Shannon Doocy
Hannah Tappis

Cash-based approaches in humanitarian emergencies

A systematic review

April 2016

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Humanitarian aid

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Cash-based approaches in humanitarian emergencies: a systematic review

Shannon Doocy,
Johns Hopkins School of Public Health

Hannah Tappis,
Johns Hopkins School of Public Health

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The review authors are responsible for any remaining errors.

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Executive Summary

Background

Humanitarian actors have a responsibility to ensure that assistance is provided in a way that minimizes risks and maximizes benefits to people affected by crisis. However, there are many challenges in evaluating 'what works' in addressing the needs of crisis-affected populations, and translating research evidence into practice in complex environments with limited resources.

Humanitarian assistance has traditionally been provided in the form of in-kind goods and services: temporary shelters, food and non-food items, water and medical care. However, as the nature of humanitarian crises has shifted over the last few decades, cash-based approaches have become an increasingly common strategy for the provision of humanitarian assistance and are widely considered an appropriate, and sometimes preferable, substitute for in-kind assistance when conditions permit.

Increasing use of cash-based approaches has been accompanied by efforts to evaluate cash-based interventions and develop recommendations for implementation in a range of settings. Systematic reviews of evidence in humanitarian settings are, however, relatively rare, and, to the best of our knowledge, this is the first systematic review of the effects of cash-based approaches in emergencies to date.

Objectives

The primary objective of this review was to assess and synthesize existing evidence on the effects of cash-based approaches on individual and household outcomes in humanitarian emergencies. The secondary objective was to assess the efficiency of different cash-based approaches and identify factors that hinder and facilitate programme implementation.

Review Methods

We followed standard methodological procedures for review of experimental and quasi-experimental studies to assess the effects of unconditional cash transfer, conditional cash transfer and voucher programmes for crisis-affected populations. We also adapted these procedures to review economic studies assessing the efficiency of cash-based approaches and observational, qualitative and mixed method studies assessing the factors that facilitate or hinder the implementation of cash-based approaches in different settings.

We conducted comprehensive searches of published and unpublished literature in November 2014. Two independent research assistants screened all identified studies to determine eligibility for inclusion in the review. We then extracted data from all included studies using a standardized coding tool and critically appraised the studies using existing tools appropriate for the different study designs.

Due to the heterogeneity of the comparisons and outcomes reported in the included studies, we were not able to synthesize the studies using meta-analysis. Instead, we have presented the results in tables and synthesised the findings narratively. We used narrative and thematic synthesis to address the secondary objective. We conducted these analyses in parallel, and have reported on each separately in subsequent chapters of this review.

REVIEW FINDINGS

Out of 4,094 studies identified in the initial search, a total of 113 publications (108 unique studies) were included in this systematic review. Only nine studies were found in peer-reviewed publications. Overall, we have considered the body of evidence reviewed to have been of low quality due to methodological limitations. While the evidence reviewed offers some insights, the paucity of rigorous research on cash-based approaches limits the strength of the conclusions. This is not uncommon among topics related to humanitarian assistance. The following table summarizes the types of studies reviewed in each section of this report:

Review Topic	Studies Reviewed	Study Characteristics
Effects of cash-based approaches on: • Individual and household-level economic outcomes • Sector-specific humanitarian outcomes • Cross-cutting humanitarian outcomes	5	Settings: DR Congo, Ecuador, Niger, Lebanon, Yemen Interventions: Unconditional cash transfers, vouchers Study designs: Randomized control trials (factorial and stratified cluster designs), regression discontinuity
Efficiency of cash-based approaches in achieving humanitarian objectives	10	Settings: DR Congo, Ecuador, Niger, Lebanon, Yemen Interventions: Unconditional cash transfers, vouchers Study designs: Cost, cost-efficiency, cost-effectiveness, cost-benefit, market impact
Factors facilitating and hindering realization of cash programme activities and the achievement of humanitarian objectives in different contexts	108	Settings: Afghanistan, Bangladesh, Belize, Bosnia and Herzegovina, Burundi, Chile, DR Congo, Ecuador, Ethiopia, Haiti, India, Indonesia, Kenya, Japan, Jordan, Lebanon, Lesotho, Niger, Malawi, Mozambique, Occupied Palestinian Territory, Pakistan, the Philippines, Somalia, South Sudan, Sri Lanka, Sudan, Swaziland, Turkey, Uganda, Vietnam, Yemen, Zambia, Zimbabwe Interventions: Unconditional cash transfers, vouchers, conditional cash transfers (cash for work) Study designs: descriptive (quantitative), qualitative (narrative or thematic analysis), mixed methods

Main findings:

Effectiveness of cash-based approaches (chapter 5):

Five studies assessed the effects of cash-based approaches, four of which assessed effects on household level food security outcomes. Unconditional cash transfers and vouchers may improve household food security among conflict-affected populations and maintain household food security within the context of food insecurity crises and drought. Studies found that unconditional cash transfers led to greater improvements in dietary diversity and quality than food transfers. Food transfers were found to be more successful in increasing per capita caloric intake than unconditional cash transfers and vouchers.

Few studies measure changes in household economic indicators, other sectoral outcomes and cross-cutting outcomes. Unconditional cash transfers may be more effective than vouchers in increasing household savings, and equally effective in increasing household assets. Mobile transfers may be a more successful asset protection mechanism than physical cash transfers.

Efficiency of cash-based approaches (chapter 6):

Ten studies assessed the efficiency of cash based approaches. Cash transfers and vouchers may be more cost-efficient than in-kind food distribution. Studies found that unconditional cash transfer programmes have a lower cost per beneficiary than comparison interventions (either vouchers, in-kind food distribution or both); and vouchers have a lower cost per beneficiary than in-kind food distribution. In-kind food distribution has substantially higher administrative costs per dollar value provided to a beneficiary than unconditional cash transfers.

Cash-based approaches may have positive economic multiplier effects. Voucher programmes generated up to $1.50 of indirect market benefits for each $1 equivalent provided to beneficiaries and unconditional cash transfer programmes generated more than $2 of indirect market benefits for each $1 provided to beneficiaries

Factors facilitating and hindering implementation of cash-based approaches (chapter 7):

Evidence suggests that intervention design and implementation play a greater role in determining effectiveness and efficiency of cash-based approaches than the emergency context or humanitarian sector.

Specific factors shown to influence implementation include resources available and technical capacity of implementing agencies, resilience of crisis-affected populations, beneficiary selection methods, use of new technologies, and setting-specific security issues, none of which are necessarily unique to cash-based interventions.

Conclusions and Recommendations

Despite the widespread use and increasing number of evaluations of cash-based humanitarian assistance, there is a paucity of rigorous evidence about how best to address the needs of crisis-affected populations. This is not surprising, as studies meeting the methodological criteria for inclusion in most systematic reviews are relatively rare in emergency settings.

Findings suggests that both cash-based approaches and in-kind food assistance can be effective means of increasing household food security among conflict-affected populations and maintaining household food security among food insecure and drought-affected populations; each assistance modality has different advantages and disadvantages that should be considered in the design of future interventions. However, no definitive conclusions on the effectiveness of cash transfer or voucher programmes could be drawn that are universally applicable for humanitarian policy. Further development of the evidence base, with more rigorous evaluations comparing the effectiveness of different cash-based approaches (or combinations of approaches) and transfer modalities, as well as standardized approaches to documenting and comparing both costs and benefits of cash-transfer and voucher programmes, is needed to further strengthen the evidence base in this area.

1. Background

1.1. The Problem, Condition, or Issue

Since 1990, natural disasters have affected more than 200 million people every year (Leaning & Guha-Sapir, 2013). In addition, violent conflict affects the lives of roughly 1.5 billion people across the globe every year (World Bank, 2011). Although some crises can be directly attributed to a single, distinct event that occurs with little or no warning, most emergencies are complex, protracted and chronic, evolving from a series of related or unrelated events that exacerbate vulnerabilities of a population over a prolonged period of time. In many humanitarian crises, the needs of affected populations far outweigh available resources and the capacity to respond.

For the purposes of this review, a humanitarian emergency (or crisis) is defined as a singular event or a series of events that threaten the health, safety or well-being of a community or large group of people (Humanitarian Coalition, 2013). There is no simple categorization of humanitarian emergencies; they are often classified into three broad categories: 1) natural disasters, 2) technological disasters (e.g. hazardous material spills, nuclear accidents, chemical explosions) and 3) conflict-related emergencies including civil strife, civil war and international war, which are often referred to as complex emergencies. Humanitarian emergencies can also be categorized as 'sudden onset,' such as an earthquake, or 'slow onset,' such as a drought; for many conflict-related emergencies, this distinction is less clear and when extended over periods of many years they are considered 'protracted.'

Internationally, the humanitarian response community has tended to distinguish between natural disasters and conflict and they respond frequently to both types of events (whereas responses to technological disasters are uncommon). The assistance provided by the humanitarian response sector in the case of a humanitarian emergency is defined as "aid to a stricken population that complies with the basic principles of humanity, impartiality and neutrality" (WHO, 2014). Such assistance can be divided into three categories, based on the way in which it is provided to the affected population. Direct assistance is the face-to-face distribution of goods, services or cash to affected populations; indirect assistance is one step removed from the affected population and involves activities such as transporting relief supplies or personnel; the third type of assistance is support that facilitates the relief effort but is not necessarily visible or solely for the benefit of the affected population.

The response to an emergency can be divided into phases, including the 'emergency response phase' in which time initial response activities are implemented, operational capacities and systems are established, assessments are conducted, and long-term planning takes place; this phase can last from several weeks to several months depending on the size, nature and complexity of the emergency. The 'continuing response phase' includes support for recovery and may last anywhere from several months in the case of smaller scale natural disasters to several years in the case of large-scale natural disasters or protracted conflicts that extend for several years (WHO, 2008).

1.2. The Intervention

Maximizing effectiveness and efficiency of assistance efforts is one of the most important challenges for the humanitarian sector (World Humanitarian Summit, 2013). In efforts to address this challenge, there is increasing interest in and support for implementation of

cash-based approaches in both sudden onset and protracted emergencies, based on the assumption that cash programmes enable affected populations to make choices about their own needs, can boost local markets, and are both quick and cost-effective to deliver (GHA, 2013).

Cash-based approaches have been used for development purposes for a number of decades, particularly within social protection interventions in low- and middle-income countries (Arnold, 2011). More recently, cash transfer programmes have been increasingly applied in humanitarian settings with the aim of supporting affected populations in meeting their basic needs or providing assistance for livelihoods recovery by providing purchasing power and stimulating demand (Creti & Jaspars, 2006). Cash-based approaches are now being used by multilateral organizations, national governments, international non-governmental organizations and national civil society groups for delivering assistance across all sectors, either on their own or in conjunction with in-kind provision of goods or services (Gairdner, Mandelik & Moberg, 2011).

Cash assistance in humanitarian settings has been defined as “the provision of money to individuals or households, either as emergency relief intended to meet basic needs for food and non-food items or to buy assets essential for the recovery of livelihoods” (ECHO, 2009). This is similar to the definition of cash transfers in development programming, where cash-based assistance is used to help poor and vulnerable households meet basic needs by raising or smoothing incomes (Arnold, 2011). However, cash-based approaches in the context of humanitarian assistance can have multiple purposes and are generally provided alongside or as part of a range of other assistance programming to meet the needs of crisis-affected populations.

A variety of different cash-based approaches to humanitarian assistance exist and are often referred to collectively as cash transfer programming. The most common approaches include:

- ***Unconditional Cash Transfers:*** Unconditional cash transfers are direct grants, or ‘pure cash’, with no conditions or work requirements. Transfers may be facilitated by bank transfer, mobile phone transfer, prepaid smartcard, or distribution of physical cash. The assumption underpinning unconditional cash transfers is that money will be used to meet basic needs or be invested in livelihoods. (CaLP, 2014). There is no requirement to repay any money. Although recipients are entitled to use the money however they wish, unconditional cash transfer programmes may be designed to meet a specific need (sector-specific unconditional cash transfer programmes) or to cover a range of needs (multi-sector unconditional cash-transfer programmes). An example of an unconditional cash transfer would be a cash grant to a displaced household which could be used to replace household items that were lost in displacement, purchase food or acquire productive assets that could be used to restart livelihoods activities, or pay for healthcare or other services.
- ***Conditional Cash Transfers:*** Conditional cash transfers require that recipients meet certain requirements before the transfer is fulfilled. Cash transfers with qualifying conditions are those given after the recipients have performed some task or activity as a condition of receiving the cash transfer (CaLP, 2014). Common qualifying conditions include performing physical labour to contribute to disaster clean-up efforts, public works or the creation of community assets (cash for work

programmes); enrolling children in school or having them vaccinated; or attending a training course.

- ***Vouchers:*** These are coupons, tokens or smartcards, which can only be used in particular shops and/or on particular items. Vouchers may be 'cash vouchers' which have a particular value, or 'commodity vouchers' which can be exchanged for a particular quantity of items regardless of price changes. Vouchers may or may not have eligibility conditions similar to conditional cash transfers (e.g. 'vouchers-for-work'), but always have use conditions by virtue of the fact that arrangements with vendors must be made to facilitate their exchange.

The total amount of cash assistance delivered to crisis-affected populations each year is variable and depends largely on the emergencies that occur and humanitarian responses that are ongoing. A study on cash transfer funding between 2006-2011 found an upward trend in spending on cash transfer programmes, with a peak in 2010 at US$188 million (due to large-scale responses to the Haiti earthquake and Pakistan floods), with the majority of cash transfer financing going toward cash for work programmes (GHA, 2013). More than one-third of UNHCR country operations used cash transfers in 2011, compared to less than 5% of country operations in the 1980s and there remains considerable opportunity for expansion (UNHCR, 2012). The World Food Programme's Syria regional emergency operation, which provides voucher assistance to refugees, is the largest cash-based emergency response implemented by the organization to date, with US$308 million transferred to 1.4 million people in 2013 (WFP, 2014).

1.3. How the Intervention Might Work

Humanitarian practitioners and stakeholders consider cash to be an effective means of meeting population needs because it increases access to basic goods and services and integrates humanitarian response with the local economy (Gairdner, Mandelik & Moberg, 2011). The conceptual underpinning of cash programmes in emergencies is in part derived from Amartya Sen's (1981) entitlement theory. Entitlement theory states that famines are caused by an inability to gain access to or purchase food, rather than an overall lack of food availability. Through this lens, income support measures can be an appropriate response in emergencies as people live in cash economies where money is earned and used to buy goods in markets, which in many emergency contexts are still functioning or quickly recover.

The conceptual roots of cash-based approaches in emergencies are further derived from subsequent research and theories that illustrate the limits of entitlements in analysing famine in the context of war. An example of this is de Waal's "health crisis" model, which views famine as a result of various social and political pressures as well as the lack of entitlement (de Waal, 1990). Through this lens, cash transfer programming can be a more versatile means of addressing population needs than in-kind provision of goods or services, so long as there is reliable supply and markets are able to respond to increases in demand resulting from cash infusions without inflation or other negative distortions (Gairdner, Mandelik & Moberg, 2011).

Although there is a large body of literature examining cash transfer programmes and their outcomes, there is less understanding of the mechanisms and pathways by which outcomes are achieved. For example, a broad variety of theories of change for cash transfer programmes exist, varying by the context and type of intervention. Most theories of change

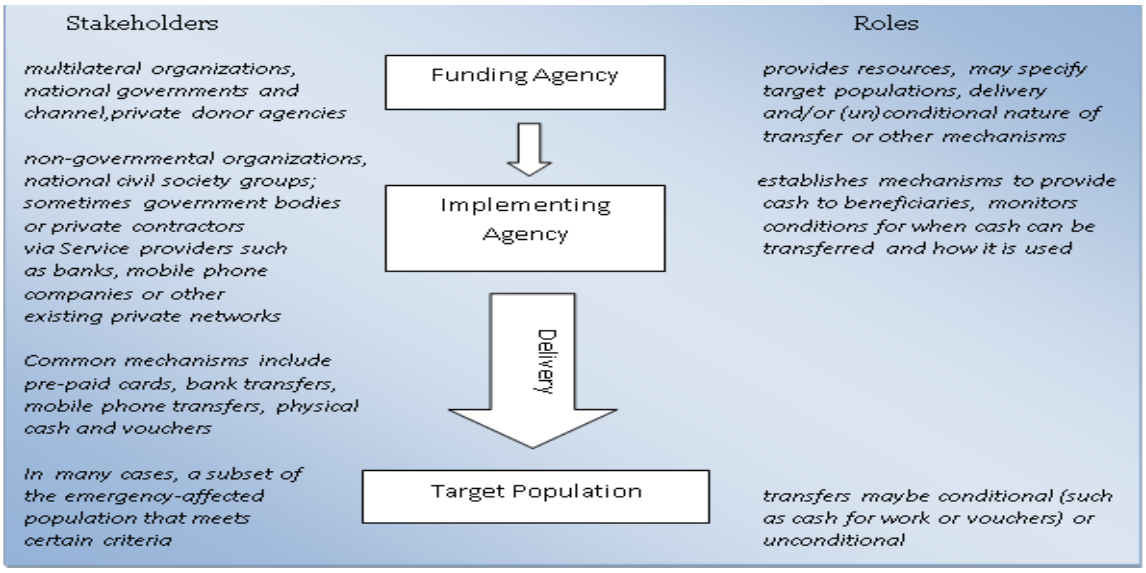
take a holistic approach and include macro- and micro-levels as well as contextual factors. In addition, theories of change draw either on human capital and productive assets theories or on vulnerability and risk reduction (Browne, 2013).

In cash transfer programmes, there are typically four groups of actors: (1) the funding source, (2) the implementing agency that administers the programme, (3) the service provider that facilitates the actual transfer of cash, and (4) the recipient. These actors are outlined below:

- ***Funding Sources*** typically include multilateral organizations, national governments and private donor agencies.
- ***Implementing Agencies*** are most often international non-governmental organizations or national civil society groups, although they sometimes include government bodies or private contractors. These agencies play an important role in establishing mechanisms to provide cash to recipients, monitoring conditions for when cash will be transferred or how it can be used, overseeing the transfer of funds, and in the case of vouchers, contracting providers to deliver goods or services to voucher holders.
- ***Service Providers*** can implement cash transfer programming through various mechanisms including cash payments, bank or mobile transfers, or vouchers that have cash-equivalent value. Common delivery channels for cash and vouchers include transfers to bank accounts or mobile phones, prepaid cards and delivery of physical cash or paper vouchers. Use of private networks to facilitate cash transfers is not uncommon and can be advantageous because it uses existing infrastructure, which may reduce implementation time, cost and security risks and avoids the establishment of parallel systems.
- ***Recipients*** may be defined at an individual or household level, and may be selected based on geography, age, wealth status, vulnerabilities (such as female-headed households, disability, etc.) or other characteristics specific to the needs of the humanitarian basis.

Figure 1 describes how resources flow between the primary actors in cash transfer programmes.

Figure 1: Stakeholders and Resource Flow in Cash Transfer Programmes in



Emergencies

There is consensus among humanitarian donors and practitioners that cash-based approaches are not appropriate in all contexts and that appropriateness is determined by the both the characteristics of the crisis and the presence of certain enabling conditions.[1] According to Gairdner *et al*. (2011), the five basic enabling conditions that are required for cash-based approaches to be effective include, in order of priority:

- Local availability of commodities for basic needs and recovery,
- Existence of private markets that function at a level adequate to provide the goods needed to meet basic needs of the affected population,
- Preference of beneficiaries for in-kind or cash-based approaches to delivering assistance,
- A security situation that is permissible for operations including both delivery of cash and the movement of goods to occur, and
- A financial infrastructure that facilitates cash or voucher transfers.

For example, cash-based approaches assume that goods will be channelled through local markets, that the supply is reliable , that prices are affordable, and that markets will be able to respond to the increases in demand that result from cash infusions without negative distortions (this can erode the value of the cash transfer and create hardships for non-beneficiaries). While the assumption that certain enabling conditions are required has not been robustly tested, a variety of tools and guidance documents are available to help organizations determine whether cash transfers are appropriate and how information to determine how to best operationalize a cash based response can be collected (CaLP, 2015).

[1] See Creti & Jaspars, 2006, p.22 and ECHO, 2009, p.4 frameworks on deciding between in-kind assistance and cash-based approaches.

It should also be noted that the objectives of cash programmes are varied, and range from maintaining the status quo (such as household access to food in the context of a food insecurity crisis) to improving conditions (such as increasing household assets and income generation capacity in livelihoods programming). Finally, while there are many challenges associated with delivering humanitarian assistance in emergencies, concerns that are often expressed in relation to cash programmes include market impacts, safety and security risks for both the implementing organization and beneficiaries, the ease with which cash can be misappropriated and 'lost', and concerns that cash-based humanitarian assistance may undermine existing social protection or poverty-reduction initiatives (IFRC, 2007).

1.4. Why it is Important to do the Review

Spending on cash programming in emergencies has steadily increased since the 2004 Indian Ocean tsunami and a gradual shift away from in-kind food as the default response towards a broader food assistance approach that includes cash-based approaches has occurred (Harvey *et al*., 2010). Cash-based approaches to assistance have increased in other humanitarian sectors as well.[2] Cash transfers are employed to enable emergency-affected populations to pay rent, rebuild or repair shelters and damaged public infrastructure, support livelihoods recovery, and as a mechanism to improve access to food, water, hygiene supplies, productive assets and inputs, and basic services in a range of settings. Documentation from humanitarian donors and practitioners shows that there is a high degree of variation in contexts where cash-based approaches are being used, the mechanisms by which cash is provided, and humanitarian objectives of cash programmes (CaLP, 2014; ECHO, 2013).

Where markets are functioning, there is an emerging consensus that cash transfer programmes are an appropriate – and preferable – alternative to in-kind provision of goods or services for populations affected by emergencies (Austin 2014; Gairdner, Mandelik & Moberg, 2011). Advocates for cash transfer programmes argue that they allow humanitarian actors to address immediate needs more rapidly than direct provision of goods or services because of reduced logistical complexity and are preferable because they provide support in a way that maintains dignity and choice among affected populations, as well as supporting markets (CaLP, 2014; Creti & Jaspars, 2006). However, these claims are rarely supported by data and little evidence-based guidance is available to help humanitarian stakeholders determine which cash-based approaches might be most effective in which contexts and why. (Austin 2014)

A preliminary search of the peer-reviewed literature published in the last ten years identified a large and growing body of rigorous evaluations assessing the effects of conditional and unconditional cash transfers and voucher programmes in development settings has been developed in recent years. While these reviews focus on programmes and populations in low- and middle- income countries (L&MICs), the findings are not easily transferable to the emergency context because of the wide range of difficulties posed by humanitarian emergencies with respect to the implementation of cash programmes and in many cases, the differences in objectives of cash programmes in emergency settings and those in

[2] While the Office for the Coordination of Humanitarian Affairs' Financial Tracking Service reports that cash programming accounts for 1.5-3% of humanitarian assistance, this is likely a substantial underestimate, as cash-based interventions are 'invisible' in financial tracking when they are incorporated in larger sector-specific or multi-sector assistance programmes and not tracked individually (GHA, 2015).

development settings. No systematic reviews of cash-based approaches in humanitarian settings were identified. This may be due in part to the paucity of impact evaluations focused on humanitarian assistance (Puri, 2014).

The objective of this systematic review is to assess and synthesize the existing evidence on the effects of cash-based approaches in humanitarian emergencies.

Research questions are presented in Chapter 2, and review methods are detailed in Chapter 3. The remainder of the report is structured as follows: Chapter 4 presents search results for all review components. Chapter 5 presents a synthesis of experimental and quasi-experimental studies reporting on the effectiveness of cash-based approaches. Chapter 6 presents a synthesis of quantitative studies examining the efficiency of cash-based approaches. Chapter 7 presents a synthesis of observational, qualitative and mixed method studies reporting on factors that have hindered or facilitated realization of cash programme activities and their objectives in different emergency contexts. Chapter 8 then provides an integrated summary of review findings, and Chapter 9 presents implications for policy, practice and research.

2. Objectives

The main objective of the review is to assess and synthesize the existing evidence on the effects of cash-based approaches in humanitarian emergencies. In doing so we aim to address the following research questions within the context of humanitarian emergencies:

Primary Research Questions:

1a) What are the effects of cash-based approaches on individual and household level economic outcomes in humanitarian emergencies?

1b) What are the effects of cash-based approaches on sector-specific outcomes and cross-cutting issues such as dignity and resilience in humanitarian emergencies?

Secondary Research Questions:

2a) How efficient are different cash-based approaches and delivery channels in achieving their stated objectives in humanitarian emergencies?

2b) What factors have hindered or facilitated realization of cash programme activities and their objectives in different emergency contexts?

3. Methods

3.1. Title Registration and Review Protocol

The title for this systematic review was registered on 2 May 2014. The systematic review protocol was published on 2 January 2015. Both the title registration and protocol are available in the Campbell Collaboration Library at http://www.campbellcollaboration.org/lib/project/323/.

3.2. Criteria for Considering Studies for This Review

We followed Campbell and Cochrane Collaboration approaches to systematic reviewing (Shadish & Myers, 2004; Hammerstrom *et al*., 2010; Higgins & Green, 2011) to answer primary review questions and extended the review to include economic, observational,

qualitative and mixed methods studies that would answer secondary review questions. We conducted analyses of the effectiveness, efficiency and factors influencing implementation of cash-based approaches in parallel before integrating the findings for a comprehensive synthesis of the evidence base for cash-based approaches in humanitarian emergencies.

3.2.1. Types of studies

Primary Research Questions:

To address questions 1a and 1b on the effects of cash-based approaches, we included only experimental and quasi-experimental study designs that allow for attribution. Specifically, we included the following study types:

- Experimental studies using randomized assignment of an intervention to either the individual or community level;
- Quasi-experimental studies where assignment was based on other stated allocation rules such as exogenous geographical variation or so called 'natural experiments,' or a threshold on a continuous variable (regression discontinuity designs);
- Studies where assignment to the intervention was based on other known rules such as self-selection by participants or based on programme criteria, on the condition that data were collected on a comparison group (non-equivalent comparison group designs) and appropriate statistical methods were used to control for selection bias and confounding; this includes propensity score matching, covariate matching, difference-in-differences, and single difference regression analysis, instrumental variables, and Heckman sample selection models; and
- Studies where data were collected at multiple intervals before and after the interventions (interrupted time series design), provided (i) data were collected at a minimum of three time points before and three time points after the intervention and (ii) the study took into account secular (trend) changes in the analysis or re-analysis is possible.

Studies which did not use a comparison group design, studies with a comparison group that did not use statistical analysis to address confounding, and studies that employed less than a six-period interrupted time series design were excluded.

Secondary Research Questions:

To address question 2a we included experimental and quasi-experimental studies with an economic component presenting data on costs, in addition to observational studies, process evaluations and economic evaluations. Specifically we included the following study types:

- Descriptive cost analyses that benchmark and compare unit costs of interventions.
- Economic evaluations (cost utility analysis, cost benefit analysis and cost effectiveness analysis) that assess the efficiency of an intervention in a way that can be compared with alternatives or benchmarks, including studies that compare efficiency in natural units (cost-effectiveness analysis), in monetary terms (cost-benefit analysis) and in utility measures (cost-utility analysis).

- Market impact studies that use simulations to evaluate the multiplier effects of interventions on the national or regional economy.

To address question 2b we included observational or descriptive studies, as well as qualitative studies and mixed methods studies. To be eligible for inclusion such studies needed to be based on data collected from programme beneficiaries, implementing agencies or stakeholders and to have reported at least some information on the study's research question, procedures for data collection, and analysis methods.

Publication types that were considered ineligible and excluded include opinion pieces, commentaries, editorials, debates, project implementation guidelines, case studies of individual beneficiaries or households, other reflective non-research-based reports, and systematic and non-systematic reviews.

3.2.2. Types of participants

Populations affected by humanitarian emergencies were the focus of this review. For our purposes, a humanitarian emergency (or crisis) was defined as a singular event or a series of events that threaten the health, safety or well-being of a community or large group of people (Humanitarian Coalition, 2013).

Types of emergencies included in the review were:

- Sudden onset emergencies including both natural disasters and man-made or complex disasters for which there was little or no warning.
- Slow onset emergencies that did not result from a single distinct event but rather emerged gradually over time.
- Protracted emergencies where armed conflict and/or severe vulnerabilities to long-term disasters persisted over periods of five years or more.

Affected populations could include those that were not displaced, those displaced within their home country, or refugees displaced in neighbouring countries. Types of participants that were included are individuals or households that received a cash intervention, such as vouchers, conditional or unconditional cash transfers, or cash for work beneficiaries. All beneficiaries of cash interventions meeting review criteria were included, regardless of if the cash intervention was targeted to specific population sub-groups or the greater affected population.

3.2.3. Types of interventions

Types of cash transfer programmes that were included are:

- Unconditional cash transfer programmes
- Conditional cash transfer programmes
- Voucher programmes

All of these interventions, as defined in Chapter 1, were intended to benefit populations affected by emergencies.

Cash transfer programmes that were excluded are:

- Fee waivers and subsidies where no cash transfer was involved
- Microfinance interventions, including lending, saving and insurance where repayment was expected or no actual cash transfer occurred
- Direct budget support to organizations providing humanitarian assistance where no transfer to affected populations occurred.

3.2.4. Types of comparisons

We included studies conducted in the context of a humanitarian emergency that compared beneficiaries who received cash or vouchers to populations that received no assistance (a 'true' control group) or in-kind provision of goods or services. Comparisons of cash and voucher recipients were also included, as were comparisons of different transfer modalities (e.g. bank transfer, mobile phone transfer, prepaid smartcards, physical cash).

3.2.5. Types of outcome measures

Primary outcomes

To address review questions 1a and 1b, we included studies that reported the effects of cash interventions on at least one of the following outcomes:

1) Individual, household and/or population level sector-specific outcomes such as changes in health service utilization, food security, nutrition status, availability of shelter, access to clean water, school enrolment, etc.;
2) Individual and/or household level economic outcomes such as utilization of cash, household assets or economic status;
3) Individual, household and/or population level measures of cross-cutting outcomes such as protection and resilience.

A broad range of outcome measures was allowed to assess these outcomes, including those listed in the Inter-Agency Standing Committee Humanitarian Indicators Registry for water, sanitation, and hygiene (WASH), shelter, nutrition, health, food security, or education sectors (IASC, 2014).

Secondary outcomes

To address review question 2a, we included studies that reported on at least one of the following:

1) The costs of implementing a cash intervention;
2) The efficiency, defined as value for money, measured in terms of cost-utility, cost-benefit, cost-effectiveness or market impact of a cash intervention.

To address review question 2b, we included studies that reported on the factors that may have hindered or facilitated implementation of programme activities and objectives, including perceived benefits and consequences of cash-based approaches to humanitarian assistance (intended or otherwise).

3.3. Search Methods for Identification of Studies

The research team conducted an extensive systematic search for grey and peer-reviewed literature, following the guidelines provided in the Campbell Collaboration's *Information retrieval methods group policy brief* (Hammerstrom, Wade, Hanz & Jorgensen, 2009). A common search strategy was used to identify studies that addressed the primary and secondary review objectives.

3.3.1. Electronic searches

Searches were conducted in multiple databases and high sensitivity was sought (Hammerstrom, Wade, Hanz & Jorgensen, 2009). A Johns Hopkins University Welch Medical Library Public Health Information Specialist developed the search strategy after input from investigators on the research team. Results of the pilot search were reviewed by the research team and the strategy was developed iteratively. We also provided the information specialist with several key papers as a test set that was used to check to completeness of the search results. The search strategy included a combination of controlled vocabulary and keywords for cash and emergencies.

Databases and basic search terms that were used are presented in Table 1. A detailed example of the search strategy and records of all searches are presented in Annex A.

Table 1: Peer-Reviewed Literature Sources and Search Terms

	Sources	Search Terms
Multi-sector	ABI-Inform Complete, Academic Search Complete, ScienceDirect, Web of Science, Scopus	(Cash OR CCT OR voucher* OR coupon* OR CFW) AND (humanitarian emergency OR emergency response* OR emergency relief OR emergency aid OR emergencies OR humanitarian OR disaster* OR Relief Planning OR Relief Work OR Mass Casualty OR rescue work OR earthquake* OR flood* OR tsunami* OR Avalanche*OR Landslide* OR Rockslide* OR Mudslide* OR cyclone* OR Cyclonic Storm* OR hurricane OR Tidal Wave* OR Tidal waves OR typhoon* OR Volcanic Eruption* OR drought* OR famine* OR Starvation OR food insecurity OR war OR armed intervention OR armed conflict OR conflict affected OR displaced OR displacement OR refugee*)
Economic	Econlit, IDEAS	
Health/Medicine	MEDLINE, CINAHL, Embase, Latin American Virtual Health Library	
Social Sciences	International Bibliography of Social Sciences, PAIS International, Social Science Research Network, SocIndex, ASSIA	

We limited searches to studies published from 2000 to the present. The year 2000 was chosen as a cut-off date because widespread uptake of cash programming in humanitarian emergencies began after this time point and a 14-year review period was considered sufficient given changes in humanitarian contexts, programming approaches and technological developments during this time period.

3.3.2. Searching other resources

To identify an unbiased set of citations we also identified studies in the grey literature from conference proceedings, databases of unpublished studies, and studies published in supplements, theses, and dissertations (Higgins, 2005). In order to access grey literature, the peer-reviewed literature search strategy was adapted to guide hand searches of the humanitarian donor, practitioner and research network collections presented in Table 2 below.

In addition, we conducted forward citation-tracking of included studies in Web of Science, Scopus and Google Scholar, and also reviewed bibliographies from systematic and non-systematic reviews of cash programmes to search for additional studies that were not identified using search strategies outlined above. All relevant documents meeting search criteria were catalogued in an EPPI-Reviewer database (Thomas, 2010).

Table 2: Grey Literature Sources

	Sources
Donor websites	Australian Aid Agency, Department for International Development, European Commission, Norwegian Agency for Development Cooperation, Swedish Development Agency, United Nations Children's Fund, United Nations Development Programme, United Nations Food and Agriculture Organization, United Nations High Commissioner for Refugees, United Nations Population Fund, United Nations World Food Programme, United States Agency for International Development, World Bank
Humanitarian practitioner (implementing agency) websites	Action Aid, Action Contre le Faim International, Adeso, Concern Worldwide, Danish Refugee Council, International Federation of Red Cross Societies, International Rescue Committee, Mercy Corps, Norwegian Refugee Council, Oxfam, Save the Children, World Vision
Research institution and network websites	Active Learning Network for Accountability and Performance in Humanitarian Action, Cash Learning Partnership, Centre for Global Development, Eldis, Harvard Humanitarian Initiative, International Initiative for Impact Evaluation, Overseas Development Institute Humanitarian Practice Network

3.4. Data Collection and Analysis

3.4.1. Selection of studies

Screening of studies and application of inclusion and exclusion criteria took place in two rounds. In the first round of screening, all titles and abstracts resulting from the search were independently screened by two research assistants. Studies were classified as either 'exclude' or 'potentially eligible.' In round two, the full texts of all studies that had either been classified as 'potentially eligible', or about which there was a doubt or disagreement about potential eligibility, were assessed independently by two reviewers. Studies were classified

as either ‘included’ or ‘excluded,’ and the reason for exclusion was recorded. Reasons for exclusion of marginal studies are presented in Annex A. The screening process was managed using EPPI-Reviewer software to ensure completely independent reviews and the resolution of disputes (Thomas, 2010).

3.4.2. Data extraction and management

Two reviewers independently extracted and coded all of the included studies using a data extraction form and codebook specifically developed for the review (Doocy & Tappis, 2014). The information extracted included intervention details, study details and study findings, when available, as summarized in Table 3 below.

Table 3: Information Extracted

All studies	
Bibliographic information	Author(s), title, institution(s), citation, type of resource
Inclusion/exclusion criteria	Type of intervention (cash grant, voucher, cash for work), participants (study setting), study design, outcome measure, other findings
Emergency typology	Event type (natural disaster, conflict, other), international humanitarian presence
Intervention details	Humanitarian sector, aim of programme, type of intervention, coverage/scale (nationwide, regional, local), implementing agency (government, humanitarian organization, private sector partnership), channel of delivery (physical cash, bank transfer, pre-paid debit card, voucher), delivery agent (government, humanitarian organization, post-office, bank, mobile phone company, local business), direct beneficiaries, enrolment criteria, payment structure and conditions, complementary interventions, and any other programme design characteristics
External validity	Generalizability of findings in terms of study population, context, intervention, and outcomes (as described by study authors)
Studies addressing questions 1a/1b	
Study details	Study design, study population and comparison group demographics, study duration, outcome measured in intervention and comparison groups, unit of measurement, data collection mechanisms
Effect sizes	Outcome measures at baseline and endline, sample size
Studies addressing questions 2a/2b	
Study details	Study design, study population, study duration, unit of measurement, data collection mechanisms, analysis methods
Key findings	Any findings on costs, cost efficiency, value for money, programmatic and contextual factors hindering implementation, perceived benefits and consequences of programme implementation or participation

3.4.3. Critical appraisal of included studies

Studies were stratified into three groups for critical appraisal: (1) experimental or quasi-experimental studies evaluating the effectiveness of cash-based approaches for achieving sector-specific or cross-cutting outcomes; (2) quantitative studies measuring the cost, cost-efficiency, cost-effectiveness, cost-utility, cost-benefit or market impacts of cash-based approaches; and (3) observational, qualitative studies or mixed method studies addressing issues related to implementation. Studies with multiple purposes and study designs were appraised for each relevant classification. The tools used for critical appraisal are presented in Annex B.

Experimental or quasi-experimental studies measuring the effectiveness of cash-based approaches for achieving sector-specific or cross-cutting outcomes

Studies included to address review question 1 were assessed using the Risk of Bias criteria outlined in *The Cochrane Handbook of Systematic Reviews of Interventions* (Higgins and Green, 2011).

Studies measuring the cost-effectiveness, cost-utility, cost-benefit or cost-efficiency of cash-based approaches

Studies included to address review question 2a were assessed using criteria adapted from the German Federal Ministry for Economic Cooperation and Development's *Tools and Methods for Evaluating the Efficiency of Development Interventions* (BMZ, 2011) and the *Campbell Collaboration Economic Methods Policy Brief* (Shemilt, 2008). First, the potential analytic power of each study was classified as level 2 (cost-effectiveness analysis, cost-benefit analysis, cost-utility analysis, and multi-attribute decision making); level 1 (benchmarking of unit-costs and other efficiency indicators, stakeholder-driven approaches and comparative ratings); and level 0 (entirely descriptive). Next, the methodological quality of each included study was evaluated using criteria applicable for any studies of intervention efficiency or value for money, regardless of the design (Shemilt, 2008). [3]

Observational, qualitative or mixed method studies that address issues related to implementation in a specific context

Studies included to address review question 2b were assessed using an adapted version of the *Mixed Methods Assessment Tool* development by Pluye and colleagues at McGill University to critically appraise the methodological quality of quantitative, qualitative and mixed methods research studies (2011). For studies with experimental, quasi-experimental or economic evaluation components, only the elements of the study providing information on factors that may have hindered or facilitated implementation were appraised using this tool. Thus, appraisals refer only to observational, qualitative or mixed methods components of the study reporting on factors affecting implementation, not necessarily to the study as a whole.

For all studies, critical appraisal involved assessing the risk of bias as 'low risk', 'high risk', or 'unclear risk' (indicating either lack of information or uncertainty over the potential risk of bias) of impacting on the results or conclusions of a study.

[3] Criteria in the Campbell Collaboration's checklist for assessment of methodological quality in economic evaluation studies are adapted from *Guidelines for authors and peer reviewers of economic submissions to the Bristish Medical Journal* (Drummond, 1996).

3.4.4. Measures of treatment effect

Effect measures were reported for different indicators by intervention type and summarized by outcome category or sector. Effect sizes are reported either as simple mean differences or regression coefficients; standardized mean differences are not reported because studies did not report precision estimates required to recalculate results in a common metric. Effect measures and corresponding variances are therefore presented as reported by authors, and are summarized in tables, graphs and forest plots in an effort to compare effect size across studies reporting on the different interventions. Statistical significance and p-values for differences in indicators across comparison groups are in many cases presented as *p<0.10*, *p<0.05, p<0.01* or *p<0.001* because this is how it was reported by the authors.

3.4.5. Unit of analysis issues

Unit of analysis error arises when the unit at which the intervention is allocated and the unit of analysis are different from each other, without the authors correcting for this in their analysis (e.g. the intervention is allocated at a cluster level, but the analysis of effects is carried out at the individual level). We assessed studies for unit of analysis errors, and did not find any with need for adjustment to account for incorrectly analysed data.

3.4.6. Dealing with missing data

Authors of experimental or quasi-experimental studies included to address review question 1 were contacted to request missing sample size and baseline, endline and effect size measurements with precision estimates, and to clarify conflicts between data reported in different publications from the same study. Three of four author teams responded to inquiries, but only one provided requested information in time for inclusion in the review; the fourth author contacted did not respond to research team inquiries.

3.4.7. Data synthesis

Effects of cash-based approaches on economic, sector-specific or cross-cutting outcomes in humanitarian emergencies (research questions 1a and 1b)

Studies identified to address review questions 1a and 1b were heterogeneous in terms of design, intervention type, beneficiary population, type of comparison groups and outcomes measured. The included studies compared different types of cash transfers to one another, or cash transfers to vouchers, food transfers and/or a control group with no intervention. No two studies included the same intervention comparison for a substantively similar outcome construct. Therefore we did not conduct any meta-analysis as it would not be meaningful. Instead we present characteristics of included studies and summaries of their findings in tables, along with a narrative synthesis of results.

Efficiency of cash-based approaches in achieving intended objectives in humanitarian emergencies (research question 2a)

Included cost and market impact studies were reviewed to help readers understand evidence available about the economic trade-offs between alternative interventions and delivery mechanisms in different settings. For each type of analysis reviewed, we describe differences in the methodologies used for definition, measurement, valuation and comparison of efficiency measures across studies. We present characteristics of included studies and summaries of their findings in tables, along with a narrative synthesis of results.

Point estimates of efficiency measures are those reported by the authors. In the case of studies with high risk of bias or little explanation of data inputs, results are presented and concerns about the quality of evidence, risk of bias or interpretation of findings are discussed in the narrative synthesis (in addition to being reported on as part of the critical appraisal of study methods and risk of bias).

Meta-analysis was not considered because the group of included studies was not deemed sufficiently homogeneous in terms of definitions and measurement of costs, valuation of outcomes, or measures of uncertainty to be reasonably combined. It is also worth noting that there are not widely accepted techniques for meta-analysis of economic evaluation components, and the Campbell & Cochrane Economics Methods Group urges caution in meta-analysis of economic evaluation findings (Shemilt, 2008).

Factors hindering or facilitating realization of cash transfer programme activities in different emergency contexts (review question 2b)

Study content describing implementation of cash-based intervention was coded (with both a priori and inductively generated codes) using EPPI-Reviewer software and exported in tables organized by emergency context, intervention and humanitarian sector. Coded text was then reviewed by a second team member, and additional codes added if necessary to capture emergent themes. In cases where there was disagreement on codes assigned, text excerpts, and in some cases full studies, were reviewed by a third team member. Descriptive results were then reviewed separately for each transfer modality and thematic codes applied to highlight factors reported across studies in different sub-groups.

Characteristics of included studies and key themes identified are summarized in tables and a narrative synthesis of findings presents similarities and differences in issues raised across intervention types and emergency contexts. In the case of studies with high risk of bias or 'thin' description of findings, factors that may hinder and facilitate the implementation of cash-based approaches are presented and limitations related to interpretation of findings are clearly stated.

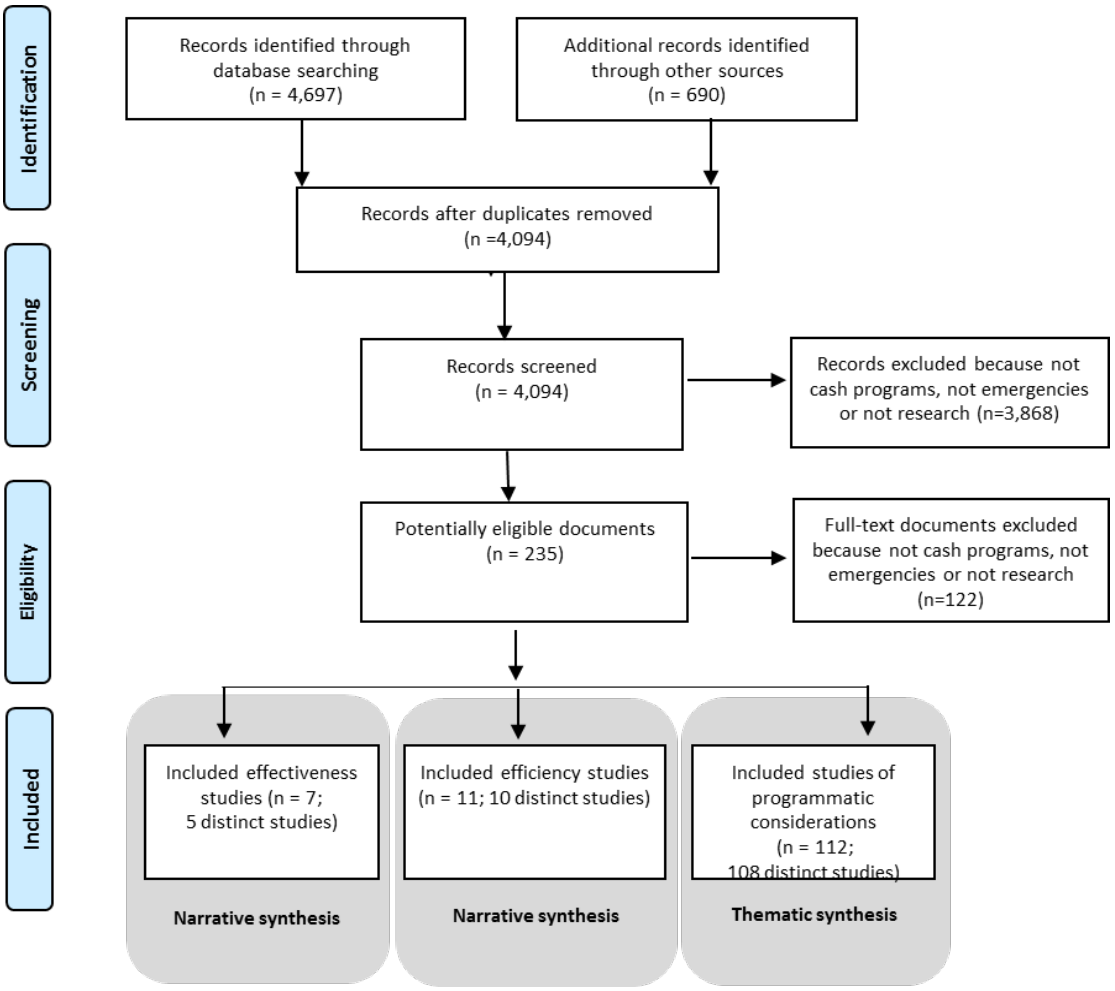
4. Search Results

4.1. Results of the Search

4.1.1. Results of the search

A total of 4,757 records were identified, 663 of which were discarded as duplicates. We discarded 1,275 search results at the title and abstract screening stage, as they were not focused on cash-based approaches in humanitarian emergencies or were not research studies. Of the 235 potentially relevant full text documents screened, 122 were removed because they did not meet inclusion criteria (Figure 3).

Figure 3: Search Results



4.2. Included Studies

Of the 113 included records, seven were experimental or quasi-experimental studies (five unique studies), 11 were cost studies (ten unique studies), and 112 reported observational, qualitative or mixed methods studies reporting factors that hinder or facilitate programme implementation (108 unique studies). From here forth, multiple records reporting findings from the same study will be presented as a single study unless otherwise noted. Table 4 presents population and intervention characteristics for each group of included studies.

Table 4: Characteristics of Included Studies

	(Quasi) experimental studies	Cost and market impact studies	Observational, qualitative and mixed methods studies
Emergency type(s)			
Conflict	3	5	35
Natural disaster	2	1	40
Food security emergency	2	5	38
Not stated	--	--	5
Intervention type(s)			
Unconditional cash transfer	5	7	86
Conditional cash transfer	--	--	17
Voucher	2	4	19
Primary sector(s) of focus			
Economic/livelihoods recovery	3	3	60
Education	--	--	1
Food security	4	7	36
Health	--	--	1
Non-food item support	--	1	--
Nutrition	--	--	4
Protection	--	--	4
Shelter	1	1	7
Water, sanitation & hygiene	--	--	2
Not stated	--	2	10
Region(s)			
Africa	2	5	51
Asia	--	--	27
Europe	--	--	2
Latin America	1	1	9
Middle East	2	4	12
Not stated	--	--	9
Total	**5**	**10**	**108**

*Note: Study type and programme characteristic classifications are not mutually exclusive.

All five of the experimental and quasi-experimental studies included to address review question 1 also included economic evaluation components and observational, qualitative or mixed methods components that met criteria for inclusion to address review questions 2a and 2b. Five additional studies that did not have experimental or quasi-experimental study designs also met criteria for inclusion to address review questions 2a and 2b only, and 98 studies were identified that only met inclusion criteria to address review question 2b.

There was a relatively even distribution of contexts from which studies originated, with 32 per cent (n=35) of included studies conducted in conflict-affected populations, 37 per cent (n=40) conducted in settings affected by natural disasters and 35 per cent (n=38) in settings affected by extreme food insecurity. This distribution was consistent across sub-groups of studies included to address research questions 1, 2a and 2b. For example, three of the five experimental and quasi-experimental studies included to address review question 1 were implemented in conflict-affected contexts and two in natural disaster-affected settings with

severe food insecurity. Only one study was conducted within a camp context; the remainder were conducted in non-camp settings and included both urban and rural populations. Cost and market-impact studies were less common in natural disaster-affected contexts. Of the ten cost and market impact studies included, five were implemented in conflict-affected settings and five in settings of severe food insecurity, one of which was natural disaster-affected.

Geographically, experimental and quasi-experimental studies included to address review question 1 were fairly evenly distributed with two studies conducted in Africa, two in the Middle East and one in Latin America. Cost and market impact studies included to address review question 2a were similarly distributed, with five conducted in Africa, four in the Middle East and one in Latin America. Observational, qualitative and mixed methods studies included to address review question 2b were concentrated in Africa (47%, n=51) and Asia (25%, n=27), with the remainder conducted in the Middle East (11%, n=12), Latin America (8%, n=9) and Europe (2%, n=2) or across multiple continents.

The majority of studies identified were unconditional cash transfer programmes, including all five of the five experimental and quasi-experimental studies included to address review question 1 and seven of the ten cost and market impact studies included to address review question 2a. One of the five experimental and quasi-experimental studies compared the effects of cash transfers to vouchers, and one compared the effects of cash transfer, voucher and in-kind food distribution interventions to a control group. Two of the additional cost and market studies focused exclusively on vouchers, one compared the efficiency of cash transfers with in-kind food distribution, one compared the efficiency of cash transfers delivered via mobile phone with physical cash distribution, and one analysed the costs of a cash-transfer programme with no comparison group. No studies included to address review questions 1 or 2a reported on the effectiveness or efficiency of conditional cash transfer programmes. In contrast, the observational, qualitative and mixed methods studies included to address review question 2b covered a broader range of interventions. Although 79 per cent (n=85) of these studies did address factors affecting implementation of unconditional cash transfer programmes, 18 per cent (n=19) addressed factors affecting implementation of voucher programmes and 16 per cent (n=17) addressed factors affecting implementation of conditional cash transfer programmes.

Studies primarily reported on interventions designed to address economic/ livelihood recovery and food security needs of emergency-affected populations. Of the five experimental and quasi-experimental studies included to address review question 1, three had both food security and economic/livelihoods recovery objectives, one focused solely on addressing food security needs, and one focused on shelter (winterization) needs. Of the six additional cost and market impact studies included to address review question 2a, three focused on addressing food security needs, one focused on addressing needs for non-food items, and two did not state the primary sector of focus. Observational, qualitative and mixed methods studies included to address review question 2b were also concentrated in sectors of economic/livelihoods recovery (56%; n=60) and food security (33%; n=36). Other studies covered interventions implemented to address shelter needs (6%; n=7), nutrition (4%; n=4), protection (4%; n=4), water, sanitation and hygiene (2%; n=2), health (1%; n=1) and education (1%; n=1).

4.3. Excluded Studies

We excluded 122 records after full-text screening. We excluded 40 studies because they did not focus on cash-based interventions, 31 studies because the beneficiaries of cash-based interventions were not emergency-affected populations, and 51 studies because the type of research described did not meet study design inclusion criteria for this review. Reasons for exclusion of each study can be found in Annex A.

5. Results: Effects of Cash-Based Approaches

5.1. Characteristics of Included Studies

Five studies were identified that reported on the effects of cash-based approaches in humanitarian emergencies, all of which evaluated the effects of unconditional cash transfer programmes. One study evaluated different cash transfer modalities (Aker, 2011); two compared cash transfers to in-kind food assistance and/or no intervention (Lehmann, 2014; Schwab, 2013), and two evaluated both cash transfers and vouchers (Aker, 2013; Hidrobo, 2014).

The studies were from diverse geographic locations, including Africa (Niger and DR Congo), the Middle East (Yemen and Lebanon) and Latin America (Ecuador). Two studies were conducted in settings of severe food insecurity: one in drought-affected communities in Niger (Aker, 2011) and the other in rural populations in Yemen, where food insecurity was accompanied by emerging conflict and civil unrest in addition to food, fuel and financial crisis (Schwab, 2013). The remaining three studies were conducted with populations displaced by conflict; these included Colombian refugees in urban Ecuador (Hidrobo, 2014), Syrian refugees in Lebanon (Lehmann, 2014), and residents of an internally displaced persons camp in the DR Congo (Aker, 2013). There were no studies conducted in the aftermath of rapid onset natural disasters. Programmes evaluated were implemented by NGOs (Aker, 2011; Aker, 2013; Lehmann, 2014) or the World Food Programme (WFP) (Hidrobo, 2014; Schwab, 2013); none of the included studies reported on government-run cash transfer programmes.

With respect to study design, three studies were cluster randomized trials with multiple treatment arms (Aker *et al*., 2011; Hidrobo *et al*., 2014; Schwab *et al*., 2013), one study was individually randomized (Aker *et al*., 2013) and one study used a regression discontinuity design (Lehmann *et al*., 2014).

Table 5 provides a summary of the characteristics of included studies, including study design, population, sample size, intervention and comparison descriptions, and outcome measures. Additional study characteristics, including data collection methodologies and both baseline and endline assessment results, are detailed in study summaries in Annex C.

Table 5: Characteristics of Included Experimental and Quasi-experimental Studies, by Intervention Type

Short Title (Country)	Population	Study design	Intervention description and comparisons			Economic outcomes [c]	Sector-specific outcomes [c]	Sector-specific outcomes [c]	Cross-cutting outcomes [c]
			Duration [a]	Transfer value [b]	Transfer modalities and comparisons (sample size[d])		Food security & nutrition	Other	Coping Mechanisms
Unconditional cash transfers									
Aker 2011 (Niger)	Vulnerable households in 96 drought-affected communities	Randomized Control Trial – factorial cluster design, no control group without any treatments.	five months	US $215	**Mobile transfer:** unconditional, $45/month (not stated*) **Physical cash:** unconditional, $45/month (not stated*) **Phone + cash**: unconditional, $45/month (not stated*) **32 villages per group, >1200 total participants)*	•Land cultivation •Assets owned (categories) •Durable assets (#) •Non-durable assets (#)	• Household dietary diversity score	• Agriculture (livelihoods)	•Land sales •Tree cutting •Anthill searching
Lehmann 2014 (Lebanon)	Syrian refugees in non-camp settings	Regression Discontinuity Design—by residence location (elevation).	five months	US $575	**Cash:** unconditional, $147 1st payment, then $107/month [intervention]; also received $30/person/month in restricted food vouchers (n=636) **Control:** no winterization transfer; received $30/person/month in restricted food vouchers (n=727)	•Debt		• Shelter (winterization) • Education	•Diet-related coping strategies •Other coping strategies

Schwab 2013 (Yemen)	Severely food insecure rural population; emerging conflict and civil unrest exaggerated by food, fuel and financial crisis	Randomized Control Trial – factorial cluster design; no randomization of untreated control group.	six months	US $147	**Cash:** unconditional, $49 bi-monthly (n=982) **Food**: food basket values at $49, bi-monthly (n=1001) **Control:** no cash, voucher or food transfer (n=1983)		• Household dietary diversity score • Dietary diversity index, 0-39 • Food consumption score • Calorie consumption (per capita	•Reduced meals/week •Adult food reduction •Child food reduction

Table 5: Characteristics of Included Experimental and Quasi-experimental Studies, by Intervention Type (continued)

Short Title (Country)	Population	Study design	Intervention description and comparisons			Economic outcomes [c]	Sector-specific outcomes [c]	Sector-specific outcomes [c]	Cross-cutting outcomes [c]
			Duration [a]	Transfer value [b]	Transfer modalities and comparisons (sample size[d])		Food security & nutrition	Other	Coping Mechanisms
Unconditional cash transfers and vouchers									
Aker 2013 (DR Congo)	IDPs in an informal camp	Randomized Control Trial – factorial, no control group without any treatments.	Six months	US $130	**Bank transfer:** unconditional, bi-monthly (n=126) **Voucher:** restricted, mostly food; bi-monthly distribution schedule $90/20/20 (n=126)	•Income •Savings •Durable assets (#) Total asset value	•Household dietary diversity score •Food insecure past 3 months •Months of adequate food •Meals per day		•Coping strategies index •Reduced meals/ day •Migration •Asset sales School drop-out
Hidrobo 2014 (Ecuador)	Urban Columbian refugees and poor Ecuadorian households	Randomized Control Trial – stratified cluster design.	Six months	US $240	**Cash:** unconditional, $40/month (n=601) **Voucher:** restricted food list, $40/month (n=651) **Food:** food basket valued at $40, monthly (n=453) **Control:** no cash, voucher or food transfer (n=652)		•Household dietary diversity score •Dietary diversity index, 0-40 •Food consumption score •Caloric intake per adult equivalent •Value of food consumed (avg) •Anaemia, children 6-59 months •Anaemia, girls 10-16 years	• Gender based violence	

[a] Exact study and intervention start/end dates are available in study summaries in Annex C1. [b] Transfer values are per household. [c] Details of all outcomes reported are available in study summaries in Annex C1. [d] Sampling unit for all studies = households.

5.2. Risk of Bias in Included Studies

A summary of the study design and methods of analysis used in the five identified experimental and quasi-experimental studies is presented in Table 6 along an assessment of the overall risk of bias for each study, which takes into account selection bias, measurement bias, and reporting bias, among other concerns.

Table 6: Study Design, Analysis and Risk of Bias for Included Studies

Short Title	Study Design and Allocation	Data and Analysis	Risk of Bias
Unconditional cash transfers			
Aker 2011 (Niger)	Randomized Control Trial – factorial cluster design; no control group w/o treatment.	Pre/post intervention data; regression	Medium
Lehmann 2014 (Lebanon)	Regression Discontinuity Design—by residence location; no randomization	Post intervention data; bivariate	High
Schwab 2013 (Yemen)	Randomized Control Trial - factorial cluster design; no randomization of control group.	Pre/post intervention data; regression	Medium
Unconditional cash transfers and vouchers			
Aker 2013 (DR Congo)	Randomized Control Trial -- factorial, no control group w/o treatment; individual randomization	Pre/post intervention data; regression	High
Hidrobo 2014 (Ecuador)	Randomized Control Trial -- stratified cluster design.	Pre/post intervention data; regression	Medium

Figure 4 summarizes the risk of bias across the five included experimental and quasi-experimental studies, based on the results of methodological quality appraisal for each.

Figure 4: Risk of Bias Summary for Included (Quasi) Experimental Studies

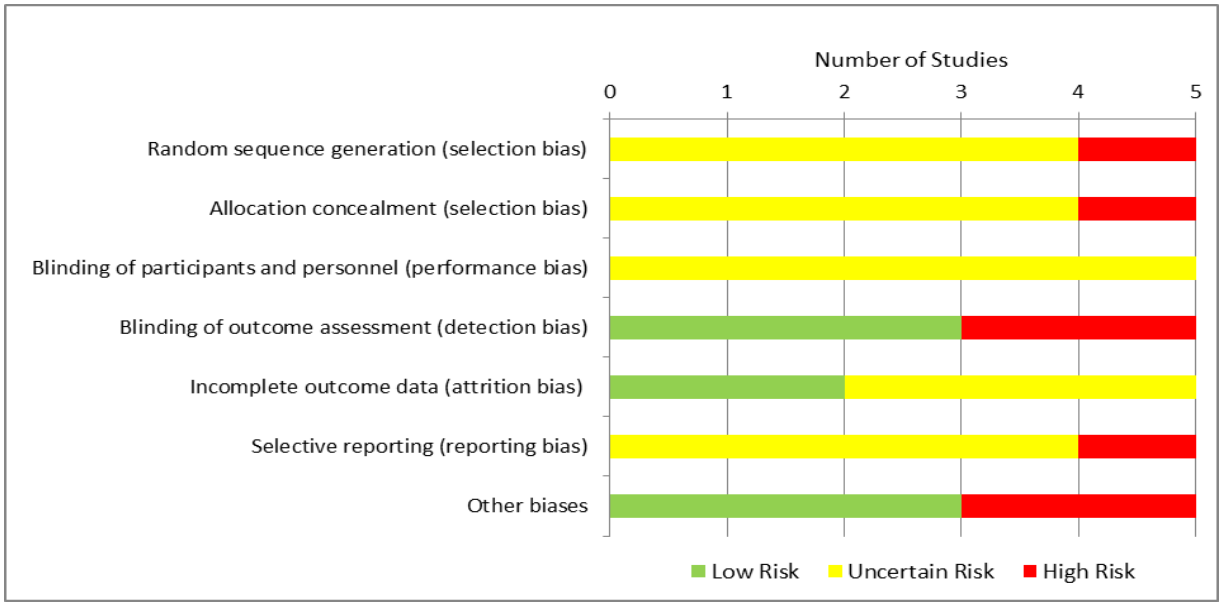
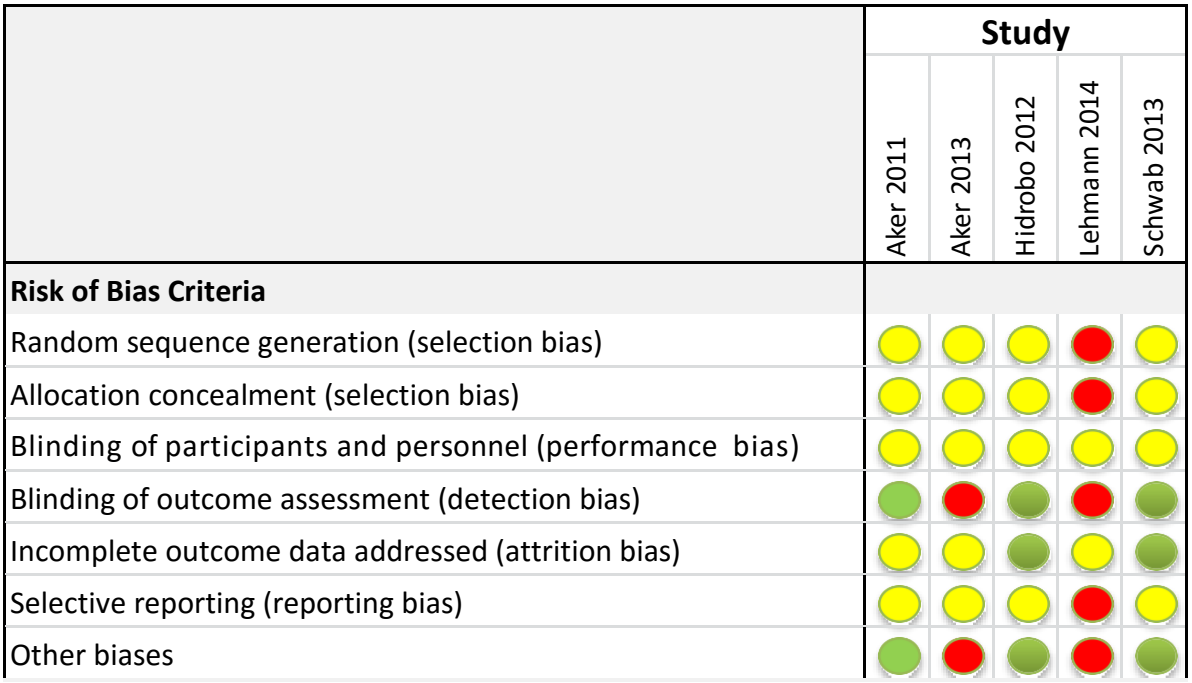


Figure 5 presents an overview of risk of bias for each of the included studies, taking into the study design, implementation, analysis, and reporting of results.

Figure 5: Risk of Bias for Included (Quasi) Experimental Studies



A total of three studies were rated as having medium risk of bias. Although these studies used randomized assignment and credible quasi-experimental methods such as multivariate analysis and regression discontinuity, they were downgraded due to lack of detailed explanation of selection processes and incomplete reporting of results. The remaining two studies were rated as having high risk of bias due to a lack of detailed explanation of randomization, allocation and blinding processes, as well as selective reporting of results. Details of critical appraisal for each study are presented in Annex C.

5.3. Synthesis of Results

Humanitarian actors have a responsibility to ensure that assistance is provided in a way that minimizes risks and maximizes benefits to people affected by crisis. The aim of this section is therefore to summarize and appraise the available evidence on the effects of unconditional cash transfer and voucher programme implementation in emergency settings. As noted above, the heterogeneity of comparisons and outcomes reported in the included studies prevented us from conducting meta-analysis. We therefore present a narrative synthesis of results in the following sections. First, findings related to the effects of unconditional cash-transfer programmes are presented, followed by findings related to the effects of voucher programmes.[4]

5.3.1. Effects of unconditional cash transfer programmes

Household food security and nutrition: Four studies reported on the effects of unconditional cash transfer programmes on household-level food security outcomes, two of which examined interventions designed to maintain food security (Aker, 2011; Schwab, 2013). The other two examined interventions designed to improve food security (Aker, 2013; Hidrobo, 2014). Although studies reported on multiple food security and nutrition indicators,

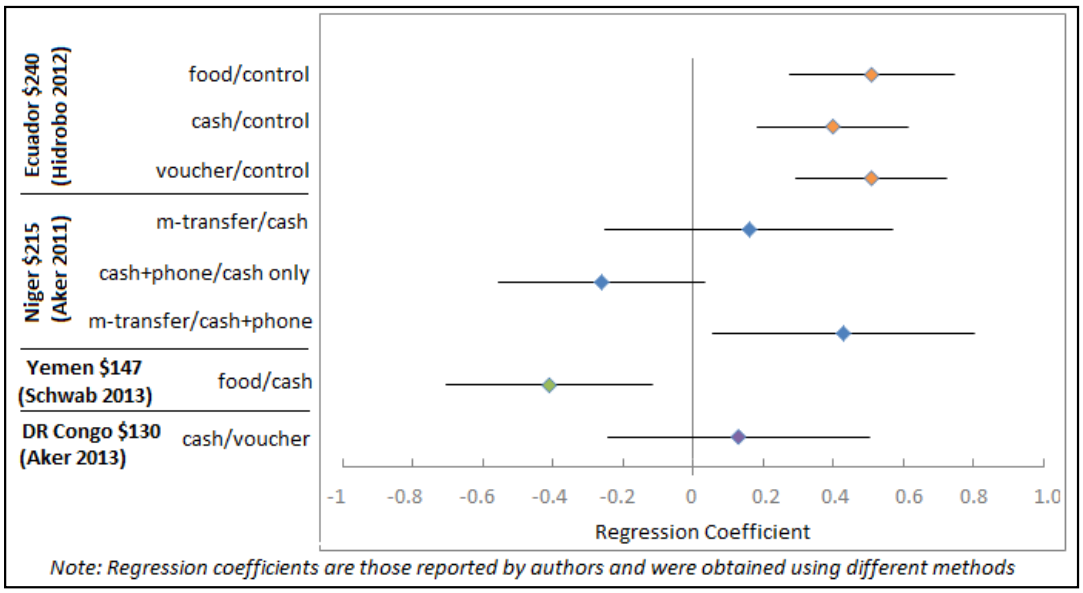
[4] Results are primarily reported according to statistical significance rather than magnitude of effect, due to heterogeneity of data available for review.

the only common indicator used in all four studies was Household Dietary Diversity Score (HDDS), a sum of the number of food groups consumed on the preceding day; for example, an increase in one point on the HDDS scale reflects the consumption of an additional food group.

In both studies examining interventions for preventing deterioration of food security, HDDS was successfully maintained during the intervention period. In rural, drought-affected communities in Niger, HDDS was successfully maintained, while in rural, conflict-affected and food insecure communities in Yemen, HDDS was not only maintained but improved during the intervention period. In the two studies examining interventions designed to improve food security, findings were mixed. HDDS improved for unconditional cash transfer recipients in urban Ecuador during the intervention period. In the conflict-affected internally displaced camp population in the DR Congo, unconditional cash transfers did not have a significant effect on HDDS.

All studies reporting on HDDS compared the effects of interventions using regression. Effect sizes for comparisons between unconditional cash transfer modalities (Aker, 2011), between transfers and in-kind food assistance (Schwab, 2013), between transfers and a control group (Hidrobo, 2014) and between transfers and vouchers (Aker, 2013) were reported in terms of regression coefficient (standard error), approximately ±0.13 (0.19) to -0.51 (0.12); in general, large effect sizes were observed in populations with higher baseline HDDS scores (possible range 0f 0-12; Figure 6).

Figure 6: Forest Plot of Effect Sizes for Household Dietary Diversity by and Intervention Type



Food consumption score (FCS), a food frequency measure calculated by summing the number of days a household consumed items from each of the 12 food groups used to calculate HDDS, was measured in the study assessing effects of interventions for maintaining food security of drought-affected populations in Yemen (Schwab, 2013) as well as the study assessing effects of interventions for improving food security of urban refugees and host communities in Ecuador (Hidrobo, 2014). In both studies, FCS improved during the intervention period. Effect sizes, reported in terms of regression coefficient (standard error), were 4.52 (1.29) for comparison of cash transfers versus in-kind food assistance in Yemen

and 6.57 (1.29) for comparison of cash transfers to a control group in Ecuador. No other food security outcomes were measured the same indicator in multiple studies.

The two studies that reported effects on household food security in terms of FCS (Schwab,2013; Hidrobo, 2014) also reported on the percent of households with poor-borderline consumption and Dietary Diversity Index, a score generated by summing the number of distinct food items consumed by households in the previous seven days. Metrics used to measure these food security indicators differed slightly between the two studies and insufficient details were reported to allow for recalculation of results in a common metric.

In terms of nutrition outcomes, the only indicator reported in both studies was per capita daily caloric intake. In Ecuador, in-kind food assistance had a greater impact than cash transfers; with a 12 per cent increase from baseline among unconditional cash transfer recipients and a 21 per cent increase from baseline among food transfer recipients. A similar finding was observed in Yemen where study findings included a 4 per cent higher per capita caloric intake among those receiving food transfers as compared to cash transfers *($p<0.10$,* marginally significant).

Table 7 presents a summary of food security and economic indicators reported in two or more studies.

Table 7: Summary of Results for Indicators Reported in Two or More Studies*

Indicator (Definition)	Short Title (Country)	Sample Size (indicator specific)	Baseline Point Estimate			Endline Point Estimate			Effect^			
			Mean	SD	p-value	Mean	SD	p-value	Comparison	Coefficient	SE	p-value
Food security & nutrition indicators												
Household Dietary Diversity Score (HDDS). Sum of the number of food groups consumed in the previous seven days (0-12; food groups include cereals, roots/tubers, vegetables, fruits, meat/ poultry/offal, eggs, fish/seafood, pulses/legumes/nuts, milk/milk products, oil/fats, sugar/honey, miscellaneous)	Aker 2011 (Niger)	Mobile transfer Physical cash Phone + cash (placebo) [All groups: > 1200]	--- --- --- 3.07	--- --- --- 2.64	--- --- --- ---	--- --- --- 3.07	--- --- --- 2.04	--- --- --- ---	Mobile vs cash Placebo vs cash Mobile vs placebo Mobile vs both	0.16 -0.26 0.43 0.30	0.21 0.15 0.19 0.18	NS NS <0.05 NS
	Schwab 2013 (Yemen)	Cash: 982 Food: 1,001 [All treatments: 1983] Control:1983	--- --- 7.12 7.26	--- --- --- ---	--- --- NS (Ref)	--- --- 7.29 7.12	--- --- --- ---	--- --- <0.1 (Ref)	Cash vs control Food vs control Food vs cash	--- --- -0.41	--- --- 0.15	--- --- <0.001
	Aker 2013 (DR Congo)	Bank transfer: 126 Food voucher: 126 [All groups: 252]	--- --- 2.9	--- --- 1.75	--- --- ---	--- --- 3.36	--- --- 0.17	--- --- ---	Cash vs voucher	0.13	0.19	NS

	Hidrobo 2014 (Ecuador)	Cash: 539[+] Voucher: 573[+] Food: 413[+] Control: 562[+]	9.23 9.19 9.22 9.11	1.71[+] 1.90[+] 1.76[+] 1.87[+]	0.49 0.61 0.57 (Ref)	10.76[+] 10.89[+] 10.89[+] 10.27[+]	1.49[+] 1.47[+] 1.51[+] 1.67[+]	--- --- --- ---	Cash vs control Voucher vs control Food vs control	0.47 0.60 0.61	0.11 0.12 0.12	<0.001 <0.001 <0.001
Food Consumption Score. Weighted food frequency (sum of the number of days a household consumed items from each food group)	Schwab 2013 (Yemen)	Cash: 982, Food: 1,001 [All treatments: 1983] Control:1983	--- --- 49.12 52.98	--- --- --- ---	--- --- <0.001 (Ref)	--- --- 51.34 50.10	--- --- --- ---	--- --- NS (Ref)	Cash vs control Food vs control Food vs cash	--- --- -4.52	--- --- 1.19	--- --- <0.001
	Hidrobo 2014 (Ecuador)	Cash: 539[+] Voucher: 573[+] Food: 413[+] Control: 562[+]	60.00[+] 59.75[+] 60.93[+] 59.05[+]	19.63[+] 20.72[+] 19.22[+] 20.59[+]	0.57 0.66 0.35 (Ref)	68.16[+] 71.17[+] 68.72[+] 61.42[+]	20.42[+] 20.67[+] 18.98[+] 18.57[+]	--- --- --- ---	Cash vs control Voucher vs control Food vs control	6.57 9.56 6.96	1.29 1.39 1.22	<0.001 <0.001 <0.001

Table 7: Summary of Results for Indicators Reported in Two or More Studies (continued)

Indicator (Definition)	Short Title (Country)	Sample Size (indicator specific)	Baseline Point Estimate			Endline Point Estimate			Effect			
			Mean	SD	p-value	Mean	SD	p-value	Comparison	Coefficient	SE	p-value
Food security & nutrition indicators (continued)												
Poor Food Consumption. Percent of household with poor-borderline consumption Cutoffs by study as follows: Schwab, 2013 < 28.5 Hidrobo,2014 ≤ 35	Schwab 2013 (Yemen)	Cash: 982 Food: 1,001 [All treatments: 1983] Control:1983	--- --- 0.20 0.13	--- --- --- ---	--- --- <0.001 (Ref)	--- --- 0.17 0.20	--- --- --- ---	--- --- <0.1 (Ref)	Cash vs control Food vs control Cash vs food	--- --- ---	--- --- ---	--- --- ---
	Hidrobo 2014 (Ecuador)	Cash: 539+ Voucher: 573+ Food: 413+ Control: 562+	0.10+ 0.12+ 0.10+ 0.13+	0.31+ 0.33+ 0.30+ 0.33+	--- --- --- ---	0.06+ 0.04+ 0.03+ 0.08+	0.23+ 0.19+ 0.17+ 0.27+	--- --- --- ---	Cash vs control Voucher vs control Food vs control	-0.02 -0.04 -0.05	0.02 0.02 0.02	NS <0.001 <0.001
Dietary Diversity Index. Sum of the number of the distinct food items consumed by the households in the previous seven days. *Scales by study as follows: Schwab, 2013 0-39*	Schwab 2013 (Yemen)	Cash: 982 Food: 1,001 [All treatments: 1983] Control:1983	--- --- 10.96 10.79	--- --- --- ---	--- --- NS (Ref)	--- --- 11.24 10.91	--- --- --- ---	--- --- <0.1 (Ref)	Cash vs control Food vs control Food vs cash	--- --- -4.52	--- --- 1.19	--- --- <0.001
	Hidrobo 2014 (Ecuador)	Cash: 539+ Voucher: 573+ Food: 413+	17.41 17.28	5.56+ 5.63+ 5.64+	0.51 0.64	21.89+ 22.34+ 21.62+	5.79+ 5.65+	--- ---	Cash vs control	2.64 3.13	0.42 0.45	<0.001 <0.001

Hidrobo,2014 0-40		Control: 562+	17.44	5.80+	0.53	19.09+	5.81+	---	Voucher vs control	2.36	0.44	<0.001
			17.02		(Ref)		5.69+	---	Food vs control			
Economic indicators												
Number of Durable Assets Owned	Aker 2011 (Niger)	Mobile transfer	---	---	---	---	---	---	Mobile vs cash	0.03	0.05	NS
		Physical cash	---	---	---	---	---	---	Placebo vs cash	-0.01	0.03	NS
Assets by study as follows:		Phone + cash (placebo)	---	---	---	---	---	---	Mobile vs placebo	0.04	0.04	NS
Aker, 2011: carts, ploughs, bikes and mopeds		[All groups: >1200]	---	---	---	0.2	0.58	---	Mobile vs both	0.04	0.04	NS
Aker, 2013: bikes, generators, storage facilities, agricultural tools	Aker 2013 (DR Congo)	Bank transfer: 126	---	---	---	---	---	---	Cash vs voucher	---	---	---
		Food voucher: 126	---	---	---	---	---	---				
		[All groups: 252]	0.01	0.009	---	---	---	---				

* --- reflects information that is not available; this information was not included in the study report(s) and was not provided when requested from authors. Information for studies with multiple records was extracted from the following: Aker/DR Congo (2013 CGD Working Paper) and Hidrobo/Ecuador (2014 Journal of Development Effectiveness article)

+ Reported in personal correspondence from authors

^ Includes adjusted and unadjusted effect sizes; variables that are controlled for are not always reported. Refer to individual studies for discussions of which effects are adjusted and which variables are controlled for.

Household economy. Three studies reported on the effects of unconditional cash transfer programmes on household-level economic outcomes. The only household economic indicator reported in multiple studies was asset ownership (n=2); income, savings and debt were each reported in one study. Study findings related to economic outcomes are summarized in Table 8.

Table 8: (Quasi-) Experimental Studies Reporting on Household Economic Outcomes

Short Title (Country)	Indicators Reported	Findings*
Unconditional cash transfers		
Aker 2011 (Niger)	Asset ownership	There was no difference in the types of assets owned or depletion of durable assets across comparison groups) in drought-affected Niger. Beneficiaries of mobile phone transfers depleted fewer non-durable assets during the study period than beneficiaries of physical cash transfers and mobile phones (a 'placebo' group.
Lehmann 2014(Lebanon)	Debt	Cash transfers provided to address winterization needs did not reduce indebtedness among Syrian refugees in Lebanon.
Unconditional cash transfers and vouchers		
Aker 2013 (DR Congo)	Income, savings, asset ownership	Cash transfer recipients were more likely to save a portion of their transfer and more likely to purchase certain assets than voucher recipients in IDP settlements of DR Congo. There were no differences in income or asset acquisition/sale between the two groups.

Durable asset ownership, an indicator of household economic status, was reported in both the study assessing interventions intended to maintain household food security and livelihoods in drought-affected communities of Niger (Aker, 2011) and the study assessing interventions designed to increase access to food and essential non-food items in an informal camp for internally displaced persons in DRC (Aker, 2013). However, different measures of durable asset ownership were used in the two studies and insufficient data were presented to allow for calculation of the effect size in a common metric.

In Niger, where interventions intended to maintain household food security and livelihoods in drought-affected communities were compared, no change in asset categories owned or durable assets was observed during the study period. At endline, households receiving m-transfers had significantly higher non-durable asset scores than those in the cash+phone group; however, no significant difference was observed when compared to the cash only group. The study concluded that the interventions had no impact on durable asset ownership but that households receiving m-transfers may have been able to sell non-durable assets less frequently compared to those receiving physical cash transfers.

In DR Congo, where interventions intended to improve household livelihoods were compared, increases in the average value of household assets, incomes and savings were observed during the intervention period. Cash transfers households were able to save US$1.50 more than voucher households over the life of the intervention ($p<0.001$) and 9 per cent of households receiving cash transfers had savings at the end of the intervention period compared to 1 per cent of households that received vouchers. However, no statistically significant differences were detected in endline household incomes or asset values between

unconditional cash transfer and voucher groups. The study concluded that due to a lack of a non-intervention comparison group, neither increases in income nor increases in asset value could be attributed to unconditional cash transfer and voucher program.

Debt was reported on as an outcome in one study, a winterization cash transfer programme for Syrian refugees in Lebanon (Lehmann, 2014). Levels of debt following the cash transfer intervention (US$575 transfer value) were statistically similar in intervention and control households at US$500 and $513 in outstanding loans, respectively (no baseline data were available).

Other sector-specific outcomes: Three studies reported on the effects of unconditional cash transfers in other humanitarian sectors. Study findings related to agriculture, shelter, education and gender-based violence (GBV) outcomes are summarized in Table 9.

Table 9: (Quasi) Experimental Studies Reporting on Sector Specific Outcomes

Short Title (Country)	Sector	Findings*
Unconditional cash transfers		
Aker 2011 (Niger)	Livelihoods (agriculture)	The programme did not have an impact on land ownership, likelihood of cultivation or use of improved seed; m-transfer households grew more types of crops than those in the two comparison groups; however changes in crop choice did not translate into improvements in production or crop sales.
Lehmann 2014 (Lebanon)	Shelter/NFIs (winterization assets and expenditures)	No significant differences between the cash and comparison group were observed for ownership of winter assets (blankets, winter jackets, gloves) that were not provided by the programme (heating stoves were provided in addition to cash as part of the intervention). Approximately 10 per cent of monthly cash assistance (US$10 of US$107) was spent on heating fuel and clothing in intervention households. Monthly winterization expenditures were significantly greater in the cash transfer group compared to non-intervention group (avg of $US6 and $US4 more for heating fuel and clothes, respectively)
	Education	Following the intervention, 39 per cent and 33 per cent of children in the cash transfer and comparison groups, respectively, were enrolled in school; this difference was statistically significant.
Unconditional cash transfers and vouchers		
Hidrobo 2014 (Ecuador)	Gender-based Violence	Cash, voucher and food transfer groups all led to significant decreases in physical/sexual violence. However there were no significant differences in effect size across modalities.

Livelihoods (Agriculture)

The study from Niger (Aker, 2011) reported on agricultural indicators and concluded that there were no differential impacts on land ownership, likelihood of cultivation or improvements in crop production or sales between the intervention groups (mobile transfer, cash+phone and cash only); impacts of a cash transfer compared to no cash transfer could not be assessed due to lack of a comparison group.

Education

The study from Lebanon (Lehmann, 2014) reported on access to education, After the winterization cash transfer intervention, 39 per cent and 33 per cent of children in the cash transfer and comparison groups, respectively, were enrolled in school (a statistically significant difference). This suggests cash assistance increased access to education; however, pre-intervention attendance rates are not available so differences in attendance cannot be attributed to the cash transfer intervention as enrolment rates may have differed at baseline.

Shelter/NFIs (Winterization Assets and Expenditures)

The Lebanon study (Lehmann, 2014) also assessed winterization assets and expenditures which could be considered as outcomes related to shelter and/or non-food items. No significant differences in winter asset ownership were observed as a result of cash transfer in Lebanon; households receiving winterization cash transfers spent approximately 10 per cent of the transfer on winter assets and heating fuel and had significantly higher monthly expenditures for each of those categories compared to households that did not receive winterization cash transfers.

Gender-based Violence

The Ecuador study (Hidrobo, 2014) was the only study to report on GBV outcomes. The study observed an overall increase in domestic violence rates, however smaller increases were observed among those receiving cash transfers and food transfers as compared to those not receiving an intervention. The study concluded that three transfer modalities (food transfer, cash transfer, and vouchers) significantly decreased physical/sexual violence compared to no intervention. In addition, when comparing treatment modalities it was observed that only cash transfers and food transfers significantly decreased controlling behaviours and only cash transfers significantly decreased the aggregate measures of any violence.

Cross-cutting outcomes: Four studies reported on household-level coping strategies, including those from Niger (Aker, 2011), the DR Congo (Aker, 2013), Lebanon (Lehmann, 2014), and Yemen (Schwab, 2013). Because indicators varied widely and no two studies reported on the same economic or sector specific coping mechanisms, findings are presented as a cross-cutting outcome in Table 10 and the following text.

Table 10: (Quasi)Experimental Studies Reporting Coping Strategies

Short Title (Country)	Indicators Reported	Findings
Unconditional cash transfers		
Aker, 2011 (Niger)	Land sales, Tree cutting,Anthill searching	No significant differences in coping strategy use were observed between comparison groups (m-transfer, cash, cash+phone) at endline; the study concluded that the mobile transfer programme did not affect coping strategy use.
Schwab, 2013 (Yemen)	Reduced meal frequency, Reduced meal consumption (reported separately for children and adults)	Both households receiving the interventions (food or cash) and those receiving no intervention decreased use of coping strategies (statistical significance for pre/post differences not presented). No significant differences in use of the three reported coping strategies were observed between intervention and comparison groups or within the two comparison groups at baseline or endline.

Table 10: (Quasi)Experimental Studies Reporting Coping Strategies (continued)

Short Title (Country)	Indicators Reported	Findings
Unconditional cash transfers		
Lehmann, 2014 (Lebanon)	Diet-related coping strategies (past week)	Cash transfers households reported significantly lower use of diet related coping strategies at endline compared to the control group (no baseline data available). Statistically significant differences were observed for reliance on less preferred food, reduction in meal frequency, portion size reductions, and days where adults restricted consumption to enable children to eat; there was no significant difference in frequency of borrowing food, between the intervention and comparison groups.
	Other coping strategies (past month)	At endline, households in the intervention group reported significantly lower use of child labour, undertaking risky activities and productive asset sales (baseline data not available).
Unconditional cash transfers and vouchers		
Aker, 2013 DR Congo	Migration, Asset sales, Reduced meal consumption, Children removed from school, Coping Strategies Index	Both cash and voucher households decreased their use of coping strategies during the intervention period (statistical significance for pre/post differences not presented). There were no differential effects of the transfer modality on use of coping strategies that were statistically significant at conventional levels.

5.3.2. Effects of voucher programmes

Household food security and nutrition: The two studies of interventions designed to improve food security both reported on the effects of voucher programmes on household-level food security outcomes. As noted above, the only common indicator reported in both studies was HDDS.

In the study comparing effects of vouchers and unconditional cash transfers in an internally displaced persons camp in DR Congo (Aker, 2013), no change in HDDS was observed for either intervention group during the study period. In the study comparing food vouchers, unconditional cash transfers and in-kind food assistance to no intervention among refugee populations and host communities in Ecuador, food voucher recipients showed significantly greater gains in HDDS than cash or in-kind food assistance recipients with effect sizes, reported in terms of regression coefficient (standard error), of 0.60 (0.12) for comparison of vouchers to a control group and 0.47 (0.11) for comparison of unconditional cash transfers to a control group. (Figure 6; Table 7) The study also found vouchers to have a greater effect on FCS than unconditional cash transfers with effect sizes, of 6.57 (1.29) for comparison of cash transfers to a control group and 9.56 (1.39) for vouchers versus a control group.

Household economy: As noted above, the study comparing effects of vouchers and unconditional cash transfers on household-level economic outcomes in an internally displaced persons camp in DR Congo found that voucher recipients reported significantly less savings over the life of the intervention than unconditional cash transfer recipients. Although improvements in household income and asset ownership were documented in both intervention groups, the study concluded that outcomes could not be attributed to the interventions due to lack of a non-intervention comparison group (Table 8).

Other sector-specific outcomes: The study comparing effects of food vouchers, unconditional cash transfers and in-kind food assistance for refugee populations and host communities in urban Ecuador found that vouchers and unconditional cash transfers were equally effective in decreasing physical/sexual violence. Vouchers had no effect on reports of controlling behaviours or aggregating measures of GBV (Table 9). No other sector-specific outcomes were reported in either study evaluating both unconditional cash transfer and voucher programmes.

Cross-cutting outcomes: The study in DR Congo assessed change in use of coping strategies, but did not report on the statistical significance of these changes; thus, conclusions about the effectiveness of vouchers cannot be drawn.

KEY FINDINGS: EFFECTIVENESS OF CASH-BASED APPROACHES

Studies reviewed lacked methodological rigor necessary to draw strong conclusions about the effects of cash-based approaches in humanitarian settings. The evidence on the effects of cash transfers is strongest for food security (four studies). Few studies measure changes in household economic indicators, other sectoral outcomes and cross-cutting outcomes. All findings related to the effects of cash-based approaches in emergencies should be interpreted with caution as they are based on few studies, some of which have methodological limitations.

Evidence reviewed, however, suggests the following:

- Cash-based approaches (unconditional cash transfers and vouchers) may improve household food security among conflict-affected populations and maintain household food security within the context of food insecurity crises and drought. No studies reported statistically significant differences in effect size between different cash transfer modalities (Aker, 2011; Aker, 2013; Hidrobo, 2014; Schwab, 2013).

- Unconditional cash transfers were more effective than in-kind food assistance for increasing dietary diversity and quality (Schwab, 2013 (Yemen): HDDS effect size for food vs. cash -0.41 (p<0.001); FCS effect size for food vs. cash -4.52 (p<0.001)).

- Unconditional cash transfers and vouchers were less effective than in-kind food assistance for increasing per capita caloric intake (Hidrobo, 2014 (Ecuador) increase from baseline caloric intake for food transfers of 21 per cent compared to vouchers (18%) and cash grants (12%); p<0.001 for all pre/post comparisons; and Schwab, 2013 (Yemen) per capita caloric intake increased by 9 per cent from baseline to endline (p<0.001) among cash and food transfer recipients, with a 4 per cent higher per capita caloric intake among those receiving food transfers as compared to cash transfers (p<0.10, marginally significant).

KEY FINDINGS: EFFECTIVENESS OF CASH-BASED APPROACHES (continued)

- Attribution of changes in savings and asset values to cash-based approaches was not possible due to lack of a 'true control' (non-intervention comparison group) in any of the studies that examined effects of interventions on household economies.
- Unconditional cash transfers may be more effective than vouchers for increasing household savings and equally effective for increasing household assets (Aker 2013 (DR Congo): Effect size for savings Cash / voucher – Coeff: 1.56 (p<0.05); cash grant households were able to save US $1.50 more than voucher households; 9 per cent of cash grant households had savings compared to 1 per cent of voucher households. The average value of household assets increased by 31 per cent, from US $61 to US $80 (both comparison groups combined; no significant differences between groups)).
- Mobile transfers may be a more successful asset protection mechanism than physical cash transfers (Aker, 2011 (Niger): Effect sizes for number of asset categories owned: m-transfer / cash only - Coeff: 0.66 (p<0.01) and m-transfer / cash + phone - Coeff: 0.46 (p<0.01). Effect sizes for number of durable assets owned: m-transfer / cash only - Coeff: 0.03 (NS) and m-transfer / cash + phone - Coeff: 0.04 (NS). Effect sizes for number of non-durable assets owned: m-transfer / cash only - Coeff: 0.15 (NS) and m-transfer / cash + phone - Coeff: 0.24 (p<0.01)).

6. Results: Efficiency of Cash-Based Approaches

6.1. Characteristics of Included Studies

A total of ten studies were identified that reported on the costs, cost-efficiency, cost-effectiveness or market impacts of cash-based approaches in humanitarian emergencies, five of which were quasi-experimental studies described above in Chapter 5. The remaining five studies were either evaluations that did not meet criteria for inclusion in review of studies addressing review question 1 (Creti, 2014; Kardan 2010) or studies wholly designed to examine the efficiency or value for money of cash-based approaches (Bauer, 2014; Davies, 2007; Husain, 2014).

Of the ten included studies, six examined costs, five examined cost efficiency, four examined cost-effectiveness or cost-benefit, and four examined market impacts. The majority of studies focused on unconditional cash transfer programmes (n=8). Two of the studies focusing on unconditional cash transfers included vouchers as a comparison group (n=3), and the remaining three studies focused only on voucher programmes. Five of the studies were in conflict-affected settings, and five in contexts of extreme food security. Only one study was conducted within a camp context; the others were conducted in non-camp settings and included both urban and rural populations. Most studies were conducted in Africa (n=5) or the Middle East (n=4), and there was one from Latin America. The programmes were implemented either by NGOs (n=6) or the World Food Programme (n=4) and were concentrated in the sectors of food security and economic/livelihoods recovery.

Information on the beneficiary populations, interventions, comparison groups and type of efficiency analyses conducted is presented in Table 11. All costs presented in this table and the following text are the US dollar equivalents of the local currency as reported in the document reviewed. Additional study characteristics, including analytical perspectives, cost data sources, currencies and price years reported, are detailed in study summaries in Annex D.

Table 11: Characteristics of Included Cost and Market Impact Studies

Short Title (Country)	Beneficiary Population	Programme Duration	Total Transfer Value	Transfer Modalities and Comparison Groups	Study Design				
					Cost Analysis	Cost-Efficiency	Cost-Effectiveness	Cost-Benefit	Market Impacts
Unconditional cash transfers									
Aker, 2011 (Niger)	10,000 vulnerable households in 96 drought-affected communities	five months	US $215 per household	Mobile transfer: $45/month Physical cash: $45/month Phone + cash: $45/month	□	□		□	
Creti, 2014 (Niger)	625 Malian refugee households in urban setting	four months	Not stated	Mobile transfer: value per transfer not stated Microfinance institution: value per transfer not stated	□				
Davies, 2007 (Malawi)	5,060 vulnerable households in three districts	five months	Not stated	Cash: value per transfer not stated					□
Kardan, 2010 (Zimbabwe)	3,800 severely food insecure households	five months	Variable	Cash: unconditional, $7.23 Cash + food: valued $5.56 Food: food basket with 10kg maize,1.8 kg beans and 0.6 lts vegetable oil valued $4.48	□	□			
Lehmann, 2014 (Lebanon)	87,700 Syrian refugees households in non-camp settings	five months	US $575 per household	Cash: unconditional, $147 1st payment, then $107/month					□
Schwab 2013 (Yemen)	9,985 severely food insecure households	six months	US $147 per household	Cash: $49 bi-monthly Food: food basket valued at $49, bi-monthly	□	□	□		
Vouchers									

Bauer, 2014 (Lebanon)	732,318 Syrian refugees	Ongoing	N/A	Food voucher: $30/month				□
Husain, 2014 (Jordan)	571,000 Syrian refugees in camp and non-camp settings	Ongoing	N/A	Food voucher: $34/month				□
Unconditional cash transfers and vouchers*								
Aker, 2013 (DR Congo)	474 households in an informal internally displaced persons camp	six months	US $130 per household	Bank transfer: bi-monthly $90/20/20 Voucher:; bi-monthly $90/20/20	□	□	□	
Hidrobo, 2014 (Ecuador)	Urban refugees and poor host community households in areas	six months	US $240 per household	Cash: $40/month Voucher: restricted, $40/month Food: food basket valued at $40/mo	□	□	□	□

* Information was extracted from the following: Aker 2013/DR Congo (2013 CGD working paper and UNICEF report) and Hidrobo 2014/Ecuador (Hidrobo 2012, Hidrobo 2014, Margolies 2014)

6.2. Risk of Bias in Included Studies

Interest in the efficiency, or value-for-money, of humanitarian assistance programmes is not only about minimizing costs, but also about how well costs are converted to outputs of interest. The principal challenge in evaluating the efficiency of cash-based approaches in emergencies is the lack of consistent definitions of costs and benefits across humanitarian organizations, programme sectors and settings. Most organizations implementing humanitarian assistance programmes can provide data on monthly or annual programme expenditure, but it is often unclear which costs are included and which are not, or how fixed and recurrent costs, or direct and indirect costs can be distinguished. As with other types of evaluations, the quality of efficiency analyses depends on the range of perspectives considered and level of detailed explanation of costs and benefits considered. Without explicitly or implicitly describing analysis perspectives and definitions used, results of efficiency analyses are not only difficult to interpret but also cannot be compared with each other and can lead to confusion. A summary of the costs considered and methods of analysis used in the ten included efficiency studies is presented in Table 12, along with the level of 'potential analytical power' of each study (BMZ, 2011).

Table 12: Study Design, Costs Reported and Potential Analytic Power of Included Studies

Short Title (Country)	Costs		Analysis Conducted	Potential Analytic Power
	Intervention Costs	Beneficiary Costs		
Unconditional cash transfers				
Aker, 2011 (Niger)	Fixed costs; variable costs (start-up, transport, security)	Transport costs; opportunity costs (time)	Cost analysis; cost-efficiency, cost-benefit	Level 1
Creti, 2014 (Niger)	Transfer fees; total delivery costs	Transport costs; opportunity costs (time)	Cost analysis	Level 0
Davies, 2007 (Malawi)	*Not reported*	*Not reported*	Market impacts	Level 1
Lehmann, 2014 (Lebanon)	Staff, materials, programme logistics, transfer value	*Not reported*	Market impacts	Level 1
Kardan, 2010 (Zimbabwe)	Transfer value	*Not reported*	Cost analysis, cost-efficiency	Level 1
Schwab, 2013 (Yemen)	Staff, materials, programme logistics, transfer value	Transport costs, opportunity costs (time)	Cost analysis, cost-efficiency, cost-effectiveness	Level 2
Vouchers				
Bauer, 2014 (Lebanon)	Transfer value	*Not reported*	Market impacts	Level 1

Husain, 2014 (Jordan)	Transfer value	*Not reported*	Market impacts	Level 1
Unconditional cash transfers and vouchers				

Aker, 2013 (DR Congo)	Staff, materials, logistics, security	Opportunity costs (time)	Cost analysis, cost-efficiency, cost-benefit	Level 1
Hidrobo, 2014 (Ecuador)	Staff, materials, programme logistics, transfer value (modality and non-modality specific costs)	Transport costs, opportunity costs (time)	Cost analysis, cost-efficiency, cost-effectiveness	Level 2

Figure 7 summarizes the risk of bias across the ten included efficiency studies based on the results of methodological quality appraisal for each.

Figure 7: Risk of Bias Summary for Included Cost and Market Impact Studies

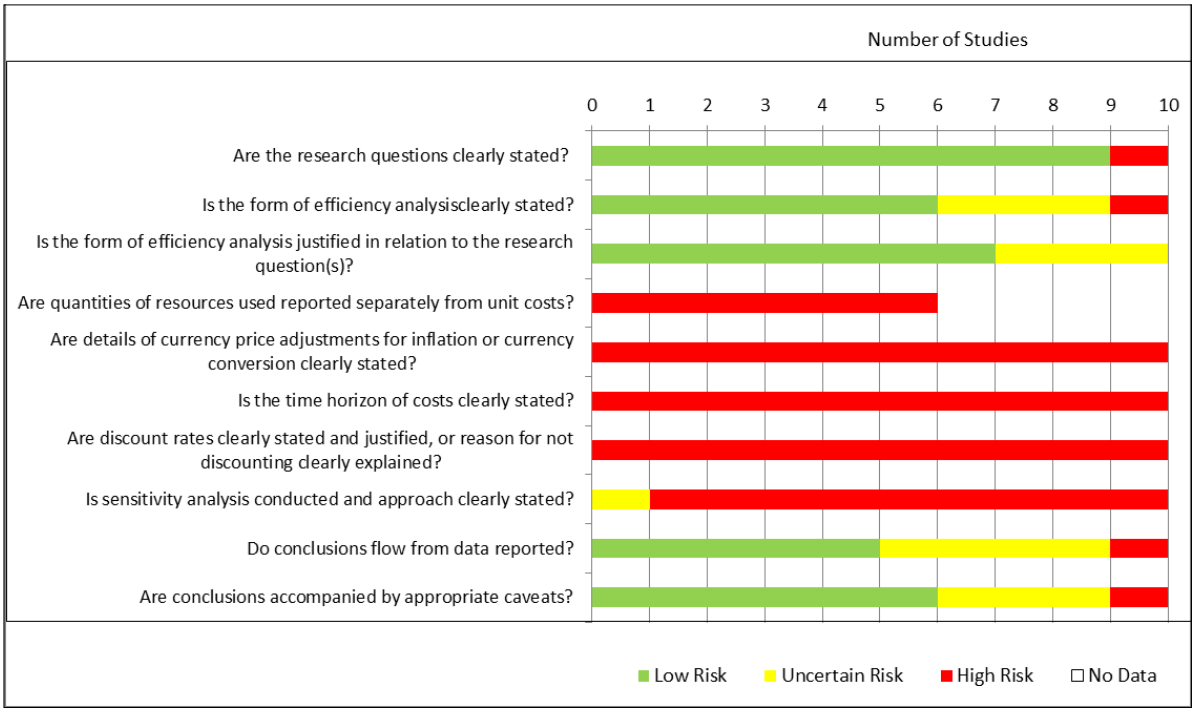
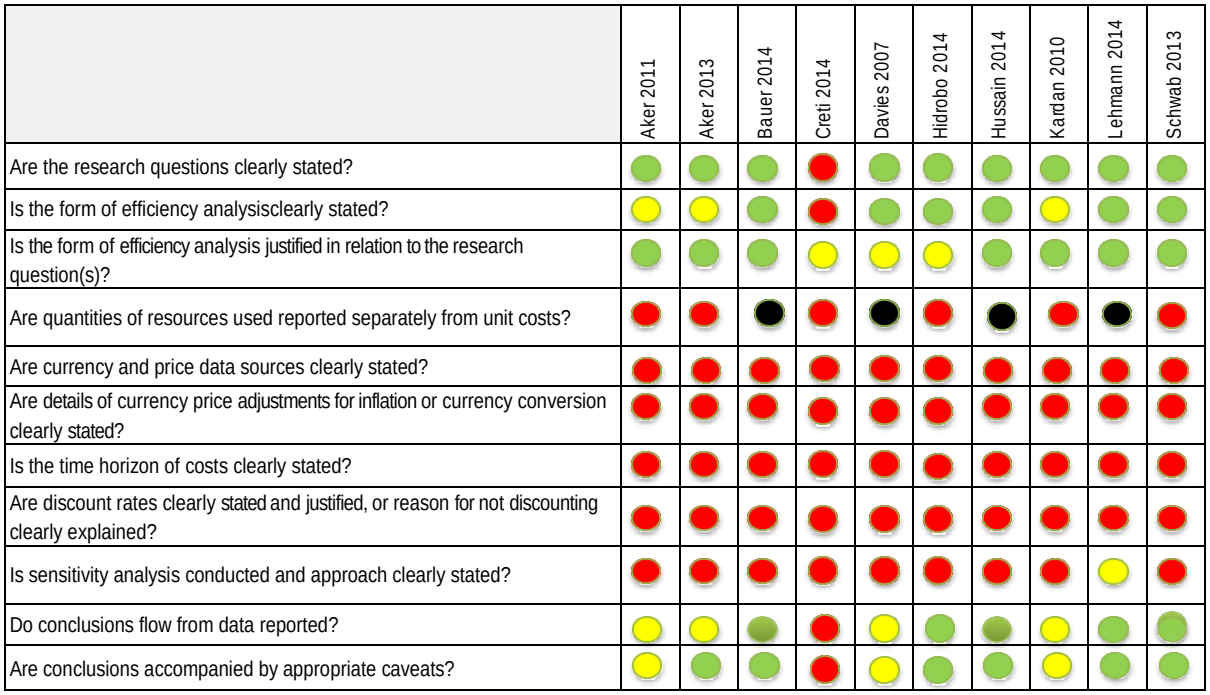


Figure 8 presents an overview of the risk of bias for each of the included studies, taking into account descriptions of the design, data collection, analysis and interpretation of results of each study.

Figure 8: Risk of Bias Summary for Included Cost and Market Impact Studies



A total of nine studies were rated as having uncertain risk of bias due largely to lack of detailed explanation of cost data sources and analysis methods used, including complete absence of information on analytical time horizons, and whether any discounting of costs, currency price adjustments, or sensitivity analyses were conducted. It is possible that these studies would be rated high risk of bias if more information were provided to determine whether conclusions were accompanied by appropriate caveats. One study was classified as having high risk of bias because, in addition to a lack of detailed explanation of cost data sources and analysis methods, it did not clearly present a research question with rationale for the form of efficiency analysis conducted. Critical appraisal details of each study are presented in Annex D.

6.3. Synthesis of Results

In many setting, there are unavoidable opportunity costs of undertaking any humanitarian program, as funds spent on one intervention are not available for others. The aim of this synthesis, therefore, is to help readers understand economic trade-offs between alternative interventions and delivery mechanisms by summarizing and appraising the available evidence on the efficiency of different cash-based approaches and delivery channels in emergency settings.

Three studies compared cash-based interventions to in-kind approaches, namely food assistance, and consistently found cash-based approaches to be a more efficient alternative. Conclusions about the relative efficiency of different cash-based approaches or delivery mechanisms (e.g. unconditional cash transfer vs voucher, physical cash vs mobile phone transfer) cannot be drawn from the studies included in this review, because no two studies used the same comparison groups.

It is also important to remember that the most efficient intervention or delivery mechanism is not necessarily the most cost-effective, because the benefits of a less efficient intervention may offset additional costs. Determinations of cost-effectiveness or cost-benefit may also be

influenced by the specific objective of the intervention and/or outcome indicators used. The two studies examining cost-effectiveness of assistance modalities both found cash-based approaches to be more cost-effective than in-kind assistance for many but not all household food security outcomes examined. Four studies examined market impacts of a single intervention, either unconditional cash transfers or electronic vouchers for food assistance. In these cases, the intervention of interest was found to have positive economic benefits, but alternative interventions and delivery mechanisms were not examined.

Several factors affect the costs of a cash-based intervention and its efficiency or value for money compared to other cash-based or in-kind modes of assistance. The main costs are the transfer or vouchers themselves, staffing and expenses associated with delivery mechanism. Other factors that influence efficiency are the expertise and adaptation of systems required to introduce new interventions, resources required to address beneficiary and stakeholder perceptions, and market price fluctuations. Assumptions made in defining, measuring and comparing costs were not always explicit, and thus caution should been heeded in comparison of efficiency measures across settings.

6.3.1. Costs

Descriptions or analyses of implementation costs are not sufficient to evaluate the value for money of cash-based approaches, but were included in the review because they are a critical component of any cost-efficiency or cost-effectiveness evaluation and therefore provide insight into the rigor of analyses conducted.

Six studies presented descriptions or analyses of the cost of cash-based approaches in humanitarian emergencies. All considered programme costs, and five reported on some type of costs to beneficiaries. However, measures used to define costs and expenditures included or excluded from calculations varied from study to study. Few studies presented tables with detailed breakdowns of costs by category and modality, thus limiting the potential for comparison across programme settings and intervention designs.

Programme costs: Programme costs were reported in all six studies, four of which were quasi-experimental studies designed to evaluate the effectiveness of cash-based approaches or transfer modalities on household food security. When reporting programme costs, only two studies (Hidrobo, 2014; Schwab 2013) presented the percentage of total costs for modality-specific and non-modality-specific costs using a standardized activity-based costing ingredients approach, while other studies used their own definitions of expenditure categories. Table 13 presents the types of programme costs analysed and key findings reported by each author.

No studies reported measures of implementation costs, such as total transfer or administrative costs per year, or broke down administrative costs into set-up costs, roll-out costs, and ongoing operational costs to reflect different levels of investment needed for piloting, scaling up or continuing implementation of an intervention. In two cases, it was noted that because cash transfers were introduced only for the associated study, start-up activities were included in the intervention costs, while analogous activities for in-kind food distribution interventions had been incurred long before the study period and were not available in financial records for comparison (Hidrobo, 2014; Schwab, 2013).

Table 13: Studies Reporting Implementation Costs of Cash Interventions

Short Title (Country)	Programme Costs Reported	Findings*
Unconditional cash transfers		
Aker 2011 (Niger)	Fixed costs; variable costs (start-up, transport, security)	Initial costs were higher for the mobile phone distribution program. Variable costs were higher for the physical cash distribution program.
Creti 2014 (Niger)	Transfer fees; total delivery costs	Although transfer fees were 0.5 per cent higher for the microfinance institution, total delivery costs were 34 per cent higher for the mobile transfer program. [No detailed costs provided]
Kardan 2010 (Zimbabwe)	Staff, materials, programme logistics, transfer value	Cash programme costs were largely driven by the value of the transfer (75%) with WFP management fees (6.5%), administrative and operational costs (6.2%) NGO management fees (4.2%) and NGO staff costs (3.9%) driving the remainder of costs. In contrast, 47 per cent of food programme costs were due to the cost of the commodity, 21 per cent to local transport and storage. Management and operational costs were similar.
Schwab 2013 (Yemen)	Staff, materials, programme logistics, transfer value	A slightly higher percentage of human resources costs were required to deliver a food transfer (5%) than a cash transfer (4%), predominantly because of distribution costs.
Unconditional cash transfers and vouchers		
Aker 2013 (DR Congo)	Staff, materials, logistics, security	Staff time represented the largest percentage of costs for both interventions followed by transport and voucher printing or account opening fees. [No detailed costs provided].
Hidrobo 2014 (Ecuador)	Modality-specific costs; non modality-specific costs	Modality-specific costs were lowest for cash (US $23,071), followed by vouchers (US $28,256) and food (US $63,048). The difference in cost between the food ration and other modalities was primarily due to added storage, distribution and contracting. [Detailed tables with itemized costs by modality are presented in an appendix.]
	Staff, materials, programme logistics, transfer value	Cash and food require a similar percentage of human resource cost to physical cost, which is less than that of vouchers. The higher human resource cost of the voucher appears to originate from the operational activities conducted by WFP staff, such as voucher design.

*Overall risk of bias for all studies reporting on the implementation cost of cash interventions was uncertain (with the exception of Creti, 2014 which was classified as high risk of bias).

Beneficiary costs: Costs to beneficiaries, defined in terms of transport and opportunity costs, were reported on in five studies of interventions designed to address food insecurity (Table 14).

Studies comparing unconditional cash transfers and vouchers (Aker, 2013; Hidrobo, 2014) found out-of-pocket expenses to receive transfers and beneficiary travel time to be similar for both modalities. Comparing cash transfers (or cash and voucher transfers) to food, cash

transfer beneficiaries had lower opportunity costs (travel time) in Ecuador (Hidrobo, 2014), but higher opportunity costs (transport expenditures) in Yemen (Schwab, 2013).

Two studies comparing mobile phone distribution to other delivery mechanisms in Niger (Aker, 2011; Creti, 2014), found mixed results. Aker (2011) found cash recipients had to travel farther to receive transfers than those receiving mobile phone transfers. Creti (2014) then found that mobile transfers had greater opportunity cost than using a microfinance institute as a distribution mechanism, although no details were provided, so it is not clear whether this was also measured in terms of travel distance/time and equivalent earnings for this period.

Table 14: Studies Reporting Costs to Beneficiaries of Cash Interventions

Short Title (Country)	Beneficiary Costs Reported	Findings*
Unconditional cash transfers		
Aker, 2011 (Niger)	Transport costs; opportunity costs (time)	Cash recipients travelled an average of 3.05 km farther to obtain each transfer, amounting to an opportunity cost of 30 min per transfer - equivalent to US $0.92 over the transfer period, or 2.5-3 kg of millet, enough to feed family of five for one day.
Creti, 2014 (Niger)	Transport costs; opportunity costs (time)	Transport costs were similar for both interventions. The mobile transfer programme had lower opportunity costs if beneficiaries used proximity 'cash out points' rather than general distribution points. [No detailed costs provided].
Schwab, 2013 (Yemen)	Transport costs, opportunity costs (time)	Cash beneficiaries spent five times more than food beneficiaries (10% of transfer cost vs 2%) on transportation and other related expenses.
Unconditional cash transfers and vouchers		
Aker, 2013 (DR Congo)	Opportunity costs (time)	Travel time and beneficiary waiting time were similar for both interventions.
Hidrobo, 2014 (Ecuador)	Transport costs, opportunity costs (time)	Cash and voucher recipients spent an average of US $1.46 and US $1.65 per month, respectively, on transport and other out-of-pocket expenses to receive transfers. Food recipients spent an average of US $2.12 per month as many had to use taxis to carry goods home from distribution points. Travel time was significantly longer (39 min) for food beneficiaries than cash and voucher beneficiaries (29 min). However waiting time was higher for voucher recipients (63 min) and food recipients (54 min) than cash recipients (16 min). Overall, cash recipients incurred the least costs in terms of time and money.

*The overall risk of bias for all studies reporting on the costs to beneficiaries for cash interventions was uncertain (with the exception of Creti, 2014 which was classified as high risk of bias.

Studies comparing unconditional cash transfers and vouchers (Aker, 2013; Hidrobo, 2014) found out-of-pocket expenses to receive transfers and beneficiary travel time to be similar for both modalities. Comparing cash transfers (or cash and voucher transfers) to food, cash transfer beneficiaries had lower opportunity costs (travel time) in Ecuador (Hidrobo, 2014), but higher opportunity costs (transport expenditures) in Yemen (Schwab, 2013).

Two studies comparing mobile phone distribution to other delivery mechanisms in Niger (Aker, 2011; Creti, 2014), found mixed results. Aker 2011 found cash recipients had to travel farther to receive transfers than those receiving mobile phone transfer. Creti (2014) then found that mobile transfers had greater opportunity cost than using a microfinance institute as a distribution mechanism, although no details were provided, so it is not clear whether this was also measured in terms of travel distance/time and equivalent earnings for this period.

Other potential costs to beneficiaries, such as social or political costs, were not quantified or discussed in any study.

6.3.2. Cost-efficiency

Cost-efficiency analyses focus on the relationship between programme administrative costs and the amount of transfers delivered to beneficiaries. Five studies presented analyses of the cost-efficiency, or administrative costs per transfer or per beneficiary, of cash-based approaches in humanitarian emergencies. Of these, two studies reported only the administrative costs per beneficiary, two reported both administrative costs per beneficiary and per transfer, and one reported only the administrative costs per transfer. Specific indicators and findings for each study are presented in Table 15 and results summarized in the following text.

Table 15: Studies Reporting Cost-efficiency of Cash Interventions

Short Title (Country)	Indicators Reported	Findings*	
Unconditional cash transfers			
Aker 2011 (Niger)	Cost per beneficiary (including phone purchase)	**Mobile phone:** US $13.64 **Physical cash:** US $12.76	
	Cost per beneficiary (excluding phone purchase)	**Mobile phone**: US $8.80 **Physical cash:** US $12.76	
Kardan 2010 (Zimbabwe)	Cost per transfer (total)	**Cash:** US$9.66 per transfer	**Cash+Food:** US $9.69 **Food:** US $9.45
	Cost per transfer (operational)	**Cash:** US$2.43 US$4.14	**Cash+Food:** **Food:** US$4.98
	Cost transfer ratio	**Cash:** US$0.34 per $1 of transfer $1 of transfer	**Food:** US$1.11 per
	Cost per kg of staple food or equivalent	**Cash:** US$0.70 US$0.90	**Cash+Food:** **Food:** US$1.10
	Operational cost as % of total costs	**Cash:** 25%	**Cash+Food:** 43% **Food:** 53%
Schwab 2013 (Yemen)	Cost per beneficiary (total)	**Cash:** US$52.04	**Food:** US$58.84
	Cost per transfer (modality-specific)	**Cash:** US$3.04	**Food:** US$9.81

	Cost transfer ratio	**Cash:** US$0.11 per $1 of transfer **Food:** US$0.24 per $1 of transfer	
Cash transfers and vouchers			
Aker 2013 (DR Congo)	Cost per beneficiary	**Cash:** US$11.34 **Voucher:** US$14.35	
Hidrobo 2014 (Ecuador)	Cost per transfer (total)	**Cash:** US $14.77 **Voucher:** US$14.36	**Food:** US$25.93
	Cost per transfer (modality-specific)	**Cash:** US$2.99 **Voucher:** $US3.27	**Food:** US$11.46

*Overall risk of bias for all studies reporting on the cost efficiency of cash interventions was uncertain.

Cost per beneficiary: Four studies compared cost per beneficiary of different transfer modalities. In the three studies comparing transfer modalities, unconditional cash transfers had a lower cost per beneficiary than comparison interventions (vouchers, in-kind food distribution or both); in-kind food distribution had the highest cost per beneficiary. The fourth study (Aker, 2011), comparing delivery mechanisms for a cash transfer intervention in Niger, found that transfer via mobile phone had a lower cost per beneficiary than physical cash distribution if the purchase of the phone itself was not included in cost analyses.

Cost per transfer: Three studies compared cost per transfer across different interventions. In all three studies, unconditional cash transfers were found to have the lowest modality-specific or operational cost per transfer. The modality with the lowest total cost per transfer, however, varied. In Ecuador, where cash transfers were compared to vouchers and in-kind food distribution, vouchers were found to have a slightly lower ($0.41) total cost per transfer than cash transfers (Hidrobo, 2014). In Zimbabwe, cash transfers were found to have a slightly higher ($0.03) total cost per transfer than in-kind food distribution (Kardan, 2010), while in Yemen, the total cost per transfer of in-kind food distribution was more than triple that of the total cost per cash transfer (Schwab, 2013).

Cost transfer ratio*:* Two studies reported on efficiency of different transfer modalities in terms of a cost transfer ratio. In both studies, unconditional cash transfers were found to have a lower administrative cost per dollar transferred to a beneficiary than in-kind food distribution. The administrative cost per dollar equivalent of food transferred was approximately double that of cash transferred in Yemen (Schwab, 2013) and quadruple that of cash transferred in Zimbabwe (Kardan, 2010).

Other efficiency measures: Kardan (2010) also reported on the cost-efficiency of each modality in terms of the cost of providing beneficiaries with 1kg of staple food (or its equivalent value), finding unconditional cash transfers to be more efficient than in-kind food distribution or a mixed programme model.

With all efficiency measures, it is important to remember that analyses are only as accurate as the cost inputs used, and care should be taken to interpret analyses in light of the definitions of costs included, project duration, and stage of implementation of each intervention. Furthermore, cost-efficiency analyses only consider administrative costs and do not account for costs to beneficiaries or broader economic consequences.

6.3.3. Cost-effectiveness and cost-benefit

Cost-effectiveness and cost-benefit analyses go beyond cost-efficiency to compare alternative courses of action in terms of both costs and outcomes. None of the included studies compared cash-based approaches in terms of incremental costs per unit of incremental effect, however two studies reported on cost-effectiveness of cash-based approaches in terms of cost per unit change in intended outcome and two studies report on cost-benefit of cash-based approaches in monetary terms.

Cost-effectiveness: Cost effectiveness was reported in two studies, both of which were conducted as part of a broader four-country study to assess the comparative performance of transfer modalities on household food security in the range of contexts where WFP works (Hidrobo, 2014; Schwab, 2013). Both used the same method for computing cost-effectiveness using the modality-specific costs (the additional costs incurred to deliver transfers via cash, voucher or in-kind food distribution after all common costs of programme implementation are accounted for) and outcome measures reviewed in Chapter 5. Indicators and findings for each study are summarized in Table 16 below, and results summarized in the following text.

Table 16. Included Studies Reporting Cost-effectiveness of Cash Interventions

Short Title (Country)	Outcomes included in cost-effectiveness analysis	Findings*
Unconditional cash transfers		
Schwab 2013 (Yemen)	Per Capita Daily Caloric Intake (avg, kcal)	Cash transfers increased food consumption scores at a lower cost than it would take to achieve comparable gains in household dietary diversity score or dietary diversity index.
	Food Consumption Score (avg)	
	Household Dietary Diversity Score (avg, 12 pt scale)	
	Dietary Diversity Index (avg, scale of 0-39)	
Unconditional cash transfers and vouchers		
Hidrobo 2014 (Ecuador)	Per Capita Daily Caloric Intake (avg, kcal)	Vouchers are the least costly means to improve these outcomes; food is the most costly (across all outcomes). Vouchers are usually the least costly means of increasing outcomes, although for increasing the value of food consumption there is virtually no difference in the cost of vouchers versus cash. Food vouchers are the most cost-effective means for improving food security and good is the least cost-effective means of improving these outcomes.
	Anemia, Children 6-59 mos	
	Anemia, Girls 10-16y (% moderate+severe; avg Hgb)	
	Value of Food Consumed, Household, past 7 days (avg)	
	Household Dietary Diversity Score (12 pt scale)	
	Dietary Diversity Index (avg, scale of 0-40)	
	Food Consumption Score (% in poor/borderline category)	

*Overall risk of bias for both studies reporting on the cost-effectiveness of cash interventions was uncertain and the quality of evidence was rated as medium for both studies.

Hidrobo (2014) compared the cost-effectiveness of unconditional cash transfer, voucher and in-kind food distribution to Colombian refugees in urban Ecuador, finding that in-kind assistance was the most costly means of improving food security outcomes and vouchers were usually the least costly, although there was virtually no difference in the cost-effectiveness of vouchers and cash for increasing food consumption. Because the timing of cash transfers and in-kind food distribution were not well-aligned in Schwab's study of interventions targeting extremely food insecure households in rural Yemen, cost-effectiveness measures were only computed for one modality, unconditional cash transfers, with no comparison.

Cost-benefit: Cost-benefit analyses present the outcomes associated with different interventions in monetary units. The monetary value of the outcomes is then compared to the costs, and any approach or intervention where the monetary value of the outcomes outweighs the costs in monetary terms can be considered worthwhile. One study (Aker, 2011) reported on the cost-benefit of cash transfer via a mobile phone compared to physical cash distribution by calculating whether benefits achieved with mobile phone transfers, namely reduced opportunity costs to beneficiaries and increased cultivation of cash crops, are greater than the additional costs. Analyses (not shown) apparently yielded a cost-benefit ratio of greater than one, suggesting that the additional costs of the delivering transfers via mobile phone yielded an equivalent or higher benefit for programme recipients. Findings related to cost-effectiveness and cost-benefit of cash-based approaches should be interpreted with as great, if not greater, caution than efficiency analyses. In addition to accounting only for administrative costs of each intervention (with varied cost definitions and levels of consideration for programmatic or contextual cost drivers), studies did not explain how intervention effects on multiple outcomes were considered or report sensitivity analyses. Both of these omissions indicate potential bias of results.

6.3.4. Market impacts

Four studies presented quantitative analyses of market impacts, three of which were conducted in conflict-affected settings in the Middle East. Two of these studies (Bauer, 2014; Husain, 2014) used national price data in input-output models to examine the predictive multiplier effects of WFP e-voucher programmes providing food assistance to Syrian refugees in Lebanon and Jordan on the national economies of each country. The third study conducted in the Middle East used a Keynesian modelling technique to examine the predictive multiplier effects of a winterization cash transfer programme for Syrian refugees on the Lebanese economy. The fourth study, conducted during a period of extreme food insecurity in Malawi, used a 'reduced' social accounting matrix to estimate the multiplier effect of cash transfers to vulnerable households on the local economy. Specific indicators and findings for each study are presented in Table 17, and results are summarized in the following text.

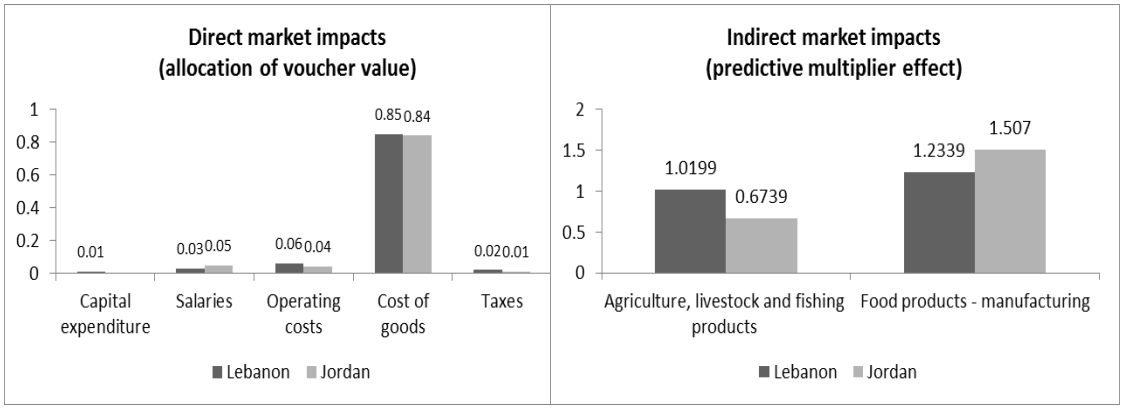
Table 17: Included Studies Reporting Market Impacts

Short Title (Country)	Indicators Reported (Method)	Direct market impacts	Indirect market impacts
Unconditional cash transfers			
Davies 2007 (Malawi)	Multiplier effect ('Reduced' social accounting matrix'** and minimum requirements method)	Of every US dollar spent in January 2007, $0.24 is spent at village traders, $0.18 is spent on local commerce, $0.09 is spent at wholesalers, $0.08 is spent on small traders, and $0.05 is saved.	Each dollar of cash assistance spent generates US $2.00 - $2.79 in indirect benefits for the local economy in northern Dowa district.
Lehmann 2014 (Lebanon)	Multiplier effect ("First round effects"; "Second round effects"**)	Assumed 100% of transfer value spent in local economy.	Each dollar of cash assistance spent by a winterization transfer recipient household generates $2.13 of GDP for the Lebanese economy (assuming the full transfer is spent on consumption goods in Lebanon).
Vouchers			
Bauer 2014 (Lebanon)	Direct effect rate per dollar; Predictive multiplier effect (Leontief inverse*)	Of every US dollar spent through a food voucher, $0.84 goes towards purchasing goods, $0.05 for wages, $0.04 for operating costs, $0.01 for taxes and $0.06 for profit.	Each dollar of food voucher value spent generates between $0.68 (agriculture, livestock and fisheries sector) and $1.51 (food production sector multiplier) in indirect benefits for the Lebanese economy.
Husain 2014 (Jordan)	Direct effect rate per dollar; Predictive multiplier effect (Leontief inverse*)	Of every US dollar spent through a food voucher, $0.85 goes towards purchasing goods, $0.03 for wages; $0.06 for operating costs, $0.02 for taxes, $0.01 on capital expenditure and $0.03 for profit.	Each dollar of food voucher value spent generates between $1.02 (agriculture, livestock and fishery sector multiplier) and $1.23 (food production sector multiplier) in indirect benefits for the Jordanian economy.

* X= (I-A)-1 **M=C/(1-MPC); Market impact (additional GDP generated by one beneficiary household) = value of cash transfers spent by households/(1-MPC).

The direct and indirect market impacts reported were similar in the two studies examining the effects of food vouchers for Syrian refugees in Lebanon (Bauer, 2014) and Jordan (Husain, 2014) and are illustrated in Figure 9.

Figure 9: Direct and Indirect Market Impacts of Food Vouchers



The input-output model used in Lebanon indicated that the e-voucher programme had a multiplier value of 1.51 in the food product sector, meaning that if WFP distributed the US $345 million planned for voucher disbursements during 2014, it could create an additional US $517 million for the Lebanese food products sector (Bauer, 2014). The model used in Jordan similarly showed that if WFP distributed the US $250 million planned for voucher disbursements in 2014, it would create an additional US $255-308 million for the Jordanian economy (Husain, 2014). Lehmann (2014) also found cash transfers to help Syrian refugees in Lebanon stay warm and dry in winter had positive multiplier effects on the Lebanese economy. However, this analysis used a macro-level multiplier based on marginal propensity to consume calculated in neighbouring countries, not calculations of cross-sector effects using national economic statistics.

Finally, Davies (2007) found that cash transfers to food insecure households in rural Malawi had positive multiplier effects on the local (district) economy. Under different assumptions about the proportion of beneficiary expenditures in local markets, a regional multiplier of between 2.0 and 2.8 was calculated, with the lower estimates favoured as more realistic.

KEY FINDINGS: EFFICIENCY OF CASH-BASED APPROACHES

The limited number of studies and methodological limitations of included studies constrain our ability to draw strong conclusions about the efficiency of cash-based approaches in emergencies.

Evidence reviewed, however, suggests the following:

- Cash-based approaches appear more cost-efficient than in-kind assistance. Cash transfer programmes have a lower cost per beneficiary than comparison interventions (either vouchers, in-kind food distribution or both); and vouchers have a lower cost per beneficiary than in-kind food distribution. (Aker, 2011; Aker, 2013; Schwab, 2013)
- In-kind food distribution has substantially higher administrative costs per dollar value provided to a beneficiary than cash transfers (Schwab, 2013; Kardan, 2010)
- Cash-based approaches may have positive economic multiplier effects. Voucher programmes generated up to US $1.50 of indirect market benefits for each $1 equivalent provided to beneficiaries and cash transfer programmes generated more than $2 of indirect market benefits for each $1 provided to beneficiaries (Davies 2007, Bauer 2014; Husain 2014, Lehmann, 2014).

7. Results: Factors that Facilitate or Hinder Implementation of Cash-Based Approaches

7.1. Characteristics of Included Studies

A total of 108 unique studies were identified that reported on factors that facilitate or hinder implementation of cash-based approaches in humanitarian emergencies, including the ten studies presented in Chapters 5 and 6. Ninety-four of the 108 included studies evaluated or presented case studies of programmes with a single assistance modality. The remaining 14 studies evaluated or presented case studies of multiple programmes (or programmes involving multiple assistance modalities) but did not directly compare or contrast the factors facilitating or hindering implementation of each. In total, 86 studies reported on unconditional cash transfer programmes, 17 on conditional cash transfer programmes (all cash for work programmes), and 19 on voucher programmes.

Studies reporting factors affecting implementation of cash-based approaches were relatively evenly distributed across emergency contexts and geography. A total of 35 covered interventions for conflict-affected populations, 40 covered interventions for populations affected by natural disasters, and 38 covered interventions for populations affected by severe food insecurity in settings not affected either by natural disaster or conflict; the remaining studies covered interventions in multiple settings or did not specify the emergency context. Geographically, studies spanned across 31 countries: 14 in Africa, 12 in Asia or the Middle East, three in Latin America and two in Europe. The majority of studies focused on interventions designed with the primary purpose of addressing food security or household livelihoods and economic recovery.

Only nine studies reporting on factors that facilitate or hinder implementation of cash-based approaches were peer-reviewed publications. Most studies reviewed presented a combination of quantitative and qualitative findings (n=71); 26 presented only qualitative findings and 11 presented only quantitative findings.

Characteristics of each study reviewed, including context, primary programme sector of focus and study type are presented in Annex E.

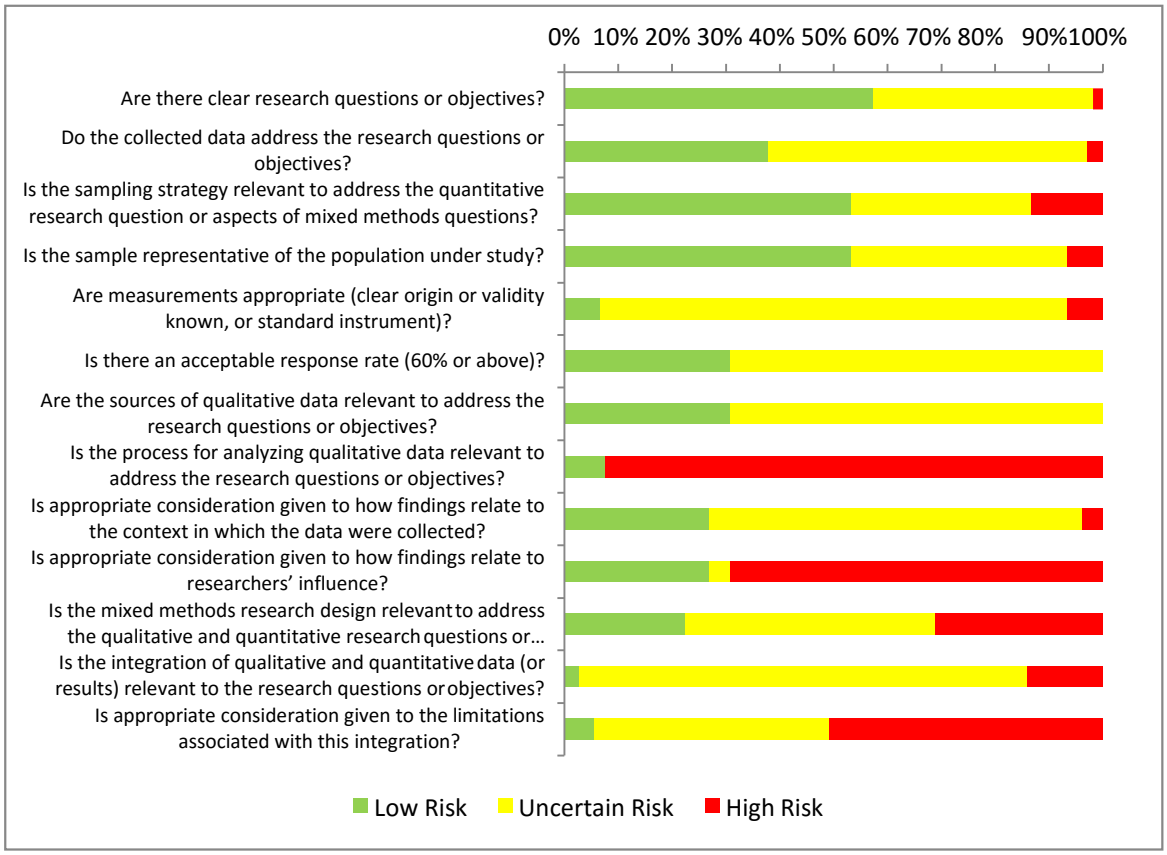
7.2. Critical Appraisal of Included Studies

Nearly all observational, qualitative and mixed method studies reviewed were evaluations commissioned by a humanitarian donor or implementing agency; findings in these studies were often based on reviews of project monitoring reports, interviews, and field visits conducted over a brief period of days or weeks at the middle or end of a project funding cycle. Very few provided detailed explanation of data collection and analysis methods used. Methodological rigor and quality of reporting varied substantially, limiting the strength of conclusions that can be drawn from synthesis of results.

Figure 10 summarizes the risk of bias across the 108 included studies based on the results of methodological quality appraisal for each. A total of 99 studies were rated as having unclear risk of bias, indicating a lack of information to determine risk of bias. It is possible that these studies would be rated high risk of bias if more information were provided to determine whether contextual factors and the role of the evaluator or researcher were adequately considered in analysis, and whether limitations associated with data sources

were given sufficient consideration in interpretation of results. Nine studies were rated as having high risk of bias. A more detailed summary of critical appraisal results is presented in Annex E.

Figure 10: Critical Appraisal Summary for Observational, Qualitative and Mixed Methods Studies



7.3. Synthesis of Results

This section provides a synthesis of review findings related to factors hindering and facilitating implementation of cash-based approaches in humanitarian settings. First, general findings related to the selection of cash-based assistance modalities and delivery mechanisms are presented, followed by factors affecting the implementation and acceptability of cash-based interventions in different contexts, many of which are common to all forms of humanitarian assistance. Factors that seem to be associated with specific assistance modalities or emergency types are highlighted wherever possible, and key findings from each study are presented by assistance modality in Annex E.

7.3.1. Programme design considerations

Descriptive results presented in the ten studies reviewed in Chapters 5 and 6, as well as many of the observational, qualitative and mixed methods studies reviewed highlight the importance of ensuring the most fundamental elements of programme design – the assistance modality (e.g. conditional cash transfer, unconditional cash transfer, voucher) and delivery mechanism (e.g. physical cash or coupons, smartcards, bank transfers, mobile transfers)- are well-aligned with the needs and preferences of the crisis-affected population.

***Assistance modality*:** Nearly all studies of unconditional cash transfers highlighted the fact that beneficiaries can make their own decisions about how and when to spend cash as a key factor in achievement of programme objectives. Food and debt repayment were common uses, as was shelter following natural disasters that destroyed infrastructure (Bailey, 2008; Berg, 2013; Concern & Oxfam, 2011; Duncalf, 2013; Harvey, 2009; Harvey, 2010; Hedlund, 2013). No studies reported information to suggest that unconditional cash transfers were not well-aligned with beneficiary needs. Studies reporting on conditional cash transfer programmes similarly highlighted the flexibility of cash as a factor contributing to the success of some programmes, but also noted the importance of considering the how eligibility conditions might hinder efforts to extend assistance to some crisis-affected population. For example, one study mentioned that the nature of cash for work programmes often led to exclusion of women and the less physically able (Kevlihan, 2010).

Similarly, voucher programme evaluation findings included examples of how inherent use restrictions can hinder achievement of programme objectives if not well aligned with beneficiary needs. For example, in circumstances where people had more diversified needs than covered by the voucher provided, there were reports of vouchers being used to purchase items for resale and/or being exchanged for cash at 55-70 per cent of their actual value (Aker, 2013). In other studies, voucher recipients were unable to negotiate in the market in the same manner and for the same benefit as those using cash. In some settings, hidden costs of transport were greater for voucher recipients than cash recipients, including time spent collecting the voucher and transporting food items (Hedlund, 2013).

***Delivery mechanism*:** In both unconditional and conditional cash-transfer programmes, delivering physical cash was seen as a high-risk initiative and one to be avoided if possible (CARE, 2011; Creti, 2011; CRS, 2010; Henderson, 2008). Many studies reported on cash transfer programmes that used local finance institutions, including banks, micro-lenders, and Hawala (networks of informal moneylenders) to facilitate transfers. These mechanisms were considered preferable to physical cash distribution, as they allowed beneficiaries to withdraw funds in smaller amounts at times at a time, and also prevented agency staff from traveling into the field with large amounts of cash (Dunn, 2013). Mobile banking served a similar purpose, allowing for multiple withdrawals in a less conspicuous manner than receiving a lump sum of physical cash (Brewin, 2008; Creti, 2014; Hedlund 2013; PEFSA 2011). Challenges faced were primarily structural, such as cell phone networks having insufficient coverage to support mobile banking, and could potentially be avoided if lessons shared are taken into consideration at the programme design and planning stage (Aker, 2011; Austin, 2011; Bailey, 2008; Campbell, 2014; CARE, 2011; Haver, 2009; Samuel Hall, 2013). Additional design considerations, such as the number of transfer instalments or transfer value, were not identified as factors influencing achievement of objectives in any studies.

7.3.2. Programme implementation and management considerations

How humanitarian assistance programmes are implemented influence the extent to which activities are realized and whether objectives are met. Many factors identified in the studies reviewed, however, are not unique to cash-based assistance programmes. For example, multiple studies reported that insufficient organizational capacity, specifically shortages of qualified staff and limited financial resources, hindered achievement of intervention objectives (Acacia, 2005; Aspin, 2011; Harmer, 2012; HelpAge, 2008; Jones, 2012). Others also reported that delays in implementation of specific activities or processing of payments to

beneficiaries led to conflicts, lack of trust in implementing agencies, and hardships for beneficiaries (Gregg, 2013; Ntata, 2010). A summary of the findings related to programme implementation and management processes are presented in Table 18 and discussed in the text that follows:

Table 18: Programme Implementation and Management Considerations

Factors Identified	Short Titles	Findings
Targeting	Unconditional cash transfers: Abt 2002, Alemu 2004, Andersson 2013, Aspin 2010, Berg 2013, Brewin 2008,British Red Cross 2011, CAG India 2013, Catley 2010, Concern & Oxfam 2011, Creti 2014, Devereaux 2007. Devereaux 2008, Duncalf 2013, Dunn 2007, Gordon 2011, Palmaera 2010, Poulsen 2011, Sandstrom 2010, Zaidi 2010. Conditional cash transfers: Jones 2004. Vouchers: Bauer 2014, DiPetroro 2011, Husain 2014. Multiple approaches: Dunn 2013, Hidrobo 2012, Oxfam 2011b, Young 2011.	Resource intensive targeting procedures may delay implementation, especially where implementing agencies are unfamiliar with the emergency setting and affected populations.
Use of new technologies	Unconditional cash transfers: Aker 2011, Austin 2011, Bailey 2008, Berg 2013, Brewin 2008, Campbell 2014, Gayfer 2012, PEFSA 2011, Peppiatt 2011, Samuel Hall 2014a, Samuel Hall 2014b, Sloan 2014. Conditional cash transfers: Haver 2008, Latif 2009, Tessitore 2013.Vouchers: Bauer 2014. Multiple approaches: Hedlund 2013.	Use of 'new technologies' may reduce time required for orienting beneficiaries to delivery mechanisms and may increase efficiency of programme monitoring.

Table 18: Programme Implementation and Management Considerations (continued)

Factors Identified	Short Titles	Findings
Capacity for implementation at scale	Unconditional cash transfers: Adams 2005, Ali 2005, Austin 2011, CARE 2011, DiPetroro 2011, DRC 2014, Duncalf 2013, Gayfer 2012, Gourlay 2012, Kruse 2009, PEFSA 2011, Sandstrom 2010, Sloan 2011. Conditional cash transfers: Doocy 2005 & 2006, Nagamatsu 2014. Vouchers: Brady 2011, Brady 2012, Husain 2014. Multiple approaches: Hagens 2010, Hedlund 2013.	Delivery of cash-based interventions at scale requires substantial investments in organizational capacity building and coordination.
Community engagement	Unconditional cash transfers: Alemu 2004, Aspin 2010, Berg 2013, Brewin 2008, British Red Cross 2011, Concern and Oxfam 2011, Devereaux 2007, Deveraux 2008, Gordon 2011, MacAuslan 2010, Nicholson 2009, Poulsen 2011, Sandstrom 2010. Conditional cash transfers: Doocy 2005 & 2006,Jones 2004. Vouchers: Bauer 2014, Brady 2012, DiPetroro 2011, Dunn 2011. Multiple approaches: Dunn 2013, Hagens 2010, Hidrobo 2012, Oxfam 2011b.	Transparency and communication with beneficiaries and other stakeholders, including open discussion of timelines and plans for discontinuation of interventions is important in all settings. Trade-offs between potential benefits and consequences of community engagement in targeting and implementation may be important to consider on a case by case basis.

Targeting: Beneficiary selection or targeting practices were identified as a factor contributing to or constraining successful implementation of cash-based approaches in 32 studies (23 covered unconditional cash transfer programmes, one covered a conditional cash transfer program, three covered voucher programmes, and six covered multiple

assistance modalities). None of these studies, however, presented evidence to indicate that issues related to targeting cash-based approaches are different from issues related to targeting any other kind of humanitarian assistance program. Studies generally recognized the importance of ensuring scarce resources are directed to intended beneficiaries, as well as the challenges of defining populations most in need and most likely to benefit from different assistance modalities in an emergency setting. Time and resources required for targeting depended on the familiarity of the implementing agency with the emergency setting and affected populations, availability of up-to-date information on which to base targeting decisions, and pressures to begin implementation (Alemu, 2004; Bauer, 2014; Catley, 2010; DiPetroro, 2011; Dunn, 2011Haver, 2009; Hidrobo, 2012; Majid, 2007; Poulsen, 2011).

Use of New Technologies: Use of 'new technologies' was identified as a factor contributing to or constraining successful implementation of cash based approaches in 30 studies (12 covered unconditional cash transfers, three covered conditional cash transfers, one covered vouchers, and one covered multiple assistance modalities). In most cases, technologies provided more efficient ways of managing assistance programmes. For example, in some studies use of smartcards to record the biometric data of beneficiaries and iris scans to eliminate the need for memorization of PIN codes for ATM access reduced the time required for troubleshooting beneficiary challenges in accessing assistance (Bailey, 2008; Haver, 2009). In an evaluation of cash grant disbursement to Burundian returnees from Tanzania, low rates of returnee 'recycling' to obtain additional cash grants was attributed to UNHCR's use of new technologies (biometric fingerprinting) for registration of returnees (Haver, 2009). In Haiti, use of GPS systems allowed drain clearance project supervisors to improve precision of monitoring activities by measuring the total distance cleared at the end of each day (Kevlihan, 2010). Increased efficiency may come with trade-offs, however, For example, researchers responsible for an evaluation of FAO Somalia's Cash for Work Programme reported that although using a telephone survey allowed them to triangulate information gathered from participatory field work and acquire information from inaccessible regions, the information gathered may not have been representative of programme beneficiaries as the mobile phone ownership remains limited among the most vulnerable population members (Tessitore, 2013).

Capacity for implementation at scale: Capacity and planning for implementation at scale (or lack thereof) was identified affecting achievement of programme objectives in 20 of the 108 studies reviewed (11 focused on unconditional cash transfers, two on conditional cash transfers, three on vouchers, and two on multiple assistance modalities). Many presented findings from implementation of pilot interventions, suggesting issues that should be considered in developing strategies for large-scale implementation of cash-based approaches in emergencies. A common message emerging from these studies is that the time required to set up systems for delivery of cash at scale should not be underestimated (Bailey, 2008; Nicholson, 2009; Rastall, 2010; Brady, 2012). Systems for implementing cash-based interventions at scale have not been developed and tested to the extent that systems for in-kind provision of goods and services have. Establishing these may require building relationships with private sector actors and others beyond the traditional 'humanitarian community' (Ali, 2005; Aysan, 2008; Crisp, 2010; DiPetroro, 2011; Dunn, 2011).

More effective coordination was also identified as a factor that could help facilitate implementation on multiple levels. For example, most cash-based assistance for disaster-

affected populations was implemented by international organizations, often without government participation or plans for maintenance of achievements beyond the life of a project. This was especially true where response capacity was weak and humanitarian assistance interventions were not followed up with a long-term recovery program. Similarly, in fragile states where government capacity was limited, most programmes were implemented by NGOs and multinational organizations. The importance of coordination is not unique to cash based approaches, but challenges may be greater due to the fact that humanitarian coordination mechanisms are structured around sectors of intervention (including health, shelter, education) and cash can be used for many purposes (Ali, 2005; Aysan, 2008; Crisp, 2010; DiPetroro, 2011; Dunn, 2011). Unfortunately, none of the studies raising the issue of coordination as a factor contributing to or hindering implementation of cash based approaches provided evidence of what effective or ineffective coordination looks like.

Community engagement: Trade-offs between potential benefits (accuracy, transparency, local ownership) and consequences (costs, delays in implementation) of community engagement in implementation processes were highlighted in 23 studies (13 focused on unconditional cash transfers, one on conditional cash transfers, four on vouchers, and three on multiple assistance modalities). The reported effectiveness and efficiency of community engagement varied from project to project, with little consistency across emergency contexts or intervention types. Many reported that engaging affected communities in planning and implementation of assistance programmes substantially contributed to acceptance and success of interventions, whilst others reported that a lack of transparency and communication with the beneficiary population and other stakeholders hindered and ultimately limited the impacts of the project. Key points of engagement identified included beneficiary targeting or selection, discussion of timelines, and plans for discontinuation of the interventions (Doocy, 2005; Doocy, 2006; Hagens, 2010; Kruse, 2009; Sloan, 2011). Although a few studies documented concerns that more powerful community members may manipulate targeting, evidence of this was minimal, and did not necessarily prevent the programmes from achieving their stated objectives (Berg, 2013; Brewin, 2008; Devereaux, 2008; Dunn, 2007; Gordon, 2011, MacAuslan, 2010).

7.3.3. Contextual factors

In general, the social, political and economic factors that influence the effectiveness of cash-based approaches in emergencies differed did not differ substantially across emergency contexts (conflict, natural disaster, food insecurity). Setting-specific issues identified are presented in Table 19, and summarized in the text that follows it:

Table 19: Context-specific Considerations

Factors Identified	Short Titles	Findings
Security and corruption	Unconditional cash transfers: Austin 2011, Berg 2013, CARE 2011, CRS 2010, Devereaux 2006, Dunn 2007, Gordon 2011, Frootenhuis 2011, HelpAge 2008, Henderson 2008, Palmaera 2010, Poisson 2011, Rastall 2010, Samuel Hall 2014a. Conditional cash transfers: Aysan 200, Doocy 2005 & 2006, Doocy 2008, Haver 2009, Mattinen 2006Vouchers: Creti 2011. Multiple approaches: Aker 2013, Dunn 2013, Hagens 2010, Harvey 2009, Hedlund 2013.	Cash can be delivered and distributed in all contexts, provided appropriate precautionary measures are taken to ensure security of implementing agency staff and beneficiaries. Concerns about misuse, corruption or diversion of cash-based interventions are likely unfounded.
Protection	Unconditional cash transfers: Bailey 2008, Berg 2013, Brandstetter 2004,Crisp 2010, CRS 2010, Deveraux 2006, Devereaux 2007, Devereaux 2008, Sameul Hall 2014a, Sameul Hall 2014b, HelpAge 2008, Lehmann 2014, MacAuslan 2010, Poulsen 2011, Save the Children 2009. Conditional cash transfers: Haver 2009, Latif 2009, Ntata 2010. Vouchers: Kugu 2013. . Multiple approaches: Aker 2013, Creti 2005, Hedlund 2013.	Fears about personal safety and other protection concerns may hinder beneficiary willingness to access assistance More discrete cash based approaches and delivery mechanisms minimize recipients' fears of or vulnerability to violence.
Market dynamics	Unconditional cash transfers: Abu Hamad 2012, Adams 2005, Aker 2011, Alemu 2004, Aspin 2010, Brewin 2008, Creti 2014, Crisp 2010, Davies 2007, Devereaux 2006, Gelan 2006, Lehmann 2014, Mountfield 2012, Nicholson 2009, Save the Children 2009, Sloane 2011, Somalia Cash Consortium 2013, Wasilowska 2012. Conditional cash transfers: Doocy 2005 & 2006, Latif 2009. Vouchers: Bauer 2014, Brady 2011, Kugu 2013. Multiple approaches: Aker 2013, Gregg 2005. Hedlund 2013.	Provision of cash-based assistance can stimulate markets. Potential direct and indirect effects of increased spending and livelihood opportunities should be assessed during planning and throughout implementation of assistance programmes.

Table 19: Context-specific Considerations (continued)

Factors Identified	Short Titles	Findings
Resilience	Unconditional cash transfers: Abt 2002, Aker 2011, Berg 2013, Brandstetter 2004, Deveraux 2006, Devereaux 2007, Duncalf 2013, Dunn 2007, Grasset 2012, HelpAge 2008, Henderson 2008, Herald 2012, KRCS 2011, MacAuslan 2010, PEFSA 2011, Rastall 2010, Save the Children 2009, Slater 2008, Somalia Cash Consortium 2013, Zaidi 2010. Conditional cash transfers: Doocy 2006, Jones 2004, Ntata 2010, Tessitore 2013. Multiple approaches: Aker 2013, Gregg 2005, Oxfam 2005, Oxfam 2011.	The ability of communities to mitigate or cope with adversity may influence how cash-based assistance is used and the likeliness of achieving intended objectives.

Security and corruption: Twenty-four studies described measures taken to ensure security of both staff and beneficiaries as factors contributing to successful implementation (14 focused on unconditional cash transfers, five on conditional cash transfers, one on vouchers, and five on multiple assistance modalities). Any form of humanitarian aid is subject to risks to diversion to armed groups, corruption, theft and fraud; cash-based approaches are no exception. However, relatively few studies reported the occurrence of any security incidents during implementation. In many settings, implementing agencies identified precautionary measures to ensure staff and beneficiary security (e.g. using unmarked vehicles during transportation, utilizing armed guards at distribution sites, and delegating distribution to local financial institutions) as a factor contributing to successful programme implementation (CARE, 2011; Dunn, 2007; Mattinnen, 2006).

Similarly, none of the studies reviewed identified corruption as a significant factor hindering implementation of cash-based interventions and those that reported instances of corruption indicated that challenges faced were no greater than those faced in in-kind assistance programmes. For example, one study of a direct cash-transfer programme to address food insecurity in communities affected by post-election violence in Kenya reported that less than 2 per cent of funds were believed to have been diverted (Henderson 2008), and an evaluation of food distribution and cash transfers in Malawi identified two cases of diversion by church volunteers who were keeping for themselves some of the food and cash they were collecting for others (Devereaux 2006). Some studies did not provide specific examples of corruption, but reported that similar levels of corruption were found in cash transfer programmes as with in-kind assistance (Campbell, 2014; Dunn, 2013; Hedlund, 2013) Overall, studies show that ways can be found to delivery and distribute cash safely and securely in all contexts, and that the financial risks presented by cash-based assistance programmes are no greater than those associated with any other form of humanitarian assistance

Protection: A total of 22 studies raised protection issues as a factor affecting achievement of cash programme objectives. Fifteen of them focused on cash grant programmes, one on a voucher program, three on conditional cash transfer programmes, and three on programmes with multiple cash-based approaches. The majority of programmes raising

protection issues were designed either to support return or prevent displacement. One study showed that as a result of transfers, women weren't forced to travel long distances to obtain basic household goods and thus were less likely to be subjected to violence during their travels (Devereaux, 2006). Another found that men didn't have to be displaced, leave their homes and be separated from their families after receiving an unconditional cash transfer (Brandstetter, 2004). Violent conflict surrounding land was also found to decrease in one location after unconditional cash transfers were instituted (Haver, 2009).

Two of the cash grant programmes employed mobile transfer technologies to distribute transfers. One study reported that recipients felt safer with mobile transfers compared to cash because it mitigated the risk of violent conflicts with thieves because thieves would not know whether a recipient had cash on their phone (Samuel Hall, 2014b). Similarly, beneficiaries of one of the two voucher programmes studied felt that they were able to conceal cash better than vouchers and consequently avert potential acts of violence against them (Aker, 2013). The other study using mobile transfer technology hypothesized that vulnerable groups such as females, illiterates and the poorest individuals may not be good candidates for the mobile transfer system because it increased the likelihood of exploitation, in contrast with males, those who are literate and individuals with more money, who may benefit from this type of technology because they are less likely to be exploited (Samuel Hall, 2014b).

Market dynamics: Twenty-five studies reported on how market dynamics may have contributed to achievement of cash-based intervention objectives in some cases and limited the success of assistance programmes in others (18 focused on unconditional cash transfer programmes, two on conditional cash transfer programmes, three on voucher programmes, and three on multiple assistance modalities). Increased income from cash transfers was observed to stimulate additional trade and to create secondary beneficiaries, including subcontractors, replacement workers, traders and labourers. For example, one study in Niger reported that providing food insecure households with cash transfers resulted in a decrease in child labour and reductions in the labour force more broadly, which led to increases in local wage rates and enabled households to invest more in their own production (Save the Children, 2009). In contrast, an evaluation in Ethiopia reported cases of children being taken out of school to provide labour once recipients had money to start farming their own land (Adams, 2005). Another study reported that the cash transfers empowered poor workers who usually had to work on large farms for income. As a result of the cash transfer, they were able to work on their own small farms, which had negative effects on the productivity of large farms and on overall agricultural output for the region (Davies, 2007). There were also reports of labour market impacts from a few settings of dependency and stopping the search for work as a result of having a stable income (Somalia Cash Consortium, 2013; Save the Children, 2009) or for "fear of losing entitlements to assistance" (Abu Hamad, 2012).

Resilience: A total of 28 studies highlighted perceptions of household or community resilience as a factor affecting implementation of cash-based approaches and achievement of humanitarian objectives. For example, resilience, defined as a quality that makes the target population less prone to being affected negatively by future events, was highlighted as a factor contributing to the success of conditional and unconditional cash transfers in improving debt reduction (Herald, 2012; Mountfield, 2012), increasing saving capabilities (Aker, 2013; Henderson, 2008), increase investment in agriculture/livestock/livelihoods

(Rastall, 2010), increasing investment in education (Brandstetter, 2004; MacAuslan, 2010) and decreasing use of negative coping mechanisms (Berg, 2013; Grasset, 2012; Save the Children, 2009) in a range of contexts, but little information was provided to define how resilience was identified or measured. Mountfield (2012) makes an important observation that beneficiaries must have an initial level of assets and that transfer values must be sufficiently large to ensure that households can meet basic needs before their ability to save or invest can be realized. This consideration is critical for programme planning because of the implication that transfer values may need to be set above a certain threshold in order for intended objectives to be achieved.

KEY FINDINGS: FACTORS FACILITATING AND HINDERING IMPLEMENTATION OF CASH-BASED APPROACHES

Studies reviewed lacked methodological rigor necessary to draw strong conclusions about factors affecting implementation of cash-based approaches in humanitarian settings. Findings should be interpreted with caution, but study findings consistently suggested the following:

- Resource availability and technical capacity of implementing agencies and potential beneficiaries are important considerations for effective implementation of any humanitarian assistance program, including cash-based approaches.
- The ability of communities to mitigate or cope with adversity may influence how cash-based assistance is used and the likeliness of achieving intended objectives.
- Resource intensive targeting procedures may delay implementation, especially where implementing agencies are unfamiliar with the emergency setting and affected populations.
- Use of ‘new technologies’ such as mobile transfers may reduce time required for orienting beneficiaries to delivery mechanisms, and may increase efficiency of programme monitoring.
- Provided appropriate precautionary measures are taken to ensure security of implementing agency staff and beneficiaries, cash-based approaches can be delivered in most contexts.
- There was no evidence to support concerns about misuse, corruption or diversion of cash-based interventions.
- Fears about personal safety and other protection concerns may hinder beneficiary willingness to access assistance. Discrete cash based approaches and delivery mechanisms, such as electronic transfers or smartcards, can minimize recipients’ fears and vulnerability to violence.

8. Discussion

8.1. Summary of Main Results

Further development of the evidence base on the effectiveness of cash-based approaches is needed to inform humanitarian assistance decision-making and programming. Conclusions are limited by a lack of robust studies with detailed descriptions of methodologies and results. A summary of the main findings of the review is presented below, ordered by research question.

8.1.1. Effectiveness of cash-based approaches in emergencies

Five studies met inclusion criteria for review questions 1a and 1b, examining the effects of cash-based approaches on economic, sector-specific and cross-cutting outcomes; all of these studies were found to have medium or high risk of bias due to lack of methodological rigor and incomplete descriptions on analyses and results. Conclusions are further limited by a lack of consistency in the outcomes of interest and indicators reported across settings.

Four of the five studies reviewed focused on household food security and economic outcomes.[5] A summary of key findings is as follows:

- Cash transfer, voucher and in-kind food assistance programmes were successful at increasing household food security among conflict-affected populations and maintaining household food security within the context of food insecurity crises and drought.

- HDDS was the only food security indicator reported consistently across multiple studies. No studies reported statistically significant differences in effect size between different cash transfer modalities.[6]

- Direct food transfers were more successful than cash transfers in increasing per capita caloric intake, whereas cash transfers and vouchers led to greater improvements in dietary diversity and quality.[7]

- A variety of nutrition and food security indicators were reported by the different studies, which limited possibilities for direct comparison of outcomes across contexts. Not all studies disaggregated findings by transfer modality, which further limited the scope and strength of conclusions.

- The evidence base for the effect of cash-based approaches on household income and debt was limited to three studies that did not show sizeable improvements in either measure, especially when compared to size of transfers received.

[5] See Chapter 5 summary box (p. 48) for a detailed discussion including effect sizes

[6] Hidrobo (2014) reported a statistically significant increase in HDDS pre/post intervention, however, this was not in an emergency context; the intervention targeted refugees in a stable urban setting.

[7] Hidrobo, 2014 (Ecuador) compared cash transfers, vouchers and food and concluded that vouchers were more effective than cash transfers in increasing dietary diversity. Schwab, 2013 (Yemen), which compared cash transfers to food transfers, also supports this conclusion.

- Two studies reported on asset ownership, and these finding were mixed: in the context of drought and food insecurity in Niger, unconditional cash transfers did not result in increased asset ownership but appeared to be successful as asset protection mechanisms. Among IDPs in the DR Congo, asset ownership increased among both unconditional cash transfer and voucher recipients; however changes could not be attributed to cash-based interventions due to lack of a non-intervention comparison group.

- Four studies reported on different sector specific outcomes: one reported on livelihoods (agriculture) indicators, one on education indicators, one on shelter (winterization) indicators, and one on gender-based violence indicators.

8.1.2. Efficiency of cash-based approaches in emergencies

Cost and market impact evaluations aim to identify programming approaches that represent good value for money for the implementing agency, direct beneficiaries, and affected population as a whole. Assessing efficiencies of cash-based approaches to humanitarian assistance is challenging, however, because agencies track their costs in different ways and both costs and benefits of different transfer modalities and delivery mechanisms are not easily compared. Ten studies met the inclusion criteria for review question 2a.

A summary of key findings with respect to the efficiency of cash-based approaches in emergencies is as follows:

- Cash-based approaches may be more cost-efficient[8] and cost-effective[9] than in-kind food distribution and have positive indirect market impacts (multiplier effects) when implemented at scale.[10]

- Very few studies examined the efficiency of cash-based approaches outside the nutrition and food security sectors.

- Very few studies documented costs incurred by beneficiaries or incorporated these into measures of cost-efficiency and cost-effectiveness.

- No studies examined or provided recommendations on ways to improve the efficiency with which cash-based approaches are designed, delivered or monitored.

Value for money can be assessed from a range of perspectives and an intervention that is highly efficient may not be cost-effective, or vice versa. Although a recurrent theme in the literature is that efficiency is an important consideration in selection of a transfer modalities for humanitarian assistance to crisis-affected populations, such analysis is often difficult because agencies track their costs in different ways, making costs and benefits of different transfer modalities and delivery mechanisms difficult to compare.

8.1.3. Factors affecting implementation of cash-based approaches

Nearly all observational, qualitative and mixed method studies reviewed were humanitarian donor- and implementing agency-commissioned evaluations. Findings in these studies were

[8] Hidrobo, 2014; Schwab, 2013, Kardan, 2010
[9] Hidrobo, 2014
[10] Bauer 2014; Husain, 2014; Davies 2007; Lehmann 2014

often based on reviews of project monitoring reports, interviews, and field visits conducted over a brief period of days or weeks at the middle or end of a project funding cycle. Methodological rigor and quality of reporting varied substantially, limiting the strength of conclusions that could be drawn.

Although there is only weak and largely anecdotal evidence on factors affecting implementation of cash-based approaches, review findings suggest that how an intervention is designed and implemented plays a greater role in determining effectiveness and efficiency than the emergency context or sector of implementation.

A summary of key findings with respect to factors facilitating and hindering successful implementation of cash-based approaches in emergencies is as follows:

- Understanding of contextual factors, resource availability and technical capacity of both implementing agencies and potential beneficiaries is critical for effective implementation of any humanitarian assistance program, including cash-based approaches.
- The ability of communities to mitigate or cope with adversity may influence how cash-based assistance is used and the likeliness of achieving intended objectives.
- Resource intensive targeting procedures may delay implementation, especially where implementing agencies are unfamiliar with the emergency setting and affected populations.
- Use of 'new technologies' may reduce time required for orienting beneficiaries to delivery mechanisms, and may increase efficiency of programme monitoring.
- Cash can be delivered and distributed in most contexts, provided appropriate precautionary measures are taken to ensure security of implementing agency staff and beneficiaries.
- There was no evidence to support concerns about misuse, corruption or diversion of cash-based interventions.
- Fears about personal safety and other protection concerns may hinder beneficiary willingness to access assistance. More discrete cash based approaches and delivery mechanisms, such as electronic transfers or smartcards, minimize recipients' fears of or vulnerability to violence.

Cash-based interventions, like any program, must be tailored to the needs of the population and setting affected by the crisis. If appropriately designed and managed, cash-based interventions can be effective and efficient ways to address the needs of crisis affected populations in a range of settings.

8.2. Overall Quality and Applicability of Evidence

Despite the growing number of evaluations of cash-based approaches in emergencies, there are considerable limitations in the evidence base to inform decisions on how to most effectively and efficiently provide assistance to crisis-affected populations. Only a small number of studies addressing the primary review questions were identified, most of which also suffered from gaps or weaknesses in reporting, making both quality appraisal and synthesis of findings a challenge. For example, two of five quasi-experimental studies

included to address primary review questions were ranked as high risk of bias and three as unclear risk of bias. Of particular concern was the limited reporting on sampling and sample characteristics, clarity of analysis, and lack of data presented to support findings. Critical appraisal of studies included to address secondary review questions similarly revealed existing studies suffer from methodological limitations. Information provided about data sources and analytical methods used in economic, observational, qualitative and mixed method studies was insufficient to draw robust conclusions about the efficiency of cash-based approaches or factors that hinder and facilitate achievement of intended objectives in different settings. Review findings should therefore be interpreted with caution and considered suggestive rather than definitive.

8.3. Limitations and Potential Biases in the Review Process

There are a number of limitations of this review. First, the inclusion of a large number of high and medium risk of bias studies limited the strength of conclusions that can be drawn to address both primary and secondary research questions. Second, there is some disconnect between the synthesis of the effectiveness and efficiency of cash-based approaches, as not all studies evaluating the effects of cash-based approaches considered the efficiency of interventions or delivery mechanisms, and vice versa. Third, given the large number studies included to maximize opportunities for understanding contextual factors that affect implementation of cash-based approaches in different contexts, we were not able to undertake double-coding of observational, qualitative and mixed method studies. Thus, there may be some inconsistencies in the classification of emergency contexts and identification of cross-cutting outcomes, beneficiary perceptions and factors affecting implementation of cash-based approaches.

8.4. Agreements and Disagreements with Other Studies or Reviews

As noted in section 1.4, there are a growing number of systematic reviews assessing the effects of conditional cash transfer and voucher programmes on a broad range of outcomes, including health, education, and social protection outcomes in development settings. These reviews find that cash based approaches have positive effects on poverty reduction, school enrolment and attendance, infant and young child feeding practices, and protection of household consumption patterns during periods of hardship. (Hagen-Zanker *et al*., 2011; Kabeer *et al*., 2012; Gaarder *et al*., 2010; Baird *et al*., 2013; Yoong *et al*., 2012). Our findings are consistent with these reviews to the extent that they found evidence that cash-based approaches can have positive effects in a range of settings.

Our findings are more directly comparable with reviews focused on the impact of cash based approaches on food consumption (Bailey, 2013), nutrition status (Bailey & Hedlund, 2012) and health services (Pega, 2015) in humanitarian settings. Bailey (2013) concluded that cash transfers were effective in improving food consumption, and that cash and vouchers often performed better than food aid at improving measures of diet diversity (though this was not universal as households might use the transfer to increase staple food consumption). Bailey and Hedlund (2012) identified only one study that compared nutrition outcomes (anaemia) and thus did not come to any conclusions regarding nutritional status. Findings related to dietary diversity were similar, where cash transfer beneficiaries realized greater increases in measures such as household dietary diversity and food consumption compared to food transfer beneficiaries. They concluded that the impact of cash on dietary intake is positive, and cash therefore presumably has an impact on malnutrition, even if it cannot be

measured. We also found that increases in caloric intake were higher among food transfer recipients whereas cash and in some cases voucher recipients reported greater gains in dietary diversity, and did not find evidence that allowed us to examine the effects of cash-based approaches on nutritional outcomes. Finally, Pega (2015) found that cash transfers appeared to contribute to a very small increase in the proportion of children who received vitamin or iron supplements and a beneficial effect on children's home environment and concluded that additional research is required to reach clear conclusions regarding the effectiveness and relative effectiveness of cash based approaches in improving health service use and health outcomes in humanitarian settings.

Finally, our inability to provide generalizable conclusions on the effectiveness and efficiency of cash based approaches is consistent with recent reviews of evidence for humanitarian action that found systematic learning from rigorous theory-based impact evaluations to be relatively rare in emergency settings. (Clark and Darcy, 2014; Puri, 2015)

8.5 Differences Between Protocol and Review

Review methods differed from the published protocol as follows:

- Cash for work programmes are now described as a type of conditional cash transfer programme for consistency with terminology used in ongoing policy discussions about the role of cash transfers in humanitarian aid.
- Critical appraisal of experimental and quasi-experimental studies was based on the Risk of Bias criteria outlined in the Risk of Bias criteria outlined in *The Cochrane Handbook of Systematic Reviews of Interventions* (Higgins and Green, 2011).
- Emergency typology information extracted from each included study was limited to event type (conflict, natural disaster, severe food insecurity) and international humanitarian presence.
- Due to the number of studies identified and resources available to the review team, data extraction was conducted by a single reviewer, not two independent reviewers, for each observational, qualitative and mixed method study.
- Where observational, qualitative or mixed method studies described more than one programme or assistance modality, factors affecting implementation were coded to indicate the characteristics of each intervention but not separated into multiple studies with distinct references.

9. Authors' Conclusions

9.1. Implications for Practice and Policy

Cash-based interventions are a well-established mechanism for delivering humanitarian assistance, that if appropriately designed and managed, can be effective and efficient ways to address the needs of crisis-affected populations in a range of contexts. The most resounding message from recent mappings of cash transfer programming and research gaps is that the appropriateness of cash-based approaches, like any humanitarian intervention, is highly context- and event-specific (NORAD, 2011; Austin, 2014).

The review findings suggest that there is a lack of robust evidence to draw generalizable conclusions about where specific assistance modalities or delivery mechanisms are most appropriate. The evidence base is not limited by variability in characteristics of crisis-affected settings, but by the relatively narrow focus of impact evaluations (primarily on food security and nutrition outcomes) and the lack of methodological rigor or consistency in economic evaluations and observational or mixed-methods studies of cash-based assistance programmes across sectors and operating environments.

Findings suggests that both cash-based approaches and in-kind food assistance can be effective means of increasing household food security among conflict-affected populations and maintaining household food security among food insecure and drought-affected populations; each assistance modality has different advantages and disadvantages that should be considered in the design of future interventions. Several of the included studies did not disaggregate findings by transfer modality which limits our ability to draw evidence-based conclusions to inform policy and practice. In the studies reviewed, direct food transfers were found to be more successful at increasing per capita caloric intake than cash-based approaches whereas unconditional cash transfer and voucher programmes led to greater improvements in dietary diversity and quality. While studies were identified that used cash-based approaches for livelihoods, education and shelter, it is clear that the study of cash transfers use in sectors beyond food security and nutrition is comparatively limited.

Given the flexibility of cash transfers to be spent at beneficiaries' own discretion, expanded use of these approaches across sectors could improve alignment of interventions with the needs of crisis-affected populations and reduce fragmentation of assistance programmes.

The differences between unconditional cash transfers (whose beneficiaries face no restrictions on their use and can use them to address their household's most pressing needs) versus vouchers (which remain sector-specific and are likely to have more identifiable outputs) will be critical as implementers and donors continue to develop policies and preferences for cash-based approaches in emergencies. Findings of this review indicate there a few consistently reported differences in effects of different cash-based approaches and that programme objectives and operating context are likely the most important factors in determining which transfer modality is most appropriate.

9.2. Implications for Research

This review identified few studies that compared outcomes across transfer modalities and, of those studies that were included, many had significant limitations in design and reporting. Reporting was incomplete in a large number of studies; in many cases randomization and allocation to intervention groups was poorly described. In addition, confidence intervals and tests of statistical significance or other critical information such as sample size was not reported. Furthermore, several studies did not disaggregate findings by cash transfer modality, which presented a major limitation since the intention of the review was to compare outcomes by transfer modality. More robust research designs, such as factorial studies using phased roll-outs of interventions with small changes to a core intervention package (business as usual), could be used to provide more rigorous comparisons of intervention modalities. This should be accompanied by better quality reporting and improved presentation of findings, including better descriptions of allocation methods and baseline differences in participant groups, calculation of effect sizes, and cost considerations.

Most studies we reviewed focused on food security and household economic measures as outcomes, and few studies reported on other sectors. Within each sector, there was inconsistency in the reporting of indicators. With the exception of household dietary diversity scores, few indicators were reported across studies. Identification of common indicators and reporting requirements, which are increasingly required by donors for monitoring and evaluation, would improve the ability to synthesize evidence. In addition, expanding the focus of studies, where possible, to outcomes beyond food security and to assessment of combinations of cash-based approaches with in-kind assistance would help to inform future policy and programming on the expansion of cash transfers into other sectors.

In terms of evaluating efficiency and value for money of cash-based approaches, standard metrics for costing cash-based assistance projects would allow for more informative comparisons of intervention efficiency. Costs related to the start-up of new interventions should be separated, so that inputs required for creation of new systems are not conflated with routine operating costs of established programmes. Additionally, there is a need to expand the focus of economic evaluations beyond comparison of interventions to identify ways to improve the efficiency of cash programme design and implementation (e.g. targeting mechanisms, delivery channels, timeliness of assistance, monitoring systems) in emergencies.

Finally, there is a need to improve the methodological rigor of humanitarian process evaluations and case studies that rely primarily on qualitative or participatory methods and analysis of routine programme data. Commonly agreed upon standards or guidelines for reporting all types of programme evaluation and research activities could assist humanitarian actors in clearly describing the methodologies used for data collection and analysis and being clear about the strength of evidence used to draw conclusions.

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11. Information about This Review

11.1. Review Authors

Name:	**Shannon Doocy**
Title:	Associate Professor
Affiliation:	Johns Hopkins School of Public Health
Address:	615 North Wolfe Street, Suite E8132
City, State, Province or County:	Baltimore, Maryland
Postal Code:	21205
Country:	United States
Phone:	+1-410-502-2628
Email:	doocy1@jhu.edu
Name:	**Hannah Tappis**
Title:	Associate
Affiliation:	Johns Hopkins School of Public Health
Address:	615 North Wolfe Street, Suite E8132
City, State, Province or County:	Baltimore, Maryland
Postal Code:	21205
Country:	United States
Phone:	+1-410-502-2628
Email:	Hannah.Tappis@jhu.edu

11.2. Roles and Responsibilities

The study was undertaken by Shannon Doocy (SD) and Hannah Tappis (HT), with support from a Johns Hopkins University Welch Medical Library Public Health information specialist, Peggy Gross (PG), and student research assistants. SD and HT jointly developed the study protocol and compiled the overall systematic review report in consultation with the International Development Coordinating Group of the Campbell Collaboration.

Research assistants conducted the search, with support from HT and PG, and screened search results using EPPI-Reviewer software to manage references. Decisions on inclusion of quasi-experimental and cost studies were made by SD and HT, with conflicts resolved through discussion and consensus. Decisions on inclusion of observational, qualitative and mixed methods studies were made by research assistants, with HT acting as an arbiter. Critical appraisal of included studies was conducted by SD and HT. SD led the synthesis of quasi-experimental studies, while HT led the synthesis of cost and market impact studies. Thematic study coding and descriptive analysis of observational, qualitative and mixed methods studies was conducted by research assistants. SD and HT then reviewed

descriptive findings and conducted further synthesis of common themes across study contexts and intervention types.

11.3. Sources of Support

This systematic review is generously supported by the United Kingdom's Department for International Development (DFID).

11.4. Declarations of Interest

The authors have no financial interest in this area and have not published any prior reviews on the topic. Dr. Doocy has published three primary research papers on cash interventions in emergencies, all of which met inclusion criteria for this review. This does not present a significant conflict of interest because inclusion of primary research papers in the review was governed the protocol.

11.5. Plans for Updating the Review

There are no plans to update the review at this time.

Annex A

A1 Search Strategy Example

PubMed Search Strategy

Concept 1	"cash"[tw] OR "CCT"[TW] OR "voucher"[TW] OR "vouchers"[TW] OR "coupons"[TW] OR "coupon"[TW] OR coupon*[TW] OR "CFW"[TW]
Concept 2	" humanitarian emergencies"[all fields] OR "emergency responses"[TW] OR "emergency response"[TW] OR "emergency relief"[tw] OR "emergencies"[tw] OR "humanitarian"[TW] OR "disasters"[mesh] OR disaster*[TW] OR "disasters"[all fields] OR "Disaster Planning"[Mesh] OR "Relief Planning"[tw] OR "Relief Work"[Mesh] OR "Relief Work"[all fields] OR "Mass Casualty"[tw] OR "rescue work"[mesh] OR "rescue work"[all fields] OR "Earthquakes"[Mesh] OR "Earthquakes"[tw] OR "earthquake"[TW] OR "Floods"[Mesh] OR "flood"[TW] OR "floods"[TW] OR "flooding"[tw] OR "floodings"[tw] OR "tsunami"[TW] OR "Tsunamis"[Mesh] OR "Tsunamis"[tw] OR "Avalanches"[Mesh] OR "Avalanches"[tw] OR "Avalanche"[tw] OR "Landslides"[Mesh] OR "Landslide"[tw] OR "Landslides"[tw] OR "Rockslide"[tw] OR "Rockslides"[tw] OR "Mudslides"[tw] OR "Mudslide"[tw] OR "cyclone"[TW] OR "cyclones"[TW] OR "Cyclonic Storms"[Mesh] OR "Cyclonic Storms"[tw] OR "Cyclonic Storm"[tw] OR "hurricane"[TW] OR "Tidal Waves"[Mesh] OR "Tidal Waves"[tw] OR "Tidal Wave"[tw] OR "Tidalwaves"[tw] OR "typhoon"[tw] OR "typhoons"[tw]OR "Volcanic Eruptions"[Mesh] OR "Volcanic Eruptions"[tw] OR "Volcanic Eruption"[tw] OR "drought"[TW] OR "Droughts"[Mesh] OR "Droughts"[tw] OR "famine"[TW] OR "famines"[TW] OR "Starvation"[Mesh] OR "food insecurity"[TW] OR "war"[TW] OR "armed intervention"[all fields] OR "armed conflict"[TW] OR "conflict affected"[TW] OR "displaced"[TW] OR "displacement"[all fields] OR refugee*[TW] OR "Refugees"[mesh]

A2 Record of Searches Up To November 2014

Database or site searched	Last date searched	Number of results
ABI-Inform Complete	17 November 2014	1737
Academic Search Complete	17 November 2014	721
CINAHL	17 November 2014	28
Econlit	17 November 2014	173
Embase	17 November 2014	184
IBBS	17 November 2014	213
LILACS	17 November 2014	7
PAIS International	17 November 2014	124
PubMed	17 November 2014	111
Science Direct	17 November 2014	177
Scopus	17 November 2014	551
Sociological Abstracts	17 November 2014	145
Web of Science	17 November 2014	504
WHO Global Health	17 November 2014	4
3ie	15 November 2014	1
ALNAP	15 November 2014	194
ACF	15 November 2014	11
Action Aid	15 November 2014	2
Adeso	15 November 2014	6
CALP	15 November 2014	217
Center for Global Development	15 November 2014	1
DFID	15 November 2014	21

Database or site searched	Last date searched	Number of results
DRC	15 November 2014	2
ECHO	15 November 2014	5
Eldis	15 November 2014	73
FAO	15 November 2014	22
IFRC	15 November 2014	5
Mercy Corps	15 November 2014	2
NORAD	15 November 2014	9
Norwegian Refugee Council	15 November 2014	1
ODI	15 November 2014	36
Oxfam	15 November 2014	2
SIDA	15 November 2014	4
UNICEF	15 November 2014	18
UNHCR	15 November 2014	10
USAID	15 November 2014	19
WFP	15 November 2014	22
Hand searches	15 November 2014	8
Total		**5371**
Duplicates		1275
After de-duplication		**4456**

A3 Reasons for Exclusion of Marginal Studies

Studies	Reason for exclusion
ACAPS 2013, Babar 2012, Baker 2013, Bernd 2006, Corbett 2010, Deshingar 2006, De Mel 2010, Doocy 2011, Frank 2013, Grant 2003, Gundogar 2010, Hoogendoorn 2008, Hoogendoorn 2014, ICRC 2010, Ismael 2001, Kawai 2010, Kweyu 2013, Levine 2007, Lindley 2009, Marcus 2013, Marrar 2008, McCloskey 2012, Metz 2009, Michelson 2011, Michelson 2012, Mozumder 2009, Oxfam 2005, Oleibo 2011, Paige 2013, Panuliano 2007, Rice 2005, Samir 2008, Schmidt 2013, Siva 2011,Slater 2014, TANGO 2011, Tennant 2009, Tearfund 2008, Ternstrom 2013, Thornburn 2009	Not cash-based intervention
ACF 2012, Adele 2012, Bagash 2012, Bene 2012, Bollinger 2008, Bukuluki 2012, Concern 2011, Creti 2010, Data 2009, Dolphin 2012, , Ferdous 2013, Friedman 2011, Food and Agriculture Organization 2013, Gilligan 2012, Gourlay 2011, Grant 2003, Hermon-Duc 2013, Hoddinnott 2014[a], Holmes 2007, Holmes 2008, Khera 2014, Marcus 2013, Mascie-Taylor 2010, Miller 2011, Robertson 2012, Sabates-Wheller 2010, Save the Children 2013, Sedhain 2010, Snigdha 2011, VEDMA 2004, WFP 2006	Population not emergency affected
ACF 2012a-g, Arnold 2011, Asif 2011, Bailey 2005, Bailey 2012, Belen 2012, Berg 2013, Bhatt 2013, Bush 2007,Campbell 2013, Collins 2012, Creti 2006, CRS 2010, CRS 2012, Dammers 2010, Dorosh 2011, FAO 2012, Grant 2003, Harvey 2006, Her 2010, IFRC 2003, IDRC 2011, IOM 2012, Kelaher 2008, Kokoevi 2010,Mountfield 2012, , Pasquet 2012, Pietzsch 2005, Radhika 2006, South Asia Disasters 2005, Sahurie 2003,Sossouvi 2010, Spanish Red Cross 2011, Truelove 2013, Suba 2011, Thornburn 2012, Ukraine Red Cross 2011, Waheed 2008, Whitehead 2013, WFP 2006, WFP 2010	Not study design meeting inclusion criteria

[a] Hoddinott 2014 described the setting for its randomized control trial comparing the effects of cash and food transfers in Niger as “a rural, classic Sahelian food security setting with very poor households facing severe seasonal food shortages”. Authors of the study were contacted, and confirmed that the programmes evaluated were not considered humanitarian programmes.

Annex B

B1 Critical Appraisal Tools for Experimental and Quasi-Experimental Studies

Domain	Judgement	Support for Judgement
Describe the method used to generate the allocation sequence in sufficient detail to allow an assessment of whether it should produce comparable groups		
Describe the method used to conceal the allocation sequence in sufficient detail to determine whether intervention allocations could have been foreseen in advance of, or during, enrolment.		
Describe all measures used, if any, to blind study participants and personnel from knowledge of which intervention a participant received. Provide any information relating to whether the intended blinding was effective.		
Describe the completeness of outcome data for each main outcome, including attrition and exclusions from the analysis. State whether attrition and exclusions were reported, the numbers in each intervention group (compared with total randomized participants), reasons for attrition/exclusions where reported, and any re-inclusions in analyses performed by the review authors.		
State how the possibility of selective outcome reporting was examined by the review authors, and what was found.		
State any important concerns about bias not addressed in the other domains in the tool. If particular questions/ entries were pre-specified in the review's protocol, responses should be provided for each question/entry.		

Adapted from: Higgins JPT, Green S (eds.). (2011) *Cochrane Handbook for Systematic Reviews of Interventions.* Version 5.1.0. The Cochrane Collaboration. Retrieved from: http://handbook.cochrane.org/.

B2 Critical Appraisal Tools for Cost and Market Impact Studies

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?		
Is the form of efficiency clearly stated?		
Is the form of efficiency analysis justified in relation to the research question(s)?		
Are quantities of resources used reported separately from unit costs?		
Are currency and price data sources clearly stated?		
Are details of currency price adjustments for inflation or currency conversion clearly stated?		
Is the time horizon of costs clearly stated?		
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?		
Is sensitivity analysis conducted and approach clearly stated?		
Do conclusions flow from data reported?		
Are conclusions accompanied by appropriate caveats?		

Adapted from: Schemilt, I., Mugford, M., Byford, S., Drummond, M., Eisenstein, E., Knapp, M., Mallender, J., Marsh, K., McDaid, D., Vale, L. and Walker, D. (2008), 'The Campbell Collaboration Economics Methods Policy Brief', The Campbell Collaboration. Retrieved from: http://www.campbellcollaboration.org/artman2/uploads/1/Economic_Methods_Policy_Brief.pdf.

B3 Critical Appraisal Tool for Observational, Qualitative and Mixed Methods Studies

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are there clear research questions or objectives?		
Do the collected data address the research questions or objectives?		
Quantitative (Observational and Descriptive) Studies		
Is the sampling strategy relevant to address the quantitative research question or quantitative aspects of mixed methods questions?		
Is the sample representative of the population under study?		
Are measurements appropriate (clear origin or validity known, or standard instrument)?		
Is there an acceptable response rate (60 per cent or above)?		
Qualitative Studies		
Are the sources of qualitative data relevant to address the research questions or objectives?		
Is the process for analyzing qualitative data relevant to address the research questions or objectives?		
Is appropriate consideration given to how findings relate to the context in which the data were collected?		
Is appropriate consideration given to how findings relate to researchers' influence?		
Mixed Methods Studies		
Is the mixed methods research design relevant to address the qualitative and quantitative research questions or objectives, or the qualitative and quantitative aspects of the mixed methods questions or objectives?		
Is the integration of qualitative and quantitative data (or results) relevant to the research questions or objectives?		
Is appropriate consideration given to the limitations associated with this integration?		

Adapted from: Pluye, P., Robert, E., Cargo, M., Bartlett, G., O'Cathain, A., Griffiths, F., Boardman, F., Gagnon, M.P., & Rousseau, M.C. (2011). *Proposal: A mixed methods appraisal tool for systematic mixed studies reviews.* Retrieved from http://mixedmethodsappraisaltoolpublic.pbworks.com.

Annex C

C1 Experimental and Quasi-experimental Study Summaries

Aker 2011

First author name: Aker, Jenny
Study title: Zap it to Me: The Short-Term Impacts of a Mobile Cash Transfer Programme
INTERVENTION DETAILS
Country of intervention: Niger
Emergency type: ☒ **Natural disaster** ☐ Conflict ☒ **Food insecurity** ☐ Other
Programme type: ☒ **Cash transfer** ☐ Voucher ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery
Primary aim/objective of intervention: Prevent asset depletion and reduce malnutrition among drought-affected households **Secondary objectives of intervention:** Improve dietary diversity, decrease use of coping strategies Offer a cash transfer programme that reduces costs for implementing agency and recipient
Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☒ **Mobile phone transfer** ☒ **Physical cash** ☐ Physical voucher ☐ Other (specify)_____
Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☒ **Monthly payment** ☐ Other (specify)_____
Describe any payment conditions: Unconditional cash transfers were provided to approximately 10,000 households during the "hungry season." Recipients received an average of 22,000 CFA (US $45) per month for five months, for a total of US $215. Cash transfers were provided to women household members; for those receiving physical cash, travel to a designated location was required.
Description of targeting methods and any enrolment criteria: Food deficit villages were targeted. Within each village, household eligibility was determined by two criteria: 1) level of poverty (determined by a village vulnerability exercise); and 2) whether the household had a child under five. Between 20-75 per cent of the village population received a cash transfer intervention.

Description of technologies used in targeting, implementing or monitoring the cash intervention(s):

A mobile phone transfer system (m-transfer) system known as Zap was used in one of the three intervention groups; physical cash was provided to other two intervention groups.

Description of complementary interventions implemented alongside cash/voucher intervention(s): None

STUDY DETAILS

Study duration: 16 months (January 2010 – May 2011)

Intervention duration: 5 months (June 2010 – Sept 2010)

Sample size: More than 1200 recipient households participated in the study (exact number not provided)

Intervention group (m-transfer) : 32 villages **Comparison group 1 (cash only) :** 32 villages

Comparison group 2 (cash + phone) : 32 villages

Description of study sample (include any individual or household/group characteristics of participants):

Initially, 116 'food deficit' villages were identified (classified by the Government of Niger as having produced less than 50 per cent of their consumption needs during the 2009 harvest). Of the 116, 96 were selected based on population size and proximity to clashes on Niger-Mali border. Within each village, households were chosen based on poverty level and whether there were children under five and 20-75 per cent included per village. One-third of targeted villages (n=96 32 per intervention) were assigned to received one of three interventions: 1) manual cash transfer (conventional), 2) mobile phone transfer (called 'zap'), or 3) manual cash transfer and a mobile phone (placebo).

Unit of measurement/analysis:

☒ **Individual** ☒ **Household** ☒ **Community** ☐ Project ☐ Organization ☐ N/A

Data was collected at the individual and household level; analysis was conducted at the community level

Description of data sources:

1) Household surveys of > 1,200 programme recipients from 96 villages
2) Programme data, including agricultural prices from >45 markets for a variety of goods and information on cash transfers for each village

Description of data collection methods and frequency:

1) Pre/Post intervention household surveys -April 2010 and December 2010
2) Market price information-weekly, May 2010 through to January 2011
3) Cash transfer information-monthly

OUTCOME 1 – Food Security

Type of variable

☐ Binary (2x2 table) ☒ **Continuous (Ns, mean, SD)** ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

1.1 Household Dietary Diversity Score

Intervention group baseline measures:	**Intervention group endline measures:**
Cash average mean = 3.07 (scale of 12)	Cash average mean = 3.07 (scale of 12)
m-transfer / cash only - Coeff: -0.10	m-transfer / cash only - Coeff: 0.16
cash + phone / cash only - Coeff: -0.31	cash + phone / cash only - Coeff: -0.26
m-transfer / cash + phone - Coeff: 0.21	m-transfer / cash + phone - Coeff: 0.43 ($p<0.05$)

Notes on Outcome 1: Household diet diversity was 0.16 higher in m-transfer villages as compared to cash only villages (not statistically significant) and 0.43 points higher in m-transfer villages as compared to cash + phone villages (statistically significant, $p<0.05$).

OUTCOME 2 – Coping Strategies

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

2.1 Land Sales

Intervention group baseline measures:	**Intervention group endline measures:**
Cash average mean = N/A	Cash average mean = 0.03
m-transfer / cash only - Coeff: N/A	m-transfer / cash only - Coeff: -0.01
cash + phone / cash only - Coeff: N/A	cash + phone / cash only - Coeff: 0.02
m-transfer / cash + phone - Coeff: N/A	m-transfer / cash + phone - Coeff: -0.03

2.2 Tree Cutting

Intervention group baseline measures:	**Intervention group endline measures:**
Cash average mean = N/A	Cash average mean = 0.16
m-transfer / cash only - Coeff: N/A	m-transfer / cash only - Coeff: -0.03
cash + phone / cash only - Coeff: N/A	cash + phone / cash only - Coeff: -0.02
m-transfer / cash + phone - Coeff: N/A	m-transfer / cash + phone - Coeff: -0.01

2.3 Anthill Searching

Intervention group baseline measures:	**Intervention group endline measures:**
Cash average mean = N/A	Cash average mean = 0.02
m-transfer / cash only - Coeff: N/A	m-transfer / cash only - Coeff: -0.02
cash + phone / cash only - Coeff: N/A	cash + phone / cash only - Coeff: 0.00
m-transfer / cash + phone - Coeff: N/A	m-transfer / cash + phone - Coeff: -0.01

Notes on Outcome 2: Coping strategies were evaluated at endline only and included land sales, tree cutting and searching anthills. Households in m-transfer villages used coping strategies less frequently than those in the two comparison groups; however, differences were not statistically significant. Therefore, it does not appear the mobile transfer programme affected the use of these coping strategies.

OUTCOME 3: Assets

Type of variable

☐ Binary (2x2 table) ☒ **Continuous (Ns, mean, SD)** ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

3.1 Asset Categories Owned

Intervention group baseline measures:

Cash average mean = 3.59 (out of 12)

m-transfer / cash only - Coeff: -0.04

cash + phone / cash only - Coeff: -0.18

m-transfer / cash + phone - Coeff: 0.14

Intervention group endline measures:

Cash average mean = 3.59 (out of 12)

m-transfer / cash only - Coeff: 0.66 (p<0.01)

cash + phone / cash only - Coeff: 0.20

m-transfer / cash + phone - Coeff: 0.46 (p<0.01)

3.2 Number of Durable Assets Owned

Intervention group baseline measures:

Cash average mean = N/A

m-transfer / cash only - Coeff: N/A

cash + phone / cash only - Coeff: N/A

m-transfer / cash + phone - Coeff: N/A

Intervention group endline measures:

Cash average mean = 0.2

m-transfer / cash only - Coeff: 0.03

cash + phone / cash only - Coeff: -0.01

m-transfer / cash + phone - Coeff: 0.04

3.2 Number of Non-Durable Assets Owned

Intervention group baseline measures:

Cash average mean = N/A

m-transfer / cash only - Coeff: N/A

cash + phone / cash only - Coeff: N/A

m-transfer / cash + phone - Coeff: N/A

Intervention group endline measures:

Cash average mean = 1.85

m-transfer / cash only - Coeff: 0.15

cash + phone / cash only - Coeff: -0.09

m-transfer / cash + phone - Coeff: 0.24 (p<0.01)

Notes on Outcome 3: Households in m-transfer villages had higher endline asset scores than those in the cash only and cash + phone intervention groups; these differences were largely attributed to increased phone ownership (where phones were provided by the programme). Excluding the mobile phone, there was no statistically significant difference in durable asset ownership (carts, ploughs, bikes and mopeds) between intervention groups at endline, suggesting the intervention did not have an impact upon durable asset ownership. Asset scores for non-durable items (lamps, flashlights) in m-transfer villages were 0.15 and 0.24 higher than in cash only and cash + phone villages, respectively. This suggests that m-transfer households were selling non-durable assets less frequently than those in placebo or cash villages.

OUTCOME 4 – Agricultural Investment and production	
Type of variable ☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE) ☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**	
4.1 Cultivated Land in Past Growing Season **Intervention group baseline measures:** Cash average mean = 0.98 m-transfer / cash only – Coeff: -0.01 cash + phone / cash only – Coeff: -0.00 m-transfer / cash + phone – Coeff: -0.01	**Intervention group endline measures:** Cash average mean = 4.44 m-transfer / cash only - Coeff: 0.49 (p<0.05) cash + phone / cash only - Coeff: 0.12 m-transfer / cash + phone - Coeff: 0.36 (p<0.01)
Notes on Outcome 4: The zap programme did not have an impact upon the likelihood of land ownership (exact endline values not reported), likelihood of cultivation or use of improved seed (exact endline values not reported). However, the programme did appear to affect crop choices: households in m-transfer villages grew 0.36-0.49 more types of crops than those in the cash only and cash + phone villages (statistically significant differences at 0<0.05 and p<0.10 levels, respectively; exact endline values not reported). The changes in crop choice did not translate into different production levels or marketing strategies across the three groups. The study concluded there were no differences across the interventions in the quantity of grains or cash crops produced, or the likelihood of selling those crops after the harvest or the quantity sold immediately after the harvest.	
CONCLUSIONS	
The m-transfer intervention reduced the costs of programme recipients in obtaining the cash transfer, and reduced the implementing agency's variable costs associated with distributing cash. In addition, those in the m-transfer group bought more types of food and non-food items, increased their diet diversity, depleted their non-durable assets at a slower rate and produced a more diverse basket of agricultural goods. These differences were attributed to the m-transfer intervention, and not to the presence of the mobile phone. The effects appear to be due to the reduced costs of the programme and greater privacy of the m-transfer mechanism, which are potentially linked with changes in intra-household decision-making.	

Aker 2013a

First author name: Aker, Jenny (Center for Global Development Working Paper)
Study title: Cash or coupons? Testing the Impacts of Cash vs Vouchers in the Democratic Republic of Congo
INTERVENTION DETAILS
Country of intervention: Democratic Republic of the Congo
Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)_____
Programme type: ☒ **Cash transfer** ☒ **Voucher** ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)_____
Primary aim/objective of intervention: To improve access to food and basic non-food items (NFIs) among internally displaced persons (IDPs) living in an informal camp.
Channel of delivery: ☐ Pre-paid card ☒ **Bank transfer** ☐ Mobile phone transfer ☐ Physical cash ☒ **Physical voucher** ☐ Other (specify)
Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☐ Monthly payment ☒ **Other**: three payments ($90, $20, $20 respectively) over a six month period.
Describe any payment conditions: **Voucher:** Households received equal value vouchers ($130) that could be redeemed at a voucher fair selling agricultural, food and non-food items. In the first distribution ($90), recipients could spend the voucher on food and non-food items; second and third distributions ($20 each) could only be spent on food items; all the voucher fairs took place in the regional market centre. **Cash transfer:** households received an unconditional cash transfer of $130 over a six-month period. Payments were made in Sept ’11 ($90), Nov ’11 ($20), and Feb ’12 ($20); the transfer was deposited into an interest-free account of a local cooperative located in the regional market; programme recipients had to travel to the market to receive transfer. The cash transfer or voucher was primarily provided to the female household member (either the head of household or the spouse of the household head). More than 90 per cent of recipients were women.
Description of targeting methods and any enrolment criteria: The programme targeted 474 internally displaced households in one informal camp in Masisi territory, with a total population of 2,500 individuals. All households residing in the camp were eligible for the intervention. In all, 237 households were randomly assigned to the cash transfer intervention and 237 were randomly assigned to the voucher intervention.
Description of technologies used in targeting, implementing or monitoring the cash intervention(s): **Cash Transfer:** The transfer was directly deposited into an interest-free account at the office of a local cooperative in the regional market center. Accounts were opened free of charge, and there were no fees to withdraw the cash transfer; households could save their cash in the account if they wished.
Description of any complementary interventions implemented alongside cash/voucher intervention(s): None
STUDY DETAILS
Study duration: 6 months.
Sample size: Sample size: The total sample size for the intervention was 474, with 237 households were randomly assigned to each intervention group (cash transfer or vouchers). A total of 252

households participated in the research. No information was provided on the number of research participants in each intervention group.

Description of study sample (include any individual or household/group characteristics of participants):

Households residing in an informal IDP camp. Average household size was 5.5 and 42 per cent were female headed. Households had very few income generating opportunities and relied mostly on daily; 90 per cent were living in the camp for more than one year. Food insecurity was prevalent, with average households spending >75 per cent of weekly expenditures on food, below average household diversity scores, and low food frequency where children consumed an average of 1.3 meals on the preceding day.

Unit of measurement/analysis:

☐ Individual ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources:

Primary data are household surveys conducted with 252 households before, during, and immediately after the programme (with low attrition, 94% (~237) of the original 252 participated in the final survey). This is supplemented with price data collected throughout the programme period, administrative data from the primary cooperative distributing the cash transfer, and monitoring data collected during voucher fairs. The data sets can be summarized as follows:

1) Household surveys (baseline in Sep 2011 with follow up surveys in Nov 2011 and Mar 2012)—to characterize demographics, asset ownership, shocks, income generating activities, food security, and uses of the cash transfer or voucher
2) Exit surveys at voucher fairs—to ascertain how recipients spent vouchers
3) Price data for 25 products—used to assess the price effects of each modality and the value of the assets owned by the households
4) Account information— on the timing and use of the saving accounts (provided by the cooperative)
5) Qualitative data—from end of project focus groups to provide insights into the quantitative findings.

Description of data collection methods and frequency:

Surveys: conducted before, during, and after the programme. Price and account information were collected during the programme. Exist surveys were conducted at voucher fairs. Focus groups were conducted at programme's end.

OUTCOME 1: Food Security

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☒ **Continuous (N, mean, SE)**

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

1.1 Household Dietary Diversity Score

Intervention group baseline measures:	**Intervention group endline measures:**
Voucher mean = 2.90 (scale of 12)	Voucher mean = 3.36
Cash mean = 2.78 (scale of 12)	Cash Coeff = 0.13

1.2 Meals Consumed per Day

Intervention group baseline measures:	**Intervention group endline measures:**
Voucher mean = 1.29	Voucher mean = 1.46
Cash mean = 1.28	Cash Coeff = 0.00

1.3 Months of Adequate Food Provisioning

Intervention group baseline measures:	**Intervention group endline measures:**
Population mean = 1.69	Voucher mean = 2.27
(information not provided by intervention group)	Cash Coeff = 0.10

Notes on Outcome 1: The number of meals per day increased significantly between the baseline and follow-up period for both groups and the likelihood of food insecurity decreased. There were no statistically significant differences between the two transfer modalities for any food security indicators.

OUTCOME 2: Assets and Income

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☒ **Continuous (N, mean, SE)**

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

2.1 Income in the Previous Week

Intervention group baseline measures:
Population mean = 1.01
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 3.4
Cash Coeff = 1.01

2.2 Savings

Intervention group baseline measures:
Population mean = 0
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 11.32
Cash Coeff = 1.56 (p<0.05)

2.3 Total Value of Household Assets (USD)

Intervention group baseline measures:
Population mean = 61.72
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 71.72
Cash Coeff = -3.41

2.4 Number of Durable Assets Owned

Intervention group baseline measures:
Population mean = 0.01
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 0.04
Cash Coeff = -0.00

Notes on Outcome 2: With the exception of savings, there were no differential effects of the transfer modality on income, income sources or asset and livestock ownership. Cash households were 9 per cent more likely to have savings left over from the transfer (as compared with 1 per cent of voucher households), and were able to save US $1.50 more than voucher households – approximately half of weekly household income (p<0.05).

OUTCOME 3: Coping Strategies

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☒ **Correlation coefficient (r)**

3.1 Migration of Household Member(s)

Intervention group baseline measures:
Population mean = 0.04
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 0.02
Cash Coeff = 0.04 (p<.10)

3.2 Sales of Household Assets

Intervention group baseline measures:
Population mean = 0.11
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 0.03
Cash Coeff = -0.02 (p<.10)

3.3 Reduced Numbers of Meals per Day

Intervention group baseline measures:
Population mean = 0.52
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 0.25
Cash Coeff = -0.01

3.4 Took Children Out of School

Intervention group baseline measures:
Population mean = 0.16
(information not provided by intervention group)

Intervention group endline measures:
Voucher mean = 0.05
Cash Coeff = -0.03

Notes on Outcome 3: There were no differential effects of the transfer modality on the use of coping strategies that were statistically significant at conventional levels ($p<0.05$). Cash households were more likely to send a household member to migrate but less likely to sell off assets, however, these differences were of marginal statistical significance ($p<.10$).
CONCLUSIONS
Estimating programme effects on household demand for both cash and voucher transfers, the authors found that some food items (salt, fish and rice), were largely extra-marginal (over provided) for voucher households, meaning that voucher households were more likely to purchase these items than they would have under a cash transfer programme. None of these extra-marginal transfers appeared to be binding, however, so consumption (as measured by household diet diversity) was largely similar under the voucher and cash transfer modalities. In light of this, it is perhaps not surprising that there is no evidence of differential effects of cash and voucher transfers on income, assets or food security. However, cash transfers did allow households to save some of their cash. Furthermore, households receiving cash did not appear to purchase “temptation” goods.

Aker 2013b

First author name: Aker, Jenny
Study title: Examining Differences in the Effectiveness and Impacts of Vouchers and Unconditional Cash Transfers
INTERVENTION DETAILS
Country of intervention: Democratic Republic of the Congo
Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)_____
Programme type: ☒ **Cash transfer** ☒ **Voucher** ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)_____
Primary aim/objective of intervention: To improve access to food and basic non-food items (NFIs) among internally displaced persons (IDPs) living in an informal camp.
Channel of delivery: ☐ Pre-paid card ☒ **Bank transfer** ☐ Mobile phone transfer ☐ Physical cash ☒ **Physical voucher** ☐ Other (specify)
Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☐ Monthly payment ☒ **Other**: three payments ($90, $20, $20 respectively) over a six month period.
Describe any payment conditions: **Voucher:** Households received equal value vouchers ($130) that could be redeemed at a voucher fair selling agricultural, food and non-food items. In the first distribution ($90), recipients could spend the voucher on food and non-food items; second and third distributions ($20 each) could only be spent on food items; all the voucher fairs took place in the regional market centre. **Cash transfer:** households received an unconditional cash transfer of $130 over a six month period. Payments were made in Sept ’11 ($90), Nov ’11 ($20), and Feb ’12 ($20); the transfer was deposited into an interest-free account of a local cooperative located in the regional market; programme recipients had to travel to the market to receive transfer. The cash transfer or voucher was primarily provided to the female household member (either the head of household or the spouse of the household head). More than 90 per cent of recipients were women.

Description of targeting methods and any enrolment criteria:

The programme targeted 474 internally displaced households in one informal camp in Masisi territory, with a total population of 2,500 individuals. All households residing in the camp were eligible for the intervention. In all, 237 households were randomly assigned to the cash transfer intervention and 237 were randomly assigned to the voucher intervention.

Description of technologies used in targeting, implementing or monitoring the cash intervention(s):

Cash Transfer: The transfer was directly deposited into an interest-free account at the office of a local cooperative in the regional market centre. Accounts were opened free of charge, and there were no fees to withdraw the cash transfer; households could save their cash in the account if they wished.

Description of any complementary interventions implemented alongside cash/voucher intervention(s): None

STUDY DETAILS

Study duration: six months.

Sample size: The total sample size for the intervention was 474, with 237 households were randomly assigned to each intervention group (cash transfer or vouchers). A total of 252 households participated in the research, with a breakdown by comparison group as follows:

Cash Intervention: 126 baseline/117 endline **Voucher intervention:** 126 baseline / 120 endline

Description of study sample (include any individual or household/group characteristics of participants):

Households residing in an informal IDP camp. Average household size was 5.5 and 42 per cent were female headed. Households had very few income generating opportunities and relied mostly on daily; 90 per cent were living in the camp for more than one year. Food insecurity was prevalent, with average households spending >75 per cent of weekly expenditures on food, below average household diversity scores, and low food frequency where children consumed an average of 1.3 meals on the preceding day.

Unit of measurement/analysis:

☐ Individual ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources:

Primary data are household surveys conducted with 252 households before, during, and immediately after the programme (with low attrition, 94% (~237) of the original 252 participated in the final survey). This is supplemented with price data collected throughout the programme period, administrative data from the primary cooperative distributing the cash transfer, and monitoring data collected during voucher fairs. The data sets can be summarized as follows:

1)Household surveys (baseline in Sep 2011 with follow up surveys in Nov 2011 and Mar 2012)—to characterize demographics, asset ownership, shocks, income-generating activities, food security, and uses of the cash transfer or voucher

2) Exit surveys at voucher fairs—to ascertain how recipients spent vouchers

3) Price data for 25 products—used to assess the price effects of each modality and the value of the assets owned by the households

4) Account information— on the timing and use of the saving accounts (provided by the cooperative)

5) Qualitative data—from end of project focus groups to provide insights into the quantitative findings.

Description of data collection methods and frequency:

Surveys: conducted before during, and after the programme. Price data and account information were collected throughout the programme. Exist surveys were conducted at the three voucher fairs. Focus groups were conducted at the end of the programme.

OUTCOME 1: Assets and Income

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

1.1 Income in the Previous Week (FC)	**Intervention group endline measures:**
Intervention group baseline measures:	Cash mean = 4515.1
Population mean = 2444.6	Voucher mean = 3510.4 *(statistically similar)*
(information not provided by intervention group)	
	Intervention group endline measures:
1.2 Total Value of Household Assets (USD)	Cash mean = 79.0
Intervention group baseline measures:	Voucher mean = 82.8 *(statistically similar)*
Population mean = 61.7	
(information not provided by intervention group)	**Intervention group endline measures:**
1.3 Number of Durable Assets Owned	Cash mean = 0.02
Intervention group baseline measures:	Voucher mean = 0.02 *(statistically similar)*
Population mean = 0.01	
(information not provided by intervention group)	

Notes on Outcome 2: Between Sept and Mar 2012, the average value of household assets increased by 31 per cent, from US $61 to US $80. While the value of household assets was slightly higher in voucher households compared to cash households (US $82 vs. US $79) the difference was not statistically significant. Since no data from a comparison group is available, the increase in value of assets cannot be attributed to the Concern programme rather than other factors (such as support from another NGO or an improvement in income-generating opportunities in the area).

OUTCOME 2: Food Security

Type of variable

☒ **Binary (2x2 table)**	☐ Continuous (Ns, mean, SD)	☐ Continuous (N, mean, SE)
☐ Continuous (N, mean, CI)	☒ **Continuous (N, mean, t- or p-value)**	☐ Correlation coefficient (r)

2.1 Food Insecure in the Past 3 Months	**Intervention group endline measures:**
Intervention group baseline measures:	Cash proportion = 82.0 per cent
Population proportion: 99.2 per cent	*(statistically different, p<.10)*
(information not provided by comparison group)	Voucher proportion = 93.0 per cent
2.2 Months of Adequate Food Provisioning	**Intervention group endline measures:**
Intervention group baseline measures:	Cash mean = 2.17
Population mean = 1.22	Voucher mean = 2.07 *(statistically similar)*
(information not provided by comparison group)	
2.3 Meals Consumed per Day	**Intervention group endline measures:**
Intervention group baseline measures:	Cash mean = 1.41
Population mean = 1.29	Voucher mean = 1.41 *(statistically similar)*
(information not provided by comparison group)	**Intervention group endline measures:**
2.4 Household Dietary Diversity Score	Cash mean = 2.79
Intervention group baseline measures:	Voucher mean = 2.63 *(statistically similar)*
Population mean = 2.9	
(information not provided by comparison group)	

Notes on Outcome 2: Overall, there were no statistically significant differences in diet diversity between the cash and voucher households, and the consumption of almost all food items was similar between the two groups.

While there were no differences in diet diversity, cash households were less likely to report having suffered from food insecurity since the previous harvest as compared with voucher households (82% vs 93%, p<.10) and the number of months of inadequate household food provisioning (MAHFP) was higher among cash households (not statistically significant at endline). The differences in food security status were primarily due to differences in November 2011, rather than March 2012 suggesting these may not be a key finding.

OUTCOME 3: Coping Strategies

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

3.1 Migration of Household Member(s)

Intervention group baseline measures:

Population proportion = 3.5 per cent

(information not provided by intervention group)

Intervention group endline measures:

Cash proportion: 5.5 per cent *(statistically significant,*

Voucher proportion: 1.6 per cent *level not specified)*

3.2 Sales of Household Assets

Intervention group baseline measures:

Population proportion = 11.0 per cent

(information not provided by intervention group)

Intervention group endline measures:

Cash proportion: 0.0 per cent *(statistically significant,*

Voucher proportion: 2.4 per cent *level not specified)*

3.3 Reduced Numbers of Meals per Day

Intervention group baseline measures:

Population proportion = 52.0 per cent

(information not provided by intervention group)

Intervention group endline measures:

Cash proportion: 27.1 per cent

Voucher proportion: 28.5 per cent *(not significant)*

3.4 Took Children Out of School

Intervention group baseline measures:

Population proportion = 16.0 per cent

(information not provided by intervention group)

Intervention group endline measures:

Cash proportion: 1.4 per cent

Voucher proportion: 4.1 per cent *(not significant)*

3.5 Coping Strategies Index Score (universal)

Intervention group baseline measures:

Population mean = 0.95

(information not provided by intervention group)

Intervention group endline measures:

Cash mean: 0.48

Voucher mean: 0.47 *(not significant)*

Notes on Outcome 3: Overall, both cash and voucher households decreased their use of these coping strategies between September 2011 and March 2012, with similar patterns for the cash and voucher households.

CONCLUSIONS
Overall, results of the research suggest that cash transfer households were able to use the transfer to buy a more diverse set of food and non-food items than voucher households. There were no other differences between the two groups in terms of diet diversity, the types of foods consumed, coping strategies used, the overall acquisition or sale of durable and non-durable goods or intra-household decision-making. Note: Cost-effectiveness information is also reported but is not abstracted here because it will be analyzed separately. Process findings, such as how cash transfers were used and intra-household decision making are also not included in the outcomes summary (for intra-household decision making, there were no baseline measures; there were also no significant differences between comparison groups at endline).

Hidrobo 2012/2014[11]

First author name: Hidrobo, Melissa
Study title: Cash, food or vouchers? Evidence from a randomized experiment in northern Ecuador (2014) Evaluation of Cash, Food Vouchers, and Food Transfers among Colombian Refugees and Poor Ecuadorians in Carchi and Sucumbios (2012)
INTERVENTION DETAILS
Country of intervention: Ecuador
Emergency type: ☐ Natural disaster ☐ Conflict ☒ **Food insecurity** ☐ Other (specify)
Programme type: ☒ **Cash transfer** ☒ **Voucher** ☐ Cash for work
Humanitarian sector: ☐ Health ☒ **Nutrition** ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☒ **Protection** ☐ Early recovery ☐ Other (specify)_____
Primary aim/objective of intervention: To address the food security needs of Colombian refugees and poor Ecuadorians in the urban centres of Carchi and Sucumbios.
Channel of delivery: ☒ **Pre-paid card** ☐ Bank transfer ☐ Mobile phone transfer ☐ Physical cash ☒ **Physical voucher** ☒ **Other (specify) _Food (in kind)_**

[11] Information from 2012 and 2014 publications are summarized because some outcomes were not reported in the peer reviewed publication.

Three assistance modalities (cash, vouchers and food transfers) were used to achieve project objectives.

Payment structure:

☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment

☒ **Monthly payment** ☐ Other (specify)_____

Monthly transfers of the same value ($40/household) were made for a six month period.

Describe any payment conditions:

- ***Pre-paid ATM cards (unrestricted)*** had no conditions. Households could retrieve cash at any time (in bundles of $10) and also could keep cash in the bank for longer time periods.

- ***Vouchers (partially restricted)*** were redeemable (in $20 denominations) at supermarkets in urban centres for approved food items. Vouchers could be used over two visits per month and had to be redeemed within 30 days of receipt.

- ***The Food Basket (fully restricted)*** included 24kg rice, 4L vegetable oil, 8kg lentils and canned sardines (8 cans of 0.425kg). The food basked was valued at $40; local partners stored and distributed food.

Description of targeting methods and any enrolment criteria:

- Colombian refugees and poor Ecuadorians; most recipients were women however this was not a criteria

- All identified Columbian and mixed-nationality households enrolled. Other beneficiaries selected by point system for household demographics, nationality, labour force participation, food security and asset ownership (exact methodology not described)

-Programme type was randomly assigned by neighborhood

- Those receiving the government's social safety net transfer programme excluded

Description of technologies used in targeting, implementing or monitoring the cash intervention(s):

-Prepaid ATM cards and paper vouchers

Description of any complementary interventions implemented alongside cash/voucher intervention(s):

Nutrition sensitization was a key component of the programme, aimed at influencing behaviour change and increasing knowledge of recipient households, especially in regards to dietary diversity. To ensure a consistent approach to knowledge transfer, a set of curricula was developed by WFP to be covered at each monthly distribution and transfers were conditional on attendance at the nutrition trainings.

STUDY DETAILS

Study duration: six months

The study aimed to estimate the relative impact and cost-effectiveness of cash, food vouchers and food transfers on household food security and related indicators (anemia, household expenditures).

Sample size: 2,357 households were included in the programme and baseline survey and 2,122 were re-surveyed at follow up. 2087 completed food consumption data and follow-up.

Number of households in each intervention/comparison group is as follows (from Hidrobo, 2012):

Intervention group 1 (cash transfer): 601 Intervention group 3 (food basket): 453

Intervention group 2 (vouchers): 651 Comparison group (no intervention) : 652

Description of study sample (include any individual or household/group characteristics of participants):

The study was conducted in four urban areas and included 80 neighbourhoods and 145 clusters. Clusters consisted of 20 households (cash and voucher) or 27 households (food basket and comparison) (Hidrobo, 2012).

Household characteristics (n=19) were compared at baseline and some significant differences were observed at the p=0.05. Comparison households were significantly more likely to be Colombian, have more children ages six to15 years, have larger households, have a private latrine, and have a washing machine; in difference-in-means test for each treatment arm compared to the comparison arm, a similar pattern was observed where the same variable had significant differences in floor type and household head education). The authors concluded that overall, randomization was successful with respect to household observable characteristics; baseline covariates were added in the later statistical analysis to control for differences between comparison groups (Hidrobo, 2012).

Unit of measurement/analysis:

☒ **Individual** ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources:

- Household surveys – one per household in the sample (baseline and follow-up) including dietary quality measures (Dietary Diversity Index, Household Dietary Diversity Score, and Food Consumption Score), household food consumption (value of food consumed in the last seven days), and assets and expenditures.
- Haemoglobin questionnaire – completed for children six-59 months of age (at baseline) and adolescent girls 10-16 years of age in each participating household (inclusive of anaemia test) (Hidrobo, 2012).
- Barrio questionnaire – one per neighbourhood completed with community leader key informant
- Central market and supermarket price questionnaire – completed for each urban centre

Description of data collection methods and frequency: Two surveys, baseline and follow up (after 6 months)

OUTCOME 1: Food consumption

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

1.1 Value of Food Consumed (household, past 7 days, USD)

Baseline measures	**Endline Measures**
Intervention groups (pooled): 40.13	Intervention groups (pooled): 44.93
Comparison group: 37.03	Comparison group: 36.70
Statistically significant difference at p=0.05 level	*Statistically significant difference at p=0.01 level*

1.2 Caloric Intake (per capita, daily)

Baseline measures	**Endline Measures**
Intervention groups (pooled): 1905	Intervention groups (pooled): 2030
Comparison group: 1794	Comparison group: 1748
Significant difference at p=0.05 level	*Significant difference at p=0.01 level*
	Change from baseline by treatment arm:
	Cash=6 per cent, Voucher=11 per cent,
	Food=16 per cent
	No statistically significant

Notes on Outcome 1: All three interventions arms significantly improved the diversity of food consumed and led to significant increases in per capita food consumption, ranging from 12-16 per cent; there were no statistically significant differences across treatment arms in the size of the impact. All three interventions arms led to significant increases in caloric intake, ranging from 6-16 per cent; the impact of food on per capita caloric intake is significantly larger than that of the cash transfer (Hidrobo, 2012).

OUTCOME 2: Food Security

Type of variable

☐ **Binary (2x2 table)** ☐ **Continuous (Ns, mean, SD)** ☐ **Continuous (N, mean, SE)**

☐ **Continuous (N, mean, CI)** ☒ **Continuous (N, mean, t- or p-value)** ☐ **Correlation coefficient (r)**

2.1 Household Dietary Diversity Score

Baseline measures	**Endline Measures**
Intervention groups (pooled): 9.20	Intervention groups (pooled): 10.91
Comparison group: 9.10	Comparison group: 10.35
No significant difference	Change from baseline by treatment arm:
	Cash=0.40, Voucher=0.51, Food=0.51
	Significant difference at p=0.01 level

2.2 Dietary Diversity Index

Baseline measures	**Endline measures**
Intervention groups (pooled): 17.41	Intervention groups (pooled): 22.02
Comparison group: 17.04	Comparison group: 19.13
No significant difference	Change from baseline by treatment arm:
	Cash=2.39, Voucher=2.89, Food=1.98
	Significant difference at p=0.01 level

2.3 Food Consumption Score

Baseline measures	**Endline Measures**
Intervention groups (pooled): 60.54	Intervention groups (pooled): 70.02
Comparison group: 59.45	Comparison group: 62.13
No significant difference	Change from baseline by treatment arm:
	Cash=6.48, Voucher=9.41, Food=6.10
	Significant difference at p=0.01 level

Notes on Outcome 2: All three modalities (food, cash, and voucher) significantly increased the three dietary diversity measures. The size of the increase differed by treatment arm; vouchers had significantly larger impacts than the food basket for DDI and significantly larger impacts than the food basket and cash for the FCS.

The percentage increase in HDDS is small compared to the percentage increase in DDI and FCS. HDDS increased by 5.6 per cent for the food and voucher group and by 4.4 per cent for the cash group. Vouchers led to the largest percentage increase in DDI and FCS measures: 16.7 per cent increase in DDI compared to 11.4 per cent and 13.8 per cent increases for the food and cash group, respectively, and a 15.6 per cent increase in FCS compared to a 10.1 per cent and 10.8 per cent increases, respectively, for food and cash households.

OUTCOME 3: Nutrition Status (from Hidrobo, 2012)

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

3.1 Anaemia, Children 6-59 months

Baseline measures	**Endline Measures**
Haemoglobin Level (g/dl)	Haemoglobin Level (g/dl)
Intervention groups (pooled): 10.81	Intervention groups (pooled): 10.91
Comparison group: 10.97	Comparison group: 10.35
No significant difference	*Significant difference at p=0.01 level*

	Change from baseline by treatment arm: Cash=-0.19, Voucher=-0.03, Food=-0.13 *No significant difference*
Moderate & Severe Anaemia Prevalence (Hb<10) Intervention groups (pooled): 0.19 Comparison group: 0.15 *No significant difference*	Moderate & Severe Anaemia Prevalence (Hb<10) Intervention groups (pooled): 10.91 Comparison group: 10.35 *Significant difference at p=0.01 level* Change from baseline by treatment arm: Cash=0.10, Voucher=0.01, Food=0.02 *Significant difference at p=0.05 for cash grp only*
3.1 Anaemia, Girls 10-16 years **Baseline measures** Haemoglobin Level (g/dl) Intervention groups (pooled): 12.56 Comparison group: 12.53 *No significant difference*	**Endline Measures** Haemoglobin Level (g/dl) Intervention groups (pooled): 12.51 Comparison group: 12.37 *No significant difference* Change from baseline by treatment arm: Cash=-0.10, Voucher=0.04, Food=0.00 *No significant difference*
Moderate & Severe Anaemia Prevalence (Hb<11) Intervention groups (pooled): 0.07 Comparison group: 0.09 *No significant difference*	Moderate & Severe Anaemia Prevalence (Hb<10) Intervention groups (pooled): 0.09 Comparison group: 0.14 *No significant difference* Change from baseline by treatment arm: Cash=-0.02, Voucher=-007, Food=-0.03 *No significant difference*
Notes on Outcome 3: In children 6-59 months haemoglobin levels increased approximately 0.4 g/dl to 11.23 during the study period which may be a function of children aging; the proportion of children with moderate and severe anaemia decreased from 26% to 18%; there were no significant differences between treatment and comparison groups at baseline or endline. In 10-16 year old girls, there was little movement in overall haemoglobin levels, however, there was a slight increase in prevalence of moderate and severe anaemia (8% to 10%); there were no significant differences between treatment and comparison groups at baseline or endline.	

OUTCOME 4: Domestic Violence (from Hidrobo, 2012)

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

Baseline Values	**Endline Values**
4.1 Any Type of Violence	**4.1 Any Type of Violence**
Intervention groups (pooled): 31%	Intervention groups (pooled): 39%
Comparison group: 33%	Comparison group: 46%
No significant difference at baseline	*Significant difference at endline, p<0.05*
Controlling Behaviors	Controlling Behaviors
Intervention groups (pooled): 17%	Intervention groups (pooled): 32%
Comparison group:17%	Comparison group: 41%
No significant difference at baseline	*Significant difference at endline, p<0.001*
Emotional Violence	Emotional Violence
Intervention groups (pooled): 26%	Intervention groups (pooled): 28%
Comparison group:24%	Comparison group: 30%
No significant difference at baseline	*No significant difference at endline*
Physical and/or Sexual Violence	Physical and/or Sexual Violence
Intervention groups (pooled): 17%	Intervention groups (pooled): 15%
Comparison group: 13%	Comparison group: 20%
Significant difference at baseline, p<0.01	*No significant difference at endine*

Notes on Outcome 4: Conclusions on domestic violence are difficult to draw from this study for several reasons: 1) the percent of women experiencing controlling behaviours or emotional violence at baseline is lower than at follow-up; the authors indicate this is likely a reflection to changes in the assessment methodology between the baseline and endline surveys; and 2) the percent of women experiencing controlling behaviours increases greatly for both the comparison and treatment arm, the increase is much larger for the comparison arm; this may be the result of an extraordinary increase in one urban centre. The study concludes that three transfer modalities (food, cash, and voucher) significantly decrease physical/sexual violence; only food and cash significantly decrease controlling behaviours; and only cash significantly decreases the aggregate measures of any violence.

CONCLUSIONS
Notes on Additional Outcomes: 1) Social capital measures (trust, discrimination, community participation) were also assessed as outcomes but are not included in the summary because they fall beyond the scope of the review which focus on sector-specific and cross-cutting issues that are commonly reported on in humanitarian settings. 2) Women's empowerment indicators including decision making processes were reported but were considered to be process measures and not outcome measures and thus are not abstracted in this summary. No significant changes in women's empowerment indicators were observed in any of the intervention groups. Overall, programme participation led to significant increases across a range of food security measures, with the value of per capita food consumption increasing by 13 per cent, per capita caloric intake increasing by 10 per cent, HDDS improving by 5.1 per cent, DDI by 14.4 per cent, and FCS by 12.6 per cent. The programme also led to a significant decrease of 4 per cent in households with "poor to borderline" food consumption. Although all three modalities improve the value of food consumption, caloric intake, and dietary diversity measures, vouchers led to the largest gains in dietary diversity and the food basket led to the largest increase in caloric intake. Both Colombians and Ecuadorians benefit from participating in the programme; however, Colombians in the food and cash groups experience significantly greater gains in dietary diversity as compared to Ecuadorians. Participation in the programme did not lead to a significant change in hemoglobin levels or anemia prevalence for either children aged six to 59 months or for adolescent girls aged 10 to 16 years. Overall, participation in the programme led to a significant decrease in intimate partner violence.

Lehmann 2014

First author name: Lehmann, Christian
Study title: Emergency Economies: The Impact of Cash Assistance in Lebanon
INTERVENTION DETAILS
Country of intervention: Lebanon
Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)_____
Programme type: ☒ Cash transfer ☐ Voucher ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☐ Food security ☐ Education ☐ WASH ☒ **Shelter** ☐ Protection ☐ Early recovery ☐ Other (specify)_____
Primary aim/objective of intervention: Provide winter cash transfers to approximately 87,700 registered Syrian refugee households in Lebanon with the objective of keeping them warm and dry during the cold winter months.
Channel of delivery: ☒ **Pre-paid card (ATM card)** ☐ Bank transfer ☐ Mobile phone transfer ☐ Physical cash ☐ Physical voucher ☐ Other

Payment structure:

☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment

☒ **Monthly payment** ☐ Other (specify)_____

Households received a total of US $575: $147 in November, $107 each month after totalling $428 USD over the four last months of the intervention.

Describe any payment conditions: Beneficiaries were told that the expectation was that cash transfer funds would be spent on heating supplies, but no restrictions were placed (i.e. it was an unconditional transfer).

Description of targeting methods and any enrolment criteria: Families had to live in an 'inadequate shelter;' meet certain demographic criteria (based on the Syrian Refugee Vulnerability Assessment (VASyR); and reside at/above 500m altitude (altitude was defined at the community level by the highest elevation in the town).

Description of technologies used in targeting, implementing or monitoring the cash intervention(s): Targeting was based on vulnerability cut-off from the VASyR and altitude. Those eligible for the cash transfer were notified via SMS they were eligible to receive an ATM card at a distribution point; the household head could pick up card and receive pin # and withdraw money at any ATM.

Description of any complementary interventions implemented alongside cash/voucher intervention(s): A stove and blanket were provided to intervention group households in November 2013 (as part of the package). All households (intervention and comparison) received e-vouchers, valued at US $30/person/month, from WFP.

STUDY DETAILS

Study duration: November 2013 – March 2014

Sample size: 1789 households in 15 districts were eligible for participation in the study and 1360 were included in the study. The breakdown by intervention group is as follows:

Intervention group (cash): 633/ 827 (76.5%) eligible beneficiary households participated
Comparison group (non-recipients): 727/962 (75.5%) eligible non-beneficiary households participated

Description of study sample (include any individual or household/group characteristics of participants):

Households in the intervention and comparison groups met similar vulnerability criteria (based on UNHCR data) and lived in 'inadequate shelter.' Beneficiaries resided in communities between 500-550m in elevation whereas the comparison group resided in communities between 450-499m in elevation. Analysis of demographic characteristics showed the intervention and comparison groups as similar on 21 of 24 variables.

Unit of measurement/analysis:

☐ Individual ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources: A post-intervention household survey was conducted between April andMay 2014.

Description of data collection methods and frequency: A single post-intervention survey was conducted in April and May 2014 (five months after the start of the project and immediately following the last cash transfer). All results are described as statistically significant if p-values were <0.10.

OUTCOME 1: Winterization Assets and Expenditures

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

1.1 Winterization Assets Endline Measures (no baseline available)

Winter assets ownership is presented in Figure 5 (page 20) however the chart does not include labels for the point estimates and this information is not included in the text; as such, specific values are not reported. Households in the intervention group were significantly more likely to own an ovens (p=0.06) and heaters (p<0.001) [note hearing stoves were provided as part of the cash intervention package]. There were no significant differences between the comparison groups in ownership of blankets, winter jackets, or gloves.

1.2 Winter Expenditures Endline Measures (no baseline available)

Winter expenditures are presented in Figure 6 (page 21) however the chart does not include labels for the point estimates and this information is not included in the text; as such, specific values are not reported. In the month preceding the survey, households in the intervention group spent an average of US $6 and US $4 more than the comparison group on heating fuel and clothes, respectively (p=<0.001 and p=0.01, respectively).

Notes on Outcome 1: With respect to winter assets, the report indicates 'this suggests that beneficiaries use part of the cash assistance to purchase these winter items, however, it should be noted that stoves were provided to the intervention group so this conclusion is not well supported by the data. With respect to winter expenditures, approximately $10 of the $100 cash assistance was spent on heating fuel and clothing monthly. The majority of cash assistance was spent on food and water (despite receipt of WFP vouchers); intervention households spent an average of $25 more per month on food and water than control households (p<0.001).

OUTCOME 2: Household Debt

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

2.1 Household Indebtedness Endline measures (no baseline available)

The value of currently outstanding loans, both formal and informal, of the treatment group was on average US $500 per household, compared to US $513 US in the control group; this difference was not statistically significant (p=0.59).

Notes on Outcome 2: The authors conclude that beneficiaries still need more assistance so they can avoid taking on loans.

OUTCOME 3: Coping Strategies

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☒ **Continuous (N, mean, t- or p-value)** ☐ Correlation coefficient (r)

3.1 Use of Diet Related Coping Strategies in the past 7 days - Endline Measures (no baseline available)

Diet-related coping strategies are presented in Figure 12 (page 24) in terms of mean number of days. The chart does not include labels for the point estimates and this information is not included in the text; as such, specific values are not reported. Households in the intervention group reported significantly lower use of diet related coping strategies, including: 1) relying on less preferred foods, approx. 4.1 days (int) vs. 4.6 days (ctrl), $p<0.001$; 2) reducing the number meals per day, approx 2.6 days (int) vs. 3.3 days (ctrl), $p<0.001$; 3) restricting the consumption of adults so children can eat, approx. 2.2 days (int) vs. 2.4 days (ctrl), $p<0.01$; and 4) reducing meal size, approx. 3.2 days (int) vs. 2.8 days (ctrl), $p<0.01$. There was no significant difference in borrowing food, approx. 0.5 days in both groups, $p=0.88$.

3.2 Use of Other Coping Strategies in the past month – Endline Measures (no baseline available)

Other coping strategies are presented in Figure 13 (page 25) in terms of percentages of households using the coping strategy within the past month. The chart does not include labels for the point estimates and this information is not included in the text; as such, specific values are not reported. Households in the intervention group reported significantly lower use of coping strategies, including: 1) child labour, approx. 10 per cent (int) vs. 4 per cent (ctrl), $p<0.001$; 2) undertaking risk activities 13 per cent (int) vs. 6 per cent (ctrl), $p<0.001$; and 3) productive asset sales, approx 4 per cent (int) vs. 9 per cent (ctrl), $p<0.001$.

Notes on Outcome 3: The authors concluded that households in the intervention group had a lower incidence of negative coping strategies, including child labour, dangerous work, and multiple forms of dietary restriction. (note there is no analysis of the proportion of households using negative dietary coping strategies).

OUTCOME 4: Access to Education

Type of variable

☒ **Binary (2x2 table)** ☐ Continuous (Ns, mean, SD) ☐ Continuous (N, mean, SE)

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☐ Correlation coefficient (r)

4.1 School Attendance - Endline Measures (no baseline available)

In the intervention group, about 39 per cent of children were enrolled in school, compared to about 33 per cent in the control group. This suggests that cash assistance increased access to education.

Notes on Outcome 4: The authors concluded that findings suggest that the cash interventions increased access to education (by covering associated costs such as transportation, books, and other supplies).
CONCLUSIONS
The authors concluded that the amount of cash assistance given to date was modest in comparison to the costs of the minimum expenditure basket and previously incurred debts; even after being supplemented with cash assistance, household incomes remained insufficient to meet basic needs. Refugees receiving cash assistance spent everything they received to meet basic needs, including about 10 per cent of assistance on heating supplies (the intended use given the programme was for winterization); cash was also spent on other basic needs such as food and water (despite food assistance from WFP). Compared to households not receiving cash assistance, households receiving cash assistance used negative dietary coping mechanisms less frequently, were less as likely to send their children to work and had higher rates of school enrolment. Note: The study also reports on intra-household relationships (indicator=number of disputes between household members in past month) which was not abstracted because it was perceived to be poorly defined and an unlikely outcome to be assessed in meta-analysis. The study also reports on potential undesired impacts, beneficiary preferences, economy and community findings which are captured in the thematic analysis and not abstracted for purposes outcomes analysis.

Schwab 2013

First author name: Schwab, Benjamin
Study title: Impact Evaluation of Cash and Food transfers for the Seasonal Emergency Safety Net in Hajjah and Ibb Governorates, Yemen - Endline Report
INTERVENTION DETAILS
Country of intervention: Yemen
Emergency type: ☐ Natural disaster ☐ Conflict ☒ **Food insecurity** ☐ Other (specify)_____
Programme type: ☒ **Cash transfer** ☐ Voucher ☐ Cash for work ☒ **Other: Food Transfer** The programme operated in Hajjah and Ibb governorates within the larger Emergency Safety Net (ESN) which provides assistance to qualifying households in rural Yemen. Food Distribution Points (FDPs) were randomized to receive cash or food.
Humanitarian sector: ☐ Health ☒ **Nutrition** ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)_____
Primary aim/objective of intervention: The objective of the ESN were to assist 1.8 million "severely-food-insecure" persons across 14 governorates in the six-month lean season from May to October.

Secondary objectives of intervention: None

Channel of delivery:

☐ Pre-paid card ☐ Bank transfer ☐ Mobile phone transfer ☒ **Physical cash**

☐ Physical voucher ☒ **Other (specify) Food Transfer**

Payment structure:

☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☐ Monthly payment ☒ **Other (specify) three transfers total of a six month period (i.e. a transfer every two months)**

The value of the bi-monthly transfer was standardized across treatment arms. The total value of all transfers was approximately US $147 with monthly transfers of/equivalent to $49. The amounts were determined as follows:

- The food ration was equivalent to the estimated median residual caloric gap between the recommended individual caloric intake and the typical intake of food-insecure households (calculated at 25 per cent of the required calorific needs, or 500 kcal/person/day). The bi-monthly food ration to cover this gap for an average household size of seven persons was 50 kg of wheat flour and 5.0 liters of vegetable oil.
- The total value of the cash transfer was approximately US $49 (10,500 Yemeni riyals [YER]) bi-monthly per household, a figure based on the equivalent price of the food ration on local markets. Cash transfer households could collect cash at any time up to 25 days after disbursement.

Describe any payment conditions: Transfers were unconditional. Household-level transfers were distributed in coordination with local partners: the Yemen Post and Postal Savings Corporation (PPSC) in the case of cash transfers and the Ministry of Education (MoE) in the case of food transfers. PPSC Transfers were given out at district branches of the PPSC in each governorate. Cash transfer households would collect cash at any time up to 25 days after disbursement. The food transfers were stored in warehouses outside of Sana'a and distributed through local government-run primary schools with the assistance of a food distribution committee (FDC). Cash transfer points were more widely dispersed than food distribution points. Consequently, cash beneficiaries travelled much longer and spent significantly more money to acquire their benefits.

Description of targeting methods and any enrolment criteria: The Social Welfare Fund (SWF) beneficiary list was used as the basis for the targeting of transfers. Households in the same catchment area who just missed qualifying for the transfers based on their proxy means score (PMS) served as the comparison group to the treatment households

Description of technologies used in targeting, implementing or monitoring the cash intervention(s): Households qualified for assistance based on a proxy means test (PMT) carried out by the (SWF).

Description of any complementary interventions implemented alongside cash/voucher intervention(s): None

STUDY DETAILS

Study duration: Sep 2011- Mar 2012 (7 months total)

Sample size: A total of 3,353 households participated in the study, as follows:

Intervention group 1 (Cash): 982 **Intervention Group 2 (Food):** 1001 **Comparison Group:** 1983

The study was designed as a prospective, randomized impact evaluation based on a matching or discontinuity design. Each of the 136 clusters were randomly assigned to either Cash transfer group or the Food Assistance Group (with some consideration for ethical and security concerns).

Description of study sample (include any individual or household/group characteristics of participants):

Governorates of Hajjah and Ibb were chosen to be sites of cash and food distribution, these ranked 2nd and 3rd worse in regards to food insecurity (Hajjah had 46 per cent food insecure while Ibb had 44 per cent food insecure).

Households in the different groups were compared by 16 key demographic and socioeconomic indicators

Treatment eligible households were more likely to be larger, have more young members, and be headed by a male. While the household heads in comparison households were more likely to have some formal education, property ownership rates were nearly identical between both groups. For telephones, treatment households even reported higher ownership rates. Consequently, based on observables, comparison households did not appear starkly different from those eligible to receive WFP benefits. Comparing the food and cash treatment arm, food households appeared relatively more likely to be headed by a females and single people, although the education levels of the household head did not significantly differ. In terms of assets, cash households were slightly more likely to have more phones and own their plot of land, and they had a wealth index level 0.09 standard deviations higher than food households. These differences were relatively small in magnitude, but significant at the 10 per cent level, implying that controlling for baseline socioeconomic status in the main analysis would improve the accuracy of estimated treatment effects.

Unit of measurement/analysis:

☐ Individual ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources: Baseline (Sep 2011) and endline (Mar 2012) surveys were conducted by a Sana-based Yemeni survey firm- Yemen Polling Center (YPC) and IFPRI. The surveys consisted of two components, a household questionnaire and food distribution point questionnaire.

Description of data collection methods and frequency: The authors note that "Due to changes in timing of the transfers and survey work, several challenges affect our ability to directly compare the impacts of food and cash. First are differences in the timing of the food and cash transfer distributions. Most notably, the changes in timing of the survey and distribution schedule resulted in the loss of a pure pre-intervention survey, as the baseline survey occurred after the first food transfer (but before the first cash transfer). In order to truly compare the two modalities, the disbursement schedules should be identical so that differences in impact can be attributed to difference between the modalities rather than differences in seasonal or other environmental factors influencing budgeting and resource flows within the household, or discrepancies in the period between transfer receipt and survey measurement. Indeed, discrepancies in the timing of food and cash distributions, particularly with respect to the timing of the baseline and endline survey, complicate the impact evaluation analysis….. Despite these temporal incongruities, the aggregate value of transfers preceding the endline survey remains comparable across modalities. In addition, randomization assures that mean differences in endline outcomes between cash and

food beneficiaries should provide well-identified impact measures without the need to control for baseline covariates potentially affected by early food transfers."

OUTCOME 1: Food Consumption

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean,) ☒ **Continuous (N, mean, SE)**

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☐ Correlation coefficient (r)

1.1 Food Consumption Score (FCS)		*'findings with covariates'*
Baseline measures***	**Endline measures***	
Intervention groups: 49.12	Intervention groups: 51.34	Endline difference between food-cash groups (SE): -4.52 (1.19)**
Control group: 52.98	Control group: 50.1	
1.2 Per Capita Calorie Consumption		Endline difference between food-cash groups (Log HH per capita calorie intake): 0.04 (0.02)*
Baseline measures***	**Endline measures**	
Intervention groups: 2,562	Intervention groups: 2,671	
Control group: 2,840	Control group: 2,700	*Statistically significant difference between groups at endline, **p<0.05 and *p<0.1*
*Statistically significant difference between groups at baseline, ***p<0.01*	*Statistically significant difference between groups at endline, *p<0.1*	

Notes on Outcome 1: At baseline, the comparison group had higher measures of food security (FCS, caloric consumption); at endline, treatment eligible households narrowed the gap or overtook comparison households in mean levels of dietary diversity and caloric consumption. The largest difference between the cash and food treatments arises for the food consumption score (FCS) outcome, which weights dietary diversity by food quality. For the FCS, the impact of cash transfers is 4.52 units, or 9.2 per cent higher than food transfers (p<0.01). The value of household consumption appears slightly higher in the cash group than the food group, at 100kcal, but the difference was statistically insignificant.

OUTCOME 1: Food Security

Type of variable

☐ Binary (2x2 table) ☐ Continuous (Ns, mean,) ☒ **Continuous (N, mean, SE)**

☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☐ Correlation coefficient (r)

2.1 Household Dietary Diversity Score		*'findings with covariates'*
Baseline measures	**Endline measures***	

Intervention groups: 7.12 Control group: 7.26	Intervention groups: 7.29 Control group: 7.12	Endline difference between food-cash groups (SE): -0.41 (0.15)***
2.2 Dietary Diversity Index (DDI) **Baseline measures** Intervention groups: 10.96 Control group: 10.79	**Endline measures*** Intervention groups: 11.24 Control group: 10.91 *Statistically significant difference between groups at endline, *p<0.1*	Endline difference between food-cash groups (SE): -0.63 (0.28)** *Statistically significant difference between groups at endline, ***p<0.01 and **p<0.05*
Notes on Outcome 2: The impact of the cash treatment was larger than that of food for each outcome (the magnitude of the difference was larger and more precisely estimated when controlling for covariates). For the household dietary diversity score (HDDS), the single difference estimate with covariates implies that households in the food group consumed 0.41 less food groups out of a possible 12. Relative to the baseline mean, that represents a 5.7 per cent larger effect for cash (p<0.01). The results for the dietary diversity index (DDI) estimations are similar to HDDS: cash households consumed 0.63 more food items out of a possible 39, which represents a 5.8 per cent advantage over food households (p<0.05).		
OUTCOME 3: Coping Strategies		
Type of variable ☐ Binary (2x2 table) ☐ Continuous (Ns, mean, SD) ☒ Continuous (N, mean, SE) ☐ Continuous (N, mean, CI) ☐ Continuous (N, mean, t- or p-value) ☐ Correlation coefficient (r)		
3.1 Reduced Meal Frequency (days past wk) **Baseline measures** Intervention groups: 0.64 Control group: 0.71 **3.2 Adult Food Reduction (days past wk)** **Baseline measures** Intervention groups: 0.37 Control group: 0.47 **3.3 Child Food Reduction (days past wk)** **Baseline measures** Intervention groups: 0.22	**Endline measures** Intervention groups: 0.14 Control group: 0.18 **Endline measures** Intervention groups: 0.15	Endline difference between food-cash groups (SE): 0.49 (1.46) Endline difference between food-cash groups (SE): 0.61 (1.46) Endline difference between food-cash groups (SE): 0.89 (0.24

Control group: 0.29 *All statistically similar at baseline*	Control group: 0.19 **Endline measures** Intervention groups: 0.09 Control group: 0.14 *All statistically similar at endline*	*All statistically similar at endline*

Notes on Outcome 3: Coping mechanism use decreased during the intervention period for all three indicators in both intervention and comparison groups (statistical significance for pre/post reduction not assessed). No significant differences in use of the three reported coping strategies was observed between intervention and comparison at baseline or endline.

CONCLUSIONS

Relative to the food beneficiaries, households that received cash transfers enjoyed a more diverse diet, consumed higher value foods (such as animal products), spent more money on both staple and non-staple food items, and fed infants and young children a wider variety of foods. Cash beneficiaries also consumed approximately 100 less calories per day than food recipients. Robustness checks that utilize the responses of non-beneficiaries suggest that gaps in dietary diversity are smaller than those suggested by the main estimates; however, these checks are not supported by estimates that incorporate baseline survey results, and may suffer from bias stemming from differential impacts on non-beneficiaries according to transfer type. Cash transfers raised dietary diversity and quality more highly than food, and were cheaper to deliver and administer. Food beneficiaries, however, consumed more calories overall. Consequently, food transfers appeared to be extra-marginal in terms of dietary composition, but infra-marginal in terms of overall food consumption.

Note: Qat use is reported as an outcome but was not abstracted because it is not a typical indicator that would be assessed in a humanitarian sector and is unlikely to be comparable in meta-analysis.

C2 Critical Appraisal of Experimental and Quasi-Experimental Studies

Aker 2011

Entry	Judgement	Support for judgement
Random sequence generation (selection bias)	Unclear Risk	*Quote: "The remaining eligible villages were randomly assigned between the basic (manual cash), placebo and zap interventions. In all, 32 villages were assigned to the cash group, 32 to the placebo group and 32 to the zap group."* Comment: no detailed information provided on random assignment process at village level.
Allocation concealment (selection bias)	Unclear Risk	Comment: No information reported on concealment during the allocation process.
Blinding of participants and personnel (performance bias)	Unclear Risk	Outcomes not assessed blindly
Blinding of outcome assessment (detection bias) (self-reported outcomes)	Low Risk	No blinding of outcome assessment, and the outcome measurements (household economy, food security) may be influenced by lack of blinding; however, different interventions are geographically removed from one another which may reduce risk.
Blinding of outcome assessment (detection bias)		All outcomes are self-reported.
Incomplete outcome data addressed (attrition bias) (Longer-term outcomes)	Unclear Risk	Number of households included in the study is not reported.
Selective reporting (reporting bias)	Unclear Risk	Outcomes of interest are reported incompletely (no point estimates for outcomes are reported for each comparison group, only regression coefficients).
Other	Low Risk	No apparent other sources of bias

Aker 2013

Entry	Judgement	Support for judgement
Random sequence generation (selection bias)	Unclear Risk	*Quote: "All of the camp residents (474 households) were eligible to participate in the programme, and all were registered as programme recipients. Among all programme recipients, 250 respondent households were randomly chosen to participate in the operations research."* Comment: Insufficient information on randomization procedures provided.
Allocation concealment (selection bias)	Unclear Risk	No information on the allocation process reported.
Blinding of participants and personnel (performance bias)	Unclear Risk	No blinding, but outcomes may be influenced by lack of blinding.
Blinding of outcome assessment (detection bias) (self-reported outcomes)	High Risk	No blinding of outcome assessment, and the outcome measurements (household economy, food security) may be influenced by lack of blinding because interventions are implemented within the same geographic area .
Blinding of outcome assessment (detection bias)		All outcomes are self-reported.
Incomplete outcome data addressed (attrition bias) (Longer-term outcomes)	Unclear Risk	Number of households included in the study is not reported.
Selective reporting (reporting bias)	Unclear Risk	Outcomes of interest are reported incompletely (no point estimates for outcomes are reported for each comparison group, only regression coefficients).
Other bias	High Risk	Seasonality is noted as concern; lack of a non-intervention control group makes it impossible to assess

Hidrobo 2014

Entry	Judgement	Support for judgement
Random sequence generation (selection bias)	Unclear Risk	*Quote from 2012 report: "One unexpected complication in the study design was the change in beneficiary criteria implemented during the baseline survey data collection."* Comment: Insufficient information reported on the household selection process in the 2014 peer review article.
Allocation concealment (selection bias)	Unclear Risk	Comment: No information reported on concealment during the allocation process.
Blinding of participants and personnel (performance bias)	Unclear Risk	No blinding, outcomes may be influenced by lack of blinding.
Blinding of outcome assessment (detection bias) (self-reported outcomes)	Low Risk	No blinding of outcome assessment, and the outcome measurements (household economy, food security) may be influenced by lack of blinding; however, different interventions are geographically removed from one another which reduces risk.
Blinding of outcome assessment (detection bias)	Low Risk	The only outcomes that were not self-reported were anaemia; haemoglobin measurement is unlikely to be affected by the data collectors awareness of intervention allocation.
Incomplete outcome data addressed (attrition bias) (Longer-term outcomes)	Low Risk	A 10 per cent attrition rate is reported and attrition was similar across the intervention groups.
Selective reporting (reporting bias)	Unclear Risk	Outcomes of interest are reported completely for the combined interventions vs. a control group, however, results are not disaggregated by treatment modality (only regression coefficients are provided).
Other Bias	Low Risk	No apparent other sources of bias

Lehmann 2014

Entry	Judgement	Support for judgement
Random sequence generation (selection bias)	High Risk	Non-randomized design.
Allocation concealment (selection bias)	High Risk	Allocation of intervention and control group was based on residence location. Intervention recipients lived at higher altitudes than the control group.
Blinding of participants and personnel (performance bias)	Unclear Risk	No blinding, outcomes may be influenced by lack of blinding.
Blinding of outcome assessment (detection bias) (self-reported outcomes)	High Risk	No blinding of outcome assessment, and the outcome measurements (household economy, winterization expenditures) may have been influenced by lack of blinding because transfers were intended to be conditional.
Blinding of outcome assessment (detection bias)		All outcomes are self-reported.
Incomplete outcome data addressed (attrition bias) (Longer-term outcomes)	Unclear Risk	No baseline data collected, only post-intervention endline data. Attrition and representativeness of the sample is difficult to assess.
Selective reporting (reporting bias)	High Risk	No baseline data collected, only post-intervention endline data thus no changes can be attributed to the intervention; all results with $p<0.10$ are reported as statistically significant.
Other Bias	High Risk	No baseline data which makes attribution of findings to the intervention impossible

Schwab 2013

Entry	Judgement	Support for judgement
Random sequence generation (selection bias)	Unclear Risk	Each of the 136 clusters were randomly assigned to either Cash transfer group or the Food Assistance Group (with some consideration for ethical and security concerns).
Allocation concealment (selection bias)	Unclear Risk	No information on the allocation process reported.
Blinding of participants and personnel (performance bias)	Unclear Risk	No blinding, but outcomes may be influenced by lack of blinding.
Blinding of outcome assessment (detection bias) (self-reported outcomes)	Low Risk	No blinding of outcome assessment and the outcome measurements (household economy, food security) may be influenced by lack of blinding; however, different interventions are geographically removed from one another which may reduce risk.
Blinding of outcome assessment (detection bias)		All outcomes are self-reported.
Incomplete outcome data addressed (attrition bias) (Longer-term outcomes)	Low Risk	*Quote: "This analysis conducted throughout this report is restricted to 3,353 households for whom consistent data from both the baseline and endline surveys exists. Of the 183 households in the original sampling frame not included in this analysis, only 26 are omitted due to pure attrition."* Comment: reasons for the exclusion of other households from the analysis are clearly presented and reasonable.
Selective reporting (reporting bias)	Unclear Risk	Outcomes of interest are reported completely for the combined interventions vs. a control group, however, results are not disaggregated by treatment modality (only regression coefficients are provided).
Other Bias	Low Risk	No apparent other sources of bias

Annex D

D1 Cost and Market Impact Study Summaries

Aker 2011

First author name: Aker, Jenny
Study title: Zap it to Me: The Short-Term Impacts of a Mobile Cash Transfer Programme
INTERVENTION DETAILS
See study summary in Annex C
STUDY DETAILS
See study summary in Annex C
Description of cost data sources and considerations: • Source: Implementing agency records • Currency: Analysis reported in USD (local currency = CFA, no exchange rate reported) • Analytical perspective: implementing agency (cost analysis, cost-efficiency, cost-benefit); beneficiary (cost analysis) • Time horizon: duration of evaluation (five months)
OUTCOMES
Does the study report outcomes related to intervention cost? ☒ **Yes** ☐ No Costs to implementing agency: • Initial costs were higher for the mobile phone distribution programme. Variable costs were higher for the physical cash distribution programme. Costs to programme beneficiaries: • Cash recipients travelled an average of 3.05 km farther to obtain each transfer, amounting to an opportunity cost of 30 minutes per transfer - equivalent to $0.92 over the transfer period, or 2.5-3 kg of millet, enough to feed family of five for one day.
Does the study report outcomes related to cost-efficiency? ☒ **Yes** ☐ No **Key findings related to cost-efficiency:** Cost per beneficiary: • $13.64 for mobile phone distribution programme vs $12.76 for physical cash distribution • When phone costs are excluded, cost per beneficiary reduces to $8.80 for the mobile phone distribution group
Does the study report outcomes related to cost-effectiveness or cost-benefit? ☒ **Yes** ☐ No **Key findings related to cost-benefit:**

- The average per recipient cost over the life of the project was US $12.76 in cash/placebo villages and US $13.65 in zap villages, or US $0.90 more.
- Using average household okra production and the market price for okra during the programme

  period, the average value of this okra production in zap households would have been

  $USD5. This suggests that the cost-benefit ratio is greater than one, meaning that the additional costs of the zap intervention yielded an equivalent or higher monetary benefit for zap programme recipients.

Note: All cost analysis and cost-efficiency results are also presented under the sub-heading "Cost-Benefit Analysis of the Zap Intervention".

Does the study report outcomes related to market impact? ☐ **Yes** ☒ **No**

CONCLUSIONS

If the programme yields benefits in the longer-term, perhaps by allowing households to send and receive more informal transfers or access formal financial services, this could potentially yield a higher rate of return.

Aker 2013

First author name: Aker, Jenny

Study title: Cash or coupons? Testing the Impacts of Cash vs Vouchers in the Democratic Republic of Congo (Center for Global Development Working Paper); Examining Differences in the Effectiveness and Impacts of Vouchers and Unconditional Cash Transfers (UNICEF Report)

INTERVENTION DETAILS

See study summaries in Annex C

STUDY DETAILS

See study summaries in Annex C

Description of cost data sources and considerations:

- Source: Implementing agency records
- Currency: Analysis reported in USD (no exchange rate from local currency reported)
- Analytical perspective: implementing agency (cost analysis, cost-efficiency); beneficiary (cost analysis)
- Time horizon: duration of evaluation (six months)

OUTCOMES

Does the study report outcomes related to intervention cost? ☒ **Yes** ☐ No

Key findings related to intervention cost:

Costs to implementing agency

- Total costs for designing and implementing the voucher programme were more expensive than the cash programme (US $11.34 per recipient for the cash programme and $14.35 per recipient for voucher program)
- Costs included staff time, materials, security, travel and account and transfer fees

- Leakage was similar for both modalities

Costs to programme beneficiaries:

- Travel time was similar for both groups; waiting time was similar; in terms of security, voucher recipients are more easily identified and could potentially be at greater risk when traveling from the voucher fair to the camp at specified times, cash recipients could travel to the market any time

Does the study report outcomes related to cost-efficiency? ☒ **Yes** ☐ No

Key findings related to cost-efficiency:

Cost per beneficiary:

- US $11.34 for cash transfer group vs $14.35 for voucher group

Note: Authors report the cost per programme recipient as the "cost benefit ratio"

Does the study report outcomes related to cost-effectiveness or cost-benefit? ☒ **Yes** ☐ No

Key findings related to cost-effectiveness:

Cost-effectiveness

- Difference in costs to implementing agency between cash and voucher households = US $3
- Difference in benefits between cash and voucher households = US $1.5 ($2.5 in additional savings compared to voucher households minus $1 for voucher households increased likelihood of owning poultry)
- Cost-benefit ratio: An additional dollar spent on the cash programme would yield US $4.5 additional dollars in benefits for cash programme recipients (US $3/1.5)

Does the study report outcomes related to market impact? ☐ **Yes** ☒ **No**

CONCLUSIONS

A comparison of the per-recipient costs of the two interventions is useful and suggests that the *cash transfer programme is cheaper as compared with the voucher program*. A conservative estimate of the cost benefit ratio is 4.5, meaning that an additional dollar spent on the cash programme (as compared to the voucher program) would yield US $4.5 additional dollars in benefits for cash programme recipients (as compared with voucher programme recipients).

Bauer 2014

First author name: Bauer, Jean-Martin

Study title: Economic Impact Study: Direct and Indirect Effects of the WFP Value-Based Food Voucher Programme in Lebanon

INTERVENTION DETAILS

Country of intervention: Lebanon

Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)_____

Programme type: ☐ Cash transfer ☒ **Voucher** ☐ Cash for work

OUTCOMES

Does the study report outcomes related to intervention cost? ☐ **Yes** ☒**No**.

Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education

☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)

Primary aim/objective of intervention:

- Provide food assistance to more than 1 million Syrian refugees registered in Lebanon

Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☐ Mobile phone transfer

☐ Physical cash ☐ Physical voucher ☒ **Other Electronic voucher (e-card)**

Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment

☒ **Monthly payment** ☐ Other (specify)_____

Describe any payment conditions: None stated

Description of targeting methods and any enrolment criteria: None stated

Description of technologies used in targeting, implementing or monitoring the cash intervention(s): None stated

Description of any complementary interventions implemented alongside cash/voucher intervention(s): None stated

STUDY DETAILS

Study duration: Ongoing

Unit of measurement/analysis: ☐ Individual ☐ Household ☐ Community ☐ Project ☐ Organization ☒ N/A

Description of data sources: Implementing agency records; Central Administration of Statistics

Description of data collection methods and frequency:

Description of cost data sources and considerations:

- Source: Implementing agency records; Central Administration of Statistics
- Currency: Analysis reported in Lebanese pounds
- Analytical perspective: national
- Time horizon: current

Does the study report outcomes related to cost-efficiency? ☐ Yes ☒ **No**

Does the study report outcomes related to cost-effectiveness? ☐ Yes ☒ **No**

Does the study report outcomes related to market impact? ☒ **Yes** ☐ **No**

Indirect market impact:

- The analysis of indirect economic effects shows that for each dollar spent through the e-card programme, additional benefits worth US $1.50 accrue to the Lebanese economy. This means that a planned voucher transfer of US $345 million in 2014 will result in as much as US $517 million in indirect benefits. These benefits will mostly accrue to Lebanon's vibrant food products sector. Similar multiplier effects were observed in a recently conducted study in Jordan.

CONCLUSIONS

The input-output model suggests the e-card programme has significant indirect economic benefits, with a multiplier value of 1.51 in the food products sector. This means that if WFP distributes the planned amount of US $345 million, it could create additional indirect benefits of US $517 million for the Lebanese food products sector. The impact on the agriculture sector is expected to be less because of its relatively small size in the Lebanese economy.

Creti 2014

First author name: Pantaleo Creti

Study title: Mobile Cash Transfers for Urban Refugees in Niamey, Niger

INTERVENTION DETAILS

Country of intervention: Niger

Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)____

Programme type: ☒ **Cash transfer** ☐ Voucher ☐ Cash for work

Humanitarian sector: ☐ Health ☐ Nutrition ☐ Food security ☐ Education

☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☒ **Other** (specify) ***Not stated***

Primary aim/objective of intervention:

- Compare effectiveness of cash transfers via mobile phone and microfinance institutions in an urban context with a refugee population

Secondary objectives of intervention:

- To understand beneficiaries' preferences
- To identify potential advantages and challenges of the mobile phone technology
- Cash transfers to "help refugee HHs to meet their basic and immediate needs"

Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☒ **Mobile phone transfer**

☐ Physical cash ☒ Physical voucher ☒ **Other (Microfinance institution)**

Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment

☒ **Monthly payment** ☐ Other (specify)_____
Describe any payment conditions: None stated
Description of targeting methods and any enrolment criteria: None stated
Description of technologies used in targeting, implementing or monitoring the cash intervention(s): Mentions field supporters who helped with implementing the transfers when technology failed
Description of any complementary interventions implemented alongside cash/voucher intervention(s): None stated
STUDY DETAILS
Study duration: four months
Sample size: 625 HHs (equal sized groups for control/intervention) **Intervention group** Mobile Cash Transfer **Comparison group** Microfinance institution group
Description of study sample (include any individual or household/group characteristics of participants): Not stated
Unit of measurement/analysis: Not stated ☐ Individual ☐ Household ☐ Community ☐ Project ☐ Organization ☐ N/A
Description of data sources: Not included in report
Description of data collection methods and frequency: Seven days of fieldwork with interviews and group discussions
Description of cost data sources and considerations: • Source: Implementing agency records • Currency: Not reported • Analytical perspective: implementing agency (cost analysis, cost-efficiency); beneficiary (cost analysis) • Time horizon: duration of evaluation (four months)
OUTCOMES
Does the study report outcomes related to intervention cost? ☒ **Yes** ☐No Implementing agency costs • Although transfer fees were 0.5 per cent higher for the microfinance institution, total delivery costs were 34% higher for the mobile transfer program. [No detailed costs provided] Beneficiary costs:

• Transport costs were similar for both interventions. The mobile transfer programme had lower opportunity costs if beneficiaries used proximity 'cash out' points' rather than general distribution points. [No detailed costs provided].
Does the study report outcomes related to cost-efficiency? ☐ Yes ☒ **No**
Does the study report outcomes related to cost-effectiveness? ☐ Yes ☒ **No**
Does the study report outcomes related to market impact? ☐ **Yes** ☒ **No**
CONCLUSIONS
Mobile phone delivery could be more cost-efficient than the MFI, after initial set up costs are amortised.

Davies 2007

First author name: Davies, Simon
Study title: Making the Most of It: A Regional Multiplier Approach to Estimating the Impact of Cash Transfers on the Market
INTERVENTION DETAILS
Country of intervention: Malawi
Emergency type: ☐ Natural disaster ☐ Conflict ☒ **Food insecurity** ☐ Other (specify)_____
Programme type: ☒ **Cash transfer** ☐ Voucher ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)
Primary aim/objective of intervention: • Provide households affected by severe food insecurity sufficient purchasing power to buy necessary maize from markets, traders or farmers with stock
Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☐ Mobile phone transfer ☐ Physical cash ☐ Physical voucher ☐ Other
Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☒ **Monthly payment** ☐ Other (specify)_____
Describe any payment conditions: None stated
Description of targeting methods and any enrolment criteria: None stated
Description of technologies used in targeting, implementing or monitoring the cash intervention(s): None stated

Description of complementary interventions implemented alongside cash/voucher intervention(s): None stated

STUDY DETAILS

Study duration: Not stated

Unit of measurement/analysis: ☐ Individual ☐ Household ☐ Community ☐ Project

☐ Organization ☒ N/A

Description of data sources: Implementing agency records; Central Administration of Statistics

Description of cost data sources and considerations:

- Source: Implementing agency records;
- Currency: Analysis reported in
- Analytical perspective: Northern Dowa District
- Time horizon: current

OUTCOMES

Does the study report outcomes related to intervention cost? ☐ **Yes** ☒**No**.

Does the study report outcomes related to cost-efficiency? ☐ Yes ☒ **No**

Does the study report outcomes related to cost-effectiveness? ☐ Yes ☒ **No**

Does the study report outcomes related to market impact? ☒ **Yes** ☐ **No**

Direct market impact

- Of every US dollar spent in January 2007, $0.24 is spent at village traders, $0.18 is spent on local commerce, $0.09 is spent at wholesalers, $0.08 is spent on small traders, and $0.05 is saved.

Indirect market impact:

- The principal method used to calculate the multiplier and to analyze the regional spillover effects of the DECT project is the Social Accounting Matrix (SAM).
- The output generates a total multiplier of between 2.28 and 2.79. Since beneficiaries' spending is treated as the exogenous shock in the model, this means that for every dollar of income the DECT programme injected into the local economy additional "value added" of over $2.28 was created through stimulation of local demand throughout the value chain. Thus the total monetary gain for the local economy is the dollar of injected income plus the $2.28 of stimulated income.
- Each dollar of cash assistance spent generates $2.00 - $2.79 in indirect benefits for the local economy in northern Dowa district.

CONCLUSIONS

Through the multiplier and local linkages, even economic actors which have not been selected to benefit directly from the transfer programme can gain indirectly, through increased employment opportunities, as well as from income via other linkages present within the local economy.

Hidrobo 2014

First author name: Hidrobo, Melissa

Study title: Cash, food or vouchers? Evidence from a randomized experiment in northern Ecuador

INTERVENTION DETAILS

See study summary in Annex C

STUDY DETAILS

See study summary in Annex C

- Source: Implementing agency records
- Currency: Analysis reported in USD
- Analytical perspective: implementing agency (cost analysis, cost-efficiency, cost-effectiveness);
  beneficiary (cost analysis)
- Time horizon: duration of evaluation (6 months)

OUTCOMES

Does the study report outcomes related to intervention cost? ☒ **X** Yes ☐ No

Key findings related to intervention cost:

Costs to implementing agency:

- Modality-specific costs were lowest for cash (US $23,071), followed by vouchers (US $28,256) and food (US $63,048).
- The difference in cost between the food ration and other modalities was primarily due to added storage, distribution and contracting. [Detailed tables with itemized costs by modality are presented in an appendix]
- Cash and food require a similar percentage of human resource cost to physical cost which is less than that of vouchers.
- The higher human resource cost of the voucher appears to originate from the operational activities conducted by WFP staff, such as voucher design.

Costs to programme beneficiaries:

- Cash and voucher recipients spent an average of US $1.46 and US $1.65 per month, respectively, on transport and other out-of-pocket expenses to receive transfers.
- Food recipients spent an average of US $2.12 per month as many had to use taxis to carry goods home from distribution points.
- Travel time was significantly longer (39 min) for food beneficiaries than cash and voucher beneficiaries (29 min). However waiting time was higher for voucher recipients (63 min) and food recipients (54 min) than cash recipients (16 min).

Does the study report outcomes related to cost-efficiency? ☒ Yes ☐ **X** No

Key findings related to cost-efficiency:

Cost per transfer (total):

- Cash = US $14.77 Voucher = US $14.36 Food= US $25.93

Cost per transfer (modality specific):

- Cash = US $2.99 Voucher = US $3.27 Food= US $11.46

Does the study report outcomes related to cost-effectiveness? ☐ **X** Yes ☐ No

Key findings related to cost-effectiveness or cost-benefit:

Modality specific cost of improving outcomes by 15 per cent:

- Value of food consumption: Cash = $3.20 Voucher = $3.27 Food = $8.60
- Caloric intake: Cash = $3.74 Voucher = $2.73 Food = $8.19
- HDDS: Cash = $8.97 Voucher = $7.01 Food = $24.56
- DDI: Cash = $2.99 Voucher = $2.73 Food = $12.28
- FCS: Cash = 4.08 Voucher = $3.07 Food = $14.33

Note: Assumes cost to WFP of procuring foods is equal to their market value. Further analysis revealed that it cost WFP $46.76 to procure a $40 ration.
CONCLUSIONS
Overall, cash recipients incurred the least costs in terms of time and money. Food was always the most costly means of providing outcomes by 15 per cent, with the exception of increasing the value of food consumptions. Vouchers and cash have similar levels of cost effectiveness.

Husain 2014

First author name: Husain, Arif
Study title: Economic Impact Study: Direct and Indirect Effects of the WFP Food Voucher Programme in Jordan
INTERVENTION DETAILS
Country of intervention: Jordan
Emergency type: ☐ Natural disaster ☒ **Conflict** ☐ Food insecurity ☐ Other (specify)_____
Programme type: ☐ Cash transfer ☒ **Voucher** ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other (specify)
Primary aim/objective of intervention: • Provide food assistance to more than 1 million Syrian refugees registered in Lebanon
Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☐ Mobile phone transfer ☐ Physical cash ☐ Physical voucher ☒ **Other Electronic voucher (e-card)**
Payment structure: ☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☒ **Monthly payment** ☐ Other (specify)_____
Describe any payment conditions: None stated
Description of targeting methods and any enrolment criteria: None stated
Description of technologies used in targeting, implementing or monitoring the cash intervention(s): None stated
Description of any complementary interventions implemented alongside cash/voucher intervention(s): None stated
STUDY DETAILS
Study duration: Ongoing
Unit of measurement/analysis: ☐ Individual ☐ Household ☐ Community ☐ Project

☐ Organization ☒ N/A
Description of data sources: Implementing agency records; Central Administration of Statistics
Description of cost data sources and considerations: • Source: Implementing agency records; Central Administration of Statistics • Currency: Analysis reported in Jordanian Dinar (USD) • Analytical perspective: national • Time horizon: current
OUTCOMES
Does the study report outcomes related to intervention cost? ☐ **Yes** ☒**No**.
Does the study report outcomes related to cost-efficiency? ☐ Yes ☒ **No**
Does the study report outcomes related to cost-effectiveness? ☐ Yes ☒ **No**
Does the study report outcomes related to market impact? ☒ **Yes** ☐ **No** Indirect market impact: Total multipliers vary from 1.019 for the 'agriculture, livestock and fisheries sector' to 1.234 for the 'food products' sector. This suggests that a WFP transfer of US $250 million in food vouchers would lead to indirect effects of US $255 to US $308 million through the Jordanian economy.
CONCLUSIONS
In terms of indirect effects, this study finds a predictive multiplier ranging from 1.019 to 1.234. In other words, WFP's plan to distribute US $250 million in vouchers during 2014 would lead to some US $255-US $308 million of indirect benefits for the Jordanian economy. These indirect benefits are mostly concentrated in the agriculture, the manufacturing and the food products sectors. Had WFP opted for in-kind assistance, a larger share of these multipliers would have accrued outside of Jordan.

Kardan 2010

First author name: Kardan, Andrew
Study title: Evaluation of Zimbabwe's Emergency Cash Transfer Programme (ZECT)
INTERVENTION DETAILS
Country of intervention: Zimbabwe
Emergency type: ☐ Natural disaster ☐ Conflict ☒ **Food insecurity** ☒ **Other (specify)** Political & Economic Instability
Programme type: ☒ **Cash transfer** ☐ Voucher ☐ Cash for work
Humanitarian sector: ☐ Health ☐ Nutrition ☒ **Food security** ☐ Education ☐ WASH ☐ Shelter ☐ Protection ☐ Early recovery ☐ Other
Primary aim/objective of intervention: To improve food security in vulnerable households by enabling them to obtain their Missing Food Entitlement (MFE) by providing different forms of food assistance (cash transfers vs. 50% cash transfer and 50% food aid); the pilot project targeted 3800 households (1900 per group). **Secondary aim/objective of intervention:** To positively impact markets (i.e. multiplier effects) by infusing cash into the local economy.

Channel of delivery: ☐ Pre-paid card ☐ Bank transfer ☐ Mobile phone transfer ☒ **Physical cash** ☐ Physical voucher ☒ **Other (specify)** Food (in kind)

Payment structure:

☐ One-time lump sum payment ☐ Daily payment ☐ Weekly payment ☒ **Monthly payment**

Food transfers provided approximately 80 per cent of a person's monthly food needs; this was translated into a cash equivalent for the household (based on regularly monitored local prices and on household size). Monthly transfers ranged from US $5.20-8.00 per person.

Describe any payment conditions: None; this was an unconditional cash transfer program.

Description of targeting methods and any enrolment criteria: The pilot programme was a follow on to WFP's vulnerable group feeding programme (VGF) which targeted food insecure households (40% of the population) during the lean season (Oct-Mar) for six months or less each year. Food insecure districts were selected (areas with an existing food distribution program). The pilot replaced food transfers with cash and cash+food. Targeting was at the community level and relied on nominations and community confirmation of nominees.

Description of technologies used in targeting, implementing or monitoring the cash intervention(s): None

Description of any complementary interventions implemented alongside cash/voucher intervention(s): None

STUDY DETAILS

Study duration: five months (Nov 2009 - Mar 2010)

Sample size: Not specified

Description of study sample (include any individual or household/group characteristics of participants):

The study was conducted in three rural districts of Zimbabwe (Gokwe North, Gowke South and Nyanga) in two wards per district; one village was selected per ward as a study site. A total of 17 focus groups were conducted with both the intervention (n=9) and non-participants (n=8). Focus groups had between 5-12 participants that were either randomly selected from participant lists (intervention) or invited to participate using snowball referral methods (non-participants).

Unit of measurement/analysis:

☐ Individual ☒ **Household** ☐ Community ☐ Project ☐ Organization ☐ N/A

Description of data sources: Data sources included: 1) Secondary data from monitoring and evaluation surveys, 2) focus groups conducted by the evaluation team, 3) in-depth interviews conducted by the evaluation team; and 4) project budgets.

Description of data collection methods and frequency:

Focus group interviews conducted at the end of the five month intervention period in nine villages. Focus groups were asked to provide scores (scale of 0-10) for each indicator discussed; these scores were then converted to a percentage or averaged for intervention and non-participant groups and compared (without statistical analysis).

Description of cost data sources and considerations:

- Source: Implementing agency records
- Currency: Analysis reported in USD
- Analytical perspective: implementing agency (cost analysis, cost-efficiency)
- Time horizon: duration of evaluation (five months)

OUTCOMES

Does the study report outcomes related to intervention cost? ☒ Yes ☐ No

Key findings related to intervention cost:

Costs to implementing agency:

- Cash programme costs were largely driven by the value of the transfer (75%) with WFP management fees (6.5%), administrative and operational costs (6.2%) NGO management fees (4.2%) and NGO staff costs (3.9%) driving the remainder of costs.
- In contrast, 47 per cent of food programme costs were due to the cost of the commodity, 21 per cent to local transport and storage. Management and operational costs were similar.

Does the study report outcomes related to cost-efficiency? ☒ Yes ☐ No

Key findings related to cost-efficiency:

Cost per transfer (total):

- Cash = US $9.66 Cash+Food = US $9.69 Food= US $9.45

Cost per transfer (operational):

- Cash = US $2.43 Cash+Food = US $4.14 Food= US $4.98

Cost transfer ratio:

- Cash = US $0.34: $1 Cash+Food = US $0.73: $1 Food= US $1.11: $1

Cost per kg of staple food or equivalent:

- Cash = US $0.70 Cash+Food = US $0.90 Food= US $1.10

Operational cost as % of total costs:

- Cash = 25 per cent Cash+Food = 43 per cent Food= 53 per cent

Does the study report outcomes related to cost-effectiveness? ☐ Yes ☒ No

CONCLUSIONS

During the study period operational costs were far lower for cash transfers (at US $2.1 per transfer made), than food (US $4.85 per transfer) or cash+food (US $4.14 per transfer). However, because the value of the cash transfer was calculated using the prices of maize, beans and oil at local prices, this value was higher than the cost of obtaining the food transfer at the international prices paid by WFP. This difference was due mainly to the high prices of beans in local markets (because beans are neither widely demanded nor widely available in rural Zimbabwe. This meant that the total transfer cost (operational cost + cost of the transfer value) was actually lowest for food (US $9.45), followed closely by cash (US $9.66) and cash+food (US $9.69).

Lehmann 2014

First author name: Lehmann, Christian

Study title: Emergency Economies: The Impact of Cash Assistance in Lebanon

INTERVENTION DETAILS

See study summary in Annex C

STUDY DETAILS

See study summary in Annex C

Description of cost data sources and considerations:

- Source: Implementing agency records
- Currency: Lebanese Pounds (USD); no exchange rate reported
- Analytical perspective: "first round" effects, "second round" effects
- Time horizon: Unclear

OUTCOMES
Does the study report outcomes related to intervention cost? ☐ **Yes** ☒ **No**
Does the study report outcomes related to cost-efficiency? ☐ **Yes** ☒ **No**
Does the study report outcomes related to cost-effectiveness or cost-benefit? ☐ **Yes** ☒ **No**
Does the study report outcomes related to market impact? ☒ **Yes** ☐ **No** Direct market impacts • Beneficiary households received 220,000 LBP (US $147) in November, calculated as contributions for heating fuel and a stove. Every month after that, the beneficiary households received 160,000 LBP ($107 USD, totalling US $428 over four months). The total amount of cash that a beneficiary received is thus US $575, i.e. $115 per month on average (assumes 100% of transfer value spent locally). Indirect market impacts • The total amount of additional Gross Domestic Product (dY) generated by one beneficiary household is calculated by dividing the amount of winterization cash that the beneficiary household spends (C) by one minus the marginal propensity to consume (MPC): (dY=C/(1-MPC)) • The total amount of additional GDO that each beneficiary households generates for the Lebanese economy is then given by: dY=575/(1-0.53)=1223.40 USD • Each dollar of cash assistance spent by a winterization transfer recipient household generates $2.13 of GDP for the Lebanese economy.
CONCLUSIONS
The research found that there are no inflationary impacts from cash distributions. Furthermore, each dollar of cash assistance spent by a beneficiary household generates US $2.13 of GDP for the Lebanese economy. Also, the research shows that the grants are spent locally, meaning that local Lebanese economies benefit.

Schwab 2013

First author name: Schwab, Benjamin
Study title: Impact Evaluation of Cash and Food transfers for the Seasonal Emergency Safety Net in Hajjah and Ibb Governorates, Yemen - Endline Report
INTERVENTION DETAILS
See study summary in Annex C
STUDY DETAILS
See study summary in Annex C
Description of cost data sources and considerations: • Source: Implementing agency records • Currency: Analysis reported in USD • Analytical perspective: implementing agency (cost analysis, cost-efficiency, cost-effectiveness); beneficiary (cost analysis) • Time horizon: duration of evaluation (six months)
OUTCOMES*
Does the study report outcomes related to intervention cost? ☒ **X** Yes ☐ No

Key findings related to intervention cost:

Costs to implementing agency:

- A slightly higher percentage of human resources costs were required to deliver a food transfer (5%) than a cash transfer (4%), predominantly because of distribution costs.

Costs to programme beneficiaries:

- Cash beneficiaries spent five times more than food beneficiaries (10% of transfer cost vs 2%) on transportation and other related expenses.

Does the study report outcomes related to cost-efficiency? ☒ Yes ☐ **X** No

Key findings related to cost-efficiency:

Cost per beneficiary (total):

- Cash = US $52.04 Food= US$58.84

Cost per transfer (modality-specific):

- Cash = US $3.04 Food= US$9.81

Cost transfer ratio:

- Cash = US$0.11: $1 Food= US$0.24: $1

Does the study report outcomes related to cost-effectiveness? ☐ **X** Yes ☐ No

Key findings related to cost-effectiveness or cost-benefit:

Modality specific cost of improving outcomes by 15 per cent:

- Value of food consumption: Cash = $3.20 Food = $8.60
- Caloric intake: Cash = $3.74 Food = $8.19
- HDDS: Cash = $8.97 Food = $24.56
- DDI: Cash = $2.99 Food = $12.28
- FCS: Cash = 4.08 Food = $14.33

CONCLUSIONS

Cash benefits proved nearly five times less expensive to deliver than food baskets. Exclusive of the transfer value, each cash transfer cost WFP US $5.22 and each food transfer US $11.50. Including the additional transportation costs incurred by cash beneficiaries, who were required travel significantly farther than food recipients, raises the per transfer cost of cash to US $8.37. The total cost to WFP, including the value of the transfers, to raise FCS by 15 per cent using cash amount amounted to US $374.77.

D2 Critical Appraisal of Cost and Market Impact Studies

Aker 2011

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"Are additional gains due to the zap intervention are worth the additional costs?"
Is the form of efficiency clearly stated?	Unclear Risk	Authors describe analysis as cost-benefit analysis but do not define methods
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Authors note "Full cost-benefit analysis of the zap programme would require estimates of both the social and private returns to the cash transfer program. As we do not have information on household income and expenditure patterns, we instead focus on the monetary value of a narrow range of benefits."
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	Results are reported in USD. Currency of source data is not stated
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Unclear Risk	Insufficient details provided to make judgment.
Are conclusions accompanied by appropriate caveats?	Unclear Risk	Insufficient details provided to make judgment.

Aker 2013

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"What were the costs of the programme to the implementing agency and programme recipients themselves? Was the cash or voucher programme more cost-effective?"
Is the form of efficiency clearly stated?	Unclear Risk	All analyses are reported under the heading "costs, security and availability" in CGD Working Paper and heading "cost-effectiveness and cost-benefit analysis" in UNICEF report.
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	*Authors note: "*While it is difficult to assign monetary value to the benefits, this section provides a "back of the envelope" calculation."
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low RIsk	Yes
Are conclusions accompanied by appropriate caveats?	Unclear Risk	Insufficient details provided to make judgment.

Bauer 2014

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"What are the direct and indirect impacts of e-vouchers on the national economy?"
Is the form of efficiency clearly stated?	Low Risk	Market impact
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Analysis is appropriate for research question
Are quantities of resources used reported separately from unit costs?	*Not Applicable*	
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low Risk	Conclusions flow from data reported
Are conclusions accompanied by appropriate caveats?	Low RIsk	Assumptions in modelling multiplier effects are clearly stated

Creti 2014

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	High Risk	Research questions are not clearly stated
Is the form of efficiency clearly stated?	High Risk	Form of analysis is not clearly stated
Is the form of efficiency analysis justified in relation to the research question(s)?	Unclear Risk	Insufficient details provided to draw conclusions
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	Results are reported in USD. Currency of source data is not stated
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	High Risk	No explanation of data sources or analysis methods is provided.
Are conclusions accompanied by appropriate caveats?	High Risk	Insufficient details provided to make judgment.

Davies 2007

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low RIsk	"What are the market impacts of the emergency cash transfer programme implemented in northern Dowa District?"
Is the form of efficiency clearly stated?	Low Risk	Market impact
Is the form of efficiency analysis justified in relation to the research question(s)?	Unclear Risk	Insufficient details provided to make judgment.
Are quantities of resources used reported separately from unit costs?	*Not Applicable*	
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Unclear Risk	Insufficient details provided to make judgment.
Are conclusions accompanied by appropriate caveats?	Unclear Risk	Insufficient details provided to make judgment.

Hidrobo 2014

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"Which intervention (cash, vouchers or food) is most cost efficient and cost-effective for improving food security?"
Is the form of efficiency clearly stated?	Low Risk	Activities-based costing, cost-efficiency, cost-effectiveness
Is the form of efficiency analysis justified in relation to the research question(s)?	Unclear Risk	Insufficient details provided to make judgment.
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low Risk	Conclusions flow from data reported
Are conclusions accompanied by appropriate caveats?	Low RIsk	Assumptions in costing are clearly stated

Husain 2014

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	What are the direct and indirect impacts of e-vouchers on the national economy?
Is the form of efficiency clearly stated?	Low Risk	Market impact
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Analysis is appropriate for research question
Are quantities of resources used reported separately from unit costs?	*Not Applicable*	
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low Risk	Conclusions flow from data reported
Are conclusions accompanied by appropriate caveats?	Low Risk	Assumptions in modelling multiplier effects are clearly stated

Kardan 2010

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"Which transfer type was the most efficient use of resources? What are the comparative cost-benefits of different transfer types?"
Is the form of efficiency clearly stated?	Unclear Risk	Insufficient details provided to make judgment.
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Analysis is appropriate for research question
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Unclear Risk	Insufficient details provided to make judgment.
Are conclusions accompanied by appropriate caveats?	Unclear Risk	Insufficient details provided to make judgment.

Lehmann 2014

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	What are the direct and indirect impacts of unconditional cash transfers on the national economy?
Is the form of efficiency clearly stated?	Low Risk	Market impact
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Analysis is appropriate for research question
Are quantities of resources used reported separately from unit costs?	*Not Applicable*	
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	Unclear Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low Risk	Conclusions flow from data reported
Are conclusions accompanied by appropriate caveats?	Low Risk	Assumptions in modeling multiplier effects are clearly stated

Schwab 2013

Methodological quality criteria	Judgement	Support for Judgement
All Studies		
Are the research questions clearly stated?	Low Risk	"Which intervention (cash or food) is most cost efficient and cost-effective for improving food security?"
Is the form of efficiency clearly stated?	Low Risk	Activities-based costing, cost-efficiency, cost-effectiveness
Is the form of efficiency analysis justified in relation to the research question(s)?	Low Risk	Analysis is appropriate for research question
Are quantities of resources used reported separately from unit costs?	High Risk	No details of resource quantities provided
Are currency and price data sources clearly stated?	High Risk	No data source cited
Are details of currency price adjustments for inflation or currency conversion clearly stated?	High Risk	No details of currency adjustments or conversions provided
Is the time horizon of costs clearly stated?	High Risk	No statement of time horizon provided
Are discount rates clearly stated and justified, or reason for not discounting clearly explained?	High Risk	No justification provided
Is sensitivity analysis conducted and approach clearly stated?	High Risk	No sensitivity analysis conducted
Do conclusions flow from data reported?	Low Risk	Conclusions flow from data reported
Are conclusions accompanied by appropriate caveats?	Low Risk	Assumptions in costing are clearly stated

Annex E

E1 Observational, Qualitative and Mixed Method Study Summary

Conditional cash transfers

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation									
				Targeting	Scale-up and exit strategies	Technological capacities	Market dynamics	Social dynamics	Corruption	Perceived empowerment	Perceived well-being	Protection concerns	Other project or context-specific issues
Abt 2002 (Mozambique)	Natural disaster	Economic recovery	Mixed methods	✓						✓	✓	✓	
Abu Hamad 2012 (Occupied Palestinian Territory)	Conflict	Economic recovery	Qualitative				✓	✓			□		
Acacia 2005 (Somalia)	Natural disaster	Economic recovery	Qualitative										✓
Adams 2005 (Ethiopia)	Food insecurity	Economic recovery	Mixed methods		✓		✓				□		✓
Aker 2011 (Niger)	Natural disaster, food insecurity	Economic recovery, food security	Quantitative			✓	✓		✓		□	□	
Alemu 2004 (Ethiopia)	Food insecurity		Qualitative	✓			✓						✓
Ali 2005 (Somalia)	Food insecurity	Economic recovery, food security	Mixed methods		✓			✓	✓		□		
Ali 2012 (Somalia)	Food insecurity	Economic recovery, food security	Mixed methods										✓
Andersson 2013 (Bosnia and Herzegovina)	Conflict	Economic recovery, food security	Quantitative	✓									✓

Aspin 2010 (Indonesia)	Natural disaster	Not specified	Qualitative	✓			✓	✓	✓	□	✓
Austin 2011 (Multi-country)	Not specified	Not specified	Qualitative		✓	✓			✓		✓

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation										
				Targeting	Scale-up and exit strategies	Technological capacities	Market dynamics	Social dynamics	Corruption	Perceived empowerment	Perceived well-being		Protection concerns	Other project or context-specific issues
Bailey 2008 (Multi-country)	Not specified	Not specified	Mixed methods			✓		✓		✓	□		□	✓
Berg 2013 (Multi-country)	Not specified	Protection	Qualitative	✓		✓			✓	✓		□		
Brandstetter 2004 (Ethiopia)	Natural disaster	Economic recovery	Qualitative					✓		✓	□	□ □		
Brewin 2008 (Kenya)	Food insecurity	Food security	Qualitative	✓		✓	✓	✓		✓				✓
British Red Cross 2011 (Niger)	Food insecurity	Economic recovery	Mixed methods	✓						✓	□			
CAG India 2013 (India)	Food insecurity	Food security	Quantitative	✓										✓
Campbell 2014 (Lebanon)	Conflict	Economic recovery	Mixed methods			✓				✓				✓
CARE 2011 (Pakistan)	Natural disaster	Economic recovery	Qualitative		✓			✓	✓					✓
Catley 2010 (Ethiopia, Somalia)	Food insecurity	Economic recovery	Mixed methods	✓						✓	□			
Concern & Oxfam 2011 (Indonesia, Kenya, Zimbabwe)	Natural disaster	Shelter, food insecurity	Qualitative	✓				✓		✓				✓
Creti 2014 (Niger)	Conflict	Economic recovery	Qualitative	□			✓							□
Crisp 2010 (Sri Lanka)	Conflict	Shelter	Qualitative				✓			✓	□		□	□
CRS 2010 (Indonesia)	Natural disaster	Shelter	Mixed methods						□	✓			□	□
Davies 2007 (Malawi)	Food insecurity	Economic recovery	Mixed methods				✓				□			
Devereaux 2006 (Malawi)	Food insecurity	Food security	Mixed methods				✓		□	✓	□		□ □	□

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation									
				Targeting	Scale-up and exit strategies	Technological capacities	Market dynamics	Social dynamics	Corruption	Perceived empowerment	Perceived well-being	Protection concerns	Other project or context-specific issues
Devereaux 2007 (Malawi)	Food insecurity	Food security	Mixed methods	□							□	□ □ □	
Devereaux 2008										✓		□	
(Swaziland)	Natural disaster	Economic recovery, food security	Mixed methods	□									
DiPetroro 2011 (Chile)	Natural disaster	Shelter	Mixed methods		□			✓		✓			
DRC 2014 (Lebanon)	Conflict	Economic recovery	Mixed methods		□								□
Duncalf 2013 (Multi-country)	Natural disaster, food insecurity	Economic recovery, food security	Qualitative	□	□			✓			□	□	□
Dunn 2007 (Zambia)	Natural disaster	Food security, nutrition	Qualitative	□					□	✓	□	□	□
Gayfer 2012 (Uganda)	Food insecurity	Food security	Qualitative		□	□		✓			□		□
Gelan 2006 (Ethiopia)	Food insecurity	Food security	Quantitative				✓						
Gordon 2011 (South Sudan)	Food insecurity	Food security, nutrition	Quallitative	□					□				
Gourlay 2012 (Zimbabwe)	Food insecurity	Economic recovery, food security	Qualitative		□			✓					
Grasset 2012 (Niger)	Food insecurity	Food security	Mixed methods							✓		□	□
Grootenhuis 2011 (Afghanistan)	Conflict	Food security	Mixed methods						□				
Harvey 2010 (Multi-country)	Not specified	Not specified	Qualitative										□

Harvey 2011 (Multi-country)	Not specified	Not specified	Mixed methods				□					□
HelpAge 2008 (Indonesia)	Natural disaster	Economic recovery	Mixed methods		□	□	□		□	□	□	
Henderson 2008 (Kenya)	Conflict	Economic recovery	Mixed methods		□		□	□	□			□

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation							
Herald 2012 (Somalia)	Conflict	Nutrition	Mixed Methods				✓	□	□	□	
Huyen 2011 (Vietnam)	Natural disaster	Economic recovery	Mixed Methods					□		□	
The IDL Group 2008 (Indonesia)	Natural disaster	Economic recovery	Qualitative							□	
Jones 2012 (Occupied Palestinian Territories)	Conflict	Economic recovery	Mixed Methods				□			□	
Kardan 2010 (Zimbabwe)	Food insecurity	Food security	Qualitative			✓	□	□		□	
KRCS 2011 (Kenya)	Natural disaster	Economic recovery	Qualitative				□		□	□	
Kruse 2009 (Uganda)	Conflict	Economic recovery	Mixed Methods	□						□	
Lehmann 2014 (Lebanon)	Conflict	Shelter	Quantitative		✓	✓		□		□	
MacAuslan 2010 (Kenya)	Conflict	Economic recovery	Mixed Methods	□			□	□	□	□	□
Majid 2007 (Somalia)	Natural disaster	Economic recovery	Mixed Methods	□							
Mountfield 2012 (Occupied Palestinian Territories)	Conflict	Economic recovery, food security, protection	Mixed Methods		✓		□	□			
Narayan 2009						✓	□				

(Indonesia, Vietnam)	Natural disaster	Economic recovery	Mixed Methods														□
Nicholson 2009 (Kenya)	Conflict	Economic recovery	Mixed Methods					✓			□						□
Palmaera 2010 (Indonesia)	Natural disaster	Economic recovery, food security, shelter	Mixed Methods	□						□							□

Targeting | **Scale-up and exit strategies** | **Technological capacities** | **Market dynamics** | **Social dynamics** | **Corruption** | **Perceived empowerment** | **Perceived well-being** | **Protection concerns** | **Other project or context-specific issues**

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation									
				Targeting	Scale-up and exit strategies	Technological capacities	Market dynamics	Social dynamics	Corruption	Perceived empowerment	Perceived well-being	Protection concerns	Other project or context-specific issues
PEFSA 2011 (Pakistan)	Natural disaster, food insecurity	Food security	Mixed Methods		□	□				□	□	□	□
Peppiatt 2001 (Bangladesh, Ethiopia, Sudan)	Natural disaster	Not specified	Mixed Methods			□				□	□		
Poisson 2011 (Philippines)	Natural disaster	Not specified	Mixed Methods						□				□
Poulsen 2011(Niger)	Food insecurity	Nutrition	Mixed Methods	□						□	□	□	
Rastall 2010 (Vietnam)	Natural disaster	Economic recovery	Mixed Methods					□		□	□	□	
Samuel Hall 2014a (Afghanistan)	Food insecurity	Food security	Mixed methods			□		□		✓			
Samuel Hall 2014b (Afghanistan)	Food insecurity	Food security	Mixed methods			□				✓ □		□	□
Sandstrom 2010 (Sri Lanka)	Natural disaster	Food insecurity	Quantitative	□	□								
Sardan 2014 (Niger)	Food insecurity	Food insecurity	Qualitative										□
Save the Children 2009 (Niger)	Food insecurity	Economic recovery, food security	Mixed Methods				✓			□	□	□ □	
Schwab 2013 (Yemen)	Conflict	Food security	Quantitative										
Slater 2008 (Lesotho)	Food insecurity	Protection	Qualitative							□		✓	

Sloane 2010 (South Sudan)	Conflict	Not specified	Mixed Methods	✓	✓

Short Title (Country)	Emergency Type	Primary Programme Sector of	Study Design	Factors hindering and facilitating implementation								
Sloane 2011 (Uganda)	Conflict	Economic recovery	Mixed Methods	□					□			
Sloane 2014 (Jordan)	Conflict	Economic recovery	Mixed Methods		□							□
Somalia Cash Consortium 2013 (Somalia)	Conflict, food insecurity	Economic recovery	Mixed Methods			✓				□		
Versluis 2014 (Haiti)	Natural disaster	Not specified	Quantitative					✓				□
Wasilowska 2012 (Somalia)	Conflict	Economic recovery, food security, protection	Mixed Methods			✓	✓					□
Zaidi 2010 (Pakistan)	Natural disaster	Economic recovery	Quantitative	□					□	□		

Conditional cash transfers (cash for work)

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation											
				Targeting	Scale-up and exit strategies	Technological capacities	Market dynamics	Social dynamics	Security	Corruption	Beneficiary empowerm	Beneficiary well-being	Resilience	Protection concerns	Other challenges
Aysan 2008 (Sri Lanka)	Natural disaster	Shelter	Mixed Methods						□						□
Doocy 2005 & 2006 (Indonesia)	Natural disaster	Economic recovery	Mixed Methods		□					□					□
Doocy 2008 (Indonesia)	Natural disaster	Economic recovery	Quantitative						□	□					□
Haver 2009 (Burundi)	Conflict	Economic recovery	Mixed Methods			□			□						□
Jones 2004 (Afghanistan)	Conflict	Economic recovery	Mixed Methods	□											
Kevilhan 2010 (Haiti)	Natural disaster	Economic recovery	Mixed Methods	□											
Latif 2009 (Occupied Palestinian Territories)	Conflict	Economic recovery	Mixed Methods			□									□
Mattinen 2006 (Somalia)	Conflict, food insecurity	Economic recovery	Mixed Methods						□						□
Nagamatsu 2014 (Japan)	Natural disaster	Economic recovery	Quantitative		□										□
Ntata 2010 (Malawi)	Food insecurity	Food security	Qualitative											✓	□
Tessitore 2013 (Somalia)	Natural disaster, food insecurity	Economic recovery	Mixed Methods												□

Vouchers

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation										
				Targeting	Scale-up and exit	Technological	Market dynamics	Social dynamics	Security	Corruption	Beneficiary	Beneficiary well-being	Resilience	Protection concerns	Other challenges
Bauer 2014 (Lebanon)	Conflict	Food security	Mixed Methods	□		□									
Brady 2011 (Haiti)	Natural disaster	Health	Mixed Methods		□										□
Brady 2012 (Haiti)	Conflict	Economic recovery	Mixed Methods		□										□
Creti 2011 (Occupied Palestinian Territories)	Conflict	Food security, education	Mixed Methods						□						□
DiPetroro 2011 (Belize)	Natural disaster	Shelter	Mixed Methods	□											□
Dunn 2011 (Kenya)	Conflict, food insecurity	Food security	Mixed Methods												□
Husain 2014 (Jordan)	Conflict	Food security	Mixed Methods	□	□							✓			
Kugu 2013 (Turkey)	Conflict	Economic recovery	Mixed Methods								✓				

Multiple approaches

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation											
				Targeting	Scale-up and exit	New technologies	Market dynamics	Social dynamics	Security	Corruption	Beneficiary	Beneficiary well-	Resilience	Protection	Other challenges
Unconditional cash transfers and vouchers															
Aker 2013 (DR Congo)	Conflict	Economic recovery	Mixed methods						✓						✓
Dunn 2013 (Somalia)	Food insecurity	Food security	Mixed Methods	✓					✓	✓					✓
Gregg 2005 (Ethiopia)	Natural disaster, food insecurity	Food security	Mixed Methods												✓
Hagens 2010 (Pakistan)	Conflict	Economic recovery	Qualitative		✓				✓						✓
Hedlund 2013 (Somalia)	Food insecurity	Economic recovery	Mixed Methods		✓	✓				✓					✓
Hidrobo 2012 (Ecuador)	Conflict	Food security	Mixed methods	✓											✓
Oxfam 2011a (Pakistan)	Natural disaster	Economic recovery	Mixed Methods												✓
Unconditional and conditional cash transfers															
Oxfam 2011b (Sudan)	Food insecurity	Economic recovery	Mixed Methods	✓											
Schira 2011 (Kenya)	Natural disaster	Food security, water, sanitation and hygiene	Mixed Methods									✓			

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Factors hindering and facilitating implementation											
				Targeting	Scale-up and exit	New technologies	Market dynamics	Social dynamics	Security	Corruption	Beneficiary	Beneficiary well-	Resilience	Protection	Other challenges
Young 2011 (Haiti)	Natural disaster	Economic recovery	Mixed Methods	□											□
Unconditional cash transfers and vouchers															
Creti 2005 (Haiti)	Food insecurity	Voucher, cash for work	Qualitative			□									
Harmer 2012 (Haiti)	Conflict, food insecurity	Voucher, cash for work	Mixed Methods												□
Unconditional cash transfers, conditional cash transfers and vouchers															
Adams 2006 (Uganda)	Natural disaster	Not specified	Mixed Methods												□
Harvey 2009 (India, Indonesia, Sri Lanka)	Food insecurity	Economic recovery	Mixed Methods	□					□						

E2 Observational, Qualitative and Mixed Method Study Appraisal Summary

Methodological quality criteria		Unconditional cash transfer	Voucher	Conditional cash transfer	Multiple approaches
All Studies		n=76	n=8	n=11	n=14
Are there clear research questions or objectives?	Low RoB: Unclear RoB: High RoB:	44 32 0	6 2 0	7 4 0	6 6 2
Do the collected data address the research questions or objectives?	Low RoB: Unclear RoB: High RoB:	19 45 1	3 5 0	7 4 0	3 9 2
Quantitative Studies		n=9	n=0	n=2	n=0
Is the sampling strategy relevant to address the quantitative research question or aspects of mixed methods questions?	Low RoB: Unclear RoB: High RoB:	6 2 1	__ __ __	1 1 0	__ __ __
Is the sample representative of the population under study?	Low RoB: Unclear RoB: High RoB:	6 2 1	__ __ __	1 1 0	__ __ __
Are measurements appropriate (clear origin or validity known, or standard instrument)?	Low RoB: Unclear RoB: High RoB:	1 8 0	__ __ __	0 2 0	__ __ __
Is there an acceptable response rate (60% or above)?	Low RoB: Unclear RoB: High RoB:	4 5 0	__ __ __	0 2 0	__ __ __
Qualitative Studies		n=23	n=0	n=1	n=2
Are the sources of qualitative data relevant to address the research questions or objectives?	Low RoB: Unclear RoB: High RoB:	4 19 0	__ __ __	0 1 0	0 1 1
Is the process for analyzing qualitative data relevant to address the research questions or objectives?	Low RoB: Unclear RoB: High RoB:	2 0 21	__ __ __	0 0 1	0 0 2
Is appropriate consideration given to how findings relate to the context in which the data were collected?	Low RoB: Unclear RoB: High RoB:	6 16 1	__ __ __	0 1 0	1 1 0

Is appropriate consideration given to how findings relate to researchers' influence?	Low RoB: Unclear RoB: High RoB:	6 0 17	__ __ __	0 1 0	1 0 1
Mixed Methods Studies		n=43	n=8	n=8	n=12
Is the mixed methods research design relevant to address the qualitative and quantitative research questions or objectives?	Low RoB: Unclear RoB: High RoB:	9 21 13	3 2 3	2 4 2	2 6 4
Is the integration of qualitative and quantitative data (or results) relevant to the research questions or objectives?	Low RoB: Unclear RoB: High RoB:	0 36 7	2 6 0	0 8 0	0 9 3
Is appropriate consideration given to the limitations associated with this integration?	Low RoB: Unclear RoB: High RoB:	3 18 22	1 3 4	0 5 3	0 5 7

E3 Summary of Key Findings Related to Factors Hindering and Facilitating Implementation of Cash-Based Approaches

Unconditional cash transfers

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Key Findings
Abt 2002 (Mozambique)	Natural disaster	Economic recovery	Mixed methods	**Targeting:** Due to large information gaps, the agency was forced to go through the time-consuming process of going village by village to collect and compile names and inventory losses, which was then verified by village elders. **Empowerment:** The flexibility of cash allowed beneficiaries to make spending decisions based on personal need. Beneficiaries were able to purchase investment goods and repair assets (land, equipment, etc.). **Well-being:** The cash helped to provide beneficiaries with household goods, clothes, livestock, and other items lost in the flood. The money further provided beneficiaries with the ability to re-start income generating activities that had been halted by the floods. **Resilience:** Cash received from the programme was used to buy long-term investment goods and repair damaged assets (land, equipment, livestock).
Abu Hamad 2012 (Occupied Palestinian Territory)	Conflict	Economic recovery	Qualitative	**Market dynamics:** Concerns that beneficiaries may forgo job opportunities in Gaza out of fear of losing the cash entitlements, creating a dependence on the program. **Social dynamics:** Beneficiaries had an enhanced ability to take part in familial and social activities and an increased ability to educate and raise children. Short-term credit increased a sense of security and morale, particularly for women in an abusive relationship who then had an incentive to initiate divorce. **Well-being:** The programme enhanced the ability of beneficiaries to take part in social and family activities, thus enhancing the psychosocial well-being of those who received the transfer.
Acacia 2005 (Somalia)	Natural disaster	Economic recovery	Qualitative	**Other challenges:** Lack of technical skills among field officers and foremen resulted in difficulty translating the technical designs of the programme into on-the-ground implementation.
Adams 2005 (Ethiopia)	Food insecurity	Economic recovery	Mixed methods	**Scale-up and exit strategies:** The minimum requirements for implementation should not be under-estimated: skills and knowledge; prior experience of cash interventions, flexible, tight

				and efficient administrative and finance systems; resources; and sufficient lead-time to allow for staff development and establishment of systems and protocols. **Market dynamics:** Beneficiaries were able to better cultivate their land and increase income. The programme aided households in ceasing activities that were "socially or environmental disadvantageous," such as seasonal labour migration and the sale of firewood supplies. Cash transfer enabled some poor-households to cultivate land on their own, and as such, took their children out of school to help with the labour. **Well-being:** Cash transfers not only increased food security and dietary diversity, but when they exceeded minimum needs of beneficiaries households were able to make investments that had more long-term consequences (e.g. purchasing livestock). Mothers were able to feed their children more often, households were able to pay for needed health care, and women were able to spend less time gathering firewood and dung for income and spend more time at home caring for children. **Other challenges:** The programme experienced delays in distribution due to "excessive" bureaucracy in admin-finance systems, a lack of rural banking networks, and other generalized capacity constraints including weak pre-implementation analysis of food insecurity, monitoring local market performance, and high staff turnover at the community level.
Aker 2011 (Niger)	Natural disaster, food insecurity	Economic recovery, food security	Quantitative	**Technological capacities:** The use of m-transfer technology limited programme effectiveness to areas where telecommunications infrastructure already existed, which could limit its utility in remote areas. In areas with high illiteracy rates, programme recipients may have challenges using the technology without help from family, friends, or an m-transfer agent. **Market dynamics:** As a result of the mobile cash transfer, programme participants had fewer costs for obtaining cash transfer. Cash transfer recipients were able to spend money on more diverse of foods and crops, and school fees, and sold fewer non-durable assets. **Empowerment:** The programme resulted in an increase in crops primarily grown by women on marginal lands, empowering these female farmers. **Well-being:** The mobile cash programme led to more diverse food purchases and less asset depletion. **Resilience:** The cash amount provided by the programme allowed beneficiaries to make small investments, avoid taking children out of school for extended periods, and prevented the accruement of debt.

Alemu 2004 (Ethiopia)	Food insecurity		Qualitative	**Targeting:** Exclusion of eligible beneficiaries due to lack of resources and limited knowledge of agencies. **Market dynamics:** Cash-for-seeds allows farmers to choose the type of seed to plant in accordance with local agro-ecology, fertility of the land and timing of rains. It also allows farmers more control over seed quality. **Other challenges:** Timing of cash-for-seed distribution was too late to sow crops that should have been planted earlier in year.
Ali 2005 (Somalia)	Food insecurity	Economic recovery, food security	Mixed methods	**Scale up and exit:** Coordination can aid in the efficient implementation of complementary interventions and maximizing intervention impacts. All members of the programme implementer should emphasize the involvement of all actors, including donor, implementing agencies, and community members. **Social dynamics:** Transfers were shared among kinship lines, benefitting the entire community. **Empowerment:** The programme had a strong community mobilization piece, with an emphasis on gender inclusion. This included public meetings and elections to choose community members to sit on committees that worked directly with the implementing organization. **Well-being:** Cash grants allowed households to move livestock away from overgrazed lands. According to household interviews, begging and dependence on social support fell an average 90% one month after the cash distribution.
Ali 2012 (Somalia)	Food insecurity	Economic recovery, food security	Mixed methods	**Other Challenges:** Partners were unable to access some of the highest need areas, forcing them to rely on local NGOs for implementation.
Andersson 2013 (Bosnia and Herzegovina)	Conflict	Economic recovery, food security	Quantitative	**Targeting:** Large exclusion errors in targeting due to lack of programme resources. **Other challenges:** Concern about representativeness and possible introduction of bias during survey/targeting.

Aspin 2010 (Indonesia)	Natural disaster	Not specified	Qualitative	**Targeting:** The more vulnerable the population targeted, the more likely beneficiaries were to spend money on intended items. Data from the government was often unreliable, leaving the burden of the assessment of vulnerable households to the implementing agencies. **Corruption:** Strong monitoring and tracking reduced the risk of fraud. **Market dynamics:** The programme helped to boost local economies and assisted the household recovery process while increasing social capital. **Social dynamics:** Some social jealousy arose from households who did not receive assistance, causing some minor issues in the community. **Empowerment:** By offering choice and flexibility in purchasing, the cash programme provided households with dignity and social capital. **Well-being:** The programme had significant positive effects on the socioeconomic wellbeing of household. Grants were noted to provide more dignity than continued payments or cash for work programmes, as there is less stigma attached and the cash has a more immediate effect on improving livelihoods. **Other challenges:** The programme did not factor in the cost of labour in the design phase, delaying the programme while additional funds were procured. The use of vouchers required a great deal of administrative work to ensure invoices and household information were correctly processed, leading to an increased need for support staff.
Austin 2011 (Multi-country)	Not specified	Not specified	Qualitative	**Technological capacities:** Caution should be used when using new technology for cash transfers when the government or private sector controls the delivery mechanism, as they can then affect coverage. Partnerships, however, can increase the scale of programmes. Lack of infrastructure and mobile network coverage and banking outlets can be major barriers to implementing large-scale programmes using these technologies. **Security:** Insecure situations do not mean cash cannot be delivered safely to large numbers of people, however significant advocacy is needed to assure donors of this fact to protect future funding. **Scale-up and exit strategies:** Lack of buy-in by senior management, due to both lack of acceptance of cash programmes and lack of understanding of how they are implemented, was cited as a major blockage for scaling up. Further, the fact that cash transfer programmes are often regarded as an "add on" to more traditional programmes, often means a lack of supporting systems which can prevent scaling up. **Other challenges:** Policies were overly broad and were not prescriptive but rather accommodating.
Bailey 2008 (Multi-country)	Not specified	Not specified	Mixed methods	**Technological capacities:** Direct check distribution is possible when social welfare programmes can provide lists of recipients and is quicker than transfers that require verifications, but requires areas to have vehicular access. Smart cards, while having a range

				of benefits including identification by biometric data, increase chances of technical error and their use may be hindered by a lack of understanding by beneficiary. **Corruption:** Using banking systems or the private sector to distribute cash decreases the risk of corruption that occurs when agency staff are responsible for distribution. **Social dynamics:** Mothers were able to spend more time caring for their children. While anti-social uses of the cash (particularly by men) is a frequent concern of programme implementers, an increase in anti-social spending and behaviour was seen only in a few isolated instances. **Empowerment:** The cash provided dignity to beneficiaries in that it enabled them to make individual decisions in a manner that in-kind donation does not. Cash transfers were seen as more effective at reducing domestic tensions than in-kind assistance. **Well-being:** The programme improved dietary diversity for beneficiaries. **Protection:** Cash can have an impact on underlying causes of malnutrition (food insecurity, health and social environment), but it is not sufficient to address malnutrition on its own. Cash provides short-term shelter alternatives to in-kind donations such as plastic sheets, allowing beneficiaries to stay with host families or temporarily rent. Permanent shelter response in the form of cash transfers allows owners to avoid permanent displacement and rebuild their homes in what the World Bank has labelled an "owner-driven," rather than "donor-driven" manner. At present, there is no evidence to suggest cash increased gender violence. **Other challenges**: Cash may provoke more household conflicts than in-kind relief, cause local inflation, and increase the chances of people undermining the targeting systems due to the attractiveness of cash.
Berg 2013 (Multi-country)	Not specified	Protection	Qualitative	**Targeting:** The more active communities were in beneficiary selection and clearer the criteria, the more accepting communities were of programmes. **Technological capacities:** M-tech could deliver cash quickly and effectively and ATM cards could be used by beneficiaries even if illiterate while iris scans eliminated the need for ATM cards with PINs in many locations. However, lacking infrastructure/organization/internet created problems, and when trainers were unavailable, refugees were left to learn the new technology on their own, and were sometimes taken advantage of. **Corruption**: To help avoid corruption, shopkeepers provided receipts to verify the correct goods had been sold at correct prices, or else they were reported by beneficiaries. **Empowerment:** Cash transfer programmes in war or natural disasters had no impact on empowerment; many interventions led to short-term empowerment perceptions among women, such as owning a bank account, but few led to

				long-term community-level empowerment finding. When paired with training and other support, cash transfer programmes were generally seen to improve self-confidence, self-reliance, and lead to more community empowerment. Female empowerment was also seen in many programmes discussed; regardless of who was given the transfer in the household, the women had a say in spending the cash. **Resilience:** In Ecuador, transfer use led to a decrease in negative coping strategies, including prostitution and criminal gang activity. **Protection:** Cash transfers provided beneficiaries with access to banking services, and in some cases, their own accounts. This increased access to financial services and raised beneficiaries' self-esteem and social status (though perhaps temporarily).
Brandstetter 2004 (Ethiopia)	Natural disaster	Economic recovery	Qualitative	**Social dynamics:** There was an emergence of new community leaders as a result of community members working with the program. There was increased security because those who received aid were less likely to steal for resources. **Empowerment:** The cash transfers helped equalize the heavily patriarchal Ethiopian community to involve women in the decision-making process. **Well-being:** The programme increased dietary diversity and helped improve general health conditions by providing a means with which to pay for medical needs. It further provided a buffer against immediate asset depletion and helped prevent families from going into debt. **Resilience:** While the traditional response to food insecurity had been to send children to live with relatives that live outside of the affected area, the cash transfer allowed children to stay in the community with their families. Further, families were able to purchase school supplies and pay school fees, increasing attendance **Protection:** Cash transfers allowed households to pay off debts, acquire agricultural inputs and animals, and generally reclaim full use of their land. This allowed men to stay in the community and work on family land rather than migrating to find day labour.
Brewin 2008 (Kenya)	Food insecurity	Food security	Qualitative	**Targeting:** As community members were given the opportunity to publicly comment on rankings during community meetings, there was little disagreement on targeting mechanisms. **Technological capacities:** Agents had to make multiple trips to beneficiaries due to technological failures of M-pesa technology. **Security:** M-pesa system offered a solution to ensuring the security of cash while being counted and transported from programme to recipient. **Market dynamics:** Easier to pay off school related bills; increase in self-esteem. **Social dynamics:** The frequently mentioned negative consequences (anti-social use/spending on things other than intended, gender dynamics (putting women at a

				disadvantage), diversion and security, inflation and disincentive to work) are avoidable with proper controls and are often unfounded based on assumptions and perceptions. **Empowerment:** While cash transfers empowered recipients by allowing them to determine how the cash would be spent, it may have inadvertently reinforced the traditional role of women of being responsible for daily household upkeep. **Other challenges:** Various technological issues delayed disbursement **(**SIM cards failing, lack of chargers, ineffective chargers).
British Red Cross 2011 (Niger)	Food insecurity	Economic recovery	Mixed methods	**Targeting:** Concerns regarding male reaction to the distribution of cash to women proved to be unfounded. Inclusion of village chiefs and community members in village selection was essential to avoiding inclusion errors. **Empowerment:** The flexibility of the cash programme increased the responsibility and decision-making power of beneficiaries, increasing the sense of empowerment in the 16 consulted studies. Many communities used a portion of the cash to improve infrastructure, construct schools and home for teachers, and aid neighbouring communities. **Well-being:** Beneficiaries were able to use the cash to both increase food security and pay off debts. Households also reported less migration of family members to find work. Female-headed households, households in the lowest livestock wealth group, and agro-pastoralists had increased dietary diversity than comparable households that did not receive the cash transfer.
CAG India 2013 (India)	Food insecurity	Food security	Quantitative	**Technological capacities:** Only 40 per cent of beneficiaries owned phones and most areas could not support signals for m-banking, leading only 26 per cent of beneficiaries to be able to receive transfers. **Other challenges:** The initial contractual agreement limited ability of the programme implementer to improve performance. Due to infrastructure limitations, there were fewer beneficiaries during implementation than had been planned. Operational issues delayed disbursements, and there was a lack of uniformity of monitoring between organizations.
Campbell 2014 (Lebanon)	Conflict	Economic recovery	Mixed methods	**Technological capacities:** A one hour information session increased the number of recipients able to use their ATM card from 5per cent to 63 per cent, despite almost none having experience using an ATM card before this program. **Empowerment:** Anecdotal evidence suggested females became more empowered when they were able to provide for their families. Programme staff noted financial training helped improve outcomes through increasing women's capacities as household decision-makers. **Other challenges:** Difficulty in comparing the value of diverse household assets from one family to another. While it is

				important to work with existing local coordination mechanisms, this can cause challenges as they may not be suited for a cross-sector cash transfer program.
CARE 2011 (Pakistan)	Natural disaster	Economic recovery	Qualitative	**Technological capacities:** In areas with no mobile network, the programme was able to able to adapt and record transactions offline rather than in real time. **Scale-up and exit strategies:** The private sector is key in scaling up, as it can aid in building infrastructure and resilient economies and communities. Flexibility is required, particularly in cash programmes, as changes in business models and costs may occur. Mobile phone models present the largest opportunity for potential growth. **Security:** In order to decrease security risks, the bank was made fully accountable for all cash transfers from the delivery sites to distribution to recipients**. Social dynamics:** Cash transfers can negatively influence gender relations, especially in a context like Pakistan, where culturally it may be harder to engage women **Empowerment:** Beneficiaries felt their status was enhanced by having an ATM operated bank account. **Other Challenges:** Insufficient resources, bad road conditions, and late arrivals of recipients sometimes delayed distributions.
Catley 2010 (Ethiopia, Somalia)	Food insecurity	Economic recovery	Mixed methods	**Targeting:** Exclusion errors occurred due to lack of funding. **Empowerment:** The flexibility of cash allowed households to prioritize spending according to household needs. **Well-being:** Recipients had improved dietary diversity, but reliance on food aid has not been reduced as the food security benefits of the cash only lasted an estimated one month. Cash was also used for health-related expenses and debt repayment
Concern & Oxfam 2011 (Indonesia, Kenya, Zimbabwe)	Natural disaster	Shelter, food insecurity	Qualitative	**Targeting:** No clear definition of household or how to address polygamous households in Kenya. Assessment of shelter damage in Indonesia only focused on the main living room of the house and not other critical areas such as the kitchen. **Social dynamics:** Improved intra-household communication. Jealousy and community division resulting from lack of participation in targeting and implementation processes. Intervention processes reinforced traditional stereotyped gender roles and relations. **Empowerment:** Women were placed in community leadership roles, took part in community work, and were paid the same wage as men. Simply receiving cash was an important empowering act for many women, as they were receiving large sums of cash for the first time in their lives. **Other challenges:** Requiring an ID card hindered some beneficiaries from accessing cash in Kenya and Zimbabwe. Distance to distribution points was also a challenge in Zimbabwe.

Creti 2014 (Niger)	Conflict	Economic recovery	Qualitative	**Technological capacities:** Mobile phone delivery was more cost-efficient than the microfinance mechanisms after initial set up costs were amortized. While mobile phones can present technical challenges, these can be mitigated with detailed planning and appropriate training and targeting. **Market dynamics:** Convenience of mobile cash stimulated saving behavior.
Crisp 2010 (Sri Lanka)	Conflict	Shelter	Qualitative	**Market dynamics:** The programme helped increase local economic activity. **Empowerment:** Females had an increased role in decision-making in helping to decide how the grant would be spent. **Well-being:** Post-return IDPs were afforded a degree of autonomy in meeting immediate, basic needs and were sometimes able to invest small amounts in other livelihood needs. **Protection:** Although the majority of beneficiaries did not use the cash grants for shelter-related purchases, some did use the cash to build temporary shelter or buy tools with which to repair their home, helping to facilitate return for those who were displaced by the disaster. The grants did not protect women from gender and sexual violence. **Other challenges:** Government interference with assistance packages delayed their distribution.
CRS 2010 (Indonesia)	Natural disaster	Shelter	Mixed methods	**Security:** Utilizing the post office to disperse the cash in communities not only improved the security of staff during distributions but increased the efficiency of the overall program. **Empowerment:** The programme was noted to empower the community, including vulnerable households, to be in charge of their own recovery. Women were included in every phase of the program, and were often the decision-makers in terms of design and construction of their shelters. **Protection:** Beneficiaries were able to build strong, more earthquake-resistance houses, increasing the sense of safety and security in everyday living. Further, beneficiaries were able to focus on economic and livelihood recovery as their shelter needs had been addressed. **Other challenges:** While the grant was meant to be used for shelter-related purposes, beneficiaries instead prioritized their most immediate needs. Beneficiary verification was difficult for the field office, which lacked the needed resources.
Davies 2007 (Malawi)	Food insecurity	Economic recovery	Mixed methods	**Market dynamics:** Cash transfers allowed workers to remain on their own small farms rather than find work on larger farms, which affected the productivity of the large farms and overall output for the region. Beneficiaries in rural areas who had previously been receiving remittances from family members no longer received them, even if cash transfers were not sufficient to support them. Cash aid helped businesses increase sales.

				Well-being: Schoolchildren were able to contribute more towards school fees, and two schools partially attributed an increase in children's concentration to being better fed due to the cash transfer program.
Devereaux 2006 (Malawi)	Food insecurity	Food security	Mixed methods	**Security:** "Low-key" approach to security mechanism in order to decrease programme visibility and insecurity. **Market dynamics:** The programme freed up employment on nearby farms and estates, and allowed parents to have more time to care for their children. **Empowerment:** The flexibility afforded by the cash allowed beneficiaries to invest in a diverse number of resources, including basic needs, investments, education, and debt repayment. **Well-being:** Cash was used for basic needs and investment/asset-building. Meals per day were lower in both beneficiary and non-beneficiary female-headed households than male-headed households. **Resilience:** Programme beneficiaries were less likely than their non-beneficiary counterparts to use negative coping strategies in response to food insecurity, such as selling assets and taking out high-interest loans to purchase food. **Protection:** Cash transfers allowed beneficiaries to avoid incurring substantial debt, thus helping to protect households' assets. The programme also increased security for women, who were no longer forced to travel far distances from home. However the potential for increased domestic violence was noted when cash is given to women. **Other challenges:** The limited timeline yielded unspecific beneficiary packages, employees were over-worked, the large distance to distribution points was a concern for the elderly and disabled. There were further issues with low prioritization of loan repayment by recipients.
Devereaux 2007 (Malawi)	Food insecurity	Food security	Mixed methods	**Targeting:** In some communities, targeting was dominated by local elites, or incorrect targeting criteria were applied resulting in inclusion errors. Exclusion errors also resulted in under-coverage. **Well-being:** The programme had positive impacts on the well-being of beneficiaries across a range of indicators, including increased food consumption and increased dietary in beneficiary households. The cash also allowed beneficiaries to invest in livelihood activities and accumulate assets. Anecdotal evidence suggests attendance at school was improved because children were better fed. Female-headed beneficiary households, who previously were worse off than most other households, had higher dietary diversity during the programme than male-headed non-beneficiary households.

				Resilience: The programme allowed for the accumulation of assets by beneficiaries. Negative coping strategies were also decreased due to the program. Food consumption and dietary diversity increased in beneficiary households. **Protection:** Programme beneficiaries noted that the protection in food consumption saved households from "serious hardship" and sometimes "certain death." Further, receiving transfers meant recipients were able to spend time working on their farms, rather than spending time on job-seeking. **Other challenges:** The programme implementation was needlessly time-consuming and labour-intensive (e.g. instead of having recipients line up to receive the cash, each was hand-delivered an envelope). The distance to distribution points was a concern for the elderly, disabled, and ill. Tensions arose between recipient and non-recipient households.
Devereaux 2008 (Swaziland)	Natural disaster	Economic recovery, food security	Mixed methods	**Targeting:** Some agency staff were members of the community in which they were implementing targeting and faced social pressure to include as many people as possible. **Empowerment:** Women targeted by the programme had increased purchasing power and flexibility with the cash. This allowed them to prioritize household and children needs in spending. **Protection:** Cash recipients were able to prevent asset depletion.
DiPetroro 2011 (Chile)	Natural disaster	Shelter	Mixed methods	**Scale-up and exit:** Personnel and logistical resources need to be scaled-up accordingly; after scale-up, additional resources would have allowed a quicker distribution of resources to the community. **Social dynamics**: The programme assisted psychosocial recovery of the community, contributing to a more rapid overall recovery. Participants felt that the process of choosing beneficiaries was unfair which led to jealousy and resentment. **Empowerment:** Focus groups noted that the process of choosing and purchasing shelter materials was a collaborative process among family members based on collective needs. **Other challenges:** Beneficiaries requested technical assistance to optimize the use of their card.
DRC 2014 (Lebanon)	Conflict	Economic recovery	Mixed methods	**Scale-up and exit:** Previous cash projects had much smaller caseloads, allowing for closer follow up, so management needs, risks and reporting needs for large-scale implementation were not anticipated. **Other challenges:** Staff, equipment, distribution sites and databases were not adequately prepared for shift from in-kind to e-transfer system. Some bank branches were slow in adapting to the increased demand for cash, resulting in "empty ATMs" in some locations.

				Organizations running parallel and combined in-kind and cash distributions caused confusion for beneficiaries and may have negated positive benefits of cash.
Duncalf 2013 (Multi-country)	Natural disaster, food insecurity	Economic recovery, food security	Qualitative	**Targeting:** Targeting mechanisms diluted by traditional mutual support practices of community. **Scale-up and exit:** The programme found difficulty in scaling up from an emergency response to development programmes. **Social dynamics:** The programme improved social cohesion and decreased migration of able-bodied men in search of employment. **Well-being:** The programme succeeded in meeting short-term needs, as well aiding beneficiaries in meeting more long-term needs such as health and education. **Resilience:** Income generated by the cash for work programme decreased the number of men migrating away from the community to find work. **Other challenges:** Challenges included a lack of experienced staff and human resources, the time needed to finalize the recipient list, and the training required for new staff.
Dunn 2007 (Zambia)	Natural disaster	Food security, nutrition	Qualitative	**Targeting:** Some committee members reportedly favored friends and relatives. **Security:** The number of distribution points was reduced as security precaution during the programme implementation phase. **Empowerment:** The program's community sensitization aspect provided education on intra-household decision-making and sexual/reproductive health, helping to improve gender awareness. As a result, women were noted to have increased input in household decision-making. **Well-being:** The cash grant helped improve dietary diversity and decrease malnutrition while preventing the use of negative coping strategies. **Resilience:** The use of negative coping strategies decreased throughout the implementation of this program. **Other challenges:** Flooding issues and access to project area made targeting and general programme implementation challenging; the team had to use boats, canoes, and "a fair amount of wading." The newness of cash programmes meant certain apprehensiveness from the community about receiving the transfers, and the staff lacked the experience to properly sensitize recipients before the programme began.
Gayfer 2012 (Uganda)	Food insecurity	Food security	Qualitative	**Technological capacities:** Recipients feel vulnerable to being cheated because they are not familiar with the MTN system. This was only furthered by delays and errors in payments, which continued to occur throughout the program: some people received double payment while some received none, constant network problems, dealers ran out of money, etc. **Scale-up and exit strategies:** The increase in consumption caused by the programme is unreliable, and will be easily undermined by any sort of future economic shock. Further,

				clarification of the strategic objectives of the programme is needed before scale-up. **Social dynamics:** Delays in delivering food and cash negatively affected the relationships with local government and businesses. There were reports of intra-household conflict with introduction of cash into beneficiary households. Delays and errors in payments led to beneficiaries' concern that they were being cheated and resulting in high levels of frustration. **Well-being:** The projects completed by the cash for work programme had a number of secondary effects in the community, including increased access to and from communities (for food distribution, ambulance access, etc.). **Other challenges:** A disconnect was noted between human resources available and the programme needs, leading to a lack of focus on maintaining a strategic view for the program. The transferred funds did not take into account actual household size and were insufficient for actual recipient needs.
Gelan 2006 (Ethiopia)	Food insecurity	Food security	Quantitative	**Market dynamics:** Unless the project is tied to an infrastructural development project that is guaranteed to enhance the productive capacity of agriculture, it has the potential to create labour disincentive effects in the agricultural industry, increasing unemployment and decreasing food security.
Gordon 2011 (South Sudan)	Food insecurity	Food security, nutrition	Qualitative	**Targeting:** Community-driven targeting promoted project ownership, fairness and reduced intra-community tensions. **Security:** Close coordination with local authorities and strict internal security procedures prevented disputes, graft and theft. Collecting money away from villages was important to beneficiaries because it reduced risk of others knowing they had received cash.
Gourlay 2012 (Zimbabwe)	Food insecurity	Economic recovery, food security	Qualitative	**Scale-up and exit:** The unconditional cash transfer programme lacked a defined exit strategy and funds were insufficient to enable beneficiaries to plan ahead. **Social dynamics**: The vast majority of beneficiaries reported that relationships within households and communities had improved and many reported increased acceptance of IDPs/returnees in the community.
Grasset 2012 (Niger)	Food insecurity	Food security	Mixed methods	**Empowerment:** Increased social autonomy for disabled group; the grant allowed this group to stop begging and promoted dignity. **Resilience:** The cash allowed beneficiaries to avoid negative coping strategies; beneficiaries reported being able to avoid selling animals and land or going into debt in order to buy seeds for next year. The cash transfer did allow beneficiaries to save or invest a portion of the money in income-generating activities. **Other challenges:** Beneficiaries found the 20km average distance between villages and resource distribution points to be more difficult than was estimated in the preparation phase of the project.

Harvey 2010 (Multi-country)	Conflict	Food security	Mixed methods	**Other challenges:** After hurricane Katrina, flood victims were unable to provide documentation required by regulation for registering for prepaid card, as a result the programme was stopped after three days.
Harvey 2011 (Multi-country)	Not specified	Not specified	Qualitative	**Empowerment:** When specifically targeted at women, cash has the potential to give them greater a "greater voice" within the household. **Other challenges:** Assumptions of misuse of cash in assistance programming undermined relationships between beneficiaries and staff.
HelpAge 2008 (Indonesia)	Not specified	Not specified	Mixed methods	**Security:** Security issues forced the programme to shift multiple distribution centres into one centralized location. **Corruption:** Security features including watermarks, ultraviolet holograms, and unique serial numbers helped mitigation corruption opportunities. **Empowerment:** Targeting females led to positive reports of family unity. **Resilience:** The cash grant provided a "stepping stone" towards more a more general social and economic recovery. **Protection:** While the shelter grant was generally spent on non-shelter items, it did provide all beneficiaries with a bank account. Bank accounts increase social status, help promote dignity, and help recipients with obtaining future loans, credit, and savings. **Other Challenges:** The large area of return made monitoring by the programme implementer difficult. Staffing shortages presented a strain to the staff that was present.
Henderson 2008 (Kenya)	Natural disaster	Economic recovery	Mixed methods	**Security**: Banks were utilized so direct distribution by the agency could be avoided due to security reasons. **Empowerment:** The programme led to capacity building, increased social dignity, and led to general community-wide strengthening. The opening of bank accounts was particularly empowering for beneficiaries, as the ability to save money in accounts and withdraw at any time increased hope for long-term recovery. **Well-being:** The cash allowed both the reactivation of old bank accounts and the creation of new bank accounts, helping to provide dignity and promote hope for future stability for beneficiaries. **Resilience:** Cash can only be used for savings and investments if all immediate needs are accounted for. A number of beneficiaries in this programme were able to open either private or business bank accounts, with which they are able to invest in future outcomes. **Other challenges:** Some recipients were over or undercharged by banks for transmission fees, despite them pre-negotiated.
Herald 2012 (Somalia)	Conflict	Economic recovery	Mixed methods	**Empowerment:** Programme involvement improved financial literacy of beneficiaries. **Well-being:** Beneficiaries used cash to buy food, repay loans, and begin small businesses. **Resilience:** The project allowed beneficiaries to pay off previous debt. **Other Challenges:** The food provided was inadequate for the number of family members in the household.

Huyen 2011 (Vietnam)	Conflict	Nutrition	Mixed Methods	**Well-being:** The majority of beneficiaries spent the received cash on food, with the rest using it for livelihood recovery (livestock and fertilizer), health care, and shopping for the Lunar New Year. **Other Challenges:** Priority recipients (pregnant and lactating women, disabled, elders, sick) had difficulty in traveling to collect the money, and proxies were not allowed.
The IDL Group 2008 (Indonesia)	Natural disaster	Economic recovery	Mixed Methods	**Other Challenges:** A lack of clear policy made it difficult for staff to resolve internal debates over programme implementation.
Jones 2012 (Occupied Palestinian Territories)	Natural disaster	Economic recovery	Qualitative	**Empowerment:** Female empowerment was achieved by an increased financial ability to take out loans and invest. Women also reported the programme bettered intra-household relations, including a reduction in tension and violence and greater female empowerment due to increased control of resources. **Other challenges:** Insufficient staffing for effective implementation.
Kardan 2010 (Zimbabwe)	Conflict	Economic recovery	Mixed Methods	**Social dynamics**: Rising of already high social tensions that were sparked during targeting process was a consequence to both recipients and non-recipients since it affected overall community relations. People feared that cash would increase husbands' risk of buying alcohol and exacerbated tension at the community level due to targeting and by scarce resources. **Empowerment:** Females reported an increased standing within the family and community as a result of the cash transfers, as it allowed them to meet their households' food needs (a determinant of social standing). Cash also led to greater cooperation between men and women, as it required a discussion about how it was to be spent. **Well-being:** Increasing food security had a small secondary impact of encouraging school attendance, as children were no longer too hungry to attend. More generalized positive impacts on education and health care were also realized. **Other challenges:** Community members did not feel safe issuing complaints as the monitoring system included village leadership, who were often the subject of the complaint.
KRCS 2011 (Kenya)	Food insecurity	Food security	Qualitative	**Empowerment:** Most families reported spending cash on education costs for children. **Resilience:** Cash was used for long-term future investments to manage future risks, particularly pay for education so that children could eventually get jobs in town. **Resilience:** Interviewees saw the intervention as important because of long-term risk management, dignity, and the value of the community asset rehabilitated.

				Other challenges: Challenge with government's reluctant approach to refugees living outside of the camp.
Kruse 2009 (Uganda)	Natural disaster	Economic recovery	Qualitative	**Scale-up and exit strategies:** An extended project timeline would allow for long-term project activity, including maintaining schools, working in hospitals, or painting walls. **Other challenges:** Due to the haste of designing a programme during wartime, there were poor performance indicators put in place.
Lehmann 2014 (Lebanon)	Conflict	Economic recovery	Mixed Methods	**Market dynamics:** The programme increased access to school and reduced child labour in the community. **Social dynamics:** There was a further increased mutual support between beneficiaries, with decreased tensions seen between beneficiary households. **Well-being:** The treatment group did not report better psychological well-being, but were likely to have fewer disputes than the non-treatment group. **Protection:** While the cash assistance was intended to help keep beneficiaries warm in the winter, they often used the income to buy other basic needs such as food.
MacAuslan 2010 (Kenya)	Conflict	Shelter	Quantitative	**Targeting:** Community participation in targeting was key to programme success. **Empowerment:** Recipients reported feeling dignified and empowered due to the flexibility afforded by cash. **Well-being:** Beneficiaries reported increased general happiness and positive changes in relationships; for example children were happier because they were consistently fed and clothed and able to attend school. **Resilience:** The cash allowed beneficiaries to pay school fees, buy school supplies, and pay off debt incurred before the programme implementation. **Protection:** A number of recipients used the cash to pay for health care (medicines, appointments), improving the general health of beneficiaries and allowing them to be productive members of the workforce. The grant also allowed individuals who had been displaced by post-election violence to return. **Other challenges:** A lack of transparency and community involvement decreased recipient's confidence in the program. Communication was a problem in all levels of the program, leading to frustration and confusion between agencies and recipients.
Majid 2007 (Somalia)	Conflict	Economic recovery	Mixed Methods	**Targeting:** The initial beneficiary list provided by the government was inaccurate, so the programme implementer was forced to move to individual assessment.
Mountfield 2012	Natural disaster	Economic recovery	Mixed Methods	**Market dynamics**: The trickledown effect of providing additional inputs to a household allows onward flow of resources to lower family networks. **Empowerment:** The cash

(Occupied Palestinian Territory)				transfer decreased domestic violence and provided dignity as a result of the ability to prioritize individual needs in spending. **Well-being:** Beneficiaries cited the health expenditures they were able to afford as being particularly important; sickness in the family is not only psychologically draining but also impacts the general ability of households to meet other basic needs.
Narayan 2009 (Indonesia, Vietnam)	Natural disaster	Economic recovery	Mixed Methods	**Social dynamics:** Anti-social use was reported. Programme helped remove feelings of isolation among older people. Beneficiaries noted social jealousy arising from the program. **Empowerment:** Cash both increases purchasing power and provides beneficiaries with a choice on how to spend their money. **Other challenges:** There were delays in receiving payments, a lack of sustainability of design in a too-short time frame, and most beneficiaries fulfilled more immediate and did not have enough cash to buy seeds.
Nicholson 2009 (Kenya)	Conflict	Economic recovery	Mixed Methods	**Scale-up and exit strategies:** In scaling up, implementing partners need to clarify their methodologies for developing baselines and performing assessment to avoid duplication**.** **Market dynamics**: The programme suffered due to a limited market choice for where beneficiaries could use vouchers. **Empowerment:** Families were able to increase their investments in agricultural inputs and labour capacity, becoming more self-reliant. Beneficiaries reported feeling empowered to spend the resources in the way most appropriate for their situation. Urban beneficiaries formed supportive groups that encouraged subscription to a "social fund" that supported those facing difficulties. **Other challenges:** The programme implementer found that financial institutions were inadequate to handle cash. The project was plagued with high staff turnover. The project itself was noted to have a lack of baseline data with a poor overall design.
PEFSA 2011 (Pakistan)	Natural disaster	Economic recovery, food security, shelter	Mixed Methods	**Technological capacities:** M-banking is appropriate when agencies wish to transfer cash or vouchers securely; however this can only be used with owners who are able to operate the SIM card in areas with mobile coverage with appropriate outlets to cash out. **Scale-up and exit strategies:** Hiring brand new staff when starting new operational bases instead of moving existing staff great impacted the level and speed of scaling up. **Empowerment:** Women were not only empowered when they were targeted directly, but were also involved in decision-making in spending when their husbands were targeted. Beneficiaries had an increased ability to make investments and reported regaining independence. The cash for work programme had strong secondary benefits of increased feelings of self-worth and self-reliance, decreased disease risk due to environmental clean-up, and general economic

				benefits due to infrastructure restoration. **Well-being:** The programme increased food security and dietary diversity, while also helping to strengthen local markets. **Resilience:** While conditionality decreased the efficiency of the transfers, it allowed the programme to target particular areas such as infrastructure or women's empowerment. **Other challenges:** Inconsistencies in measuring improvements made finding results of programme difficult. Exclusion of certain groups from economic activity or ownership can make equitable cash distribution difficult.
Peppiatt 2001 (Bangladesh, Ethiopia, Sudan)	Natural disaster, food insecurity	Food security	Mixed Methods	**Scale-up and exit strategies:** Need to make greater use of existing gender expertise to better analyse gender impacts from the program. Better project management and coordination across agencies needed. Better awareness activities needed; a programme website would help strengthen coordination and promote understanding of the project. **Empowerment:** Beneficiaries were empowered by the flexibility afforded by cash, allowing them autonomy in spending and greater purchasing power leading to greater participating in community life (e.g. as buyers at markets).**Well-being:** The programme improved food security of vulnerable groups.
Poisson 2011 (Philippines)	Natural disaster	Not specified	Mixed Methods	**Corruption**: Banks are reliable anti-corruption tools due to their accountability to central banks and anti-laundering regulations. **Other challenges:** The far distance to the distribution centre was noted as an issue.
Poulsen 2011(Niger)	Natural disaster	Not specified	Mixed Methods	**Targeting:** Due to "rudimentary" public records in Niger, targeting was challenging and a number of inclusion and exclusion errors were observed. **Empowerment:** Female empowerment resulted from a diversification of female roles within the community. **Well-being:** Focus group discussions with beneficiaries noted the following changes resulting from the program: increased access to food, improved health and hygiene, greater use of health care and generally improved health, and repayment of debt. **Protection:** The programme increased food security for the most vulnerable. **Other challenges:** Beneficiaries noted lengthy wait times at distribution sites.
Rastall 2010 (Vietnam)	Food insecurity	Nutrition	Mixed Methods	**Security:** Regional insecurity issues restricted movement of goods. **Other challenges:** Elderly and sick recipients had difficulty getting to distribution centres, but rules against proxies prevented them from getting their cash with the help of family or friends. **Empowerment:** Beneficiaries reported feeling empowered by the ability to making spending decisions according to their individual needs. **Well-being:** While the majority of the cash went towards purchasing food, expenditures on such items as house repairs and medicine

				were also reported. **Resilience:** Almost a third of the households were able to use the cash transfer to purchase productive assets including agricultural tools, seeds, and fertilizers.
Samuel Hall 2014a (Afghanistan)	Natural disaster	Economic recovery	Mixed Methods	**Technological capacities:** The mobile transfer has a number of barriers towards adoption, including travel cost, poor understanding of the system, and illiteracy. **Security:** The worsening security level in the region weakened local trade and isolated markets, providing challenges to the program. **Empowerment:** Many beneficiaries spent the cash on non-essential items, which likely indicated an increased ability to plan for the long-term. **Protection:** The programme prevented beneficiaries from resorting to negative coping strategies, and helped prevent food depletion. **Other challenges:** Anti-social uses due to lack of timely implementation failure to address underlying problems
Samuel Hall 2014b (Afghanistan)	Food insecurity	Food security	Mixed methods	**Technological capacities:** A lack of education and appropriate training by the programme about the mobile technology meant the likelihood of beneficiaries of withdrawing cash was reduced. However, the possibility of fund mismanagement was mitigated by phone usage**.** **Empowerment:** The programme increased the ability of women to engage with mobile communication tools. **Protection:** The M-paisa transfer system increased security and transparency in the program. The more vulnerable (poor and women) did not benefit from the mobile cash methods, as they may have in fact increased rates of exploitation. Literate men with more money to begin with may have benefitted the most from the mobile transfer system. **Other challenges:** Beneficiaries felt obliged to open new line of credit with shopkeepers so debt continued. There was a preference for a more "traditional" type of aid than mobile phone cash transfers, which were seen as more complex. A lack of attendance at training sessions decreased the utilization of the mobile phones.
Sandstrom 2010 (Sri Lanka)	Food insecurity	Food security	Mixed methods	**Targeting:** While criteria was understood by the community, it was nonetheless “difficult to accept” due to number of people affected by food insecurity that were not targeted. **Scale-up and exit strategies:** In this setting, cash transfers should be complemented by interventions such as disease prevention and micronutrient supplements. **Empowerment:** Decisions on how to spend cash were shared jointly between men and women in the majority of households.
Sardan 2014 (Niger)	Natural disaster	Food insecurity	Quantitative	**Other challenges:** Both beneficiaries and non -beneficiaries were reluctant to complain or ask for clarifications on some issues they were sceptical about (e.g., targeting methods) as they were afraid their village may be excluded from future participation. Both the

				beneficiaries and the non-beneficiaries believed that targeting decisions relied on the pity, benevolence, family solidarity or nepotism of NGO staff.
Save the Children 2009 (Niger)	Food insecurity	Food insecurity	Qualitative	**Market dynamics:** Poorer households had more money to invest their labour in their own crops and fields; this reduction of labour force drove up wage rates. The programme prevented beneficiary households from engaging in future livelihood activities and created some dependency. **Empowerment:** Beneficiaries were able to spend time on activities that went beyond those required for immediate survival, including childcare, working in household fields, or beginning income-generating activity. **Well-being:** The programme increased food security and dietary diversity for beneficiaries. **Resilience:** Beneficiaries were able to decrease negative coping mechanisms, including debt, migration, or selling land and livestock. 21 per cent were able to restart previous income-generating activities that had been halted due to a lack of capital. **Protection:** Because of the program, beneficiaries were able to spend more time in their fields, increasing their own agricultural production. Food security and dietary diversity increased
Slater 2008 (Lesotho)	Food insecurity	Economic recovery, food security	Mixed Methods	**Empowerment:** Cash transfers reduced gender conflicts within beneficiary households. **Resilience**: Projects resulted in cleanliness of the town, better road clearing, water quality improvement; cash availability translated into food security for the most vulnerable.
Sloan 2010 (South Sudan)	Conflict	Food security	Quantitative	**Social dynamics**: Tension among groups with respect to spending
Sloan 2011 (Uganda)	Food insecurity	Protection	Qualitative	**Scale-up and exit strategies:** Establishing common terms of repayment in project locations will aid in smooth programme implementation. **Market dynamics:** Agricultural productivity increased by buying more livestock; improved ability to be self-reliant; ability to launch small businesses. **Well-being:** The programme increased dietary diversity, the average number of meals eaten per day, and improved health of beneficiary
Sloane 201 (Jordan)	Conflict	Not specified	Mixed Methods	**Targeting:** A lack of inclusion and exclusion error in targeting was noted. **Technological capacities:** Difficulty targeting beneficiaries due to differences in phone ownership between men and women, women were more difficult to reach over the phone **Other challenges:** A lack of inclusion and exclusion error in targeting was noted, as well as a lack of female beneficiary involvement.

Somalia Cash Consortium 2013 (Somalia)	Conflict	Economic recovery	Mixed Methods	**Market dynamics:** There was an improved ability to pay debts and gain further access to credit. Beneficiaries in urban areas were able to begin small-scale income generating activities Recipients stopped searching for work since they now had stable income. **Resilience:** The cash promoted long-term economic resilience, as it "cushioned" beneficiaries during the difficult periods of insecurity. Some beneficiaries were able to making long-term investments in businesses. Additionally, the cash increased beneficiaries' ability to access credit, leading to more economic stability.
Versluis 2014 (Haiti)	Conflict	Economic recovery	Mixed Methods	**Empowerment:** Cash was well-received and allowed beneficiaries to make their own choices. **Other challenges:** Beneficiaries were not satisfied with material aid.
Wasilowska 2012 (Somalia)	Conflict	Economic recovery, food security, protection	Mixed Methods	**Market dynamics:** Although the objective of the project was to save lives and sustain the most vulnerable, some beneficiaries were able to use cash to invest in long-term productive assets or starting small businesses. Use of cash to reduce debts and increase access to credit could also increase women's bargaining power, decreasing the need for men to migrate for work and increasing time fathers spend with children. **Social dynamics:** Cash created peace and harmony within the household and wider community, as hunger and malnutrition and the pressures of life were lessoned. A significant factor in maintaining peace was the involvement of Voluntary Relief Committees and community members. **Other challenges:** A small percentage of beneficiaries felt that cash increased the risk of theft and risk of taxation.
Zaidi 2010 (Pakistan)	Natural disaster	Economic recovery	Quantitative	**Targeting:** Female-headed households that met eligibility criteria were more likely to be excluded than male-headed households. Larger families were more likely to be excluded. Leakage (inclusion of households that need not meet inclusion criteria) was most common among males between 20-29 years of age, households with more males and families residing in certain provinces. **Well-being:** The programme decreased food insecurity and increased dietary diversity. **Resilience:** The use of negative coping mechanisms was decreased, including reducing portion size, buying essential items on credit, and purchasing less preferred items

Conditional cash transfers

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Key Findings
Aysan, 2008 (Sri Lanka)	Natural disaster	Shelter	Mixed Methods	**Security:** Conditional cash transfers were better than NGO-built shelters, as NGOs were more reluctant to continue work during insecure environments than the local community. Despite security situations that interrupted the programme in two districts, the programme was completed. **Other Challenges:** Coordination issues due to the proliferation of aid agencies involved in the response.
Doocy, 2005 & 2006 (Indonesia)	Natural disaster	Economic recovery	Mixed Methods	**Scale-up and exit strategies:** The programme was designed to be temporary and scaled back even though demand remained strong, beneficiaries expressed dissatisfaction with curtailment and government pressured NGO to continue activities. **Corruption:** The agency conducted regular checks in order to monitor for "ghost workers," or names on the payroll receiving cash but not working. Communities were given warnings, then "corrective action" was taken, and in one instance, the agency stopped working with a community when ghost workers continued. **Market dynamics**: Implementation of cash for work increased day labour rates in some areas. **Social dynamics:** The programme facilitated beneficiaries in returning to their original communities of residence. The programme had psychosocial benefits, in that it allowed beneficiaries to remain active, spend time with community members, and gave the community a sense of unity. **Other challenges:** A lack of technical expertise and equipment limited the program's reach. There were also issues with oversight and supervision in the program, including the timely delivery of wages to employees.
Doocy, 2008 (Indonesia)	Natural disaster	Economic recovery	Quantitative	**Security:** The use of local banks when possible is effective in mitigating securityrisks. **Corruption**: If beneficiary participation and transparency in decision-making are promoted in the program, corruption risks are minimized. This includes public meeting, multiple signatories, and transparency boards in public locations providing grant information. Use of banks further helps mitigate corruption risks. **Other Challenges:** The programme experienced limitations due to lacking infrastructure and restricted resources, including a lack of staff and vehicles.

Haver, 2009 (Burundi)	Conflict	Economic recovery	Mixed Methods	**Technological capacities:** Due to difficulties with the mobile technology (funds bound back, phone numbers were reallocated due to infrequent use, etc.), some recipients did not receive all of their transfers. **Security**: 20-80 distribution method was implemented to avoid security issues for recipients. **Other challenges:** The programme leaflet was misprinted, leading to misinformation about the program. Some cash beneficiaries were overcompensated with supplemental food package as well.
Grootenhuis, 2011 (Afghanistan)	Conflict	Economic recovery	Mixed Methods	**Security:** Only men participated in cash for work programmes due to security risk in having women participate, as this was noted to increase targeting of the project by the Taliban.
Jones, 2004 (Afghanistan)	Natural disaster	Economic recovery	Mixed Methods	**Targeting:** The targeting process generated community tension, which was particularly exacerbated by cash distributions, as it cannot be as easily shared among community members as in-kind distributions. Community-based targeting was vulnerable to manipulation and capture by elite (e.g. village leaders were on some beneficiary lists). **Resilience:** Vulnerable groups were able to avoid migrating, did not have to sell household assets, and benefitted from the overall creation of community assets.
Kevilhan, 2010 (Haiti)	Conflict	Economic recovery	Mixed Methods	**Targeting**: There were exclusion errors in targeting, particularly of the less physically able and women.
Latif, 2009 (Occupied Palestinian Territories)	Conflict, food insecurity	Economic recovery	Mixed Methods	**Technological capacities:** M-tech technology had challenges, including funds bouncing back and phone numbers being reassigned to non-recipients. **Market dynamics:** Assets acquired by beneficiary households benefitted the target community as a whole through cash injection and increased employment. **Other challenges:** Beneficiaries' confusion about varying cash amounts made them unconfident in challenging staff to ensure the correct amount was being distributed. Beneficiaries also changed their number or become unreachable, making it difficult to connect with them after the transfers commenced.
Mattinen, 2006 (Somalia)	Natural disaster	Economic recovery	Quantitative	**Security:** Due to un-named security concerns, distribution was changed in the second phase of implementation to a voucher system, and cash was subcontracted out to local business leaders. **Other challenges:** It was difficult to capture the entirety of household expenditures and determine general household income.
Nagamatsu, 2014 (Japan)	Food insecurity	Food security	Qualitative	**Scale-up and exit strategies:** There was a need for skilled staff and implementing partners. **Social dynamics:** Didn't work well in building ties and trust among evacuees and local residents.

				Other challenges: Inclement weather reduced the responsiveness of projects to food needs.
Ntata, 2010 (Malawi)	Natural disaster, food insecurity	Economic recovery	Mixed Methods	**Protection:** Delays in payment could result in conflict between debtors and creditors; in some cases violence. **Other Challenges:** Recipients noted the major problems were: 1. delays in receiving payment after they had completed their work and 2. not being provided with the necessary tools to perform their jobs.
Tessitore, 2013 (Somalia)				**Social dynamics**: Cash for work also created greater social harmony and defused conflicts and tensions over control of resources. **Well-being:** The programme caused unsustainable food consumption patterns that led to household debt, resentment and inequality. Non-beneficiaries could not access credit while the programme was being implemented, and were forced to go to other communities to do so. **Other Challenges:** Resentment and jealousy developed between recipients and non-recipients

Vouchers

Short Title (Country)	Emergency Type	Primary Programme Sector of Focus	Study Design	Key Findings
Bauer 2014 (Lebanon)	Conflict	Food security	Mixed Methods	**Targeting:** Inclusion error may explain why some resell e-card balances but vulnerability assessments for targeting are costly, and if cost of more precise targeting exceeds the ration value it may be an inefficient use of funds. **Technological capacities:** E-card provided a quick and efficient mechanism to deliver food assistance. **Market dynamics:** E-voucher market is highly concentrated in large stores. Beneficiaries with poor or borderline food consumption tend to sell vouchers to pay for more urgent needs (e.g. rent) more frequently than those with acceptable food consumption.
Brady 2011 (Haiti)	Natural disaster	Health	Mixed Methods	**Scale-up and exit strategies:** Programmes can be difficult to implement in emergencies unless staff has already been trained with the required skills and necessary systems and relationships are in place before the emergency, thus it is important to build these up before emergencies strike. **Market dynamics**: The voucher programme did not undermine shops' ability to attend to usual customers but instead helped shops to increase stocks, display and sell additional products, and to increase the number of clients. However shops' usual shop customers complained about not having been included as beneficiaries. **Other Challenges**: Vouchers are administratively burdensome due to the planning, monitoring, and other preparation required. This is particularly difficult as a first-phase response, as it takes time to negotiate with local shops to ensure vouchers are understood and accepted.
Brady 2012 (Haiti)	Conflict	Economic recovery	Mixed Methods	**Scale-up and exit strategies:** Cash vouchers require extensive staff for programme and financial logistics, particularly in environments unfamiliar with cash programmes. They are thus difficult to implement as a first emergency response unless the appropriate skills and systems are already in place, underlining the importance in investing in these programmes in areas that are disaster prone. **Social dynamics**: Vouchers aided community reconciliation by bringing members of different communities together to the local voucher fair. **Other Challenges:** Partners reported vendors took advantage of voucher recipients by providing less goods than a voucher was worth. The vouchers were only available at one fair, leading to a decreased variety in goods for voucher recipients.

Creti 2011 (Occupied Palestinian Territories)	Conflict	Food security, education	Mixed Methods	**Security:** As microfinance institutions were used to distribute the cash, security risks from transferred from the implementing organization to the local agencies. **Other challenges:** Markets refused bank notes because the physical quality of the bills was poor.
DiPetroro 2011 (Belize)	Natural disaster	Shelter	Mixed Methods	**Targeting:** Community-based beneficiary selection mitigated risk of exclusion and related complaints. **Other challenges:** Some beneficiaries needed more information/assistance to choose correct materials to rebuild their home.
Dunn 2011 (Kenya)	Conflict, food insecurity	Food security	Mixed Methods	**Targeting:** The greater the need for resources to be rolled out quickly, the less time is available for complex targeting systems; in this particular context blanketing may have been a better approach. **Scale-up and exit strategies:** It is essential to coordinate with other NGOs before and during programme implementation. Capacity building can be an effective supporting tool to grants, it was not avoidable to mix grant mechanisms.
Husain 2014 (Jordan)	Conflict	Food security	Mixed Methods	**Well-being**: Beneficiaries noted the programme helped to maintain the dignity of the beneficiaries and was therefore more preferred than ongoing in-kind assistance. **Other challenges:** There were inadequate staff members for the programme with increasing beneficiary numbers, as well as a lack of needed technical support, leading to continual modifications throughout the programme to cope with the lacking capacity.
Kugu 2013 (Turkey)	Conflict	Economic recovery	Mixed Methods	**Market dynamics:** The largest benefit was to agricultural-based local businesses who were able to take advantage of the cheap labor, and landlords who could rent land. Therefore, poorest members of host communities had to bear the burden. **Empowerment:** Beneficiaries felt empowered by cash-based assistance: they were able to choose their items, and felt this was a dignified way of receiving support

Multiple approaches

Short Title (Country)	Key Findings
Unconditional cash transfers and couvhers	
Aker 2013 (Democratic Republic of Congo)	**Security:** Programme recipients reported feeling more secure with cash transfers than with vouchers, as they were less easy to identify on market day and able to spend their cash in multiple smaller purchases. **Market dynamics**: When vouchers were not enough to cover basic needs like school fees and land, beneficiaries purchased more rice, seeds, cassava to sell in order to generate enough income to purchase preferred items on other markets. Voucher recipients were not able to negotiate at the markets as usual, and were often given maximum price. Voucher recipients would exchange vouchers for significantly less cash (55-70% of face value), thus decreasing their purchasing power in relation to cash recipients. Although the selling of vouchers was prohibited, some programme recipients reported selling their vouchers for cash, often resulting in a lower income transfer to the household than was intended by the program. Programme recipients preferred cash transfers compared to vouchers because of cost-effectiveness, efficiency, welfare, and security. They preferred cash so much more than vouchers that they were willing to forego up to half of the value of the voucher in order to receive cash**. Other challenges:** Some items were not available at the voucher fair, or were available in only limited quantities. For voucher recipients, some items were not available at the markets at which they were required to use their voucher, meaning they would have to substitute less-desired goods. It was further difficult to assure that the voucher markets had prices that were "fair" and comparable to the non-voucher market. Voucher recipients ended up exchanging their vouchers for 55-70 per cent of their face value, changing purchasing patterns between the voucher and cash households.
Dunn 2013 (Somalia)	**Targeting:** There was a suggestion by the implementing partners that blanket targeting would have ensured that minority populations were more included and help prevent exclusion errors. **Security:** Money transfer agents with significant experience dealing with cash flow from the Somali diaspora were able to aid in secure money transfers, decreasing security risks to the program. **Corruption:** Corruption and diversion are likely when private entities in charge of many urban camps were not otherwise paid for their services. **Social dynamics:** Intra-household conflict occurred as a result of the program, especially in urban settings. Collusion between stakeholders can be difficult to monitor. **Other challenges:** Major challenges due to security and access issues, and a lack of experienced staff. Community leaders tend to be distrustful of a system that encourages people to bypass traditional community leaders to discuss issues directly with the NGO, leading to difficulties in establishing these monitoring mechanisms.
Gregg 2005 (Ethiopia)	**Market dynamics**: More funds were spent locally, stimulated the local agricultural business. **Resilience:** Farmers were able to grow their own crops; increase crop area and production with a larger variety of crops. The programme helped the development of village infrastructure and reduced migration of me. Beneficiaries learned about money management and wives were involved in financial decisions; helping to reduce aid dependency. **Other challenges:** There was insufficient funds for beneficiaries, delays in transfers, lack of sustainability of programme design and disconnect between farmer seed demand and supply.

Short Title (Country)	Key Findings
Hagens 2010 (Pakistan)	**Scale-up and exit strategies:** Timeline and a slight overstaffing afforded flexibility in programming responsibility, leading to a rapid scale-up and response. **Security:** The cash for work programme was delayed as a result of curfews and days when working was completely prohibited due to security constraints. **Other Challenges:** During a transition between office locations, staff operated without job descriptions or an organizational chart for five weeks.
Hedlund 2013 (Somalia)	**Scale-up and exit strategies:** Cash-based responses demonstrated more efficiency than in-kind programmes, and were able to scale up within one to two months. **Technological capacities:** Money transfers through local post offices were slow and not very responsive. **Corruption**: NGOs did not consider the risk of corruption with the agency, which was where the majority of the corruption occurs. This included staff creating ghost beneficiaries and complicity with local authorities taxing recipients. **Unintended consequences:** Due to the logistics of the program, there was a hidden cost of transport for cash and voucher beneficiaries **Market dynamics**: There was an increase in the number of small businesses, as well as an increase in the demand for locally produced products and imports. **Other challenges**: Collection of information was difficult due to programme implementer's attempt to keep a "low profile." Recipient feedback was difficult to obtain due to interference by more powerful actors in the aid provision process
Hidrobo 2012 (Ecuador)	**Targeting:** Village leaders provided beneficiary list, but reported having trouble determining who needed money the most as all were affected by the flood. **Social dynamics:** The programme caused a decrease in trust among individuals to carry out tasks for neighbors and an overall distrust among community **Other Challenges:** Reports of packaging problems, including tearing or leakage, food spoilage, and infestation. Recipients reported challenges in understanding the rules or uses of vouchers.
Oxfam 2011a (Pakistan)	**Other Challenges:** There were not enough financial institutions to handle the cash and high staff turnover, which overstretched the available staff. A lack of baseline data meant the impact of the project could not be assessed.
Unconditional and conditional cash transfers	
Oxfam 2011b (Sudan)	**Targeting:** While community targeting was quicker, it was more prone to manipulation by community members.
Schira 2011 (Kenya)	**Well-being**: Cash availability from the programme translated into food security for the most vulnerable
Young 2011 (Haiti)	**Targeting:** Activities were targeted/tailored differently for households of different income levels. **Other challenges:** The number of working days for cash for work beneficiaries was not sufficient for individuals to re-start enterprises
Conditional cash transfers and vouchers	
Creti 2005 (Haiti)	**Perceived benefits:** Cash helped to support commerce, allowed beneficiaries to choose how to spend their money and helped businesses to make more sales.
Harmer 2012 (Haiti)	**Social dynamics**: The vouchers provided a means for families to plan and coordinate their spending more effectively. The length of the dissemination process resulted in doubt and mistrust. **Other challenges:** Organizational capacity was lacking, as it was planned around in-kind assistance programmes not cash assistance programmes. There was additionally a lack of written agreement to divide

Short Title (Country)	Key Findings
	responsibility with funder and implementer, and the timing of implementation coincided with the Christmas period, meaning much of the cash was used on more immediate needs rather than long-term investments.
Unconditional cash transfers, conditional cash transfers, and vouchers	
Adams 2006 (Uganda)	**Other Challenges:** The programme itself was flawed in multiple ways: there was no baseline data and no transparent registration process, no formalized monitoring system, and little community education about the programme before and during implementation.
Harvey 2009 (India, Indonesia, Sri Lanka)	**Targeting**: Assets cannot be self-targeting, as this will lead to serious issues of exclusion. **Security:** Security risks for recipients can be minimized by holding distributions near the market on market days, allowing recipients to spend the money immediately.

Systematic Review

International Initiative for Impact Evaluation
London International Development Centre
36 Gordon Square
London WC1H 0PD
United Kingdom

3ieuk@3ieimpact.org
Tel: +44 207 958 8351/8350

www.3ieimpact.org