, including the one study in a rural disadvantaged setting, found outreach less expensive to deliver per patient than usual care.

- **Outreach usually requires additional investment on the part of providers and healthcare systems when compared with hospital-based care. These extra costs may be partly offset by reduced costs for the patient and greater cost-effectiveness of multifaceted interventions.**
- **Additional investment is most required when providing outreach to rural populations, and an increase in demand for hospital services may result from uncovering unmet needs.**

Relevance of the review for low- and middle-income countries

→ Findings

▷ Interpretation*

APPLICABILITY

→ The nine studies included in the systematic review of effectiveness covered different specialists and interventions. There were only two studies from rural settings, and no studies from a low or middle-income country. The review identified only descriptive studies from low and middle-income countries. Therefore conclusions based on the evidences from each outcome measure may not be very robust.

▷ *Factors that need to be considered to assess whether the intervention effects are likely to be transferable to other settings include:*

- *Availability of specialists*
 - *Capacity of primary care centres or rural hospital settings to accommodate specialist outreach clinics*
 - *Financial and administrative support*
- Demand for specialist outreach clinics*

EQUITY

→ The included studies provided little or no data regarding differential effects of the interventions for disadvantaged populations. Only one study was in a rural disadvantaged setting.

▷ *People living in rural and remote areas, and disadvantaged population in urban areas, may benefit from specialist outreach services, but there are no evaluations of this potential impact.*

ECONOMIC CONSIDERATIONS

→ The findings summarised here are based on comparative studies in which the levels of organisation and support were potentially higher than those available outside of research settings. The review did not address how such support should best be provided.

▷ *Providing adequate support to programmes is likely to be vital to intervention effectiveness when scaling up.*

▷ *Both demand and supply factors should be assessed, preferably through pilot studies, before scaling up of specialist outreach.*

▷ *Important considerations include the types of services needed, frequency of consultation, whether follow up is needed, availability of advanced diagnostics facilities and willingness of providers.*

→ The findings summarised here are based on comparative studies with varying complexity of interventions. More complex interventions may be more effective than simpler interventions, but they may also be more costly.

▷ *The cost-effectiveness of specialist outreach in low and middle-income countries is unknown, but is likely dependent on how the intervention is delivered and the intensity and complexity of the intervention.*

MONITORING & EVALUATION

→ The review found no evidence of the effects of specialist outreach clinics in low and middle-income countries.

▷ *Rigorous impact evaluations should be undertaken prior to scaling up the use of specialist outreach clinics in low and middle-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- and middle-income countries. For additional details about how these judgements were made see: <http://www.support-collaboration.org/summaries/methods.htm>

Additional information

Related literature

Powell J. Systematic review of outreach clinics in primary care in the UK. *J Health Serv Res Policy* 2002; 7: 177-183.

This summary was prepared by

Signe Flottorp, Norwegian Knowledge Centre for the Health Services, Oslo, Norway

Conflict of interest

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

Acknowledgements

This summary has been peer reviewed by: Russ Gruen, Australia; Sasha Shepperd, UK; Xavier Bosch, Switzerland; Tracey Perez Koehlmoos, Bangladesh; Fu Hongpeng, China

This summary should be cited as

Flottorp S. Do specialist outreach visits in primary care and rural hospital settings improve care? A SUPPORT Summary of a systematic review. August 2008. www.support-collaboration.org/summaries.htm

Keywords

All Summaries: evidence-informed health policy, evidence-based, systematic review, health systems research, health care, low- and middle-income countries, developing countries, primary health care.

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.htm

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.epocoslo.cochrane.org

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

For more information:

www.support-collaboration.org

To provide feedback on this summary:
<http://www.support-collaboration.org/contact.htm>