

Evidence at Your Fingertips Series Cash Transfer Timing: How Transfer Duration and Frequency Contribute to Outcomes

Summary

- 1. Studies from 2016 on demonstrate that the **impact** of cash transfers varies based on duration, depending on whether they are distributed over a short (24 months or less) or long (more than 24 months) period.
- 2. **Cash transfers distributed over a long period provide predictability** that is associated with greater impact, particularly with transfers distributed to improve children's health, nutrition and education, and employment and labor. Therefore, policy makers and implementers should consider duration as an influential factor, especially for smaller, morefrequent transfers (e.g., monthly or quarterly cashtransfer programs).
- 3. Longer duration of transfers allows for households to plan for the future, which in turn allows households to engage in riskier yet more-profitable income-generating activities, when available. Longer duration of transfers, such as through universal basic income experiments, may especially benefit children when timed to pivotal developmental periods such as the first 1,000 days of life
- 4. Evidence suggests that frequency of cash disbursements alone does not significantly affect outcomes such as health, nutrition and food security, saving and investment, education, or gender-based violence. One-time transfers may be







more appealing to policy makers and implementers given lower costs and greater ease of implementation, with a caveat that other factors, including beneficiary perspectives (e.g., financial situation, literacy), must be considered. 5. The confluence of size, frequency, and duration of cash transfers may produce different results than any single factor in isolation. For example, frequency combined with size (or value) of disbursements may have specific gender impacts, such as women's ability to control cash, but more-rigorous evidence is needed.

Evidence Overview

This review found a limited selection of studies since 2016 on timing of cash transfers, namely duration and frequency, but evidence on duration underscores robust findings from earlier studies. Table 1, examining duration, includes six studies focused on health, nutrition and food

security, mental health and psychosocial well-being, education, and labor and employment. Five studies review impacts of long duration (defined as more than 24 months for this review), and two compare one-time and short- and long-duration transfers together.

Country	Program	Scope of comparison	Food security	Health and nutrition	Mental health and psychosocial well-being	Education	Labor and employment
7 countries in Africa	SSA National Cash Transfers	Long duration: 10+ months					Х
United States	Alaska Permanent Fund	Long duration [lifetime] vs synthetic control					Х
Mexico	Progresa	Long duration [childhood: from 1,000 days vs from primary to secondary transition]		Х		х	Х
United States	North Carolina American Indian Casino Cash Transfer	Long duration [lifetime and children's fund: aged 16 for 2 years vs aged 14 for 4 years vs aged 12 for 6 years]			Х	Х	Х
Kenya	Universal Basic Income- COVID	One-time vs short vs long duration [once vs 2 years vs 2 years out of 12 years anticipated])	Х	Х	Х		Х
Rwanda	Give Directly and Catholic Relief	One-time vs short duration [once vs 12 months]	Х	Х			

Table 1: Overview of Included Studies: Duration

Sources: Avitabile 2019; Banerjee et al. 2020; Caridad Araujo and Macours 2021; Copeland et al. 2022; Daidone 2019; Jones and Marinescu 2022; McIntosh and Zeitlin 2021.

Table 2, examining frequency, includes six studies focused on health, nutrition, and food security; savings, investment, and consumption; education, labor, and employment; and gender. Four studies compare a

lumpsum cash transfer with monthly payments, one compares a lumpsum payment with weekly payments, and one compares monthly and quarterly payments.

Country	Program	Scope of comparison	Outcome						
			Food security	Health and nutrition	Education		Savings and investments	Consumption	Gender equity and empowerment
Brazil	Bolsa Familia & Maternity Wage	(Monthly vs lumpsum)		х			Х		Х
Nigeria	Feed the Future Nigeria Livelihoods Project	(Monthly vs quarterly)	Х	Х		Х	Х	х	Х
Kenya	GiveDirectly	(Monthly vs lumpsum)	Х	Х			Х		
Kenya	GiveDirectly	(Monthly vs lumpsum)	Х	Х			Х	Х	
Kenya	Unconditional transfer	(Weekly vs lumpsum)	Х	Х	Х	Х	Х	Х	Х
Rwanda	Give Directly and Catholic Relief	(Monthly vs lumpsum)		Х			Х	Х	

Table 2: Overview of Included Studies: Frequency

Sources: Banerjee et al. 2020; Bastagli, Hagen-Zanker, and Sturge 2016; Caridad Araujo and Macours 2021; Copeland et al. 2022; Daidone 2019; Jones and Marinescu 2022; McIntosh and Zeitlin 2021.

Some studies address the interplay between size, duration, and frequency of transfers, comparing impacts of high-value, one-time, lumpsum transfers with those of intermittent, lower-value, predictable transfers over several years.

Introduction

This review examines the impact of the timing of cash transfers both in terms of duration and frequency of transfers, and at times in combination (where noted).

For the purposes of this review, short duration is described as 24 months or less (typically 12-24 months) and long

duration as longer than 24 months (25 months to 20+ years across studies reviewed). Transfers received over an extended period of time, such as throughout childhood or during someone's lifetime, as in the case of universal basic income experiments, are highlighted where mentioned in the text. In this review, the term "frequency" is used to describe one-time lumpsum, weekly, monthly, and quarterly transfers.

Findings from before 2016 have shown that duration affects the impact of cash transfers on household outcomes, particularly in health and nutrition, education, consumption, food security, and sexual and reproductive health (Bastalgi, Hagen-Zanker, and Sturge 2016). Mixed effects have been observed on labor and employment

outcomes. More-recent studies corroborate these earlier findings with additional observations on labor and employment.

Owing to the limited evidence explicitly testing the role of transfer frequency, this review is unable to

draw conclusions about the relative strengths and weaknesses of different frequencies alone (<u>Bastalgi</u>, <u>Hagen-Zanker</u>, and <u>Sturge 2016</u>). Findings suggest that lumpsum transfers may have a slight advantage for policy makers based on cost and ease of implementation.

Key Questions

- 1. How does timing of cash transfers affect household-level outcomes on health and nutrition, education, income, and productivity or labor?
- 2. Does longer duration always equal greater outcomes? Why or why not?
- 3. Are more-frequent disbursements better or worse? Why or why not?
- 4. How do other factors such as objectives, targeting, conditionality, transfer size, and cost influence the impact of varying transfer timing?
- 5. What is the most cost-effective duration or frequency for implementers to consider?
- 6. What are salient gaps in recent evidence on cash-transfer timing?
- 7. How might the available evidence on timing, including that on cost-effectiveness, influence program design and implementation of cash-transfer programs?

Key Findings

Health, Nutrition, and Food Security

Conditions related to frequency and duration of transfers have different impacts on health, nutrition, and food security. Evidence suggests that the effects of duration may outweigh the effects of frequency of a transfer when assessed based on health, nutrition, and food security outcomes. Although households benefit from receiving transfers, the evidence reviewed suggests that the frequency of transfers does not significantly affect health and nutrition outcomes. Only one study found a difference in physical health outcomes due to frequency of transfer; in Rwanda, households randomized to receive a one-time lumpsum transfer were compared with those receiving a short-term transfer each month for 12 months (McIntosh and Zeitlin 2021).¹ In measuring child health outcomes (dietary diversity, anemia, height for age, weight for age, mid-upper arm circumference), a small difference in

¹ The study included an experimental arm and a choice arm; 65 percent of households chose lumpsum transfers when given the option between one-time and monthly transfers.

impact was found between one-time lumpsum transfers and short-term monthly transfers, with a slight advantage for lumpsum transfers in weight-for-age and mid-upper arm circumference z-scores and for short-term transfers in height-for-age z-scores.²

In comparison, in Kenya, no difference was found between transfer frequencies for health, measured as an index capturing morbidities, under-five mortality, newborn vaccination, health-seeking behaviors, and child anthropometrics (Haushofer and Shapiro 2016). In the same program, the short-term impacts of monthly and one-time lumpsum transfers nine months after the program started demonstrated that food security was a modest 0.26 standard deviations greater with monthly payments than with lumpsum payments (Haushofer and Shapiro 2016), but three years after the program began, there were no significant differences between households receiving monthly transfers and those receiving lumpsum transfers (Haushofer and Shapiro 2018). Similarly, a related study comparing weekly with monthly transfers, also in Kenya, found no difference in measures of nutrition or food security (Haushofer, Mudida, and Shapiro 2020). In Nigeria, the Feed the Future Nigeria Livelihoods Project also found no difference in effects of monthly and quarterly payments on food consumption, dietary diversity, and food security, although cash transfer recipients consumed 25 percent more than non-recipients and had significantly greater food security and dietary diversity (Bastian, Goldstein, and Papineni 2017).

By contrast, a variety of health, nutrition, and food security impacts such as hunger, physical health, and children's cognitive development, as well as impacts on mental health, have been demonstrated based on transfer duration. These impact measures may be attributable to the predictability of transfers and ability of households to plan for the future. For example, a longitudinal study of Oportunidades (Progresa) conditional cash transfer recipients in Mexico (<u>Caridad Araujo and Macours</u> <u>2021</u>) showed that long-term monthly transfers received beginning in the first 1,000 days of a child's life had a greater effect on child health than transfers received only during the transition from primary to secondary school. These results echo earlier impact evaluations of the program, which similarly found better health outcomes associated with timing during the first 1,000 days) of children receiving transfers, such as fewer illnesses, lower prevalence of anemia, and greater height of children. Frequency of transfer was not compared because all transfers are received monthly, so the primary variable was duration.

A few studies addressed timing by comparing duration and frequency of transfers. For example, an assessment of the impact of a universal basic income program in Kenya before and during the COVID-19 pandemic, found that long-term transfers, received throughout the pandemic for two years out of a planned 12-year horizon, had a greater impact on food security and health indicators³ than short-term transfers (two years fixed) or one-time lumpsum transfers (Banerjee et al. 2020). Although all forms of transfers reduced hunger for all households, incidence of hunger in households that received long-term universal basic income transfers decreased the most substantially (from 68 percent to 57 percent). This was twice the effect size of the short-term two-year only and one-time lumpsum transfers. Universal basic income transfers also reduced the intensity of hunger (a family member going without meals for a full day). Because all households had received two years of transfers at the start of the pandemic, the primary difference between short- and long-term recipient households was that the latter anticipated 10 additional years of transfer to come.

Therefore, recent research concurs with studies before 2016 that longer duration may allow households to plan better for health needs and shocks, whereas frequency

² HAZ: short-term monthly flow transfers generated a -0.002 treatment effect size, versus -0.095 for lumpsum payments.

³ Physical (sickness in the last 30 days with symptoms such as fever and nausea) and mental (measured using the Center for Epidemiological Studies Depression Scale) health indicators were examined.

does not have a significant impact on outcomes. Despite the observed benefits of greater frequency, as demonstrated in Rwanda, a one-time lump sum may be as effective and, incidentally, less costly to administer than more-frequent monthly transfers. This may also have to do with the size of the transfer, because one-time lumpsum transfers tend to be higher in value than more-frequent monthly payments. Further research should be conducted on the difference of the impact of long-term and one-time transfers on health outcomes. If validated, this may suggest that not only duration, but also sequencing of transfers during crucial developmental periods can drive health outcomes, particularly in children.

Mental Health and Psychosocial Well-Being

Literature before 2016 did not explore the mental health implications of cash transfers extensively as related to the timing of a transfer (<u>Bastalgi, Hagen-Zanker, and</u> <u>Sturge 2016</u>). More recent studies have drawn corollaries between mental health and psychosocial well-being, perception of poverty, deprivation, and even physical health.

In Kenya, it was found that one-time lump-sum transfers, short-term (two years only) and long-term (two years received, 12 years anticipated) transfers all led to physical and mental health improvements (<u>Banerjee et al. 2020</u>).⁴ Reductions in the likelihood of ill family members in the last 30 days ranged from 3.6 percent to 5.7 percent, with no significant difference by transfer. While not significant, mental health improvements were more evident in the short-term and long-term transfers than the lump sum one-time transfer. Recipients had improved mental wellbeing, lowered rates of depression and improved feelings of security.

Similar findings in the United States highlight the mental health benefits of longer-duration cash transfers. In a program in which American Indian households below the federal poverty line received cash transfers throughout childhood, financed by local casino income, depression and anxiety were significantly lower in young adults who had been exposed to the transfer longer during childhood (<u>Copeland et al. 2022</u>). These adults were exposed to transfers for 14 to 18 years—throughout childhood into adolescence.⁵ Although socioeconomic status was examined as a potential complicating factor, the positive effect of longer exposure produced double the negative effect size of low socioeconomic status; both results were statistically significant.

In Kenya, there were no differences for psychological wellbeing, measured as an index, although one variablecortisol levels-was significantly lower with one-time lumpsum transfers than with monthly transfers (Haushofer and Shapiro 2016). Cortisol levels, a measure of stress, are typically a predictor of long-term health. Three years later, although differences were found between recipients and nonrecipients (0.23 standard deviation lower stress), there were no differences in cortisol levels between the monthly and one-time lumpsum transfer recipients (Haushofer and Shapiro 2018). This suggests diminishing returns with time and a possibility that the initial size of the one-time lumpsum transfer played a role in reducing stress levels. In the Feed the Future Nigeria Livelihoods Project, psychological well-being also increased more in recipients than nonrecipients, although this difference disappeared once transfers ended, and no difference was detected between monthly and quarterly payments (Bastian, Goldstein, and Papineni 2017). A separate study of more-frequent payments in Kenya found little difference in effects on psychological well-being between recipients of weekly and lumpsum transfers (Haushofer, Mudida, and Shapiro 2020).

⁴ Illnesses gauged did not include COVID-19 infections, which were not robustly tracked at the time of the study in 2020.

⁵ Other potential factors include greater community cohesion in American Indian communities than in surrounding communities and higher rates of perceived despair in impoverished Appalachian communities.

Studies focusing on mental health and psychosocial wellbeing are relatively newer than those focusing on physical health. Further research is warranted, building on new studies at the intersection of duration, frequency, and mental health.

Education

In addition to health and nutrition outcomes, transfersespecially conditional cash transfers—have been used to improve cognitive development and educational attainment of children, including school enrollment. These cash transfers are often correlated with a developmental period to achieve specific results. Echoing previous studies, this review finds that exposure to cash transfers over a long time, synced with early childhood development, may increase educational attainment and future education prospects for children. This is especially true if timed well, such as to the first 1,000 days of a child's life, school enrollment season, or fee collection periods. The effect is most observable at the primary and secondary levels but also affects university attendance. Only one study assessed education outcomes based on transfer frequency in Kenya and found no difference between weekly and lumpsum transfers (Haushofer, Mudida, and Shapiro 2020). Timing of the transfer, for example during school enrollment or in the transition of school-aged girls from primary to secondary education, may be more important than frequency of payments. Further research is needed on frequency and education.

In evaluating the conditional transfer program, Oportunidades (formerly Progresa) in Mexico, it was found that children exposed to transfers for a longer duration and during the first 1,000 days of their lives experienced educational and income benefits in adulthood when interviewed at age 30 (Caridad Araujo and Marcours 2021). Children who were exposed earlier (first 1,000 days) and longer (18 months more) than those who received benefits once already in school achieved 0.4 years more schooling than their peers by age 18 to 20 and were 8 percent more likely to complete secondary school, 18 percent more likely to complete upper secondary school, and 67 percent more likely to complete tertiary education. Results were all stronger for women, underscoring the potential gender ramifications of investing in childhood development over an extended duration, in this case 10 years or longer. Children who benefitted from longer transfer periods earned 15 percent higher annual labor income on average, as high as 25 percent for women, and had greater geographic mobility for employment in cities in Mexico and the United States.

American Indian households receiving transfers during early childhood for longer than a decade had not only better mental health, but also much better functional outcomes in adulthood than their non-Indian peers of similar socioeconomic status who did not receive transfers (Copeland et al. 2022).⁶ Functional outcomes studied included physical health, financial well-being, engagement in employment, and engagement in risky or illegal activities. Greater engagement in employment and less engagement in risky or illegal activities were linked to better education outcomes and future prospects. Effects on functional outcomes were largest for the youngest cohort, who received transfers the longest—from age 12. In Mexico, the Programa de Apoyo Alimentario, which provided cash and in-kind transfers for varying durations to students, likewise noted better test scores four to 10 years later in students who received transfers before the age of two (Avitabile 2019).7

Employment and Labor

As with size of cash transfers, it may be assumed that duration would affect labor, with longer duration transfers decreasing the number of hours worked, because of the displacement effect of high-value, predictable, stable

⁶ It is surmised that, in addition to transfer payments, positive changes in other community investments such as improvement in local health care, education, and housing resources may also have contributed to outcomes.

⁷ According to the authors, limited sample size precluded precise comparison.

income. This review concurs with studies from before 2016, which also found that long-term transfers do not necessarily reduce working hours but rather affect the type of labor that households engage in. As with education, the limited studies assessing frequency found no difference in impact between lumpsum and more-frequent transfers. There was no difference in impact on labor outcomes between weekly and lumpsum transfers in Kenya (Haushofer, Mudida, and Shapiro 2020) and no difference between monthly and lumpsum groups in labor or profits in the short or long term (Haushofer and Shapiro 2018).

A review of a universal basic income in Alaska financed by statewide oil production found a negligible impact of the transfer on working hours (Jones and Marinescu 2022). A small increase was found in part-time employment due to a reduction in working hours, especially among near-retirees, or an increase in part-time entrants to the labor market. The study of households—which received an average of \$3,900 per year over their lifetime—also points to possible general equilibrium effects due to the transfer increasing consumption and, consequently, labor demand. As cash is distributed, consumption levels rise, increasing demand for goods and jobs and thereby rebalancing the effect of the cash in the local economy rather than decreasing working hours and employment.⁸

A review of cash transfer programs across sub-Saharan Africa found households moving away from agricultural wage labor as a result of receiving sustained, long-term cash transfers during a period of eligibility measured using poverty-targeting criteria (<u>Daidone et al. 2019</u>).⁹ This suggests an evolution in labor patterns as households opted for self-driven enterprises and own-farm agriculture over wage labor. Households in Kenya receiving long-term universal basic income transfers monthly for two years or two out of an anticipated 12 years were more likely than group received one-off to engage in commercial risk-taking activities, inadvertently increasing their sensitivity to large shocks during the pandemic (<u>Banerjee et al. 2020</u>). These households were also significantly more likely to move from wage work to their own nonagricultural enterprises (4.6-4.9 percent increase in new enterprises) with presumed higher earning potential, although because their investments were greater, when businesses stalled during the pandemic, their losses were also greater than those receiving short-term transfers who invested less to begin with.

Longer duration may also increase the likelihood of engaging in other potentially beneficial yet inherently riskier livelihoods. This includes risking job migration, as observed among Progresa households in Mexico (Caridad Araujo and Macours 2021). Therefore, in times of crisis or economic setback, long-term transfers that relax inhibitions to investment may expose households to potentially harmful market sensitivity. This is a doubleedged sword of potential higher profits and greater risk. A related channel is the impact of long-term transfers on future employment and labor for children and functional outcomes such as financial well-being, as observed in studies from the United States (Copeland et al. 2022) and Mexico (Caridad Araujo and Macours 2021) measuring the effects of long-term transfers in childhood on adult earning potential.

Consumption, Savings, and Investment

Studies of savings, investment, and labor outcomes based on frequency of transfer find largely no difference between transfer frequency groups. Sufficient evidence based on duration was not identified.

⁸ Further research is needed on inflationary impacts of large transfers over time on working hours—a hotly debated area of study because of the proliferation of cash transfers during the COVID-19 pandemic. Additional research is also needed on tax-financed universal basic incomes because the potentially anomalous use of a natural resource as in Alaska to finance a transfer may present "dead weight" losses to the economy (Jones and Marinescu 2022). Combined, these could outweigh a general equilibrium effect and in turn decrease labor (working hours) among recipients.

⁹ Ghana and Zimbabwe did not follow this pattern because of market configurations.

Weekly transfers increased household revenue significantly more than lumpsum transfers in Kenya, but no difference in impact was detected for asset holdings (Haushofer, Mudida, and Shapiro 2020). In Rwanda, small monthly transfers were used to reduce monthly debts, whereas lumpsum transfers were put toward savings(McIntosh and Zeitlin 2021).¹⁰ In Nigeria, there was no difference in household assets or employment between monthly and quarterly payment recipients (Bastian, Goldstein, and Papineni 2017). Quarterly recipients initially owned more animals than monthly recipients, but this difference had dissipated by the second follow-up, indicating that monthly recipients were able to save enough to buy assets eventually, whereas quarterly recipients possessed the liquidity immediately upon transfer receipt.

More-significant differences in frequency of payments such as monthly versus lumpsum payments—may illuminate constraints on credit and savings that affect savings and investment outcomes. Although the value of assets was higher for lumpsum transfer recipients in Kenya in the short term (Haushofer and Shapiro 2016), no difference was detected between the transfer groups three years later (Haushofer and Shapiro 2018). Purchases of expensive assets such as metal roofs, which monthly recipients were 12 percentage points less likely to acquire, instead using the transfer for current consumption, drove the initial difference. Thus, monthly recipient households may be credit and savings constrained.

Although it was not a quantitative impact evaluation, an ethnographic study in Brazil found that female transfer recipients invested monthly and lumpsum payments differently; small monthly payments from the social assistance program Bolsa Familia were used to buy food, school supplies, and durable household assets, whereas lumpsum payments received from the Maternity Wage program were invested in income-generating agricultural assets (<u>Morton 2019</u>). One primary reason for the difference in investing is probably related to credit and savings constraints. Women set aside money from the reliable monthly payments to save for larger assets through *mascates*, roving peddlers who sell furniture, appliances, and other household items and offer flexible terms of credit. This is the only credit and savings system available to recipients and is limited to specific goods that do not include income-generating assets. The lumpsum payment is 10 times as large as the per capita monthly income and is granted to fewer than half of women who apply for the benefit, making the timing and receipt of the payment unpredictable. As such, the lumpsum payment is used as a savings device to purchase expensive assets.

Studies considering the impact of the frequency of cash transfers on total expenditure and consumption largely find no difference yet are ultimately inconclusive because of contradictory findings. In Kenya, monthly and lumpsum transfers had no difference in effect on expenditures in the short or long term (Haushofer and Shapiro 2016; 2018). Likewise, in Nigeria, there was no difference between monthly and quarterly payments (Bastian, Goldstein, and Papineni 2017), although two studies had contradictory findings. In Kenya, one study (Haushofer, Mudida, and Shapiro 2020) found that weekly transfers significantly increased consumption, whereas lumpsum transfers had a nonsignificant effect; in Rwanda, lumpsum transfers, whether small or large, led to a greater increase in consumption assets than monthly transfers (McIntosh and Zeitlin 2021). Previous research has found that consumption in low-income households peaks when a paycheck arrives and declines until the next paycheck (Aquila, Kapteyn, and Perez-Arce 2017). Given this, more-frequent payments may facilitate consumption smoothing. From an implementation position, morefrequent transfers are likely to be more costly in terms of fees and staff time than one-time lumpsum transfers.

¹⁰ Instead of increasing savings, small Gve Directly transfers led to a 77 percent pay-down of debt and an increase in the value of productive and consumption assets, by 26 percent and 35 percent, respectively. Thus far, then, the comparison between Gikuriro project and cash breaks down into two distinct dimensions of improvement, each of which has a different and entirely plausible pathway to long-term improvements: savings (Gikuriro) or debt reduction and asset investment (GiveDirectly).

Further research is needed comparing frequency alongside relative differing sizes of one-time lumpsum transfers and varying duration periods. (See XYZ brief in this series for further insights into the impact of transfer value.)

Gender Equity and Empowerment

It is believed that the frequency and size of disbursements influence women's ability to control cash and thus affect additional outcomes such as child-related expenditures, health, and production (Bastalgi, Hagen-Zanker, and Sturge 2016). The general assumption is that smaller, more-regular transfers may be easier for women to conceal, whereas larger, less-frequent transfers are more visible. These assumptions were the focus of a study in Nigeria (Bastian, Goldstein, and Papineni 2017) in which monthly or quarterly transfers were provided to women. Women's ability to retain and control the cash was the same with the guarterly and monthly transfers. Transfers increased household consumption, female employment, and well-being, but the frequency of the transfer made no difference in any impacts observed. Only one study specifically examined intimate partner violence as an outcome in Kenya and found no difference between weekly and lumpsum transfers (Haushofer, Mudida, and Shapiro 2020).

In Brazil, lump sums narrowed the gender asset gap in households (Morton 2019). After paying for household expenditures, women used small monthly transfers to purchase assets, although choices were limited to gendered norms about items that women should own, such as household items, whereas men may own expensive, income-generating assets such as livestock and crops. When provided with a larger lumpsum transfer as a maternity benefit, women retained a substantial portion after covering household expenditures. Lacking access to a savings institution, they invested the money in more-traditional agricultural, or "male", assets. These findings suggest that, in some contexts, large¹¹ one-time lumpsum transfers may increase gender equity. (See XYZ brief in this series for further insights into the impact of transfer value.)

Implementation Considerations

Independently, each design factor has a different effect on the impact of a cash transfer on household welfare outcomes. For households in the bottom two quintiles of income (bottom 40 percent of the population according to income), large, high-value transfers may have the strongest impact on economic indicators such as income generation, asset accumulation, and savings, as well as on consumption and food security (See XYZ size/value brief). Smaller, low-value transfers of less than 30 percent of annual household consumption may have a positive nudging effect on child nutrition and education outcomes. By comparison, frequency does not have a notable effect on any major household welfare outcomes unless combined with the impacts of size, value, or duration, as demonstrated in this brief and elsewhere in the series.

Size, frequency, and duration can interplay to affect outcomes. In Rwanda, a one-time transfer or one year of large monthly transfers significantly affected not only consumption and assets, but also diet and child anthropometric characteristics (0.2 standard deviations over control group) despite the very short length of time during which these were administered (McIntosh and Zeitlin 2021). Whereas smaller transfers were primarily used to reduce monthly debt (77 percent paid down debt) and increase productive (26 percent) and consumption assets (35 percent), one-time transfers were used to accumulate savings (109 percent increase). Recognizing that the frequency of transfers would continue for a decade more (two years received, 12 years anticipated), households in Kenya also adjusted their behavior during COVID-19 despite receiving small transfers of just \$22.50 per month (approximately \$0.75 per day) (Banerjee et al. 2020).

¹¹ For the purpose of this series, this refers to high-value transfers of more than 30 percent of annual household consumption, as discussed in the brief on cash transfer values.

As demonstrated in this brief, smaller cash transfers (less than 30 percent of annual consumption) given in a predictable flow over a long time (more than 24 months) may reduce debt or improve health and nutrition outcomes by providing consistent, reliable assistance that households can earmark. This makes it easier to address frequently occurring expenditures such as paying down outstanding loans and purchasing nutritious food for children daily which could give an advantage over a larger lump sum that could be used for a larger investment such as in household durable goods or savings. Larger cash transfers (greater than 30 percent of annual consumption) given one time as a lump sum can immediately increase savings and allow households to plan for future needs and shocks.

Individual design features cannot be taken in isolation when developing a fit-for-purpose cash transfer. From an implementation perspective, other things being equal, it would be presumed that implementers should opt for the lowest cost to administer. Based on the available evidence demonstrating relatively low variance in outcome impacts based on frequency, one-time lumpsum transfers may be more appealing to implementers than more-frequent payments, such as monthly or weekly transfers, given lower costs and greater ease of implementation. In Nigeria (Bastian, Goldstein, and Papineni 2017), once all the fixed and variable costs of delivery are accounted for, quarterly transfers cost half as much as monthly transfers to administer, with no notable difference in outcomes. In Rwanda, although lumpsum transfers had slight advantages over monthly transfers in savings, consumption, and child health outcomes, there was no clear reason to incur the costs of monthly transfers (McIntosh and Zeitlin 2021).

Nevertheless, cost-effectiveness implies not only examining cost-benefit analysis, but also relative effectiveness of approach in terms of impact. Therefore, an investment designed to drive specific child health, nutrition, or education outcomes might require a combination of short-term, low-value transfers with messaging or conditionalities or long-term, low-value transfers during critical periods of childhood such as the first 1,000 days or school enrollment. Information regarding fidelity of transfer delivery, such as frequent one-time payments, was too limited to draw conclusions for this review. Only one study—using nonexperimental methods—highlighted the predictability and reliability of payments, but this was more contextual than fidelityrelated. In Brazil, reliable, long-term, low-value monthly payments led traveling vendors to visit rural areas regularly and offer flexible credit options, which enabled women to commit to a savings plan (<u>Morton 2019</u>). Objective is crucial in determining the best fit design.

Emerging Insights

Recent studies corroborate previous findings that, lumpsum, one-time cash-transfer payments can have beneficial impacts, particularly on labor, investment, and income generation. Positive impacts can still be achieved if a transfer is sufficient in value, even if it is received only once. Findings in this review largely align with the assertion that payment frequency alone does not typically drive outcomes. Therefore, policy makers and implementers should consider one-time lumpsum transfers to be as effective as smaller, more-frequent transfers across a range of outcomes. Only two studies reported noteworthy differences-one in favor of lump sums over monthly transfers in affecting savings, consumption, and child health outcomes in Rwanda (McIntosh and Zeitlin 2021) and the other in favor of weekly transfers over lump sums in increasing consumption in Kenya (Haushofer, Mudida, and Shapiro 2020)—both studies acknowledged the small size of the difference.

Duration may be more important for consistent low-value cash transfers when households need a steady income flow,¹² for example to supplement income for routine expenses such as child health and nutrition or education,

¹² Low-value transfers refer to those of 30 percent or less of annual household consumption or income per capita for households earning the bottom 40 percent of income—the lowest two quintiles.

or even in times of crisis. Policy makers and implementers may consider duration as a highly influential factor when combined with smaller, more frequent cash transfers, with an emphasis on poverty targeting.

To illustrate, a household receiving a transfer intended to encourage better nutrition and diet for young children may benefit from small transfers at predictable intervals throughout the first 1,000 days of a child's life, which may improve the child's early development and long-term cognitive development or increase their educational attainment or even employment and earnings. By contrast, if a transfer is designed to fortify businesses affected by a large covariate shock such as a pandemic, a larger, one-time, lumpsum transfer may be less costly to implement and more likely to enable the household to invest, accumulate assets, or save.

Although this set of recent studies on duration may be limited, it supports previous findings and provides nuanced findings of the impacts on mental health and psychosocial well-being, as well as employment and labor. Further research should be undertaken on the marginal impact gains of a longer duration such as one year. Most studies examined concentrated on short-term duration of 24 months or less or long-term duration of 10 years or more rather than on incremental periods in between. Further research would be merited on specific time periods of intervention between 24 months and 10 years, especially when timed to a critical period. Salient gaps in studies remain, including lack of large-scale studies of the impact of universal basic income on employment and labor and on providing a transfer at a specific critical development juncture versus continuously through childhood.

Moreover, additional evidence is needed, particularly on how various design factors influence the impact of transfer frequency across outcomes. For instance, further research should be undertaken on interactions between recipient gender and frequency based on desired outcomes, as evidenced by the findings on intimate partner violence. Further research is also merited on education outcomes given the dearth of studies. Gaps also remain regarding the timing and contextual factors implicit in outcomes, such as agricultural seasons, gender norms, access to financial and economic resources or opportunities, and access to credit and savings, that may determine when and where different impacts occur.

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This note is part of thematic briefs in the series including:

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The series is a joint initiative by Innovations for Poverty Action and the World Bank's Social Protection and Jobs Global Practice comprising Nathanael Goldberg, Lauren Whitehead, Savanna Henderson, Ana Alatriste Tamayo, Julie Kedroske, Ugo Gentilini, Yuko Okamura, Mohamed Almenfi, Hrishikesh TMM Iyengar, and Mia Blakstad. For any questions regarding this brief, please reach out to socialprotection@poverty-action.org and malmenfi@worldbank.org

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