

Results from PROGRESA

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Spring 2010

The program

- Mexico, 1997 to 2002
 - ▶ initially moderate-scale, gradually full-scale, to cover 40% of rural households by 1999
 - ▶ target: the poorest rural households
 - ▶ renamed and modified in 2002 "Oportunidades"
- Goal
 - ▶ alleviate current poverty without discouraging work
 - ▶ alleviate intergenerational transmission of poverty
- Conditional Cash Transfer (CCT)
 - ▶ short-term cash subsidies - to wives (!)
 - ▶ conditions: behavior with positive long-term effects (schooling of children, medical screening)
- Food supplements, consulting, medical services
- "Empowerment": supporting mothers' role in family decisions

Randomized experiment

- 1 Selection of eligible villages
- 2 Selection of eligible households within each village (below poverty line)
- 3 Randomized selection of villages into treatment group (60%) and control group (40%)

Benefits of randomized selection

- Treatment and control villages are similar in all respect
- Average treatment effect is identified by difference of treatment village and control village averages

$$ATE = E [Y_{ij} | W_j = 1] - E [Y_{ij} | W_j = 0]$$

where j = village, i = household

Evaluation methodology

(Skoufias et al, 2000)

- Sample: from the first set of eligible villages
 - ▶ 7 regions
 - ▶ 506 villages, 24 thousand households
- Data
 - ▶ surveys, interviews
 - ▶ 1997 to 2000
- Short-term results (those captured by 2000)
 - ▶ comparison of treatment and control means (diff)
 - ▶ comparison of changes in treatment and control means (diff-in-diffs)

Evaluating randomization

(Berman and Todd, 1999)

- Technical details are impossible to uncover (evidence lost)
- But effects of randomization are testable
 - 1 pre-program characteristics of treatment and control villages should be the same on average

$$E [Z_j | W_j = 1] = E [Z_j | W_j = 0]$$

- 2 characteristics of eligible households of treatment and control villages should be the same on average

$$E [X_{ij} | W_j = 1] = E [X_{ij} | W_j = 0]$$

Evaluating randomization, cont.

- Statistical tests for equal means
 - ① insignificant differences
 - ② small but many times statistically significant differences when simple t-tests are used
 - ★ but simple t-test are inappropriate: selection was at village, not household level
 - ★ simulation-based tests (taking village-level selection into account) show insignificant differences

Potential problems

Randomization in itself does not guarantee appropriate measurement of the effect of the program

- Migration patterns may be altered
 - ▶ poor households may move into treatment villages
 - ▶ poor households may be less likely to move out of treatment villages
- Subsidies may end up supporting non-treated families
 - ▶ in order to help relatives in non-eligible villages or non-eligible households
- Subsidies may create additional demand that may meet inadequate supply of public services
 - ▶ leading to deterioration of public services in treatment village
- Good news: these are all measurable effects and were measured properly
- No significant effects were measured

Results

- Recall: short-term results from first years

Effects on the treated
(Skoufias et al, 2000)

- ① Targeting: good
- ② Alleviating current poverty
 - ▶ 8% less households below poverty line
 - ▶ those that remained below poverty line became less poor as well
- ③ Health and nutrition
 - ▶ nutritional intake of pregnant and breast-feeding women as well as infants all improved
 - ▶ infants and young children are healthier
 - ▶ adults are healthier as well
- ④ Schooling
 - ▶ 10% improvement in middle school attendance (grades 7 to 9), stronger for girls
 - ▶ no effect on achievements

Results, cont.

① Empowerment of women

- ▶ qualitative evidence: more influence within household
- ▶ apparently without conflicts
- ▶ school attendance of girls improves more

(Avitabile - DiMaro, 2008)

● Screening for cervical cancer

- ▶ screening of eligible households in treatment villages increased
(not surprising: it was a condition of the CCT)
- ▶ screening of non-eligible households in treatment villages increased as well
(more surprising: they did not receive any transfer)