

# Cash Transfer Programmes For Reducing Poverty And Vulnerabilities: Effects On Children's Health In Sub-Saharan Africa And Latin America

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Oladayo Nathaniel Awojobi, OCID ID: <https://orcid.org/0000-0003-4985-4923>

Doctoral Researcher, Johnson Shoyama Graduate School of Public Policy, University of Regina, Canada

## Abstract

This paper summarizes the arguments and counterarguments within the scientific discussion on cash transfers and child health. The main purpose of the research is to assess the effects of cash transfers on children's health and development outcomes in sub-Saharan Africa and Latin America. Systematization of the literary sources indicates that studies have justified cash transfer as social-income support that addresses a vital social determinant of health (income) for children in low-and-middle-income countries. The methodological basis of this study is a systematic review that searched a wide range of electronic databases such as PubMed, ResearchGate and ScienceDirect. Studies included in this review included randomized controlled trials (RCTs), cluster-RCTs, quasi-experimental and mixed methods studies of cash transfer interventions in children 0-18 years. Inclusion criteria were met by eight studies, four from Africa and four from Latin America. The systematic review presents the results of data synthesis of the included studies that mainly reported the effects of cash transfer programmes on child anthropometry outcomes, cognitive development, morbidity, and healthcare utilization. The review found cash transfer programmes to improve these variables among children in households receiving cash transfers. This systematic review has added to the debate on cash transfers and children's health outcomes. In general, the systematic review indicates that cash transfer programmes intended for children are effective at improving anthropometric, health, and cognitive outcomes, as well as access to healthcare. However, there is a need for more research to clarify the multiple pathways by which cash transfers can improve children's health and nutritional outcomes. It is also necessary to clarify what factors explain the variety of effects of cash transfer programs on child health and nutritional status. Finally, cash transfer interventions are not permanent mechanisms for promoting access to healthcare. Policymakers in developing countries should borrow ideas on how to finance healthcare services for improving the socio-economic wellbeing of citizens.

**Keywords:** cash transfers, children, health, nutrition, poverty, social protection.

**JEL Classification:** I14, I31, I38.

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## Introduction

Poverty and poor health are entirely related globally (Roberts, 2018). Poverty raises the possibility of poor health (Roberts, 2018). This makes the poor people experience ill health and die younger (OECD & WHO, 2003). Poor households have higher than the average child, maternal mortality, a higher burden of illness, more

limited access to health care and social protection, and gender inequality disadvantages further the health challenges of poor women and girls (OECD & WHO, 2003).

Poverty, for young and older children, “is not simply a matter of getting by with less of the essentials of life” (Murphey & Redd, 2014, para. 2). Especially at its depths, poverty can adversely affect child health and development (Murphey & Redd, 2014). Extreme poverty affects children's health before they are born and heap up throughout their grown-up lives (Esposito, 2016). With the socio-economic, environmental, nutritional deficiency and healthcare disparities of every kind, children from poor households may never pick up regarding their health (Esposito, 2016). Also, children from low-income families are more prone to inadequate food security. They consume more food lacking sufficient essential nutrients (Murphey & Redd, 2014). This amounts to various protracted health implications, such as asthma, being higher among impoverished children (Murphey & Redd, 2014). Vulnerable children are less expected to get preventive medical and dental care (Murphey & Redd, 2014). A growing body of evidence supports the link between poverty and children's poor health outcomes, especially in developing countries (Gupta et al., 2007; Tucker, 2018).

Many developing countries and international development organizations have tried to create poverty eradication strategies to improve health outcomes for low-income families (Ekezie et al., 2017). Such social safety nets include cash transfer programmes, which started in Latin America and the Caribbean (LAC) and have since been expanded to other developing countries (Ekezie et al., 2017). For decades at individual and community levels, cash transfer programmes have been used as a form of social support across different countries in the world (Gahlaut, 2011).

Cash transfers can be conditional or unconditional (Awojobi, 2018). Conditional cash transfers (CCTs) focus on enhancing the utilization of healthcare services by carrying out regular payments to families with the condition of visiting clinics for check-up and the enrolment of children in schools (Hunter et al., 2017). On the other hand, unconditional cash transfers (UCTs) are similar to regular payments to low-income families (Hunter et al., 2017). However, there is an omission of conditions for services utilization to ease the effects of poverty on healthcare (Hunter et al., 2017).

A pool of systematic review evidence has shown that cash transfer programmes enhance children's health outcomes, especially in low- and middle-income countries. For instance, a systematic review study by Awojobi (2018) found positive effects of cash transfer programmes on child health and development. Data from seven included studies of the systematic review on cash transfer programmes revealed that the programmes decreased the possibility of chronic illnesses in children from household recipients of cash transfers in Sub-Saharan Africa (Awojobi, 2018). Another study showed that CCTs have positive effects on various child health and development outcomes, such as birth weight, illness or morbidity, and behavioral development (Fernald et al., 2012).

This systematic review analyses the impact of cash transfer programmes from Sub-Saharan Africa and Latin America on child health using different study designs. This review adds to the ongoing debate on cash transfers and health outcomes. To the best of my knowledge, this is the first systematic review on the effect of cash transfer programmes on health and development outcomes of children that uses recent data from Endline Impact Evaluation Report from Malawi and Zimbabwe.

## **Literature review**

### **Child poverty and deprivation**

Childhood is a difficult period for the human development of people (Thévenon et al., 2018). Sadly enough, many children do not get the best conducive beginning in life, as they encounter poverty in their childhood (Thévenon et al., 2018). Children living in poverty are less likely compared to children from better-off households to do well at school, enjoy perfect health, report satisfaction with their lives and understand their full capability upon reaching adult age (Baker, Kainz, & Reynolds, 2018).

Child poverty is a complicated phenomenon: It is multifaceted and extremely relational differs across regions, time, society, and changes face across child development (Roelen, 2015). The World Bank reported in 2012 that

more than 385 million children were living in extreme poverty, and children make up for half of the extremely poor in the world (World Bank, 2016). It is essential to know that child poverty is different from adult poverty; this is because poverty has various causes and effects (Perezniето et al., 2014). Poverty affects children more severely than man and women because of their age and dependency (Save the Children International and Africa Platform for Social Protection, 2017). Poverty affects children more acutely by impairing their development (Save the Children International and Africa Platform for Social Protection, 2017). Leading to lifelong cognitive and physical damage and contributing to permanent harm that bolsters the cycle of poverty across generations (Save the Children International and Africa Platform for Social Protection, 2017).

Beside income poverty, a considerable broader percentage of children suffer multidimensional poverty (Save the Children International and Africa Platform for Social Protection, 2017). That is by more than one type of deprivation connecting to social services (Save the Children International and Africa Platform for Social Protection, 2017). The 2014 Human Development Report (HDR) indicated that worldwide, at least 1.5 billion people encountered multidimensional poverty, and at least 50% of them were children (UNDP, 2014). The UN Economic and Social Council in 1998 defined poverty as the lack of choices and opportunities, an infringement of human dignity (Gordon, 2003). It is the denial of the necessary capability to engage productively in society (Gordon, 2003). It means the lack of food, not having a school or hospital to go to, not having the opportunity to grow one’s food or a means to earn income (Gordon, 2003). It means not secure, helplessness and exclusion of people, households, and communities (Gordon, 2003). It means vulnerable to violence, and it usually involves living in a fragile environment, with lack of access to clean water or sanitation (Gordon, 2003). On the other hand, deprivations “involve a lack of something generally held to be desirable - an adequate income, good health - a lack which is associated to a greater or lesser extent with some degree of suffering” (Gordon, 2003:6).

Poverty and deprivation are closely related. Still, there is a universal consensus that deprivation comprises different conditions, independent of income, encountered by people who are poor (Gordon, 2003). Poverty, on the other hand, means inadequate income and other resources which make those conditions inevitable (Gordon, 2003). To be born poor as a child is to encounter tougher likelihood of deprivations (Cohen, 1994). Some of these deprivations are highlighted in Table 1 as reported by (Batana et al., 2014; de Milliano & Plavgo, 2014; De Neubourg et al., 2012; Gordon, 2003; Save the Children International and Africa Platform for Social Protection, 2017). The analysis of childhood deprivations is discussed in the next section. However, only two main deprivations (child health and nutritional status) were discussed in detail because of their relative importance to the study’s objectives.

Table 1. The categorization of child poverty deprivations

| Category of deprivation | Ages        | Indicators                             | Deprive if  |
|-------------------------|-------------|--|---|
| Food and nutrition      | Less than 5 | Infant and young child feeding         | Children not well breastfeed and children living in household with inadequate meal regularly. |
|                         |             | Wasting                                | Children weight for height is less than minus two standard deviations.                        |
| Health                  | Less than 5 | Immunization                           | Children have not received vaccinations (DPT3).   |
|                         |             | Skilled attendance at birth            | Children born without skilled attendance at birth.  |
| Education               | 6-17        | School attendance                      | Children currently not attending school.  |
|                         |             | Primary school attainment              | Children not completing primary school.   |
| Water                   | 0-17        | Drinking water accessibility           | Unimproved source of drinking water.  |
|                         |             | Distance to available water source     | Thirty minutes or more to fetch water.  |
| Sanitation              | 0-17        | Access to standard sanitation facility | Children using poor sanitation facilities.  |
| Housing                 | 0-17        | Overcrowding                           | More than four people living and sleeping in a single room.                                   |
| Information             | 0-17        | Access to information gadgets          | No access to radio, television, mobile phone and computer.                                    |
| Protection              | 2-14        | Domestic violence                      | Children encounter any form of physical abuse by parents or guardians.                        |

Sources: Batana et al., 2014; de Milliano & Plavgo, 2014; De Neubourg et al., 2012; Gordon, 2003; Save the Children International and Africa Platform for Social Protection, 2017.

### *Poverty and child nutritional status*

Poverty used to be associated with extreme forms of malnutrition, especially in children, which were often observed in times and places of hunger and starvation (Peña & Bacallao, 2002). Poverty also affects nutrition during the entire lifespan and in an extensive range of manifestations, such as increased susceptibility to various diseases, both communicable and non-communicable (Peña & Bacallao, 2002). It also decreases physical work capability, learning and intellectual ability, increases risk and susceptibility to lifestyle-related and environmental hazards (Peña & Bacallao, 2002). Additionally, poverty decreases participation in social decisions, and an inconsequential capability of resolution in the face of environmental challenges (Peña & Bacallao, 2002).

Malnutrition refers to a deficiency of nutrition (Blossner & Onis, 2005). Various elements can cause malnutrition, most of which are connected to inadequate diet or extreme and reiterated infections, especially in disadvantaged people (Blossner & Onis, 2005). Poor food and diseases, in turn, are jointly related to the general standard of living (Blossner & Onis, 2005). The environmental conditions and whether people can meet their primary needs which include food, shelter, and healthcare (Blossner & Onis, 2005). Malnutrition might not be the direct cause of death (except in exceptional, such as famine) (Blossner & Onis, 2005). Child malnutrition was linked with 54% of child deaths in developing countries in 2001 (Blossner & Onis, 2005). For a very long time, an increasing pool of literature has investigated the interface between nutritional status in developing countries and nutrient intake and family income (Schif & Valdés, 1990). For instance, in Palestine, poverty was associated with child malnutrition. Available data from the Palestinian Central Bureau of Statistics in 2011 showed that one out of every ten children below the age of five experienced chronic malnutrition (Perezniето et al., 2014). The malnutrition rates rose upward according to the data. Between 2000 and 2010, child malnutrition rose to 60% in Gaza (Perezniето et al., 2014). This led many households to adopt negative coping strategies (Perezniето et al., 2014). Such plans included cutting down the number of meals per day, disposing of assets, increasing debt borrowing, withdrawing children from school, and even marrying off their daughters who were below 18 years and were supposed to be in school (Perezniето et al., 2014).

An analysis of child deprivations in East and Southern Africa countries showed that poverty had severe effects on child nutritional status (Save the Children International and Africa Platform for Social Protection, 2017). The analysis of the study revealed that malnutrition became a serious challenge within the two regions. For the ten countries selected for the report, on average, 36% of children below five years of ages were affected by stunting. The results of the analysis showed that stunting rates were 26% and 27% for Somalia and Zimbabwe, respectively (Save the Children International and Africa Platform for Social Protection, 2017). Among the selected countries, DR Congo (43%), Zambia (40%), Ethiopia (38%) and Angola (38%) have the highest rates of stunting while the wasting rates were observed in South Sudan (23%), Ethiopia (10%) and DR Congo (8%). The findings of the analysis suggested that children in these countries were afflicted with persistent illnesses and poor childcare practices (Save the Children International and Africa Platform for Social Protection, 2017).

Just like in some Africa countries, UNDP identified poverty as a significant cause of child malnutrition in Asia (UNDP, 2004). In Vietnam, data gathered in 2002 from 3,000 children from 20 remote areas across Vietnam revealed that poor rural children suffered most from malnutrition than urban children (UNDP, 2004). The predominance of undernourished children was 50% (eight years old) to 80% (one-year-old) higher in rural areas compared to urban areas (UNDP, 2004). Similarly, stunting was 40% and 120% for the same cohorts (UNDP, 2004). Also, children from the poorest rural households had 1.6 to three times higher predominance of severe malnutrition as to children from better-off families (UNDP, 2004). A similar study that investigated the correlation between poverty and nutrition in Thailand and Vietnam found that malnutrition was a challenge in Vietnam with child underweight rates of 27% thus higher than headcount rates of the \$1.25 poverty line (Waibel & Hohfeld, 2016). In Thailand, the study found that after the economic recession, the underweight was 19% which was above the WHO threshold (Waibel & Hohfeld, 2016). The study was interested to know the factors that were responsible for nutrition outcomes, aside from poverty and income influencing nutrition outcomes. The study discovered that education, migration, mother's height, and sanitation also influenced nutrition (Waibel & Hohfeld, 2016).



In Peru, the UNDP discovered there was a predominance of malnutrition among children from poor households (UNDP, 2004). For example, stunting affected more than 30% of vulnerable children compared to 12% from better-off families (UNDP, 2004). Aside from this, obesity became a severe health challenge among low-income households (UNDP, 2004). Likewise, In Ethiopia, for children (one-year-old and eight-year-old), indicators of nutritional status were worse among rural and impoverished families (UNDP, 2004). A significant number of Ethiopian children exhibited symptoms of chronic malnutrition with those living in rural areas, and impoverished families suffered more than their counterparts in urban areas who were less miserable (UNDP, 2004).

To boost child wellbeing, there is the need to intensify income security of parents and caregivers as a preconditioned strategy in cutting down child's poverty and eliminating intergenerational transmission of poverty (Save the Children International and Africa Platform for Social Protection, 2017). While social protection instruments have become policy strategies in reducing household poverty, this study aims to assess the impact of cash transfer programmes in enhancing child' health and nutritional status in sub-Saharan Africa.

### *Poverty and child health status*

The relationships between poverty and poor health have their most substantial impact on children (Cohen, 1994). Poverty is a significant social determinant of health and leads to child health inequalities (AAP Council on Community Pediatrics, 2016). Children who encounter poverty, especially during early life development are at risk of a host of adverse health and developmental outcomes through their life upbringing (Brooks-Gunn & Duncan, 1997). Poverty has a severe effect on peculiar circumstances that include birth weight, infant mortality, chronic sickness, nutrition, and injury (AAP Council on Community Pediatrics, 2016). Child poverty also enhances genomic function and brain development by vulnerability to toxic stress (Blair et al., 2011), a condition defined by "excessive or prolonged activation of the physiologic stress response systems in the absence of the buffering protection afforded by stable, responsive relationships" (Garner et al., 2012:225).

An increasing body of research reveals that poverty is inimical to child health both in developing and developed countries. In Vietnam, poverty had a relationship with the mental health of children (UNDP, 2004). The findings by the UNDP on child poverty showed that 20% of eight-year-old had abnormal health test score (UNDP, 2004). Similarly, in Peru, children from low-income families were associated with diarrhea and severe respiratory diseases (UNDP, 2004). A unique aspect of the UNDP's study was that one in every five children in the study survey had been ill within 24 hours before data collection from the study participants (UNDP, 2004).

In sub-Saharan Africa, poverty denied many children access to healthcare services when needed. For instance, in Kenya, poverty reduced the probability of children below the age of 14 years from utilising modern healthcare services but increased the likelihood of visiting inadequate health facilities when needed (Awiti, 2014). A similar study in Malawi showed that children from low-income families were less likely to access healthcare services compared to children from better-off families (Ustrup et al., 2014). In Malawi, it was discovered that a woman whose female child was ill due to malaria was denied access to a hospital facility (Ingstad, Munthali, Braathen, & Grut, 2012). This was because her parents did not have the money to transport her to the nearest healthcare facility (Ingstad et al., 2012).

Aside from poverty denying children from developing countries access to healthcare services. In developed countries, studies have also shown that poverty affects children's health. A study examining the decrease in breastfeeding in the United States between 1984 and 1989 discovered that low-income was a cause in the drop of initiating breastfeeding and providing breastfeeding at least six months (Cohen, 1994). Various Canadian studies have documented similar findings (Cohen, 1994). Breastfeeding was emphatically correlated with rising maternal education and socioeconomic status in the survey (Fieldhouse, 1984). A similar study declared that, at birth, twice as many nursing mothers from better-off families breastfed their babies compared to those from low-income families (Beaudry & Aucoin-Larade, 1989). Because of the nutritional and immunologic advantages associated with breastfeeding, this was another likely essential factor connecting maternal poverty to child ill-health (Cohen, 1994). As these children become mature, they have a higher tendency of dying in infancy and having their health negatively affected by the absence of medication, inadequate good food and

vitamins (Cohen, 1994). For these children, income with other factors (road accidents, respiratory diseases and drowning) were much linked to the highest number of deaths (Cohen, 1994).

In terms of increased risk causes, it has been established that young children experiencing poverty encounter higher blood lead (chemical element) levels (Brody et al., 1994), even after controlling other demographic variables (Brody et al., 1994). Vulnerable children have also been reported to be at heightened risk for asthma (Ernst, Demissie, Joseph, Locher, & Becklake, 1995) and lower respiratory illness (Coultas et al., 1994). Additionally, children from poor households have been established to be at higher risk for injuries arising from accidents or physical abuse (Aber, Bennett, Conley, & Li, 1997). Most of these studies placed their assessment of socioeconomic status on parental occupation, therefore not measuring the net effect of income on children's risk (Kotch et al., 1995).

Income poverty is harmful to all members of a household when exposed to it, especially children (Thévenon et al., 2018). Living in poverty has long-term, negative, and inevitable consequences, leading vulnerable children into poor adults (Brooks-Gunn & Duncan, 1997). This calls for a broad programme in tackling poverty in all its dimensions (Thévenon et al., 2018). Investing in children will lead to reaping a long-time return (UNICEF, 2012). The positive impacts of social protection on children's health and nutritional outcomes can contribute to healthy and productive adulthood (UNICEF, 2012). Social programmes that support poor households and children take various forms (AAP Council on Community Pediatrics, 2016). They usually involve stakeholders from different communities such as government, private non-profit, faith-based, business, and other humanitarian organizations (AAP Council on Community Pediatrics, 2016).

#### *Child-sensitive social protection*

Despite considerable improvement in the reduction of poverty in recent years, children in their millions all over the world are still poor or susceptible to poverty (ILO, 2015; Machado & Bilo, 2018; UNICEF, 2014). There is an increasing conclusion that poverty constitutes more dimensions than just monetary (ILO, 2015; Machado & Bilo, 2018).

Globally, households with children are at higher risk of poverty than other groups of the population (ILO, 2015). The effects of poverty are highly crucial for children (ILO, 2015). Children experience poverty differently from men and women; they have peculiar and specific demands (ILO, 2015). While adults may fall into poverty temporarily, children who fall into poverty may be more indigent for a lifetime - hardly does a child get a second opportunity at a healthy or an education start in life (Brooks-Gunn & Duncan, 1997; ILO, 2015; Ortiz et al., 2012). Even food deprivation in short periods can be harmful to children's long-term development (ILO, 2015; Ortiz et al., 2012). Children with inadequate nutrition may be lagging behind their peers in size and intellectual capability, are more susceptible to life-threatening diseases, perform poorly in school and are less prone to be productive adults (ILO, 2015; Ortiz et al., 2012). Child poverty hinders not only the individual child but is possible to pass on to future generations, strengthening and even intensifying inequality in society (ILO, 2015; Ortiz et al., 2012; UNICEF, 2014).

While poverty eradication has become a vital ingredient of international development policy, "the 21st century starts with vast asymmetries in terms of income, access to food, water, health, education, housing, or employment for families" (Ortiz et al., 2012:1). Fifty per cent of the world's children are under the international poverty line of \$2 per day and undergo various forms of deprivations and violations of fundamental human rights (Ortiz et al., 2012). Over 8 million children die every year (around 22, 000 a day), and most of their deaths are avoidable (Ortiz et al., 2012). Starvation, malnutrition, and inadequacy of potable water contribute to at least 50% of child deaths (Ortiz et al., 2012). For these reasons, the necessity to address these inequalities cannot be overemphasized (Ortiz et al., 2012). Social protection programmes can assist young children in addressing the diverse nature of child poverty and promoting children's well-being, notably in the areas of education, health, and nutrition (Machado & Bilo, 2018).

Social protection amounts to a collection of public policy mechanisms intending to cut down individuals' vulnerability risk, support them in handling their consequences and raise their attitudes, awareness, skills, and

material capabilities so that they can contribute to the cutback of risk vulnerability and better deal with the effects of bad luck and adverse shocks (The International Policy Centre for Inclusive Growth, 2018). Social protection for children is fundamental for cutting down and avoiding child poverty and achieving the Sustainable Development Goals (SDGs) of eradicating extreme child poverty and halving child protection (ILO & UNICEF, 2019).

Taking cognizance of child-sensitive social protection also means realizing that social vulnerability is as essential as an economic risk for children, who are dependent on adults around them (Bilo & Machado, 2018; Perezniето et al., 2014). What this means is that social protection must focus not only child-specific vulnerabilities but also the households, families, communities, and caregivers that care for and nurture children and that must, thus, be protected and nurtured themselves (Perezniето et al., 2014). Social protection is seen as an investment and a duty to meet children's rights (Machado & Bilo, 2018). Furthermore, in order to augment the impact on children, social protection programmes should comply with the principles anchored in the official statement of Advancing Child-Sensitive social protection released in 2009 by the alliance of UN agencies, donor agencies and international non-governmental organizations (NGOs) (ILO & UNICEF, 2019).

Social protection programmes must be responsive to children's rights and needs (UNICEF, 2012). Social protection can be deemed child-sensitive when it openly improves children's development outcomes and reduces possible unexpected side effects on them (Bilo & Machado, 2018; Roelen et al., 2016). Child-sensitive social protection includes programmes that focus on poor households with children (Bilo & Machado, 2018). These include child grants, old-age pensions and disability grants that can further promote synergies with other social interventions in the areas of education, health, and nutrition (Bilo & Machado, 2018). These programmes benefit households more generally, they also have more direct economic impacts (UNICEF, 2012). The establish impacts of social protection on children's development stay beyond childhood, enhancing men and women productivity, reducing the "burden of human development losses, and contributing to breaking the inter-generational cycle of poverty" (UNICEF, 2012:3). There is a pool of evidence from different parts of the developing world, confirming that social protection programmes such as conditional and unconditional cash transfer programmes in improving children's outcomes (ILO, 2015).

## **Methods**

### **Criteria for considering studies for this review**

#### **Types of studies**

Studies that used various study designs to estimate the effects of CCT and UCT programmes were included in the systematic review. In a nutshell, the following study types were included in the review:

- Randomized controlled trial (RCT);
- Mixed methods;
- Cluster-RCT;
- Quasi-experimental;
- Non-randomized and longitudinal studies.

#### **Types of participants**

This review only included studies conducted in sub-Saharan Africa and Latin America. This review considered study designs that focused on poor households with children receiving cash transfers. While these poor households received these cash transfers to increase food consumption and enhance their health outcomes, the review focused on the children in these households because cash transfers support the children's health, education, and nutritional outcomes.

#### **Types of interventions**

This review included both CCT and UCT programmes for improving vulnerable households living conditions, defined as:

- Monetary transfers to vulnerable households;
- transfers might be conditional on health visits and children school attendance;
- unconditional cash transfers to support households living below the national poverty line;
- provided regularly;
- provided by national governments or local or international non-governmental organizations;
- non-contributory social cash transfers.

### **Types of outcomes measures**

In this review, primary and secondary outcomes were considered from the included studies. Primary outcomes are the main outcomes this review is focusing on (health), while the secondary outcomes are the additional outcomes derived by the beneficiary children of cash transfers (cognitive functions).

#### ***Primary outcomes***

Health outcomes that included the following but not limited to:

- malaria;
- diarrhea;
- fever.

Healthcare utilization included the following but not limited to:

- health visits;
- use of any healthcare service;
- growth monitoring.

Anthropometric outcomes that included the following but not limited to:

- stunting;
- wasting;
- underweight.

#### ***Secondary outcomes***

Cognitive development outcomes included in this review were:

- language development;
- long-term memory;
- motor control

### **Search methods for identification of studies**

The searches for relevant literature were conducted on electronic databases for articles that evaluated the impact of cash transfers on child health and development outcomes in sub-Saharan Africa and Latin America. Key search terms used to identify relevant studies included cash transfers, CCT, UCT, developing countries, child health, growth, and development. The search term social protection aided the identification of additional articles that were screened for eligibility. The searches for relevant studies were focused on English language articles, and all titles and abstracts of articles selected in the first phase were scrutinized to see that they meet the inclusion criteria.

The following are the databases searched for relevant studies and the websites of international organizations, which are stakeholders in the international development circle in promoting cash transfer as a mechanism for reducing poverty and vulnerabilities in low-and-middle-income countries.

- PubMed
- ScienceDirect
- The Campbell Library.



- ResearchGate
- Google Scholar
- Cochrane Library
- Africa Index Medicus
- African Health Journals
- UNICEF. (<https://www.unicef.org>).
- World Health Organization (WHO) (<https://www.who.in>).
- World Bank (<https://www.worldbank.org>).
- Save the Children (<https://www.savethechildren.net>).

## Data collection and analysis

### Selection of studies

For studies to meet the inclusion criteria, they must report on either CCTs or UCTs having one or more effects on child health and development outcomes. Studies must report the effects on health and development outcomes of children receiving cash transfers before they can be included in the review. Studies that failed to report any health outcomes and those that focused only on pregnancy, childbirth, and antenatal care relating to cash transfers were excluded. Since this systematic review focuses on sub-Saharan Africa and Latin America, where there are various languages, searches for relevant studies were limited to English-language articles.

### Data extraction and management

This review used a standardized data extraction form to extract data from the included studies. The following data were extracted:

- reference (author's names, date of publication);
- study setting (country, continent);
- ages of participants;
- intervention (conditional and unconditional cash transfers);
- sample size (treatment and control sample);
- types of studies (RCT, mixed methods, cluster-RCT);
- outcomes measured (illness, nutrition, preventive care).

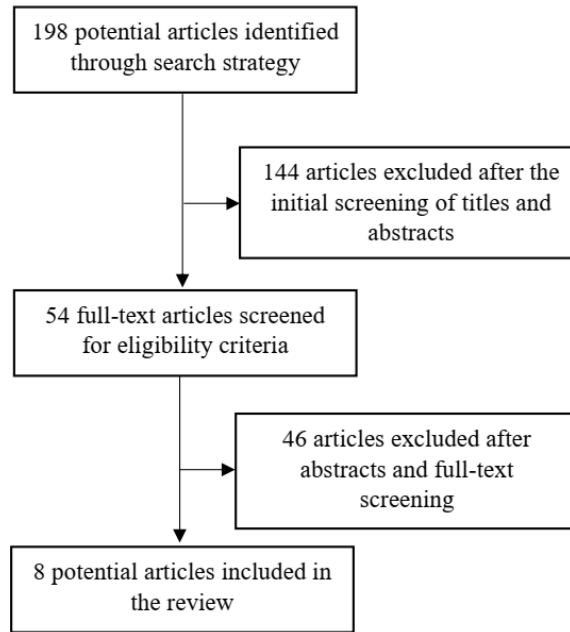
### Data analysis

While most of the included studies supported their findings with statistical data, this review finds it necessary not to employ meta-analysis because of the different study designs employed by the included studies. In this case, coding was used to identify categories. The initial coding identified salient information. The second round of coding involved linking categories of data identified from the initial coding. The final coding allowed emerging themes to emerge, and the data (similarities and differences emanating from comparing cases of the included studies) were presented in text and tables.

## Results

### Study selection

Figure 1 presents the study flow chart of the systematic review of included studies. The initial searches for studies conducted online produced 198 articles that included grey literature, peer-reviewed research articles, report, and evaluation report. The first screening of these articles through their titles and abstracts led to the exclusion of 144 studies. The second round of selection of the remaining 54 studies led to the exclusion of 46 records and the retaining of 8 articles.



**Figure 1. Study flow chart**

**Characteristics of included studies**

Table 2 presents the characteristics of the included studies. Four of the studies were conducted in sub-Saharan Africa and four in Latin America. Of the eight studies included in the systematic review, five used RCTs and cluster-RCTs designs to evaluate the effects of cash transfers on children's health and development outcomes. Differences-in-difference (DID) was the conventional method of impact estimation used by the included studies to estimate the impact of cash transfer programmes on children. The ages of these children range from 0 to 18 years old. Three studies evaluated CCTs, while the other five studies evaluated UCTs. Outcomes measured include illness, nutrition, preventive care, and healthcare.

**Table 2. Characteristics of included studies**

| Study                   | Country  | Age          | Intervention | Treatment sample size | Control sample size | Design of Impact Evaluation                       | Method of Impact Estimation                                  | Outcomes Measures                 |
|-------------------------|----------|--------------|--------------|-----------------------|---------------------|---|--|-----------------------------------|
| Attanasio et al. 2005   | Colombia | 12-36 months | CCT          | Two municipalities    | Not stated          | Non randomized                                    | DID  | Child health, nutrition           |
| Fernald et al. 2008     | Mexico   | 24–68 months | CCT          | 2,449 children        | Not stated          | RCT   | Linear and logistic regression                               | Child health, growth, development |
| Handa et al. 2014       | Zambia   | < 5 years    | UCT          | 1,257 households      | 1,257 households    | Cluster randomized controlled trial               | DID  | Nutrition, illness                |
| Huang et al. 2017       | Kenya    | 0-7y         | UCT          | 1,325 households      | 585 households      | Longitudinal, cluster randomized controlled trial | Generalized linear latent and mixed methods estimation model | Illness, health-seeking           |
| Paxson and Schady, 2007 | Ecuador  | 3-7y         | UCT          | 1,200 families        | 600 families        | RCT   | Non-parametric regressions                                   | Child health, development         |
| Shei et al. 2004        | Brazil   | 0-17y        | CCT          | 841 children          | 425 children        | RCT   | Propensity score methods                                     | Healthcare utilization            |

Table 2 (cont.). Characteristics of included studies

| Study   | Country  | Age   | Intervention | Treatment sample size | Control sample size | Design of Impact Evaluation       | Method of Impact Estimation             | Outcomes Measures                   |
|---|----------|-------|--------------|-----------------------|---------------------|-----------------------------------|---|-------------------------------------|
| University of North Carolina at Chapel Hill, 2016 | Malawi   | 0-17y | UCT          | 1,678 households      | 1,853 households    | Mixed methods                     | Longitudinal, experimental study design | Nutrition, illness, preventive care |
| University of North Carolina at Chapel Hill, 2018 | Zimbabwe | 0-18y | UCT          | 1,725 households      | 842 households      | Mixed methods, quasi experimental | DID                                     | Illness, health-seeking             |

Sources: Column 1 of Table 2.

### Effects of interventions

Of the eight sample studies reviewed, four found different cash transfers effects on children's nutritional status. Two found an impact on cognitive development. Six studies reported the impact of cash transfers on morbidity. Five studies mentioned the effects of cash transfers on children's healthcare utilization, and four other studies reported other effects. Table 3 reviews the effects of cash transfers programmes on children's health and development outcomes.

### Impact on anthropometric outcomes

Four studies that examined the effects of cash transfers on anthropometric outcomes found a mixed result (Abdoulayi et al., 2016; Attanasio et al., 2005; Fernald et al., 2008; Handa et al., 2014). In Colombia, cash transfers benefited younger children because the cash reduced the probability of being extremely undernourished (Attanasio et al., 2005). The cash transfer programme did not benefit older children's nutritional status (Attanasio et al., 2005). In Malawi, the government cash transfer programme positively affected children in households receiving cash in the areas of wasting and weight-for-age-score (WHZ) for children in male-headed households (Abdoulayi et al., 2016). Nevertheless, the programme did not impact children's height-for-age Z-score (HAZ) or prevalence of stunting (Abdoulayi et al., 2016).

On the contrary, in Mexico, cash transfers were responsible for increased height-for-age Z-score (HAZ) and a reduction in the prevalence of stunting (Fernald et al., 2008). Besides, the programme was correlated with a lower incidence of being overweight and a decrease in Body Mass Index (BMI) for the age percentile (Fernald et al., 2008). Similarly, in Zambia, the Child Grant Programme (CGP) led to an improvement in the weight of younger children with effects on weight-for-height and weight-for-age (Handa et al., 2014). However, the programme did not statistically impact WHZ among children of 6 to 24 months of age (Handa et al., 2014). See Table 3.

Table 3. Cash transfers effects on children's anthropometric outcomes

| Study                 | Country  | Population | Impact evaluation | Outcomes             | Results   |
|-----------------------|----------|------------|-------------------|----------------------|---|
| Attanasio et al. 2005 | Colombia | Children   | Non-randomized    | Height for age (HAZ) | <b>Height for age:</b> infants under 24 months benefited from the intervention, as their Z-score multiplied by 0.161. For a one-year-old baby, this would be tantamount to 0.43 centimeters. The programme had no impact on older children. |

Table 3 (cont.). Cash transfers effects on children's anthropometric outcomes

| Study                   | Country | Population                          | Impact evaluation                   | Outcomes                           | Results   |
|-------------------------|---------|-------------------------------------|-------------------------------------|------------------------------------|---|
| Fernald et al. 2008     | Mexico  | Children (n=2449) aged 24–68 months | Cluster-randomization               | HAZ, stunting, overweight, BMI     | <b>HAZ:</b> CCT increased height-for-age Z score ( $p < 0.0001$ )<br><b>Stunting:</b> CCT decreased the prevalence of stunting ( $p < 0.0001$ )<br><b>Overweight:</b> CCT lowered the incidence of being overweight ( $p = 0.001$ )<br><b>BMI:</b> BMI for age percentile reduced by ( $p = 0.04$ )   |
| Handa et al. 2014       | Zambia  | Children                            | Cluster-randomized controlled trial | Weight-for-height, weight-for-age, | <b>WHZ &amp; WAZ:</b> Cash transfers enhanced the weight for young children with effects on weight-for-height and weight-for-age of around 0.12 standard deviations   |
| Abdoulayi et al., 2016) | Malawi  | Children                            | Mixed methods                       | HAZ, wasting, WHZ                  | <b>HAZ:</b> Programme had no overall impacts on HAZ.<br><b>Wasting:</b> The cash transfer programme reduced the prevalence of wasting among children in households receiving cash transfers by three percentage points ( $p = 0.01$ ). The intervention decreased wasting on children aged 6-23 months by nine percentage points ( $p = 0.01$ ); children from female-headed households three percentage points ( $p = 0.05$ ), and six percentage points ( $p = 0.05$ ) for male children.<br><b>WHZ:</b> For children in male-headed households, the programme enhanced their weight-for-age Z-score (WHZ) by 0.49. |

Sources: Column 1 of Table 3.

### Impact of cognitive functions

Two of the studies reviewed evaluated the effects of cash transfer programmes on cognitive development and behavioral outcomes (Table 4). In Ecuador, the *Bono de Desarrollo Humano* (BDH) cash transfer programme improved fine motor control and cognitive development and prompted the reduction in behavioral problems (Paxson & Schady, 2007). The programme effects on cognitive development were typically more significant for girls than boys and children with highly educated mothers (Paxson & Schady, 2007). Similar results were found in Mexico, and cash transfers improved performance on one scale of motor development, all cognitive function subscales, and language development (Fernald et al., 2008).

Table 4. Effects of cash transfers on children's cognitive functions

| Study                   | Country | Population                                 | Impact evaluation     | Outcomes              | Results   |
|-------------------------|---------|--|-----------------------|-----------------------|---|
| Fernald et al. 2008     | Mexico  | Children (n=2449) aged 24–68 months        | Cluster-randomization | Cognitive outcomes    | Cash transfer improved endurance (p=0.001), long-term memory (p=0.002), short-term memory (p<0.0001), visual integration (p=0.02), and language development (p<0.0001). |
| Paxson and Schady, 2007 | Ecuador | 1,479 Children between the ages of 3 and 7 | RCT                   | Cognitive development | UCT had positive effects on children's motor control, cognitive outcomes, and it reduced behavioral problems.   |

Sources: Fernald et al. 2008 and Paxson and Schady, 2007.

### Impact on health outcomes

Only six studies evaluated and reported the effects of cash transfers on children's illnesses or morbidity, four in sub-Saharan Africa and two in Latin America (Abdoulayi et al., 2016; Angeles et al., 2018; Attanasio et al., 2005; Handa et al., 2014; Huang et al., 2017; Shei et al., 2014). The evidence reported by these studies was mixed (Table 5). In Brazil, the conditional cash transfer programme decreased diarrhea among older children, but there was no significant impact on cough and fever (Shei et al., 2014). Similarly, the cash transfer programme in Colombia reduced the possibility of reporting diarrhea symptoms for infants who live in rural communities (Attanasio et al., 2005). The intervention did not have any statistically significant level on respiratory diseases in urban communities (Attanasio et al., 2005). In Kenya, children receiving cash transfers were safeguarded against malaria or pneumonia, but the level of impacts depended on gender and age (Huang et al., 2017). In Malawi, the cash transfer programme was responsible for declining diarrhea, cough, and fever, but not in the whole study sample (Abdoulayi et al., 2016). In Zimbabwe, the programme failed to impact children (0-5 years) in diarrhea, cough and fever (Angeles et al., 2018). In Zambia, the social cash transfer programme reduced the likelihood of children being sick, and there was a significant impact on diarrhea reduction and a negligible effect on cough (Handa et al., 2014). However, there was no impact of the programme on morbidity, seeking treatment and chronic illness of children over age 5 (Handa et al., 2014).

Table 5. Effects of cash transfers on children's health

| Study                               | Country  | Population     | Impact evaluation | Outcomes                 | Results   |
|-------------------------------------|----------|----------------|-------------------|--------------------------|---|
| Shei et al. 2004 <sup>21</sup>      | Brazil   | 1,266 children | RCT               | Morbidity, health status | <i>Morbidity:</i> CCT was correlated with enhanced odds of getting diarrhea in the last two weeks for children under seven years of age (OR = 1.8; p = 0.055) and reduced odds of getting diarrhea over the previous three months for children ages 7 to 17 (OR = 0.543; p = 0.064).<br><i>Health status:</i> CCT had no statistically significant impact on physical health. |
| Attanasio et al. 2005 <sup>14</sup> | Colombia | Children       | Non-randomized    | Morbidity                | <i>Cash transfers decreased the anticipation of disclosing diarrhea symptoms by almost 0.10 for infants aged less than 48 months in rural communities. The programme had no impact on children in urban areas.</i>  |



Table 5 (cont.). Effects of cash transfers on children's health

| Study                            | Country  | Population | Impact evaluation                         | Outcomes  | Results  |
|----------------------------------|----------|------------|---|-----------|--|
| Huang et al. 2017 <sup>20</sup>  | Kenya    | Children   | A longitudinal, cluster-randomized design | Morbidity | <i>Children ages 0-7 enrolled in the cash transfer programme were safeguarded against malaria or pneumonia (P &lt; 0.05). UCTs led to "Significant reductions in illness in children ages 0–7 years old. Control children were 1.8 times more likely to be ill than treatment children, ceteris paribus (P &lt; 0.05)"</i> <sup>20</sup> |
| Abdoulayi et al., 2016)          | Malawi   | Children   | Mixed methods                             | Morbidity | <i>The programme was reported to have reduced diarrhea, fever, and cough from 42% to 39% for children in cash transfer households.</i>   |
| Angeles et al., 2018             | Zimbabwe | Children   | Mixed methods, quasi experimental         | Morbidity | The intervention did not have effects on diarrhea, fever and respiratory illness.  |
| Handa et al. 2014. <sup>17</sup> | Zambia   | Children   | RCT                                       | Illness   | The programme reduced diarrhea by 4.9 percentage points and a little effect of 3.6 percentage points on cough.   |

Sources: Column 1 of Table 5.

### Impact on healthcare utilization

Five studies reported on the effects of cash transfers on healthcare utilization (Abdoulayi et al., 2016; Angeles et al., 2018; Handa et al., 2014; Huang et al., 2017; Shei et al., 2014). In Brazil, there was a significant impact of the cash transfer programme on several measures of healthcare utilization for children born before 2009 (Shei et al., 2014). The rate of health post visits and check-up at health centres and hospitals increased among children less than seven years of age. However, a significant impact was not found in children between 7 and 17 years of age regarding visits to health posts, urgent care centers or hospitals (Shei et al., 2014). In Kenya, the unconditional cash transfer programme for orphan and vulnerable children was correlated with decreased illness in children (Huang et al., 2017).

Nevertheless, the intervention did not significantly impact the health-seeking behaviour of children receiving cash transfers (Huang et al., 2017). In Malawi and Zambia, social cash transfer programmes increased treatment-seeking behaviour (Abdoulayi et al., 2016; Handa et al., 2014). However, there was no care-seeking or the possession of medical cards for beneficiaries of the social transfer programme in Zimbabwe (Angeles et al., 2018). See Table 6.

In terms of miscellaneous effects, four of the studies reviewed reported mixed results. In Columbia, cash transfers increased the consumption of protein and vegetables and increased attendance at growth-monitoring visits (Attanasio et al., 2005). Unconditional cash transfers increased their hemoglobin levels For vulnerable children in Ecuador (Paxson & Schady, 2007). In Brazil, the social cash transfer programme showed no statistically significant impacts on younger children's physical or psychological health (Shei et al., 2014). This was attributed to the small sample size (Shei et al., 2014). Just like in Brazil, in Malawi, the cash transfer programme did not increase child preventive care practices; instead, there was a decrease from the baseline to endline of child preventive care practices in those receiving cash transfers (Abdoulayi et al., 2016).

Table 6. Effects of cash transfers on children's healthcare utilization

| Study                          | Country  | Population     | Impact evaluation                         | Outcomes                 | Results   |
|--------------------------------|----------|----------------|---|--------------------------|---|
| Shei et al. 2004 <sup>21</sup> | Brazil   | 1,266 children | RCT                                       | Healthcare visits        | For kids under the age of seven, CCT enhanced the odds of any health post visit for growth monitoring (odds ratio (OR) = 3.1; $p < 0.001$ ), vaccinations (OR = 2.8; $p = 0.002$ ), and check-ups (OR = 1.6; $p = 0.061$ ). Children of the ages of 7 to 17 years, CCT raised the odds of any health post visit for growth monitoring (OR = 2.5; $p = 0.005$ ) and check-ups (OR = 1.7; $p = 0.077$ ). Enrolment in the CCT programme raised the number of visits for growth monitoring and check-ups by 0.6 and 0.2 visits ( $p = 0.049$ and $p = 0.068$ ), respectively.  |
| Huang et al. 2017              | Kenya    | Children       | A longitudinal, cluster-randomized design | Health-seeking behaviour | The UCT did not affect healthcare-seeking behaviour.  |
| Abdoulayi et al., 2016)        | Malawi   | Children       | Mixed methods                             | Preventive healthcare,   | Among subgroups in cash transfer households were likely to seek curative care for fever by 18 percentage points ( $p=0.05$ ) than children not receiving cash transfers. Children in households with more than four individuals were 12 percentage points ( $p=0.05$ ) more likely to seek curative care. For children in male-headed households receiving cash transfers were discovered to be 50 percentage points ( $p=0.01$ ) likely to seek curative care for diarrhea than their counterparts in male-headed households not receiving cash receipts. Preventive care decreased from 4% to 3% from treatment households at the end of the impact evaluation, while there was a 5% increase for children not receiving cash receipts. Under-5 clinic participation for children in treatment households reduced to 68%. |
| Handa et al. 2014              | Zambia   | Children       | RCT                                       | Healthcare utilization   | Among those in cash transfer households, 80% requested treatment when needed.   |
| Angeles et al., 2018           | Zimbabwe | Children       | Mixed methods, quasi experimental         | Healthcare utilization   | The programme had no impact on healthcare utilization.  |

Sources: Column 1 of Table 6.

## Discussion

This review assesses the effects of cash transfer programmes on child health and development in sub-Saharan Africa and Latin America. Conditional and unconditional cash transfers are given to poor households to enhance beneficiaries' health and educational status. While this review focuses on child health in households receiving cash transfers, it has been established from the included studies that cash transfers improve children's health and development. However, some results show significant effects, small effects, no effects, and mixed effects. The overall results indicate the positive effects of cash transfers on children's health outcomes.

Poverty hinders children from eating foods rich in essential nutrients. This, in turn, hinders their growth and development (Murphey & Redd, 2014). Cash transfers have been able to support children in having adequate

food nutrients and boost their development. With cash, low-income families can have access to quality diets and increase their daily food consumption (Abdoulayi et al., 2016; Angeles et al., 2018; Handa et al., 2014). Findings from this review show that both CCTs and UCTs improve the nutritional status of children in households receiving cash transfers. However, these impacts vary among countries in the areas of height-for-age, weight-for-height, stunting and overweight. (Leroy et al., 2009) examined the impact of cash transfers on child nutrition using a programme theory framework in the impact evaluation. They found cash transfers significantly improved child anthropometry outcomes but with a minimal impact on micronutrient status (Leroy et al., 2009). Despite the impact, they found a significant gap in knowledge about the processes by which cash transfers enhance nutrition (Leroy et al., 2009). In a systematic review that assessed the impact of cash transfers and children's outcomes in developing countries, cash transfer programmes were discovered to improve children's nutritional status in Honduras and Nicaragua (Awojobi, 2018).

Only two studies mentioned cognitive development, and the two studies proved that cash transfers aided cognitive development among children who were beneficiaries of cash transfer programmes (Fernald et al., 2008; Paxson & Schady, 2007). Evidence has shown that undernourishment may affect childhood development (Benton, 2008). Studies have shown that when poor households receive cash transfers, they increase their food consumption with quality food (Abdoulayi et al., 2016; Angeles et al., 2018; Handa et al., 2014). Diets with required nutrients are believed to improve cognitive development (Harvard Medical School, 2021). A study from the University of California, Los Angeles, in 2015, linked higher walnut consumption to improve cognitive test scores (Harvard Medical School, 2021). A similar study that employed systematic review methodology found that cash transfers improved the cognitive functions of beneficiary children of cash transfer programmes in Nicaragua and Zambia (Awojobi, 2018).

Children from poor households are likely to suffer from poor health (OECD & WHO, 2003). Cash transfers act as a mechanism to enhance children's access to healthcare. From the findings of this review, cash transfers play a pivotal role in increasing children's healthcare utilization and improve the treatments of various illnesses. However, not all the studies reviewed showed a positive effect of cash transfers on healthcare utilization and treatment. For instance, there were no cash transfers impacting diarrhea, fever, and respiratory illness in Zimbabwe (Angeles et al., 2018). In Brazil, Columbia, Kenya, Malawi, Zambia, diarrhea, fever, and respiratory illness decreased among children in households receiving cash transfers (Abdoulayi et al., 2016; Attanasio et al., 2005; Handa et al., 2014; Huang et al., 2017; Shei et al., 2014). Likewise, the health-seeking behaviour of children improved due to cash transfers. Though the evidence is mixed, healthcare visits increased in Brazil, Kenya, Malawi and Zambia (Abdoulayi et al., 2016; Handa et al., 2014; Huang et al., 2017; Shei et al., 2014). In Zimbabwe, the programme did not impact healthcare utilization (Abdoulayi et al., 2016), and in Kenya, the impact was not significant (Handa et al., 2014). A systematic review of randomized control trials in Sub-Saharan Africa agrees with the findings of this review on the positive effects of cash transfers on child health. The study found that chronic illnesses in children from households benefiting from cash transfers decreased. However, no difference was discovered in the number of children vaccinated compared to children from households not receiving cash transfers (Handa et al., 2014).

This review identifies some crucial limitations and one of which is the inclusion of only English language articles for the review. None of the included studies was able to identify the effectiveness of CCTs and UCTs. That is, if CCTs are more effective than UCTs or vice versa on improving children's health outcomes. It has been established that cash transfers aid children's health and development. Most results were positive, and some were negative, while some showed minor effects. This may be attributed to the study design of each study or a contextual issue among the countries included in the review. This may impede a final decision on what degree or level cash transfers can positively impact children's health from households receiving cash transfers. Finally, none of the included studies reported a long-term impact of cash transfers on children's health outcomes; this shows that the effects of the interventions were short-term. More scientific studies will be needed to evaluate the long-term impact of cash transfer programmes on children's health, growth, and development outcomes.

## Conclusion

This systematic review has added to the debate on cash transfers and children's health outcomes. Cash transfers have the potential to improve the health, growth, and development of children. Though most of the included studies did not specify on gender effects, the findings of this review have confirmed the validity of cash transfer programmes as social protection instruments in supporting children from poor households in enhancing their health outcomes. Both sub-Saharan Africa and Latin America studies showed positive, negative, and minor effects of cash transfers. However, the positive effects overwhelmed both the negative and minor effects.

Furthermore, there is a need for more research to clarify the multiple pathways by which cash transfers can improve children's health and nutritional outcomes. It is also necessary to clarify what factors explain the variety of effects of cash transfer programs on child health and nutritional status. Finally, cash transfer interventions are not permanent mechanisms for promoting access to healthcare. Policymakers in developing countries should borrow ideas on how to finance healthcare services for improving the socio-economic wellbeing of citizens.

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