



South Africa's Child Support Grant Impact Evaluation

***Department of Social Development (DSD) and
EPRI, IDC, IFPRI, OPM, RDC and TNT
with support from UNICEF and SASSA***

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**Evaluating the impact of social cash transfers
in sub-Saharan Africa, January 19-21, 2011**

**UNICEF Eastern and Southern Africa Regional Office
(ESARO)**

South Africa's Child Support Grant

- Largest social cash transfer programme in S. Africa
 - Means-tested benefit; caregiver applies on behalf of child
- Take-up initially slow, with many programme changes:
 - Transfer increased to R250 in April 2010 (from R100 per child for children under age 7 in 1998); means test changed (Feb. 2008) to account for inflation
 - Age of eligibility extended: in 2003 (to 8 years), 2004 (to 10 years), 2005 (to under 14), 2009 (to under 15); as of 2010, children under 16 eligible, and will extend to under 17 in 2011 and under 18 years in 2012
 - Unconditional cash transfer, but Dec. 2009 amendments added obligations for caregiver (requiring children's enrollment in school)

CSG Evaluations

- Increasing number of studies evaluating CSG targeting effectiveness, implementation and impacts
 - No opportunity for experimental impact evaluation given constitutional right of all to appropriate social assistance
 - Implementation studies document infrastructure and management challenges in CSG rollout
 - Targeting studies show higher take-up rates among very poor but lower take-up rates among youngest children (age < 6 months) and other vulnerable groups (e.g., orphans)
 - Quasi-/nonexperimental studies of CSG effects on school attendance, child hunger, weight and height z scores, fertility, adult and child labour force participation, household agricultural production, expenditures on food and other household goods, and others

Quasi-/nonexperimental Impact Evaluation Methods and Data

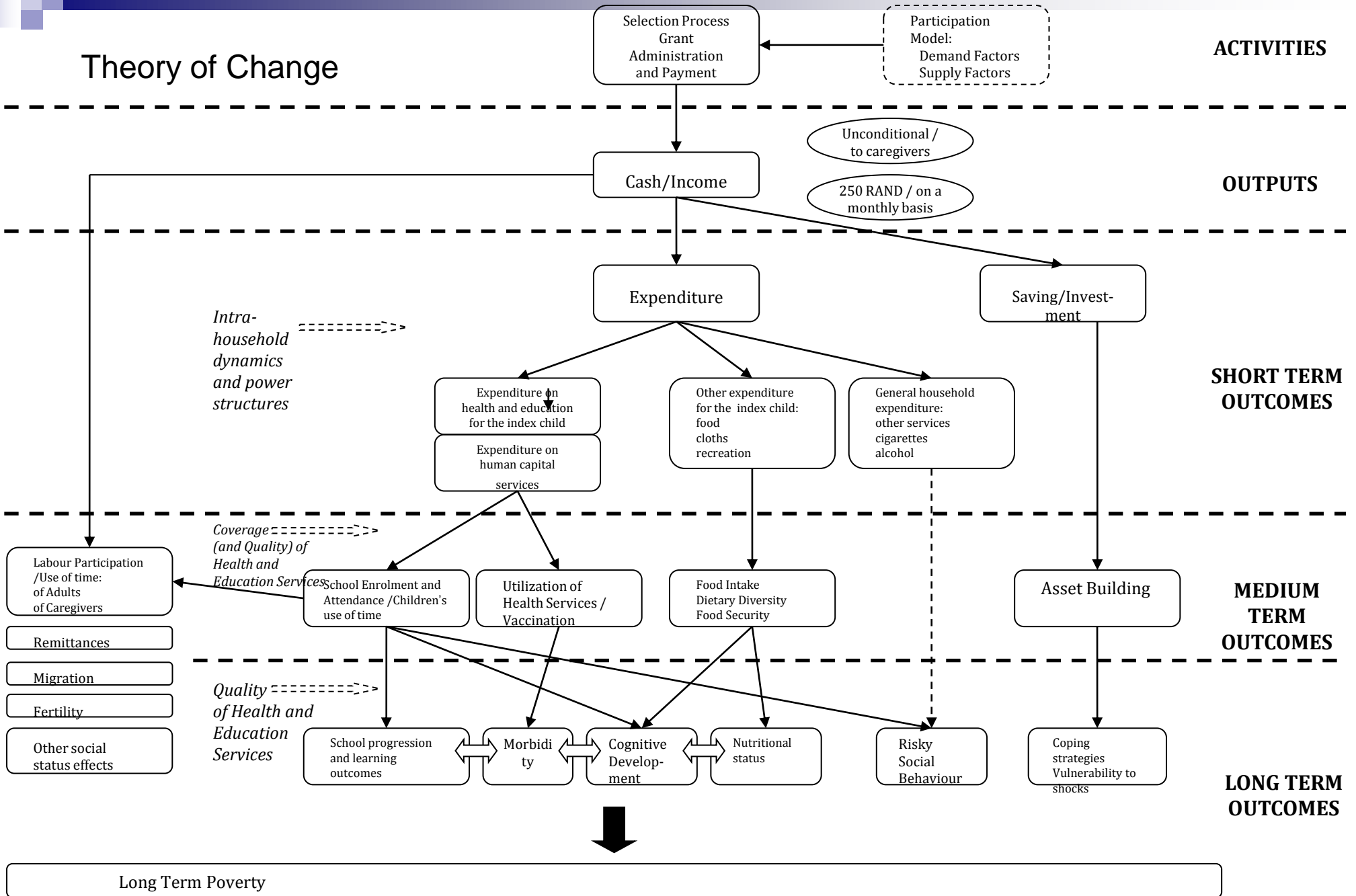
- Key evaluation challenge: CSG beneficiary outcomes observed, but not *what would have happened had they not received CSG*; with no control group, need comparison group to approximate *counterfactual state*
- Evaluation data sources have included KIDS, GHS, NIDS, LFS, IES and other data
 - Generally, lack of specific data on CSG receipt and child-caregiver links (NIDS 2008 wave 1 is exception, with detailed info. on grant receipt, identification of caregiver/recipient)
- Matching, regression discontinuity, and other multivariate/control function methods used

DSD-EPRI-IDC-IFPRI-OPM-RDC-TNT

Impact Evaluation of CSG

- *Evaluation goal:* measure causal impacts of CSG
- Distinctive study features:
 - Tightly integrated qualitative-quantitative study components to evaluate programme process, pathways and mechanisms of change, and impacts
 - Explicit, comprehensive theory of change guiding development of hypotheses, measures and methods
 - Baseline (2010) and follow-up data collection to evaluate impacts on health, education, early child development, adult/child labour, consumption, social welfare, risky behaviour, intra-household, unintended impacts
 - Assessing impacts of early vs. late enrolment and CSG receipt vs. no benefits

Theory of Change





Primary Impact Evaluation Questions

- How has early versus late enrolment affected the well-being and cognitive development of children?
- How are critical life course events of adolescents affected by extension of the CSG?
- What is the impact of the CSG on recipient households?
- What conditions determine and influence access to the CSG?

CSG Evaluation Samples

- 10 year old children who enrolled in CSG either: a) between 0 and 18 months or b) between 5 and 9 years
- Adolescents between ages 15 and 17 years
 - Including those who met other CSG eligibility criteria but turned 17 by Dec. 31, 2009 and will not receive CSG
- 5 provinces: Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, and the Western Cape
 - Variability in programme rollout and eligibility criteria and timing and length of CSG enrolment among eligible children allow for analysis of child/household impacts associated with differing dosages of CSG receipt (and early vs. late enrolment) as well as no grant receipt (among adolescents)

Target Sample Structure and Size

Sampled (index) children	Total
Children aged 10, enrolled after birth	800
Children aged 10, enrolled around age 5-6 years	800
Adolescents below age cut off point	1428
Adolescents above age cut off point	612
Total	3640

Adolescent sample structure

Age at time of sampling	Beneficiaries	Non-beneficiaries	Total
15	408	0	408
16	612	408	1020
17	0	612	612
Total	1020	1020	2040

Early versus late enrolment

Sample for early versus late enrolment impact analysis	Group A		Group B	
	Enrolled between birth and 18 months	Years of Exposure	Enrolled at age 5-9 years	Years of Exposure
2000	Age 0		Age 0	
2001	1	1	1	
2002	2	2	2	
2003	3	3	3	
2004	4	4	4	
2005	5	5	5	
2006	6	6	6	1
2007	7	7	7	2
2008	8	8	8	3
2009	9	9	9	4
2010	10	10	10	5

Data Sources

- SOCPEN grant administrative system
- Early focus groups and interviews (prior to baseline)
- Baseline survey administered to index child and household members in 2010, including: household, young child and adolescent questionnaires, a risky behaviors module for adolescents, a SASSA questionnaire, anthropometric tests, and cognitive tests (language and numeric)
- Second round qualitative data collection to understand impacts and investigate additional issues
- Follow-up survey administered to same individuals two years after baseline survey
- Administrative (secondary) data on supply-side health and education services available in communities



Qualitative-Quantitative Integration

- Shared membership and skills/experiences between qual and quant teams
- Quant team provided feedback on design and instrumentation applied in qual study to ensure results would inform quant instruments (survey design)
- Qual team members provided both overview of early qual study results and detailed inputs to inform design of baseline survey question items and responses
- Quant (survey) instruments pretested and modified acc. to pre-testing results with qual/quant team input
- Qual-quant integration workshop to finalize baseline survey instruments

Quantitative (Nonexperimental) Impact Evaluation Design

- Programme beneficiaries expected to differ in systematic ways from nonbeneficiaries; systematic differences also likely between early vs. late enrollees
- Collection of baseline and follow-up data (same measures) from CSG beneficiaries and comparison group members facilitates difference-in-differences impact estimation
 - If CSG recipients differ in important ways from those in comparison group, as long as differences are stable over time in their relation to outcomes, impact estimates will not be biased; still important to adjust/control for stable characteristics

Difference-in-differences Impact Estimation

Survey round	Treatment group (Group T)	Comparison group (Group C)	Difference between groups
Follow-up	T_1	C_1	$T_1 - C_1$
Baseline	T_0	C_0	$T_0 - C_0$
Difference across time	$T_1 - T_0$	$C_1 - C_0$	Double-difference $(T_1 - C_1) - (T_0 - C_0)$

Comparison Group Constructed through Matching Methods

- Treatment households matched to comparison group households based on observable characteristics
 - Measured at time of application/enrolment into programme (retrospectively in baseline survey) or at baseline
 - Key assumption: conditional on observed characteristics, comparison group members have same mean outcomes as beneficiaries would have if they did not receive CSG (or received CSG at a later time or for less time)
 - Programme impact estimated as average difference (in differences) in outcomes for each treatment household from weighted average of differences in outcomes in similar comparison group households

Propensity Score Matching Approach

- Estimate probability of CSG benefit receipt or probability of early (vs. late) enrolment in CSG to reduce matching problem to single dimension (propensity score)
- Use propensity scores to match treatment and comparison group households and estimate impacts
 - Nearest neighbor: Randomly order CSG households and comparison households; select first CSG household and find comparison household with closest propensity score
 - Caliper: define a common-support region (e.g., .01), and randomly select comparison household that matches on propensity score with CSG recipient household
 - Exclude poor matches between treatment and comparison group households

Regression Discontinuity Method

- Essential feature: takes advantage of use of a threshold targeting criteria (age limit) for program eligibility to construct treatment and comparison households with eligibility near threshold
 - R-D analyses will be performed to estimate average impact of CSG on adolescents near age threshold, exploiting discontinuity in age-eligibility criterion created with program expansion in 2010 to children up to age of 16 years
- Average difference in outcomes estimated for households/adolescents just to right and left of discontinuity

Sample for R-D Estimation

		Age as of January 1, 2010	Age at time of baseline survey (August – Nov. of 2010)	Age at time of follow-up survey (August – Nov. of 2012)
Just missed age- eligibility for continuation	December 31, 1993	16	16.5+	18.5+
<i>DISCONTINUITY</i>				
Just young enough for continuation	January 1, 1994	16	16.5+	18.5+
Younger and eligible to continue	January 1, 1995	15	15.5	17.5

Regression Discontinuity Assumptions

- No spurious discontinuity in outcomes coinciding with threshold
- Households/children just above and below threshold similar in observed and unobserved characteristics
 - Unobservable characteristics not important determinants of eligibility; age eligibility criteria strictly applied
- Sample needs large enough number of nonbeneficiaries with ages close to eligibility threshold to provide sufficient statistical power
- Impacts typically estimated for fairly narrow group close to eligibility threshold



CSG Impact Evaluation Next Steps

- Baseline data collection soon to be completed (RDC)
- Baseline data analysis
 - Describe and assess comparability of treatment and comparison groups and quality of data for matching and R-D analyses
 - Descriptive analyses of beneficiaries (early and late enrollees and adolescents) and nonbeneficiaries
- Potential for preliminary impact estimation
- Continuing qualitative research and follow-up survey
- Impact analysis with baseline and follow-up data

CSG Impact Evaluation Team

