
The impact of the Lesotho Child Grant Programme in the lives of children and adults with disabilities: Disaggregated analysis of a community randomized controlled trial

*Richard de Groot**, *Tia Palermo***,
*Lena Morgon Banks**** and *Hannah Kuper****

*Independent Consultant, Oosterhout, Netherlands; **University of New York at Buffalo, United States of America; ***London School of Hygiene & Tropical Medicine, United Kingdom

Abstract Globally, people with disabilities are disproportionately affected by poverty. Social protection policies, including cash transfers, are key strategies to address poverty “in all its forms”, but it is currently unclear how such programmes affect people with disabilities. This study examines differences in the impact of the Lesotho Child Grant Programme (CGP) on food security, health, education and livelihoods between people with and without disabilities using data from a community randomized control trial. Overall, this study finds the CGP had significant and differential impacts for people with disabilities across multiple health indicators (e.g. increased health expenditures, self-rated health, likelihood of seeking healthcare). The CGP also had an impact on food security, decreasing the number of months households with and without members with disabilities faced

55

Addresses for correspondence: Richard de Groot (corresponding author), Independent Consultant, Oosterhout, Netherlands; email: ral.degroot@gmail.com. Tia Palermo, Department of Epidemiology and Environmental Health, 270 Farber Hall, State University of New York at Buffalo, Buffalo NY 14214-8001, United States of America; email: tiapaler@buffalo.edu. Lena Morgon Banks, International Centre for Evidence in Disability, London School of Hygiene & Tropical Medicine, London WC1E 7HT, United Kingdom; email: morgon.banks@lshtm.ac.uk. Hannah Kuper, International Centre for Evidence in Disability, London School of Hygiene & Tropical Medicine, London WC1E 7HT, United Kingdom; email: hannah.kuper@lshtm.ac.uk.

extreme food shortages. There was also a modest but significant and differential impact of the CGP on the engagement of people with disabilities in paid work. The CGP only had an impact on school enrolment for children without disabilities, however the difference in impact was non-significant and likely due to underpowered sample sizes. Overall, people with disabilities receiving the CGP still experienced high levels of absolute deprivation, and were generally still worse off compared to people without disabilities, indicating a need for adapted or complementary social protection and other poverty alleviation programmes.

Keywords children, social protection, disability benefit, poverty, social development, Lesotho

Introduction

Globally, approximately 15 per cent of the world's population has a disability (WHO and World Bank, 2011). On average, people with disabilities and their households are poorer than those without disabilities (WHO and World Bank, 2011; Banks, Kuper and Polack, 2017), and this association is likely to be bi-directional. On the one hand, people with disabilities are vulnerable to becoming poor, as they are less likely to be employed, earn less on average when they do work, and often incur costs related to their disability (e.g. accessible transport, healthcare) (Mitra, 2017; Mitra et al., 2017). Further, other household members may reduce their engagement in work, school and other productive activities in order to provide caregiving support (Palmer et al., 2015). On the other hand, people who are poor are more likely to become disabled as they live in risky and unstable environments, and have worse access to healthcare.

Many studies have highlighted the increased risk of poverty and exclusion amongst people with disabilities and their households. For example, 80 per cent of 150 studies in a systematic review found people with disabilities and their households were more likely to be poor across monetary measures of poverty (e.g. income, expenditures, assets) compared to their counterparts without disabilities in low- and middle-income countries (LMICs) (Banks, Kuper and Polack, 2017). Additionally, in an analysis across 22 countries, households with members who are people with disabilities were more likely to be multidimensionally poor (face deprivations in household living standards and in the education and health of

household members) compared to households without members with disabilities in all settings (UN, 2018). Still, monetary and multidimensional poverty measurements tend to be measured at the household level, which may mask intra-household differences. This is a particular concern for people with disabilities, who may experience a lower prioritization in the division of household resources or face additional challenges to improving their well-being (e.g. non-inclusive environments) (Banks, 2020). On indicators of individual-level participation and well-being, studies have shown that people with a disability have poorer outcomes in areas such as school attendance (Mizunoya, Mitra and Yamasaki, 2018; Mitra, 2017), work and livelihoods (Mitra, 2017; Mizunoya and Mitra, 2013; Mactaggart et al., 2018a) and health and healthcare spending (Mitra, 2017; Mitra et al., 2017; UN, 2018).

Evidence is lacking on the effectiveness of strategies to reduce poverty and improve participation amongst people with disabilities and their households (Saran, White and Kuper, 2020). Social protection is a key strategy to address poverty and vulnerability, and is highlighted across several Sustainable Development Goals (SDG), particularly in Goal 1 targets.¹ Social protection is defined as “the set of policies and program[me]s aimed at preventing or protecting all people against poverty, vulnerability and social exclusion throughout their lifecycle, with a particular emphasis towards vulnerable groups” (SPIAC-B, 2020). Broadly, social protection instruments include: i) social insurance to mitigate risk (e.g. health insurance), ii) social assistance, such as transfers (in cash or kind) to vulnerable groups, including people with disabilities, and iii) labour market interventions, which aim to promote employment and protect workers (e.g. minimum wage) (ILO, 2017). Cash transfer programmes in particular have high potential to address the increased vulnerability to poverty among people with disabilities, as they are increasingly being scaled-up globally (ILO, 2017). Furthermore, people with disabilities are often either explicitly targeted (e.g. disability allowance), or implicitly targeted, given eligibility criteria that often encompasses large numbers of people with disabilities (e.g. labour constrained or households living in poverty).

Literature examining the impacts of cash transfers have generally found positive impacts on indicators of poverty and well-being for the general population, such as improved school attendance, greater uptake of health services and improved nutrition (Taaffe, Longosz and Wilson, 2017; Bastagli et al., 2019). However, there is a lack of evidence on the impact of cash transfers specifically, or social protection more broadly, for people with disabilities (Banks et al., 2016),

1. Target 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

particularly from sub-Saharan Africa.² Impacts of cash transfers – particularly individual-level indicators of participation and well-being – may differ for people with disabilities. On the one hand, people with disabilities and their households may experience a greater impact from receiving a cash transfer compared to people without disabilities as they are worse off to start with. On the other hand, recipients with disabilities and their households may experience more modest impacts compared to people without disabilities due to several factors. For example, recipients with disabilities require cash transfers to cover not just a lack of income due to poverty, but also pay for disability-related expenses (e.g. for healthcare, personal assistance) (Mitra et al., 2017). However, cash transfer programmes rarely account for these additional costs by either providing higher cash values or through complementary programmes (e.g. free assistive device provision, health insurance) (Banks et al., 2021; UN, 2018). Additionally, people with disabilities often face other non-financial barriers to participation and improving standards of living, such as the availability and quality of needed goods and services, attitudes towards disability and inaccessible environments (WHO and World Bank, 2011; UN, 2018). As such, people with disabilities may experience fewer gains particularly in individual-level indicators of poverty and well-being from receiving a cash transfer, unless programmes or complementary interventions address both extra costs and the non-financial barriers people with disabilities face to improving their standard of living and well-being (Banks et al., 2021).

Several cash transfer programmes in sub-Saharan Africa were introduced in the decade after 1999 in response to the HIV/AIDS pandemic and the subsequent increasing number of orphans and vulnerable children (OVC). These programmes generally targeted caregivers to enable them to support OVC, in recognition of the growing needs among vulnerable households, but also in the belief that cash transfers would encourage the fostering of OVCs in extended families, a situation preferable to institutionalized care. By definition, OVCs are either orphaned (single or double) or are living in households with a chronically ill adult. Thus, households with OVCs frequently include adults with disabilities. In this way, while not specifically targeting people with disabilities, programmes targeting OVCs include a large number of people with disabilities. Examples of these types of programmes include Lesotho's Child Grants Programme (CGP) and Kenya's Cash Transfer Programme for Orphans and Vulnerable Children (CT-OVC).

Lesotho's CGP is an unconditional cash transfer programme with the primary objective to improve the living standards of OVC by reducing malnutrition, improving health status, and increasing school enrolment (Pellerano et al., 2014). The CGP started as a small, donor-funded pilot in 2009, and by 2015 was a government-run and funded social protection programme, reaching

2. See World Bank web portal: Poverty Overview.

25,000 households across the country (Pellerano et al., 2016). The CGP is implemented by the Ministry of Social Development (MSD) of the Government of Lesotho, along with other social protection programmes including the Old Age Pension, school feeding, and tertiary bursaries (Pellerano et al., 2016). The programme targets poor households with at least one child using a proxy means test (PMT) accompanied by a community validation exercise. Eligible households receive a quarterly transfer of 360–750 maloti³ (LSL) (approximately USD 36–75 in 2013 prices), depending on the number of children in the household.⁴ The transfer value constitutes on average 14 per cent of pre-programme consumption levels, which increased to 21 per cent after an adjustment in April 2013.

An impact evaluation of the CGP demonstrated some positive impacts in several domains, for children, other household members and the household overall. The programme had a small positive impact on improving household food security and nutrition, but not on total household expenditure (Tiwari et al., 2016). The CGP was also linked to increased expenditure on child-specific needs, such as education, clothing and footwear (Pace et al., 2019). As a result, the CGP improved schooling outcomes for children, particularly secondary school-aged children and girls (Sebastian et al., 2019). The programme also reduced the occurrence and intensity of multidimensional deprivation among children living in households with low earning capacity that suffered negative economic or demographic shocks (Carraro and Ferrone, 2020). In addition to the impacts on children, the CGP also improved indicators of well-being for the household and other household members. For example, CGP enrolment led to increased farm production (Prifti, Daidone and Davis, 2019) and reduced the engagement of adults in occasional and irregular work (Pellerano et al., 2014).

Data on disability was collected within the CGP impact evaluation, but analyses have not considered the differential impact of the programme for people with disabilities. The current study aims to address the gap in the existing evidence on how cash transfers affect both adults and children with disabilities. Although the primary intended beneficiaries of the CGP are children, the grant is a household rather than individual transfer and carries no conditionality, meaning households can allocate the funds as they see fit. Other evaluations of the CGP have noted impacts for the household and other adult members of the household (Pellerano et al., 2014). Potential impacts on adults are plausible, for example adults with disabilities may be more likely to engage in livelihood activities if their children are in school or if the income from the transfer allows them to

3. The Lesotho currency is the loti (LSL; plural: maloti).

4. 2013 prices are cited because the data set used for this article comes from an impact evaluation completed in 2013 and published in 2014 (Pellerano et al., 2014).

seek needed healthcare that improves their functioning. As such, there is value to exploring the impact of the CGP on both adults and children with disabilities.

Consequently, we examine how programme impacts vary between children and adults with and without disabilities and their households, across a range of indicators within the domains of food security, education, health and livelihoods. This is achieved through a secondary analysis of the cluster-randomized controlled trial evaluating the Lesotho CGP (see Pellerano et al., 2014).

Methods

Intervention description

The CGP is an unconditional cash transfer programme that is targeted to poor households with at least one child younger than age 18. The poverty status of households is measured by a proxy means test (PMT) and community validation. The PMT includes proxy measures of household wealth, such as housing characteristics, household demographics and asset ownership. Based on the PMT score, households are categorized into one of five categories, ranging from one, the lowest category, meaning “ultra-poor”, up to five, meaning “better off”. Households with at least one child younger than age 18 are deemed eligible for the CGP when they fall in one of the two lowest categories of the PMT score and are identified by the community validation exercise as the “poorest of the poor”. The CGP is therefore not directly targeted at households with adults or children with disabilities.

The transfer value for the CGP was originally set at a flat rate of LSL 120 (approx. USD 12) per month per household and was disbursed every quarter. Effective from April 2013, the cash transfer was indexed to the number of children as follows: (1) Households with 1–2 children LSL 360 (USD 36) quarterly; (2) Households with 3–4 children LSL 600 (USD 60) quarterly; and, (3) Households with 5 children or more LSL 750 (USD 75) quarterly.

Study design

The data used in the current study come from an impact evaluation conducted by Oxford Policy Management around the expansion of the CGP, in order to establish the impact, effectiveness, efficiency and sustainability of the programme (Pellerano et al., 2014). The study took place in five Districts: Qacha’s Nek, Maseru, Leribe, Berea and Mafeteng, covering ten Community Councils which were made up of 96 electoral divisions (EDs). The design of the impact evaluation was a community randomized controlled trial (RCT). This approach allowed

assessment of the impact of the programme by comparing a representative sample of CGP recipients (treatment group) with a control group – similar households and children who do not benefit from the programme. Half of all EDs were randomly assigned to receive the CGP, and the other half were assigned to the control arm. Randomization took place in public lottery events in each Community Council. In treatment EDs, the CGP implementers undertook the targeting process, selected recipients according to the eligibility criteria and proceeded to enrolment. In control EDs, the programme mimicked this approach so that eligible households were identified for the evaluation control group, but these households were not enrolled until after follow-up was completed. Intervention and control groups were interviewed in 2011 before the CGP transfer began (baseline) and again in 2013, after the CGP had been operating for two years (follow-up). Eligible participants from the control arm were enrolled in the CGP after the follow-up survey had been completed.

Sample

Baseline data were collected between June and August 2011 and comprised around 3,000 households. The follow-up survey fieldwork took place at the same time of the year to avoid seasonality bias – between June and August 2013 – and covered around 2,000 households. One objective of the original evaluation was to identify the spillover effects on households that were not eligible for the CGP (i.e. had no child younger than age 18 or did not meet the poverty criterion). The sample for the impact evaluation therefore included eligible households and non-eligible households in both treatment and control communities. In this article, we focus on the impact of the CGP on individuals in eligible households (in both treatment and control communities) only.

Data collection

The programme was targeted at the household level, and so one main respondent was interviewed during the baseline and endline surveys. Eligible respondents included the head of the household or the most informed household member, and this person reported on indicators for all household members.

The primary independent variable of interest in this study is disability status. Respondents were asked concerning each household member whether the individual has “any physical or mental disability (blind, crippled, etc.)”, to which they responded “yes” or “no”. People were classified as having a disability if responding “yes” to this question.

Outcome indicators

We investigated the impacts of the CGP in four domains in order to capture household- and individual-level indicators of poverty and well-being: i) food security, ii) education, iii) health and iv) livelihoods. Food security is measured at the household level, while education, health and livelihood outcomes are measured at the individual level.

We used the following indicators, primarily driven by data availability:

Food security. We constructed three food security measures. Food expenditure is the monthly amount of money spent on food items. We summed the expenditures for 58 individual food and drink items. We use two measures of food expenditures: the amount expressed in real maloti, using an inter-survey inflation rate of 18 per cent (Pellerano et al., 2014), and the amount expressed in US dollar purchasing power parity (PPP). The second food security indicator measured the number of months in the year during which the household experienced no food shortages, some food shortage or extreme food shortage. The final food security indicator measured whether any child or adult experienced any of the following food insecurity situations during the three months preceding the survey: eating smaller meals, eating fewer meals or going to sleep at night hungry because of a lack of food. If any of these three situations occurred, we coded the indicator 1 and zero otherwise. The indicator is constructed separately for adults and children in the household.

Education. We constructed two indicators for education among school-aged children (aged 5–19). The first measures whether a child was ever enrolled in school, and the second indicator measures current enrollment.

Health. We included four health-related indicators. The first was a subjective self-assessment of current health, measured on a three-point scale as poor, fair or good. We dichotomize this variable with 1 representing good health, and zero otherwise. The second was the presence of a long-term illness, measured by a positive response to a question if the respondent had been continuously ill for at least three months during the last 12 months. Third, we examined whether the individual had consulted a health provider in the three months before the survey, as a measure of health care access. Finally, we computed the total health expenditures attributed to each household member. Due to the large number of zero responses and outliers, we also transformed this variable using the inverse hyperbolic sine (IHS). In contrast to a typical log-transformation, the IHS lets us retain the zeros while allowing us to interpret the coefficients as percentage change (Geng et al., 2018).⁵

5. This transformation reduces the potential for bias due to extreme outliers, and addresses the issue of non-normality in the error term when using the original expenditure values.

Health outcomes are available for all household members, and we conducted separate analyses for children and adults.

Livelihoods. For livelihoods, we focused on common economic opportunities for the local working-age population (aged 15 or older): household enterprise, agricultural activity (farming or livestock rearing) or paid work. We constructed dummy indicators equal to 1 if the individual was engaged in the activity in the 12 months prior to the survey, and zero if they were not. We also constructed a dummy indicator for engagement in any of these three livelihood activities as a measure of labour market participation.

Data analysis

We used a difference-in-difference approach to estimate programme impacts of the CGP, exploiting the longitudinal nature of the evaluation. This technique essentially compares the change in the treatment group, between baseline and follow-up, to the change in the control group. Due to the randomized assignment, this approach provides an unbiased estimate of the impact of the CGP on our variables of interest. We employed a triple-difference estimation to estimate differential impacts by disability status. The econometric model being estimated is:

$$Y = \beta_0 + \beta_1 P + \beta_2 T + \beta_3 D + \beta_4 P \cdot T + \beta_5 P \cdot D + \beta_6 T \cdot D + \beta_7 P \cdot T \cdot D + \beta_8 X + \varepsilon \quad (1)$$

Where Y is the outcome of interest. P is a binary variable set to 1 if the household is a recipient of the Lesotho CGP, and to zero if it is not. T is a dummy variable for time of the observation, set to 1 if the observation is from the endline survey, and to zero if it is from the baseline. D is the indicator for disability, with 1 representing people with disabilities and zero for those without disabilities. For household level indicators, D represents a household with a person with a disability. X represents a set of observed individual and household characteristics, including age in years, sex and household size. For household level indicators, we only control for household size. Standard errors for the estimation were clustered at the randomization level (villages) and baseline sampling weights were used.

In this model, β_4 represents the impact on people without disabilities, compared to people without disabilities in the control group. The sum of β_4 and β_7 represents the impact on people with disabilities, compared to people with disabilities in the control group.⁶ β_7 represents the differential impact on people with disabilities, compared to the impact on people without disabilities. A statistically significant

6. The estimate of the sum of β_4 and β_7 and associated standard error is computed using Stata's *lincom* command after running equation 1.

coefficient for β_7 would indicate that the CGP differentially affected individuals with and without a disability. For household level indicators, the interpretation is similar for households with people with disabilities.

We conducted a number of study validity checks. We used the baseline data to regress each outcome on a treatment indicator in order to assess whether the treatment group and control group were balanced at baseline.⁷ A significant p-value ($p < 0.05$) would indicate that there was a significant difference between our treatment group and control group for that indicator. We conducted this test for people (households) with disabilities and people (households) without disabilities separately. We also assessed whether attrition affected the internal validity of our results.

Ethics

The data used in this secondary data analysis are anonymized and publicly available and hence Institutional Review Board approval was not required.

Results

At baseline, the sample included 1,486 eligible households (747 treatment households and 739 control households). At endline, 1,353 households were successfully followed-up.⁸ The total number of individuals in these households followed-up was 8,146. Table 1 provides the baseline descriptive statistics of people with and without disabilities in our sample. Individuals in our sample were relatively young, with an average age of 22.6 years. This young age distribution reflects the targeting approach of the CGP, aimed at families with children. In our CGP sample, the disability prevalence was 4.3 per cent, and 18.8 per cent of households included at least one member with a disability. People with disabilities were significantly older than people without (35.8 years versus 22.0 years). People with disabilities were less likely to be children (35 per cent) compared to people without disabilities (55 per cent). Furthermore, 22 per cent of people with disabilities were aged 60 or older, compared to only 7 per cent among those without a disability. There were relatively few differences between people with and without disabilities in terms of household characteristics. One exception is household size, as people with disabilities lived in smaller households (5.2 versus 5.9 people). There were no differences with regard to consumption

7. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). For baseline data, see Appendix 2, Tables A.2.1–A.2.4.

8. Please refer to Pellerano et al. (2014), the official endline evaluation report, for more details about the sampling strategy.

Table 1. Baseline comparison of socio-demographic characteristics between people with and without disabilities*

	Full sample (n=7,360)	People with disabilities (n=321)	People without disabilities (n=7,039)	p-value comparing people with and without disabilities
Individual characteristics				
Age (in years)	22.6	35.8	22.0	<0.001
Female	53%	50%	53%	0.41
Child < 18 years	54%	35%	55%	<0.001
Adult 18 – 59 years	38%	42%	38%	0.27
Older adult 60+ years	8%	22%	7%	<0.001
Lost at follow-up	9%	10%	9%	0.72
Household characteristics				
Head is female	47%	49%	46%	0.54
Age of head of household	52.6	54.7	52.5	0.06
Head completed primary school or higher	26%	25%	26%	0.76
Household size	5.8	5.2	5.9	0.001
Per capita monthly expenditures in USD PPP	21.18	20.33	21.22	0.45
Household owns				
Any livestock	62%	68%	62%	0.08
Any agricultural assets	57%	48%	57%	0.05
Cell phone	60%	54%	60%	0.15
Lounge suite (sofa)	8%	13%	8%	0.10

Notes: P-values are reported from Wald tests on the equality of means for each indicator comparing people with disabilities versus people without disabilities for those in the treatment and control group combined. Standard errors are clustered at the village level. * There were some missing values (Minimum samples: Full sample – n=6,759; People with disabilities – n=287; People without disabilities – n=6,472).

Source: Authors' calculations using Lesotho Child Grant Impact Evaluation data.

expenditure or asset ownership, showing that amongst CGP eligible households people with disabilities were not necessarily living in economically poorer households. These patterns of differences and similarities between people with and without disabilities was similar in the intervention and control samples.⁹

Table 2a and Table 2b present baseline outcomes for our indicators of poverty and well-being comparing people (households) with and without disabilities. Food expenditures were significantly higher among households with disabilities. On average, households experienced three months with

9. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). For baseline data, see See Appendix 2, Table A.2.1.

Table 2a. Baseline outcome indicators and balance tests of households with people with disabilities versus households without people with disabilities

Food security	Full sample		Households with PWD		Households without PWD		p-value comparing households with and without PWD
	% or Mean	N	% or Mean	N	% or Mean	N	
Real per capita monthly food expenditure (Maloti)	93.872	1,479	81.499	279	96.743	1,200	0.009
Per capita monthly food expenditures in USD PPP	20.588	1,479	17.874	279	21.218	1,200	0.009
Months with sufficient food	3.344	1,476	2.944	275	3.437	1,201	0.126
Months with some shortage of food	4.134	1,476	4.194	275	4.120	1,201	0.759
Months with extreme shortage of food	4.522	1,476	4.862	275	4.443	1,201	0.128
Food insecurity for adults	0.839	1,481	0.850	279	0.836	1,202	0.579
Food insecurity for children	0.712	1,452	0.759	272	0.701	1,180	0.068

Notes: P-values are reported from Wald tests on the equality of means for each indicator comparing households with people with disabilities versus households without people with disabilities for those in the treatment and control group combined. Standard errors are clustered at the village level.

Source: Authors' calculations using Lesotho Child Grant Impact Evaluation data.

Table 2b. Baseline outcome indicators and balance tests of people with disabilities versus people without disabilities

	Full sample		People with disabilities		People without disabilities		p-value comparing people with and without disabilities
	% or Mean	N	% or Mean	N	% or Mean	N	
Education (children 5 – 19 years)							
Ever enrolled in school	95%	3,131	91%	106	95%	3,025	0.22
Currently enrolled in school	87%	2,939	84%	95	87%	2,844	0.52
Health (all household residents)							
Health is rated good	81%	7,338	0.370	321	82%	7,017	<0.001
Had a long-term illness in last 12 months	11%	7,161	0.407	317	9%	6,844	<0.001
Consulted health provider in last 3 months	22%	7,231	0.365	319	21%	6,912	<0.001
Health expenditure (USD PPP) last 3 months	3.043	7,022	12.243	313	2.617	6,709	0.13
IHS of health expenditures	0.536	7,022	0.947	313	0.517	6,709	0.006
Livelihoods during last 12 months (all household residents 15 years or older)							
Engaged in household business	10%	3,986	4%	234	10%	3,752	<0.001
Engaged in farming or livestock activities	71%	3,471	57%	207	72%	3,264	0.001
Engaged in work	37%	3,964	23%	234	38%	3,730	<0.001
Engaged in any livelihood activity	75%	3,986	57%	234	76%	3,752	<0.001

Notes: P-values are reported from Wald tests on the equality of means for each indicator comparing people with disabilities versus people without disabilities for those in the treatment and control group combined. Standard errors are clustered at the village level.

Source: Authors' calculations using Lesotho Child Grant Impact Evaluation data.

sufficient food availability, four months with some shortage and another four months with extreme shortages. There were no differences by disability status for these indicators. Food insecurity among adults in the households was high, experienced by about 84 per cent of households, irrespective of disability status. Children in households with disabilities were slightly more likely to experience food insecurity. In 76 per cent of households with disabilities, children experienced food insecurity, compared to 70 per cent in households without disabilities. School enrollment among children (aged 5–19 years) was high in our sample, with nearly 95 per cent “ever enrolled” in school and 87 per cent “currently enrolled”. These levels are similar for children with disabilities (84 per cent) compared to those without (87 per cent). There were large differences in health outcomes by disability status. People with disabilities were less likely to report good health (37 per cent versus 82 per cent), and more likely to have had a long-term illness in the last 12 months (41 per cent versus 9 per cent) or have consulted a health provider in the last three months (36 per cent versus 21 per cent). Consequently, medical expenditures were higher for people with disabilities compared to those without (USD 12.2 versus USD 2.6), but this difference is not statistically significant. People with disabilities, aged 15 or older, also showed poorer outcomes in terms of livelihood activities. They were less likely to engage in household enterprise (4 per cent versus 10 per cent), agricultural activities (57 per cent versus 72 per cent) or to perform casual or paid work (23 per cent versus 38 per cent). Overall, 57 per cent of people with disabilities were engaged in any livelihood activity, compared to 76 per cent of people without disabilities. These patterns of differences and similarities between people with and without disabilities were similar in the intervention and control samples (see Tables 2a and 2b).¹⁰

Study validity checks

As expected, the randomized design of the study ensured balance among the key indicators of interest. For the group of people with disabilities, we found two significant differences between treatment and control for all indicators. The months with some food shortage and food insecurity for children are both higher in the control group. For those without disabilities, we also found two differences: “household size” and “ever enrolled” in school.¹¹ The first was not an outcome variable and was included as a control variable in the regressions.

10. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). For baseline data, see ee Appendix 2, Table A.2.3.

11. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). For baseline data, see Appendix 2, Tables A.2.2 and A.2.4.

School enrolment was an outcome indicator and this imbalance must be taken into account when interpreting the impact results.

Next, we assessed attrition among our sample. Attrition can pose threats to the internal validity of the study if attrition is different between the treatment and control groups. At a general level, the household attrition rate was 6 per cent (Pellerano et al., 2014). In our sample, the individual-level attrition rate was 9.4 per cent and was not statistically different between people with disabilities and those without (Table 1). Furthermore, the attrition rate was not significantly different between treatment and controls in the group of people with disabilities and the group of people without a disability.¹² We are therefore confident that attrition poses no threats to our study design and we are able to estimate unbiased impacts of the CGP.

Empirical results

Our empirical results are graphically presented in Figures 1–7.¹³ The first domain is food security, which was measured at the household level and used three indicators. First, there was no impact of the CGP on per capita food expenditures in the last month for either group (Figure 1). There was a significant decrease in terms of food insecurity for children, but only in households without disabilities although the difference in impact was not statistically significant (Figure 2). There was also an impact of the CGP on months with food shortages (Figure 3). Households without disabilities reported a positive impact of the CGP on the number of months with sufficient food, and a decrease in the months with extreme shortages. Households with people with disabilities reported a significant decrease in the number of months with extreme shortages attributable to the CGP (approximately 2.6 months less). Households with people with disabilities did experience a significant and differential impact on increased months with some food shortages.

The first individual-level domain is education and the main focus is school enrolment (Figure 4). In terms of “ever enrolled” in school for children aged 5–19, there was no impacts of the CGP on either group. However, for “current

12. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). For baseline data, see Appendix 2, Tables A.2.2.

13. This article is supplemented by an extensive online Appendix prepared by the authors and made available to readers (see Supporting Information). The empirical results shown in Figures 1–7 are summarized in Appendix 1, Tables A.1.1 to A.1.10, to which readers should refer. Each table presents the baseline and endline mean of the outcome, for treatment and controls and for people with disabilities and people without disabilities separately. In addition, the impact estimates are presented for people without disabilities, for people with disabilities and the impact difference.

Figure 1. *Impact estimates of Lesotho CGP on food expenditures, by disability status*

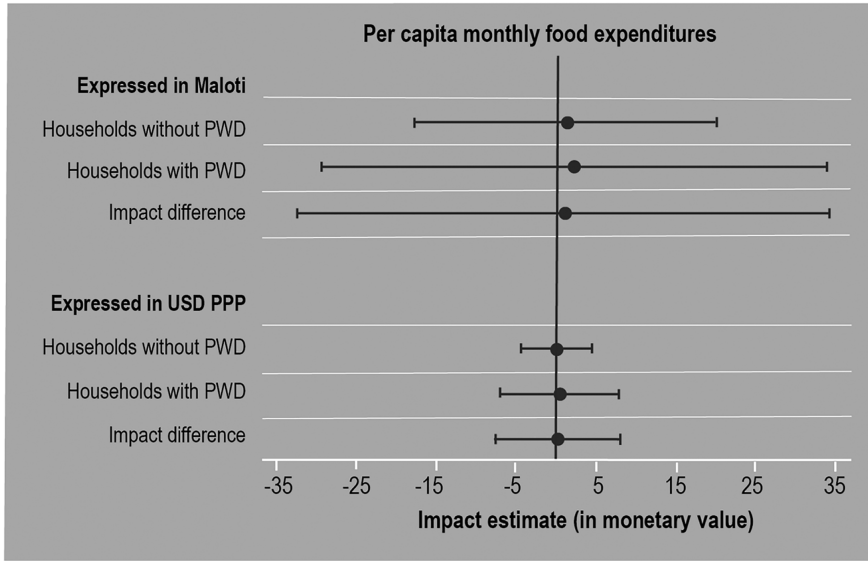
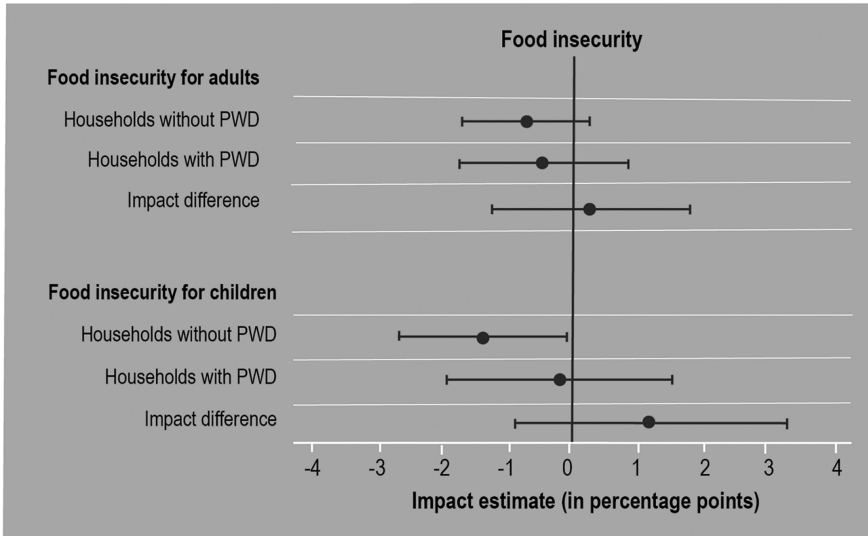


Figure 2. *Impact estimates of Lesotho CGP on food insecurity, by disability status*



enrolment”, we observed a significant improvement in enrolment of about 5 percentage points (pp) for children without disabilities and no impact for children with disabilities although the difference in impact was not statistically

Figure 3. Impact estimates of Lesotho CGP on number of months with food shortages, by disability status

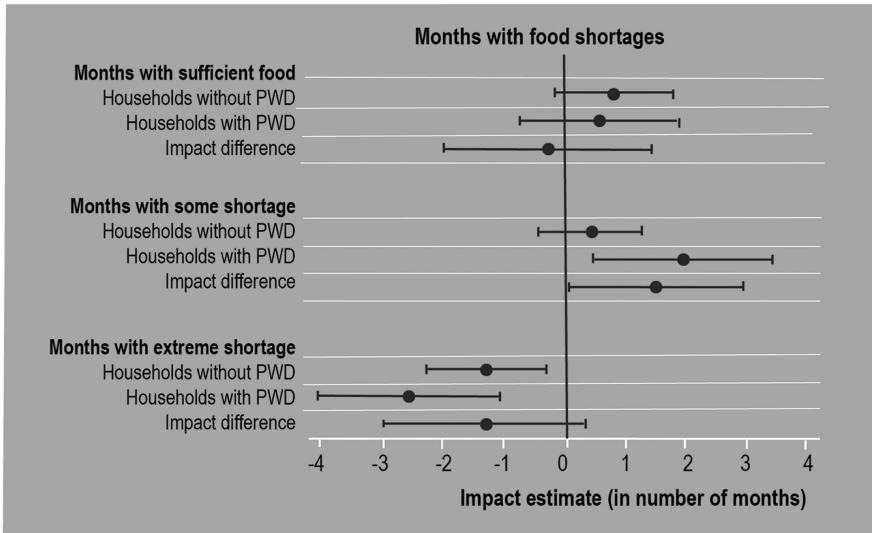
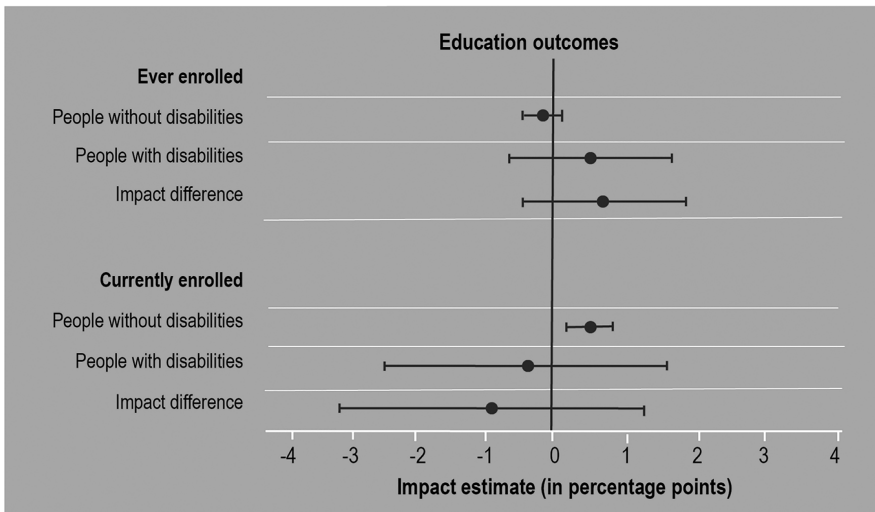


Figure 4. Impact estimates of Lesotho CGP on educational outcomes (children aged 5–19), by disability status



significant. This finding is similar to the overall impact on enrolment (5 pp) as presented in the official evaluation report (Pellerano et al., 2014).

Figure 5. *Impact estimates of Lesotho CGP on health outcomes (children 0–17 years), by disability status*

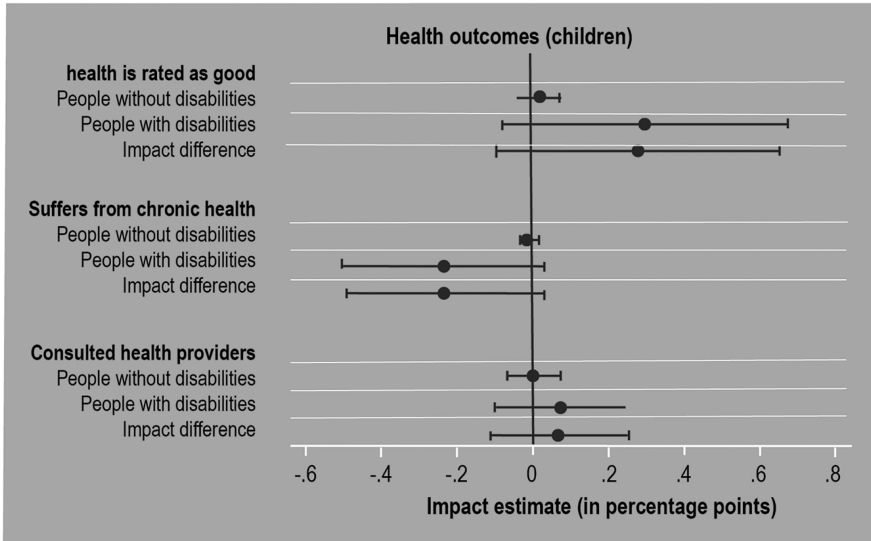


Figure 6. *Impact estimates of Lesotho CGP on health outcomes (adults), by disability status*

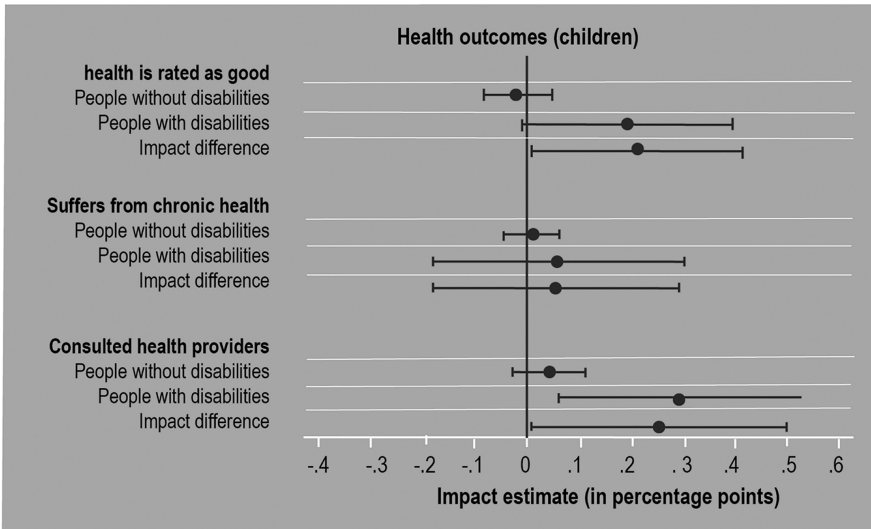
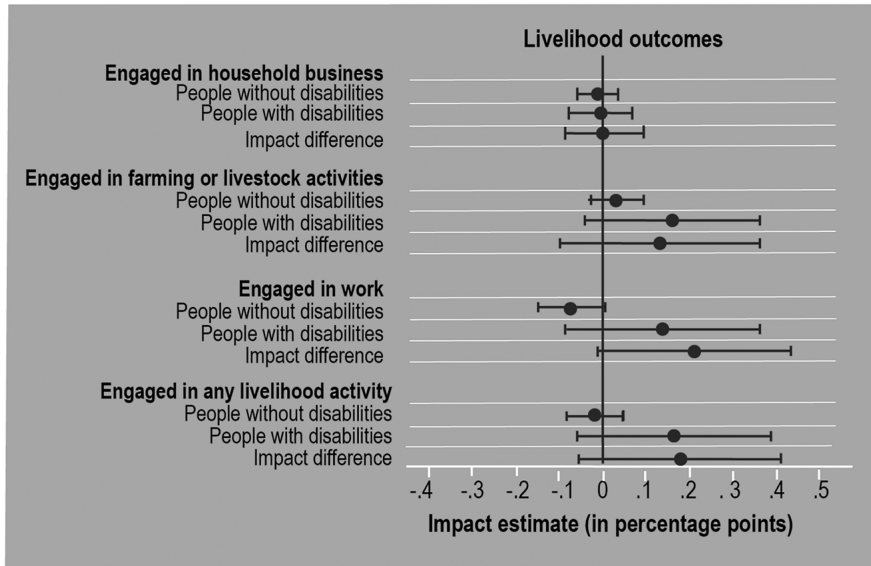


Figure 7. Impact estimates of Lesotho CGP on livelihood outcomes during last 12 months (all household residents aged 15 or older), by disability status



For health, several key differences emerge between children with and without disabilities (Figure 5). Children with disabilities were less likely to have had a long-term illness in the last 12 months, an outcome attributable to receiving the CGP (24 pp). In addition, households spent significantly more on health care for the child with a disability. On average, they spent USD 7.6 more on health care for the child with a disability in the preceding 3 months, compared to children with disabilities in the control group. Also the IHS transformed variable showed a positive significant impact, suggesting that this result is robust to outliers in the expenditure variable.

Adults with disabilities in households receiving the CGP were 20 pp more likely to self-rate their health as good, while there was no impact for people without disabilities (Figure 6). There was no impact on long-term illness in the last 12 months for either subgroup. We also found a significant impact on the likelihood to seek care for adults with disabilities, an increase of 30 pp. There was no change in the level of medical expenditure as a result of the CGP for adults with disabilities.

Results for livelihoods are presented in Figure 7. For engagement in household business and agricultural activities, there was no impact across the sample of people (aged 15 or older). However, we found a significant decline for people without disabilities, and a weak impact difference for engagement in paid work (21 pp).

This suggests that the impact of the CGP on the likelihood to be in paid work was higher for people with disabilities compared to the impact for people without disabilities. There was no impact on being engaged in any of the three livelihood activities.

Discussion

This article has explored the impact of the Lesotho CGP on the lives of people with disabilities, compared to people without disabilities. Overall, this study found significant and differential impacts of the cash transfer for people with disabilities compared to people without disabilities, particularly for health. Still, even with the gains attributable to the CGP, it is important to note that levels of deprivation and inequalities for people with disabilities compared to people without disabilities remained high.

Health outcomes were a clear area of positive impact attributable to the CGP for people with disabilities. Adults with disabilities receiving the CGP experienced increases in their self-rated health and their likelihood of consulting a healthcare provider. Children with disabilities were less likely to have had a long-term illness in the last 12 months and reported an increase in household healthcare spending. These effects were not observed for CGP recipients without disabilities and the difference in impact was statistically significant. Positive gains in health outcomes may have been driven by the lower baseline levels of health among people with disabilities, meaning there was a greater potential for the CGP to have an impact in these areas. These findings may also reflect that people with disabilities have poorer levels of health and higher unmet health needs, and so there is more urgency to invest in healthcare. This finding is consistent with other studies on self-reported use of cash transfers amongst people with disabilities, which find healthcare is a main source of spending (Banks et al., 2018b; Banks et al., 2018a). It is also consistent with the literature on disability-related extra costs, which finds healthcare to be a major contributor (Mitra et al., 2017) and reinforces the need for adaptations to existing programmes or the creation of complementary programmes (e.g. raising the value of cash transfers, in-kind provision of assistive devices, access to social health insurance schemes) to cover these additional costs for people with disabilities.

Despite the gains attributable to the CGP, large unmet health needs persisted: only 32 per cent of adults with disabilities in the CGP rated their health as good at follow-up, compared to 69 per cent of adults without disabilities in the CGP. Even with poorer levels of health, only half (50 per cent) of adults with disabilities in the CGP households had sought healthcare in the last 3 months at endline. As people with disabilities have higher healthcare needs – for both

disability-specific and general healthcare – comparing healthcare utilization may not fully capture differences in unmet health needs between people with and without disabilities (Shakespeare, Bright and Kuper, 2018). Further evidence is needed on how the CGP and other social protection programmes, particularly social health insurance, address unmet healthcare needs, including in accessing disability-specific services (e.g. assistive devices, rehabilitation).

Additionally, there was some evidence of an impact of the CGP on food security. Food insecurity was high for all groups (>70 per cent of all households faced food insecurity) and worsened for most groups during the study period. However, recipient households of the CGP, particularly recipients households with members with disabilities appeared protected from more extreme food shortages. Both recipient groups experienced fewer months of extreme shortages that was attributable to the CGP. Although both groups had an increase in “some” shortages, particularly recipients with disabilities, this could be interpreted as households moving from extreme to more moderate shortages. Other studies from sub-Saharan African have found a positive impact of cash transfers on food security in the general population, mirroring findings in this study (Owusu-Addo, Renzaho and Smith, 2018). It is important to note, however, that since food security was measured at the household level, it does not necessarily indicate that the person with a disability had access to adequate food and nutrition even if they were living in a food-secure household. For example, a study in Kenya found children with disabilities were more likely to be malnourished compared to their siblings without disabilities (Kuper et al., 2015).

Turning to livelihood indicators, there was no impact of the CGP for adults with or without disabilities on engagement in livelihood activities overall or by type, with the exception that there was a weakly positive and differential impact on engagement in paid work for recipients with disabilities. This latter finding may reflect positive gains in functioning as a result of improved health amongst people with disabilities, which then led to a greater ability to participate in paid work. Still, adults with disabilities were much less likely to participate in any livelihood activity (67 per cent versus 81 per cent) or in paid work (21 per cent versus 31 per cent at endline) compared to people without disabilities, gaps which are consistent with other studies from sub-Saharan Africa (Mitra, 2017; Mizunoya and Mitra, 2013; Mactaggart et al., 2018a). Other studies from sub-Saharan African have found little impact of cash transfers on employment in the general population, with only one of seven studies in a systematic review finding a significant effect (Owusu-Addo, Renzaho and Smith, 2018). Additionally, further research is needed to assess the impact on the quality of employment amongst CGP recipients – such as on earnings – for both recipients with and without disabilities.

76

For education, the CGP had a positive impact on current enrolment for children without disabilities but not for children with disabilities; however, the lack of impact for the latter may have been reflective of the small sample of children with disabilities, as the difference in impact was non-significant and changes in enrolment were similar between the two groups. Further research with adequately powered sample sizes is needed to better explore the impact of cash transfers on school attendance for children with disabilities. Positive impacts on school attendance for children without disabilities are in line with other impact evaluations of cash transfers in the general population. For example, a systematic review of the impact of cash transfers in LMICs found 13 out of 20 studies recorded a significant impact on increased attendance attributable to the grant (Bastagli et al., 2019). More evidence is needed on the impact of cash transfers on learning outcomes for children with and without disabilities (Bastagli et al., 2019). Evidence in this area is particularly important for children with disabilities, who may be excluded from the learning process even if they attend school due to the lack of inclusive education options in many countries (UN, 2018). For example, qualitative research conducted in Lesotho found a lack of resources for inclusive education, poor understanding of the need to adapt to the special needs learners and slow policy development for inclusive education (Mosia, 2014), which would all impact learning outcomes for students with disabilities. Additionally, a study in Lesotho in 2010 found 33 per cent of students with disabilities had stopped attending school due to barriers posed by cost, transportation or a lack of adapted communication (Kamalari and Eide, 2011; UN, 2018).

There are important strengths and limitations to the current analysis, which must be taken into account when interpreting the findings. This study addressed the impact of social protection, which is an important priority for governments, but one where impact data is lacking, particularly for people with disabilities. This was a large study overall, yet the number of people with disabilities was relatively small, limiting our ability to detect differences between groups, particularly for children. Consequently, analyses were underpowered to detect small, but statistically significant impacts for people with disabilities. There is a growing push to disaggregate data by disability, including the explicit guidance to do so in the Sustainable Development Goal 17 (UN, 2018).¹⁴ However, our analysis has highlighted the important concern that most disaggregated analyses will be underpowered unless disability is considered when setting sample sizes.

14. See SDG target 17.18; “By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts”.

There is also a need to explore differences amongst people with disabilities, for example by gender, age and impairment type, although this will require even larger sample sizes. Another challenge of secondary analyses is that there is a lack of accompanying process evaluation data that could help in understanding why impacts did or did not occur, as well as to consider the perceived acceptability of the programme for people with disabilities. Power calculations justifying the sample size could not be identified in the official study reports. Nevertheless, the intervention and control arms were well balanced, and the attrition rate was relatively low.

There are also concerns about how disability was assessed within this study. The notion of disability can be subjective and culturally specific, and therefore difficult to measure (Mactaggart et al., 2016). The recommended approach to measuring disability in a field survey is through use of the Washington Group questions (Altman, 2016). These questions ask about functional difficulties in six domains: seeing, hearing, walking, concentrating/remembering, self-care, and communicating. Respondents can indicate whether they have “none”, “some” or “a lot” of difficulty or worse in each of these domains. Unfortunately, the CGP survey did not include the Washington Group questions, but a more restrictive assessment of disability. The questionnaire asked concerning each member of the household whether they have “any physical or mental disability (blind, crippled, etc.)”. One person from the household indicated “yes” or “no” to this question on behalf of each household member. This question set is likely to underestimate the true prevalence of disability, and only include people with more severe impairments (Loeb, Eide and Mont, 2008). Furthermore, comparison with studies that used other measures of disability is difficult. Another concern is that most household members did not answer the questions on disability themselves, but instead one household representative reported for everyone. This approach is likely to further underestimate the prevalence of disability (Washington Group, 2016; Mactaggart et al., 2018b).

Overall, this study makes an important contribution to the literature as few other studies have considered the impact of social protection programmes for people with disabilities, let alone compared impacts for those with and without disabilities. Available evidence on the impact of social protection amongst people with disabilities is mostly drawn from cross-sectional studies on self-reported impact, rather than objectively measured as through an RCT in this study (Banks et al., 2016). These other studies reported some positive perceived benefits of cash transfers in helping households meet basic needs (Goldblatt, 2009; Graham, Moodley and Selipsky, 2013; Levine, van der Berg and Yu, 2011; Loyalka et al., 2014), but little evidence was available on indicators of individual well-being assessed in this research such as health, education and livelihoods.

Conclusion

This study contributes to the evidence base on social protection policies and programmes, particularly for people with disabilities. Social protection programmes are increasingly used by governments in LMICs as a key policy tool to alleviate poverty, with many countries either explicitly or implicitly targeting people with disabilities. However, despite the widespread implementation of social protection policies, there has been a lack of evidence on their effectiveness amongst people with disabilities. This study is able to provide robust evidence – using a community randomized control trial evaluation of the CGP in Lesotho, with impacts disaggregated by disability status – which can be used to inform policy to improve the effectiveness of cash transfers for people with disabilities.

Overall this research has found that the CGP had several positive impacts for people with disabilities, mainly in health. Cash transfers therefore may be an important policy tool for reducing poverty and improving well-being, particularly amongst people with disabilities. However, people with disabilities receiving the CGP still experienced high levels of deprivation, and were generally still worse off compared to people without disabilities at endline. Adapted programmes for people with disabilities (e.g. higher cash transfer value, in-kind provision of needed disability-related goods and services) and complementary interventions to mainstream disability in poverty reduction, health, education and employment are likely needed to maximize the benefits of cash transfers.

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