Conditional cash transfers for improving uptake of health interventions in low- and middle-income countries: a systematic review

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CRD summary
This review assessed the effectiveness of conditional money transfer programmes in low- and middle-income countries. The authors concluded that such programmes increase access to and use of preventive services in specific contexts where perverse incentives are avoided. The authors’ conclusions are appropriate given the evidence presented, though it is not possible to assess the risk of language bias.

Authors’ objectives
To assess the effectiveness of conditional money transfers in improving access to and use of health services, and health outcomes, in low- and middle-income countries.

Searching
More than 20 databases were searched from inception to April 2006, including PubMed, EMBASE, POPLINE, LILACS and SIGLE; the search terms were provided. Online resources and the bibliographies of all relevant publications were also searched.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs), controlled before-and-after studies, interrupted time series and multi cross-sectional studies using matching techniques were eligible for inclusion.

Specific interventions included in the review
Studies evaluating the effect of directly transferring money to households, conditional on some requirements (conditional money transfers), one of which had to be related to health-seeking behaviour, were eligible for inclusion. Studies of in-kind or unconditional cash transfers were excluded. In one included study the cash transfer was based on the requirement to collect human immunodeficiency virus (HIV) test results. In the remaining studies the requirements were a combination of the following: bringing young children to preventive health assessments; adhering to vaccination schedules; attending health education workshops; undergoing regular prenatal checkups; and children regularly attending school. In three studies children also received nutrition supplements. The mean money transfer ranged from US$1.04 (in the Malawi study) to US$50 (in the Colombia study).

Participants included in the review
Studies of people living in low- or middle-income countries, as defined by the World Bank, were eligible for inclusion. One included study was based in Malawi where the participants had undergone HIV testing. The remaining studies were conducted in Latin American countries and the participants were households or women and children who were selected based on specific poverty criteria or (in one study) according to the prevalence of infant malnutrition in the municipality.

Outcomes assessed in the review
Studies reporting at least one of the following outcomes were eligible: health care utilisation, access to health care, household health expenditure, health or anthropometric outcomes.

How were decisions on the relevance of primary studies made?
Two investigators independently screened the studies for relevance.
Assessment of study quality
Validity was assessed using criteria adapted from the Cochrane Handbook. These included whether the statistical analysis accounted for clustering effect, though details of the other criteria were not provided. Two investigators independently assessed study quality and any disagreements were resolved by discussion.

Data extraction
The data were extracted into a standard form. The authors did not state how many investigators performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were discussed in a narrative synthesis.

How were differences between studies investigated?
Differences between the studies were tabulated and discussed in the narrative.

Results of the review
Six studies were included: 4 RCTs, 1 quasi-randomised trial and 1 controlled before-and-after study.

Each of the studies had specific methodological limitations. These included problems with randomisation, the use of self-reported outcomes in some studies, a lack of baseline data and a lack of comparability between intervention and control sites. The authors stated that all the studies used rigorous statistical methods to address clustering effects or to control for flawed study design or implementation. Intention-to-treat analysis was used in all but the Mexico study.

Care-seeking behaviour (5 studies).

The proportion of individuals collecting HIV test results was increased by 27% in the Malawi study. The Latin American studies all showed an improvement in care-seeking behaviour such as the use of health services for children and prenatal care, though in some age groups and for some care-seeking behaviours there was no change.

Immunisation coverage (4 studies).

The effects on this outcome were unclear. One study showed an increase in immunisations for children but not for pregnant women; one showed increases in immunisation that were thought to be due to a decline in coverage in the control areas; one showed an improvement in vaccinations in younger but not older children; and one did not demonstrate any improvement.

Anthropometric outcomes (4 studies).

Three studies reported a positive impact on these measures, however, the benefit was found only in subgroups in each of the programmes. One study reported a negative impact on weight-for-age in children of less than 7 years, which may have been due to a misinterpretation of eligibility rules creating an unintended perverse effect.

Health status (3 studies).

The effect on objectively measured health outcomes was mixed but positive when based on mothers’ reports of child health outcomes.

Cost information
The average cost per family was US$60.83 in Honduras, US$294.65 in Nicaragua, US$312.50 in Columbia and US$560 in Mexico.
Authors' conclusions
The evidence suggests that conditional cash transfer programmes are an effective approach to increasing access to, and use of preventive services in specific contexts where perverse incentives are avoided. The success of the programmes depends on the existence of effective primary health services and local infrastructures.

CRD commentary
There was a clearly stated review question and extensive searches were conducted for published and unpublished studies. It is unclear whether language restrictions were applied in the searches, so the risk of language bias is unclear. Appropriate methods were used to reduce error and bias in the study selection and quality assessment processes, though it is unclear whether similar methods were used for the data extraction. Details of the individual studies were provided, but not the numbers of communities, families or individuals included in each study. The narrative synthesis was appropriate and took the methodological limitations of the included studies into consideration. The authors' conclusions appear appropriate given the evidence presented.

Implications of the review for practice and research
Practice: Expanding health system capacity may be a preliminary step before the introduction of conditional cash transfer programmes in resource-poor settings.

Research: Research is required to clarify the cost-effectiveness of conditional cash transfer programmes and to investigate which components of the programmes play a critical role in achieving positive outcomes. Further investigation into the effectiveness of such programmes in low-income settings with limited health system capacity is also needed.

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