

From SP to PPP for TB?

Lessons from a Productive Safety Net Pilot in Nicaragua



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Outline

- Motivation
- The Nicaraguan *Atención a Crisis* Pilots - Description
- 4 Lessons for TB programs

From SP to PPP for TB?

Increasing consensus on 3 core objectives of social protection programs

- Prevention: help household manage risks
- Protection: contribute to poverty alleviation
- Promotion: expand opportunities for higher productivity and incomes

Multitudes of programs addressing these goals

Safety nets

social insurance

microfinance

LABOR MARKET PROGRAMS

occupational training

CCT

income diversification

Challenge ahead

- Programs are often evaluated against their narrow objectives
 - Impacts
 - Mechanisms

- **BUT complementarities between** different types of intervention not well understood

- New emphasis on **SP systems** calls for an understanding of
 - the contribution of programs towards larger sectoral objectives
 - the degree of complementarities between interventions
 - key concept for TB prevention and treatment

Today's example

- How can a safety net **system** be designed to also contribute to **prevention** and **promotion**, beyond **short-term protection**?

Atención a Crisis pilot - Context

- Targeted population: ultra-poor
 - Rural Nicaragua in drought region
 - High incidence of extreme poverty
 - High frequency of weathers shocks (droughts)
 - Strong dependence on self-employed agriculture
 - Very little diversification into non-agricultural activities
 - Thin labor markets (seasonal migration)
- Earlier home-grown evidence that a basic CCT program was effective in improving welfare in the short term
- How to enhance the basic CCT program to address context?

Atención a Crisis pilot: dual objectives

- ❑ **Safety Net in the short term:** Reduce the negative impact of aggregate shocks that deplete the accumulation of human and physical capital investments, and reduce the need to use adverse ex-post mechanisms for coping with shocks
- ❑ **Foment upward mobility and poverty reduction through the accumulation of productive assets in the long term:** Improve the asset base of beneficiary households and the capacity to diversify income and reduce poverty through strengthening risk management strategies ex-ante in a manner that is sustainable over time

Atención a Crisis pilot: design

- Design a pilot with a rigorous impact evaluation designed to test the relative effectiveness of alternative program designs.

- Combine CCT with complementary interventions aiming at fostering income diversification:
 - Basic CCT
 - Basic CCT + vocational training
 - Basic CCT + micro-business grant

- Prospective design based on randomized assignment in two steps

Randomized Assignment: Step 1

- Once the target municipalities defined ...
 - 6 municipalities with high incidence of poverty and having suffered from a drought the year before to participate in the pilot.

- Conduct a public lottery to randomly select
 - 50 Control communities
 - 56 Treatment communities



Randomized Assignment: Step 2

- Within treatment communities, public lottery to randomly assign eligible households into one of the three benefit packages.



Group 1
Basic CCT



Group 2
Basic CCT +
Vocational training



Group 3
Basic CCT +
Business Grant

Beneficiaries of the training package



Beneficiaries of the productive investment package



Timeline

- Community randomized assignment (2005)
- Baseline (2005)
 - Eligibility based on proxy means test: households above threshold ineligible (<10 percent of households)
 - 3,000 eligible households in treated communities, sample of 1,000 potentially eligible households in control communities
- Follow up survey – July-August 2006
 - 9 months after the program began
- Program ends December 2006
- Second follow-up survey in 2008-2009
 - ~ 2 years after end program

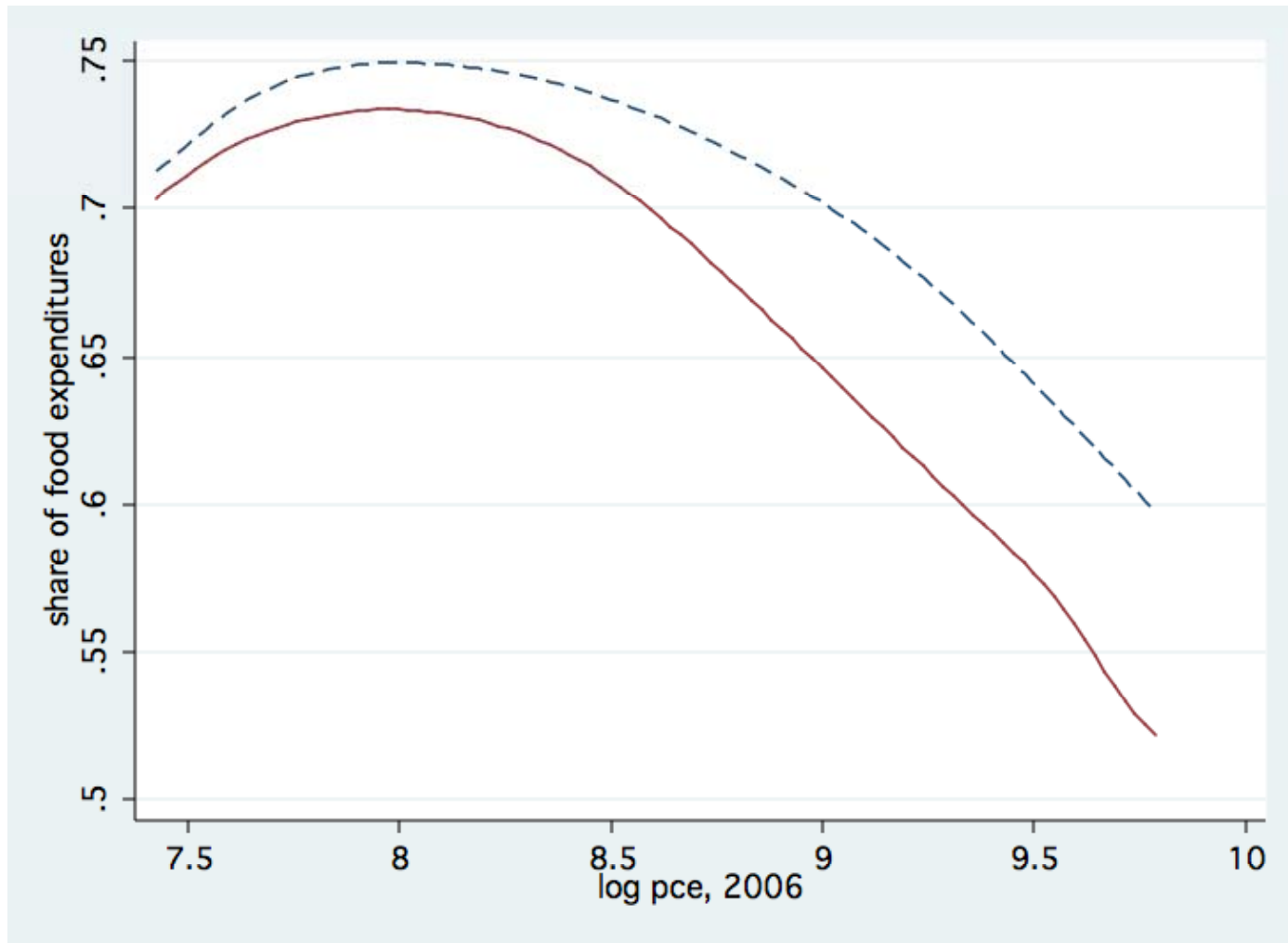
Many impacts to-date – areas of research

- Welfare
 - Consumption
 - Poverty
- Human capital
 - Health
 - Education
- Early childhood development
 - Health
 - Nutrition
 - Stimulation
 - Parenting
- Income generation
 - Labor markets
 - Entrepreneurship
 - Child labor
- Social interactions
- Gender
 - Aspirations
 - Depression
- Risk management
 - Shocks
 - Ex-ante risk management
 - Climate adaptation

Lessons for TB program design

1. **Combining promotion with short-term protection can lead to sustainable impacts**
2. Explore mechanisms to induce behavioral changes
3. Enhance promotion via social interactions and aspirations
4. Prevention through promotion

Impact after 9 months - consumption (ATE – 30%)



Impacts sustained after 2 years for those with business grant

	total consumption pc	food consumption pc	non food consumption pc
Comparing beneficiaries to control households			
CCT (T1)	0.043 (0.043)	0.047 (0.036)	0.044 (0.078)
CCT + vocational training (T2)	0.032 (0.041)	0.043 (0.033)	0.031 (0.078)
CCT + business grant (T3)	0.081* (0.041)	0.086** (0.033)	0.085 (0.078)
_cons	9.131*** (0.029)	8.732*** (0.021)	7.856*** (0.061)
Number of observations	3,918	3,918	3,918
R2	0.158	0.109	0.165
Comparing beneficiaires between packages			
p-value for T1=T2	0.568	0.839	0.656
p-value for T1=T3	0.148	0.131	0.223
p-value for T2=T3	0.039	0.080	0.078

Lessons for TB program design

- ❑ Combining promotion with short-term protection can lead to sustainable impacts
- ❑ **Explore mechanisms to induce behavioral changes**
- ❑ Enhance promotion via social interactions and aspirations
- ❑ Prevention through promotion

Impacts on early childhood development outcomes

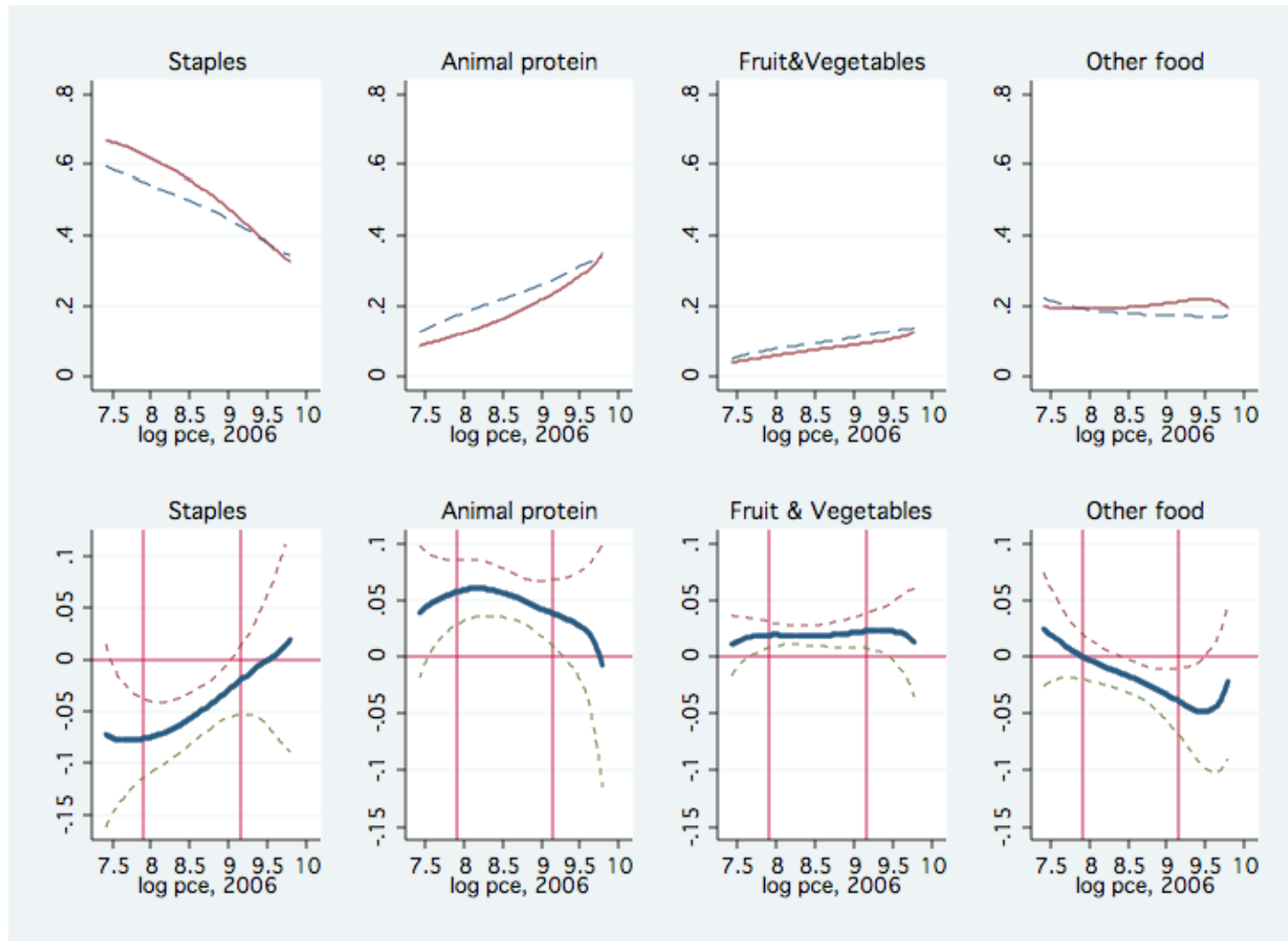
	TVIP	Language	Digit span	Social - personal	Behavior	Gross motor	Fine motor	Leg motor
2006								
Treated	0.206*** (0.00151)	0.132** (0.0137)	0.118*** (0.00912)	0.120** (0.0115)	-0.0612 (0.443)	-0.00265 (0.957)	0.0352 (0.579)	0.114 (0.100)
2008								
Treated	0.0737 (0.320)	0.108** (0.0352)	0.0924** (0.0414)	0.0976** (0.0459)	0.0296 (0.611)	0.113* (0.0811)	0.157*** (0.000336)	-0.00573 (0.875)

Note: Coefficients and p-values(in parentheses). P-values adjust for dustering at the village level. Controls include dummies for child gender and 3-month dummies for child age, age and gender of the household head, the years of schooling of the mother, the number of household members, the fraction of members in five age categories, baseline height-for-age, weight-for-age and TVIP score, birthweight, baseline community averages of the height-for-age, weight-for-age, TVIP score, participation to weight controls and vitamin and iron intake, and municipal fixed effects.

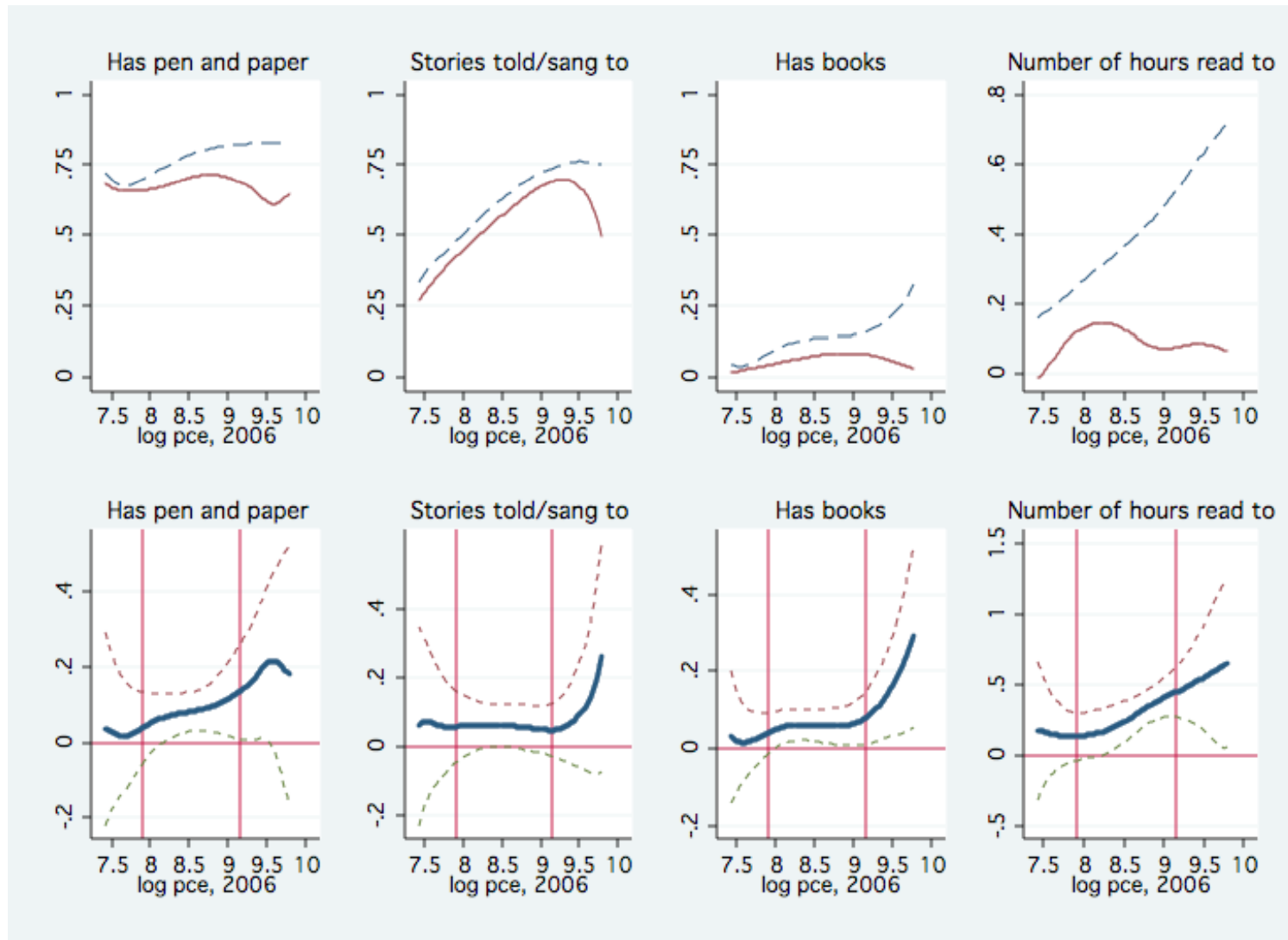
Is it money or behavioral changes?

- Estimate changes in intermediate inputs among treated households in three critical “risk factors” identified in the literature
 - Food
 - Stimulation
 - Use of preventive health care

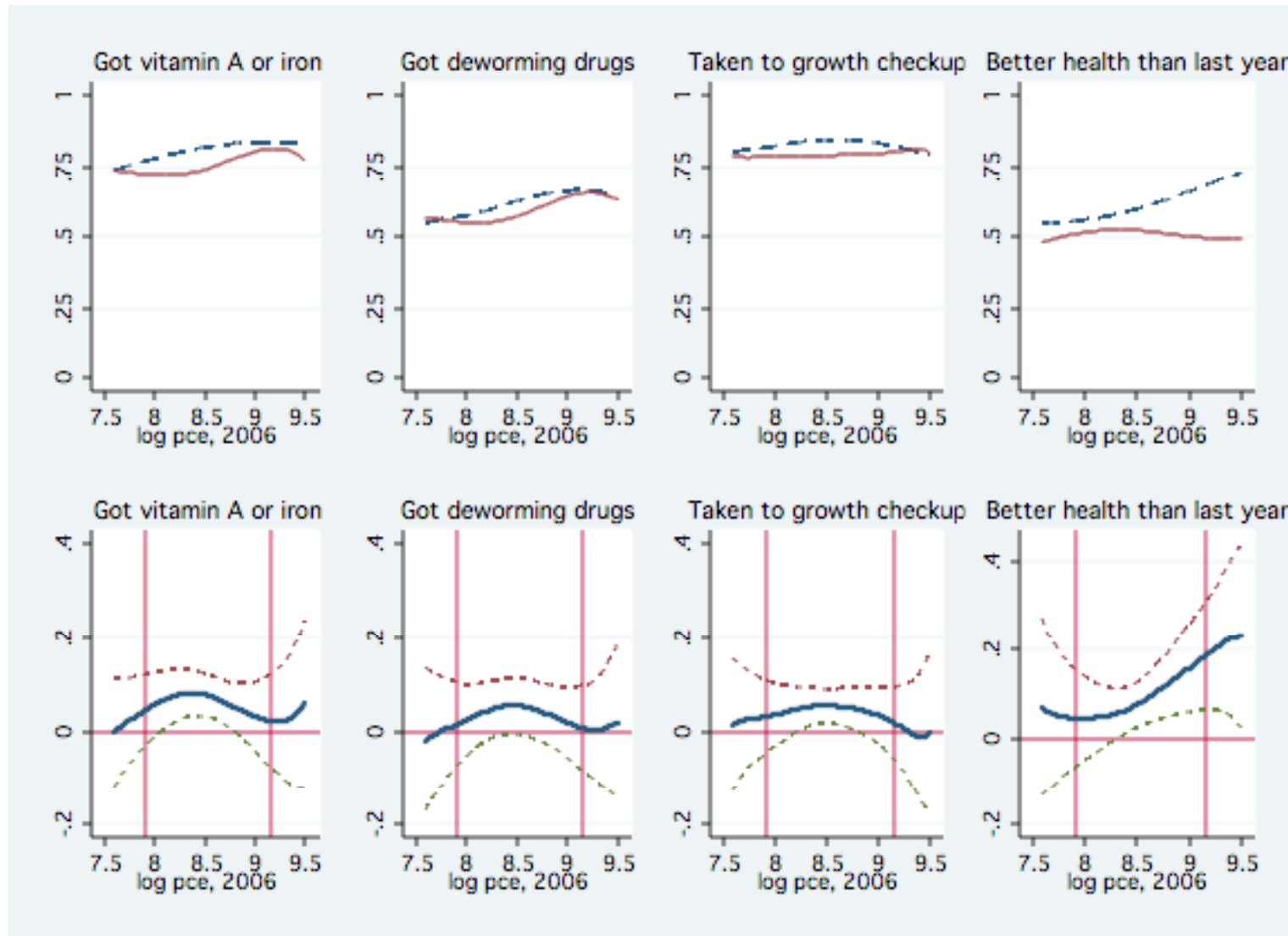
Changes in composition of food expenditures



Changes in stimulation patterns



Changes in preventive health care



Summary of lesson 2

- **Behavioral changes:** At any level of expenditures, treated and control communities spend resources differently

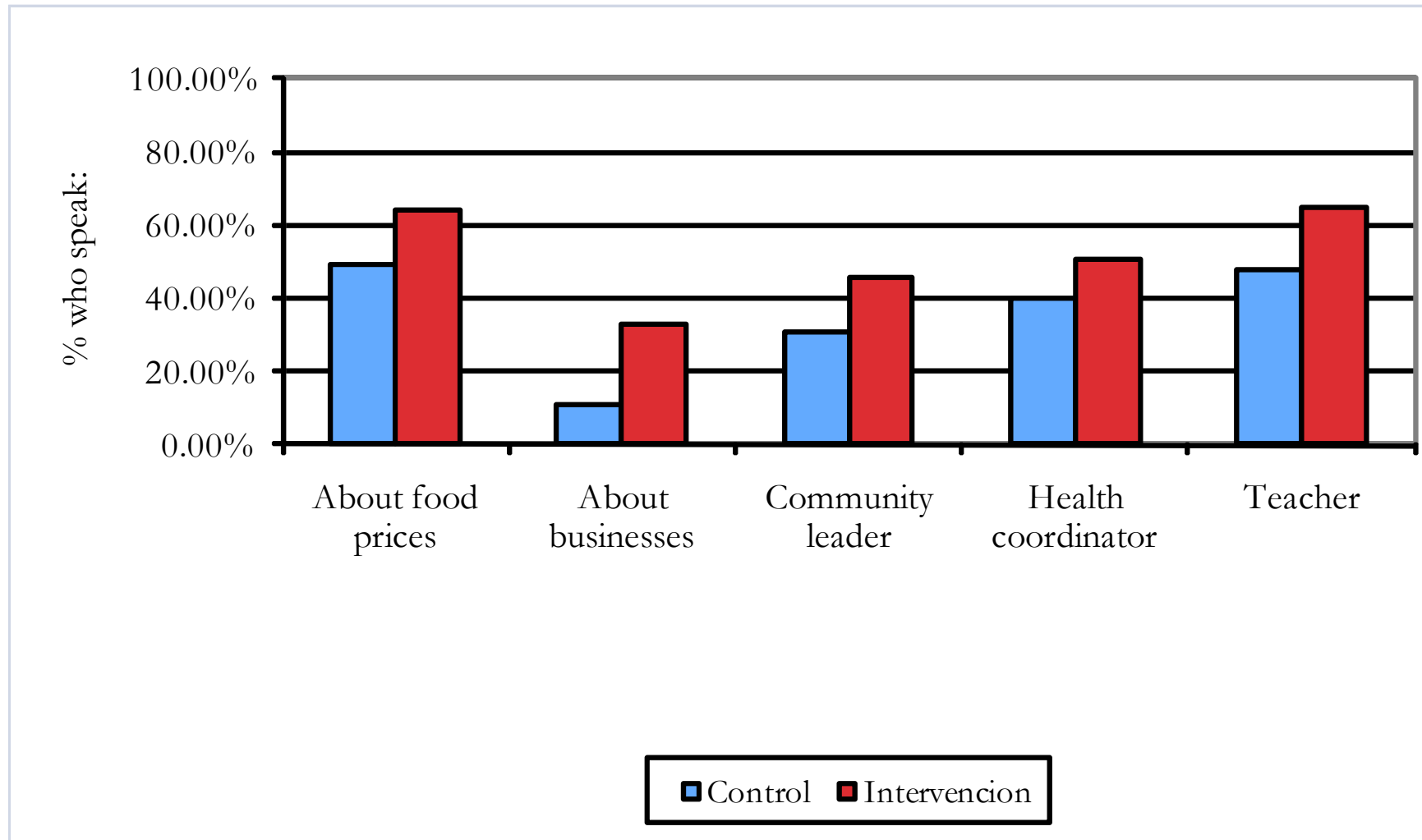
- **Results in 2008 similar** (but smaller magnitudes) suggesting behavioral changes persist

- **Mechanism? Not just transfers**
 - Gender effect (women receive transfers)
 - Social marketing of program (information)
 - Social interactions

Lessons for TB program design

- ❑ Combining promotion with short-term protection can lead to sustainable impacts
- ❑ Explore mechanisms to induce behavioral changes
- ❑ **Enhance promotion via social interactions and aspirations**
- ❑ Prevention through promotion

Program increased social interactions

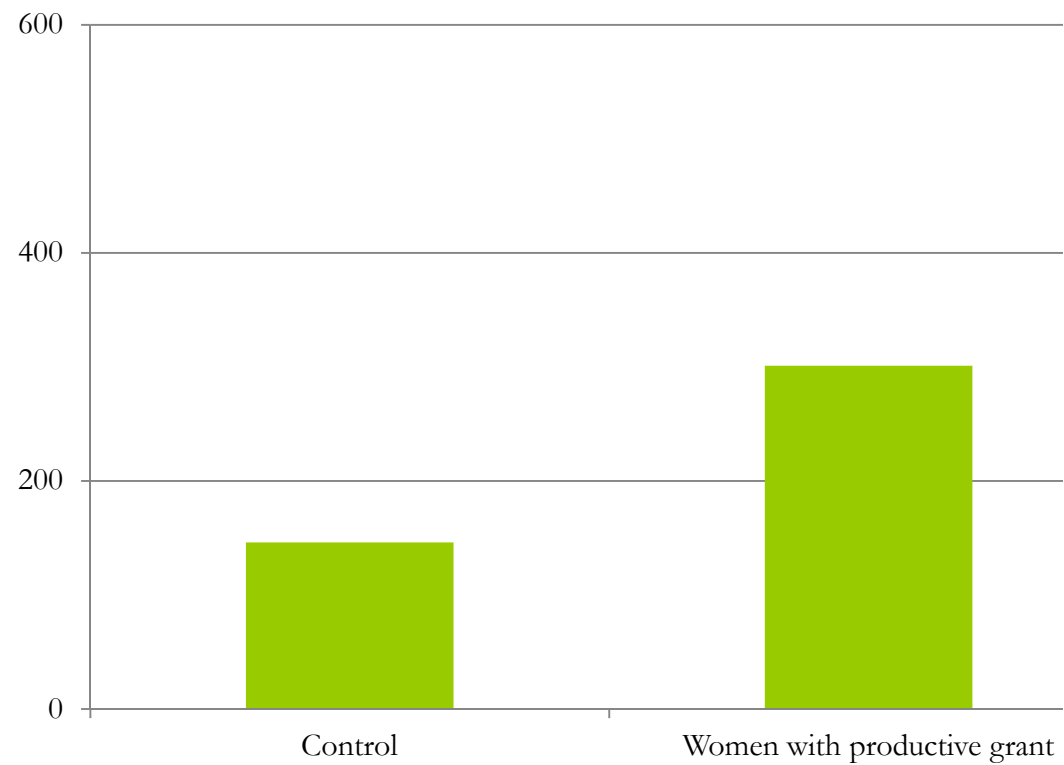


Qualitative results from the field

“Before the program, I just thought about working in order to eat from day to day. Now I think about working in order to move forward through my business. Through experiences, one learns and opens up towards the future. By talking to others, one understands and learns.”

Beneficiary of the productive investment package

Interacting with leaders leads to higher income!



Magnitude of effects large!

- Interacting with an additional leader with the productive investment package:
 - increases school assistance \sim 2.5 percentage points (ATE=7.3)
 - reduces school absences \sim 0.85 days per month (ATE 0.60)
 - increases income from non-ag. \sim \$14 p.c. (ATE=17 US\$)

Summary of lesson 3

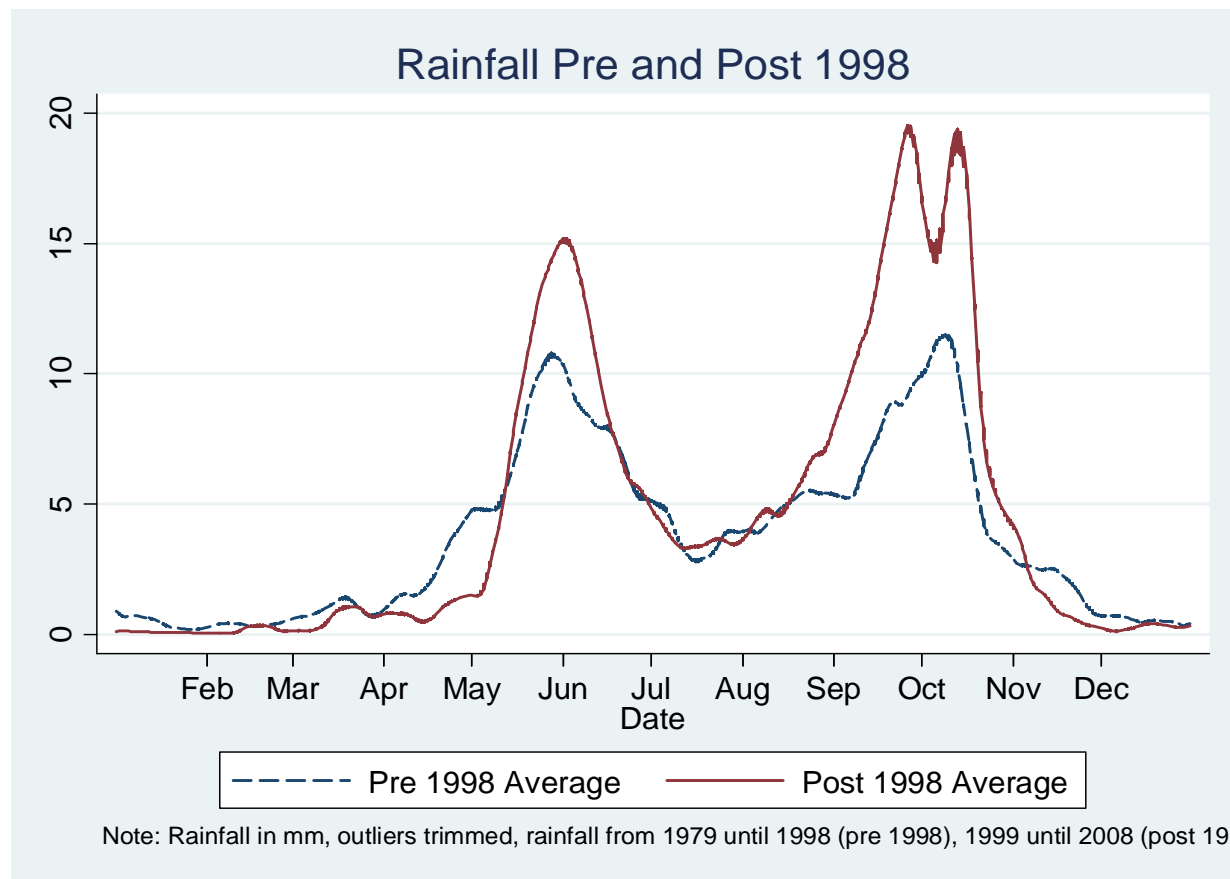
- ❑ Look beyond technical and economic social spillovers towards role of attitudes and aspirations
- ❑ Account for social interactions in program design: enhance interactions (leaders, peers)
- ❑ Social interactions and changing aspirations might be important for sustainability of program impacts (especially in low income settings)

Lessons for TB program design

- ❑ Combining promotion with short-term protection can lead to sustainable impacts
- ❑ Explore mechanisms to induce behavioral changes
- ❑ Enhance promotion via social interactions and aspirations
- ❑ **Prevention through promotion**

Are beneficiaries better protected against shocks 2 years after the end of the program?

Changes in rainfall patterns



Dealing with droughts costly...

Table 1: Impact of block-level rainfall shocks in control communities

	Log consumption per capita		
	Total	Food	Nonfood
Share households reporting drought (in block)	-0.558*** (0.175)	-0.288** (0.129)	-1.317*** (0.367)
Number of observations	994	994	994
R2	0.028	0.008	0.063

note: *** p<0.01, ** p<0.05, * p<0.1; s.e. clustered by community in parentheses

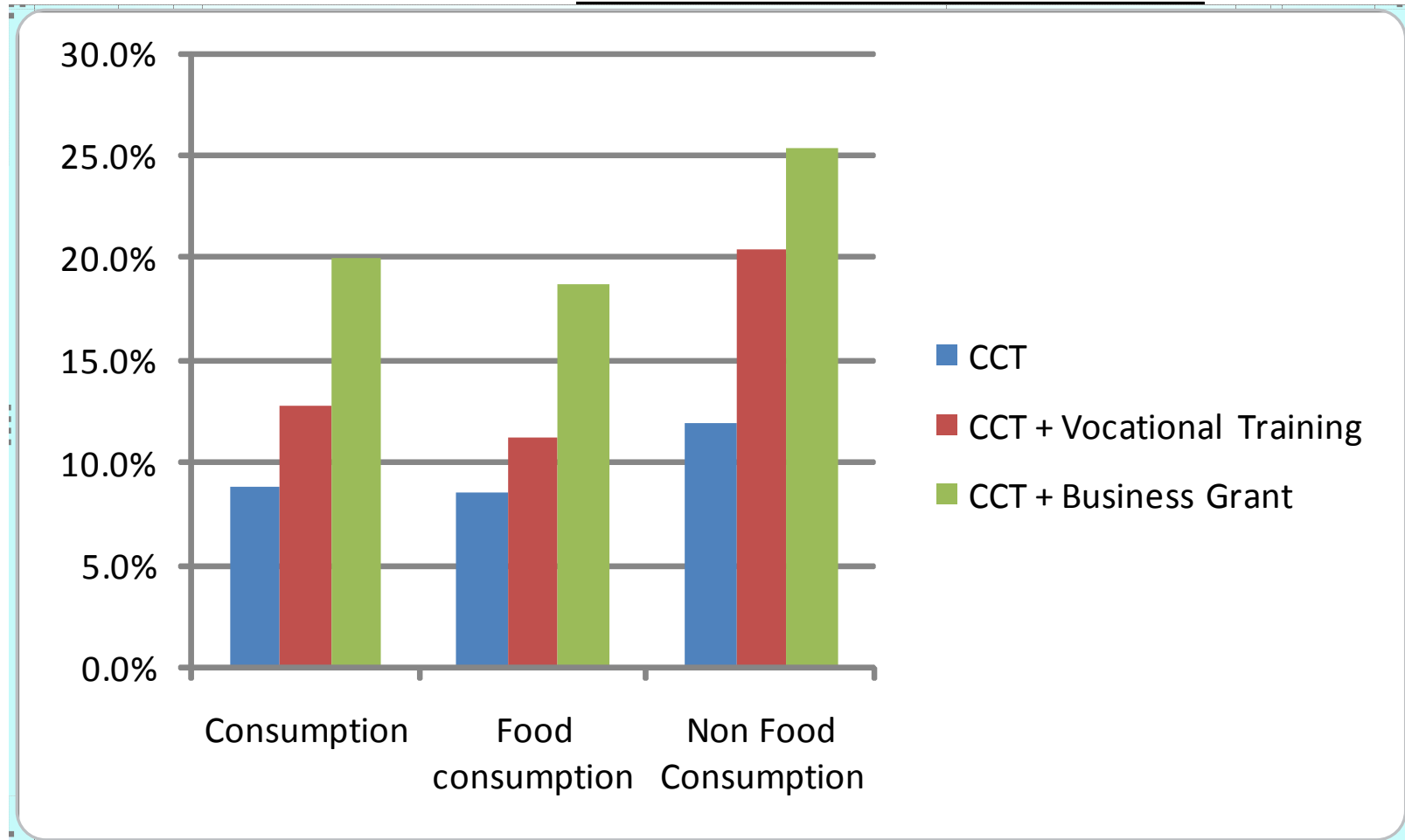
...but those with business grant cope better

What did you do to compensate for the income loss due to the drought?

	reduce savings	asset sale	reduce consumption	work more	migrate	search help from others/institutions
basico	-0.040 (0.037)	0.045 (0.039)	-0.028 (0.030)	-0.015 (0.042)	0.013 (0.039)	0.009 (0.031)
training	-0.021 (0.041)	0.018 (0.035)	-0.028 (0.029)	-0.019 (0.039)	0.026 (0.041)	-0.007 (0.034)
grant	0.064* (0.036)	0.087** (0.034)	-0.054* (0.031)	0.008 (0.041)	0.011 (0.034)	0.008 (0.031)
Mean in control	0.451	0.393	0.796	0.734	0.290	0.806
P-value Basico=training	0.460	0.340	0.969	0.838	0.575	0.524
P-value basico=grant	0.000	0.130	0.208	0.393	0.937	0.969
P-value grant=training	0.020	0.018	0.296	0.311	0.612	0.549
P-value basico=grant=training	0.001	0.055	0.415	0.573	0.829	0.774

note: *** p<0.01, ** p<0.05, * p<0.1; N = 2341

...and fully protected from drought!



Summary lesson 4

- ❑ 2 years after the intervention, beneficiaries that received the productive transfers are better protected against shocks
- ❑ Transfer program enhanced their household risk strategies
- ❑ Mechanisms: income diversification, changes in attitudes towards non-agricultural activities

Final thoughts

- ❑ A **1 year** pilot enhancing CCT with productive transfers
 - ❑ Improved welfare in the short and medium-term (protection)
 - ❑ Helped households mitigate risk (prevention and promotion)
 - ❑ Led to changes in attitudes and behaviors which enhanced impacts (prevention and promotion)
- ❑ Targeting considerations and self-selection – not everyone is an entrepreneur
- ❑ How to move from pilot to system (not a Xmas tree)

Thank you!



www.worldbank.org/atencionacrisisevaluation

Starting point - Conditional Cash Transfers

- ❑ Conditional Cash Transfers (CCTs) are one of the best-known type of safety net programs.
- ❑ Core objective of CCT programs:
 - Reduce current consumption poverty (“protection”)
 - Promote accumulation of human capital (“promotion”)
- ❑ By
 - Transferring cash
 - Asking households to comply with a series of conditions—generally, school enrollment and attendance, often also attendance at health centers for young children
 - Targeting transfers to the poor

Impact Evaluation of CCT programs have been influential...

- ❑ Conditional Cash Transfer Programs have been subject to rigorous impact evaluations that have produced a body of convincing evidence (Fiszbein and Schady, 2009).
- ❑ Key message 1:
 - CCTs have generally led to substantial reductions in consumption poverty—in particular, when transfers are large
- ❑ Key message 2:
 - CCTs have resulted in substantial increases in the utilization of education and health services –especially among poor households
- ❑ Key message 3:
 - Despite increase in service utilization, CCTs have had only mixed success in terms of improving final outcomes in education and health.

... but many unanswered questions remain

- How to improve program design?
 - Do conditions matter? How to determine the right conditions?
Does it matter who receives the payment? How much to pay?
- What are the complementarities between demand and supply-side interventions?
- Are impacts sustainable beyond the short-term?
- Do they change intergenerational mobility?
- Do CCTs also improve households' ability to manage risk?

... but many unanswered questions remain

- ❑ Overall, solid evidence on the “Protection” function of conditional cash transfers, much less on the “Promotion” and “Prevention”
- ❑ Case study directly explores the linkages between the three P

Cash Transfers to Households

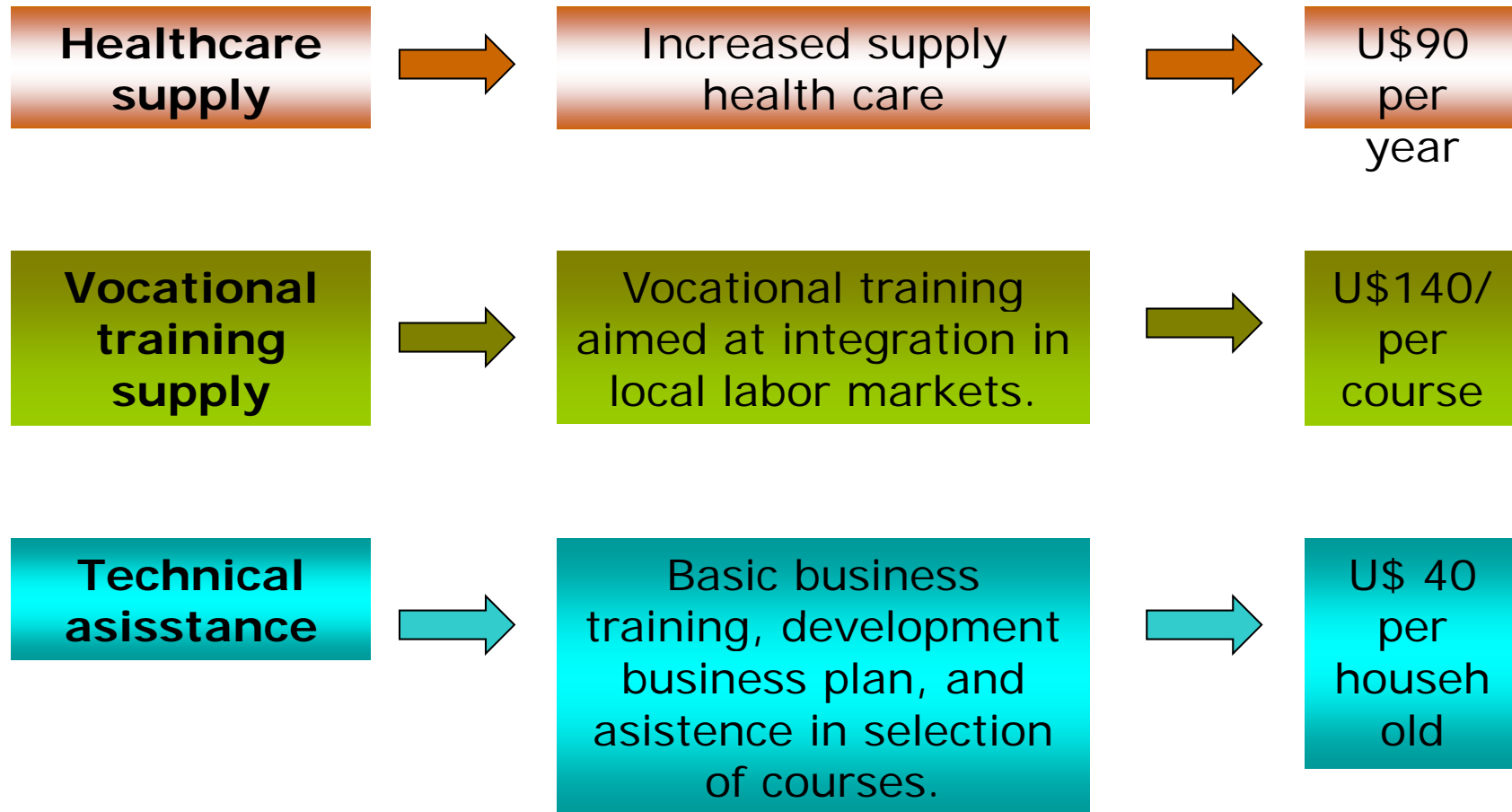


Food Transfer	→	To improve nutrition of the household	→	U\$ 145 per hh.
Educational Transfer	→	Complement to household income	→	U\$90 per hh
Backpack transfer	→	Children between 7-15 years old	→	U\$25 per child
Education supply-side transfer	→	Teacher incentive, for materiel	→	U\$ 8 per child

Cash Transfers to Households



Non-cash benefits



Validity of design in practice...

- Randomization worked: no baseline differences between treated and control households, nor between different treatment groups

- High level of compliance with experimental assignment
 - 95 percent of households assigned to treatment group received transfers
 - Close to 100% take-up productive investment grant
 - 89% take up vocational training;
 - Only 1 household in control communities received transfers
 - Of households who received benefits, more than 95 percent received the full amount of the transfer for which they were eligible

- Very low level of attrition
 - Thorough quality control throughout data collection
 - Less than 3 % of households were not tracked 3-4 years after baseline