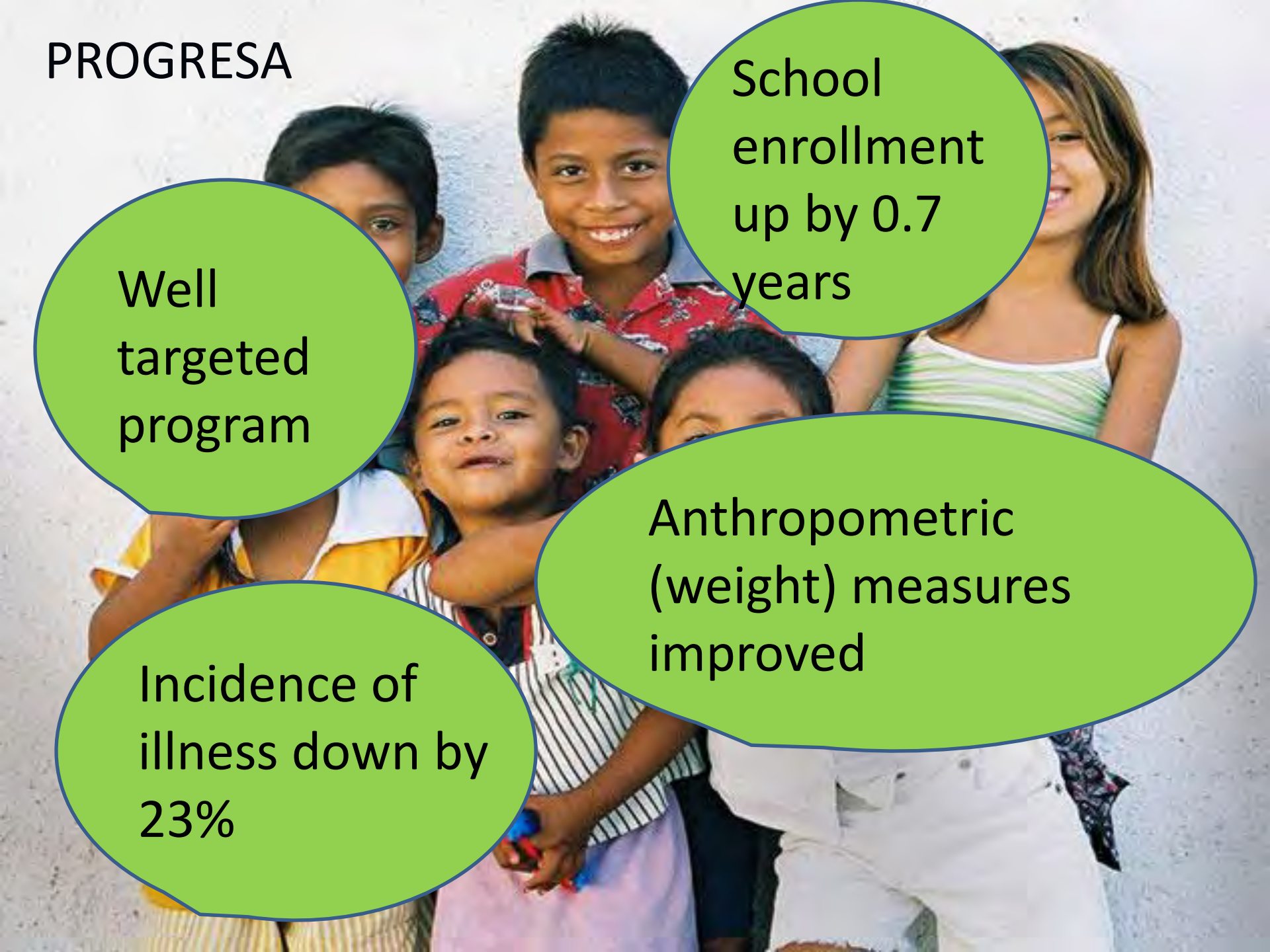


PROGRESA



Well
targeted
program

School
enrollment
up by 0.7
years

Incidence of
illness down by
23%

Anthropometric
(weight) measures
improved

What works in community based

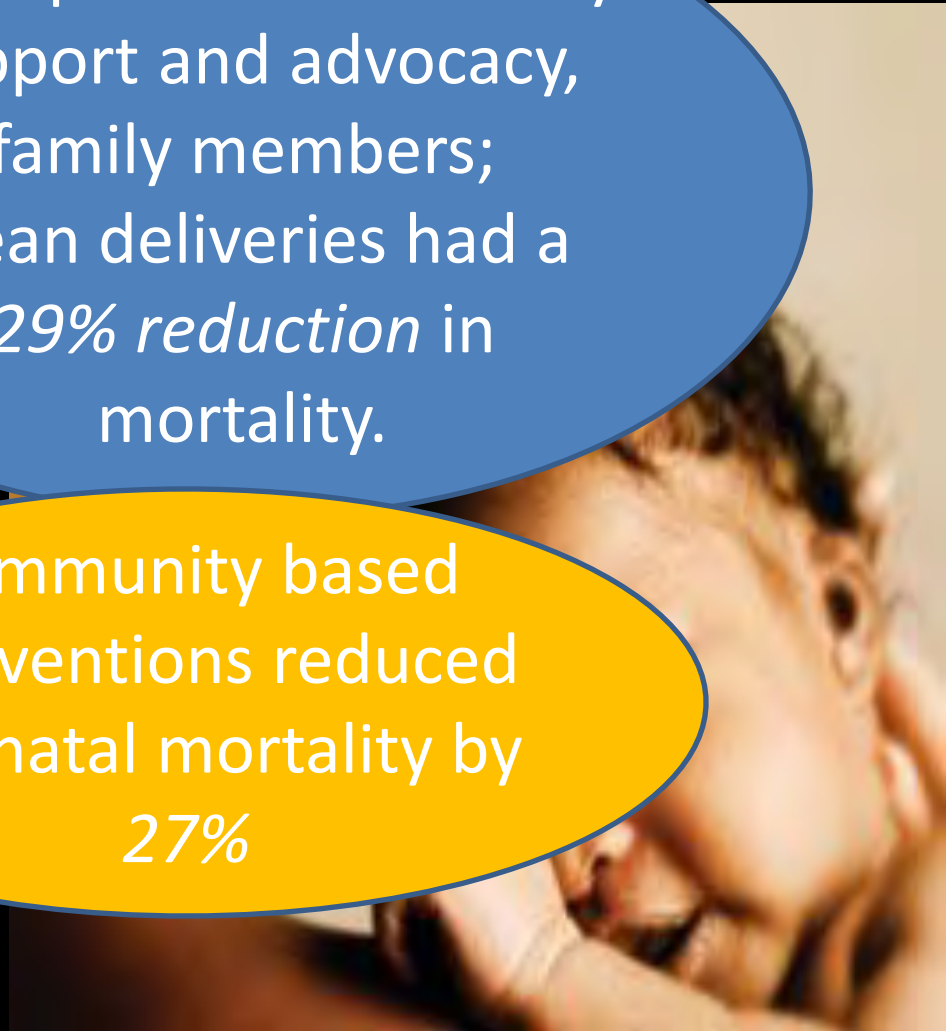


inter: No impact of community support and advocacy, family members; Clean deliveries had a *29% reduction* in mortality.

- Community based interventions had impact on maternal mortality;

Community based interventions reduced neo-natal mortality by *27%*

- Significant impact on neo-natal mortality

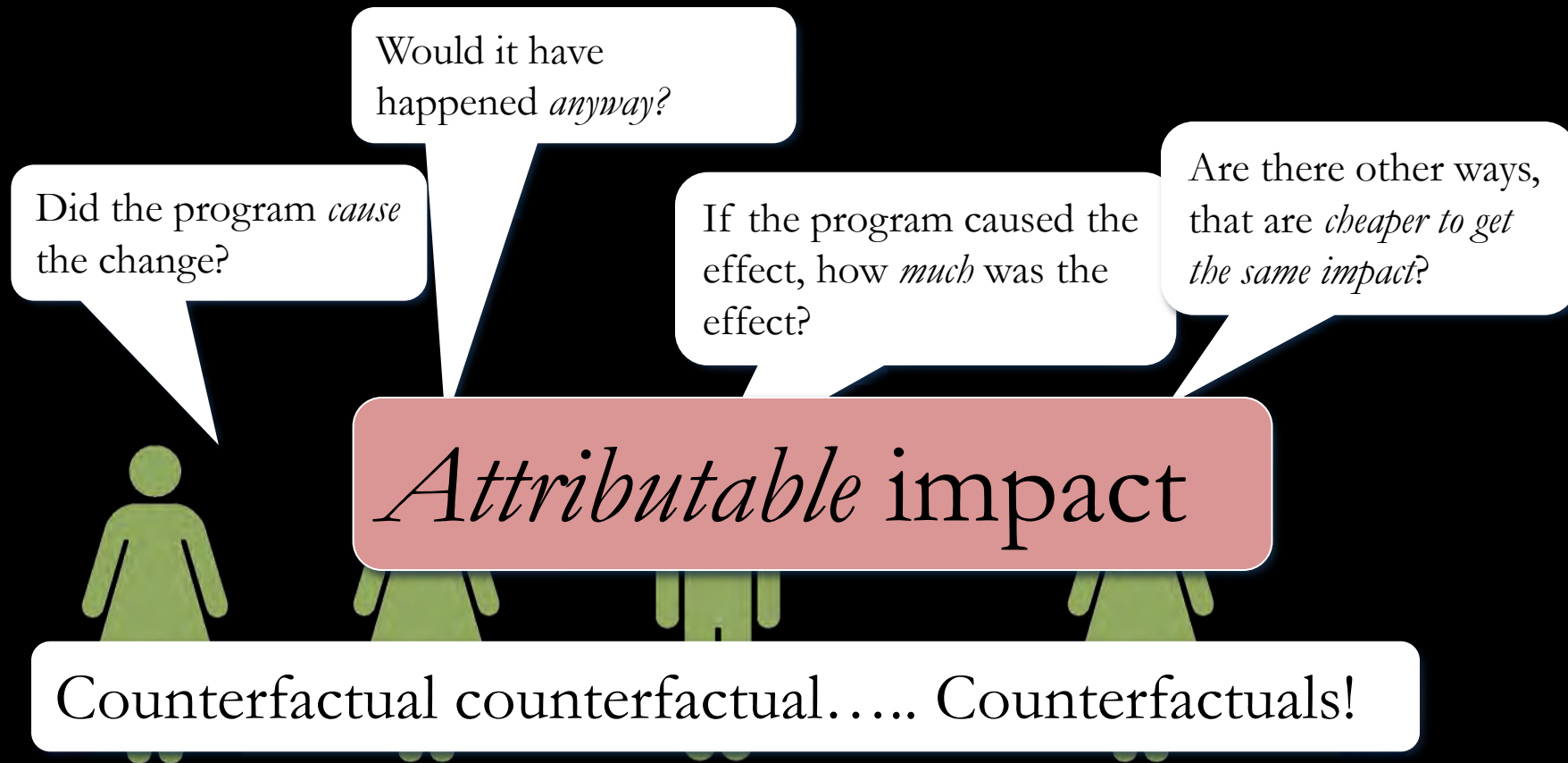


Impact Evaluation: A Science *and* an Art

Dr. Jo (Jyotsna) Puri
Deputy Executive Director, 3ie
Head of Evaluation,
www.3ieimpact.org

Pakistan Institute of Development Economics,
Islamabad, 22nd May, 2013

What is common to all these evaluations?



What is an impact evaluation?

The holy grail statement:

A cash transfer program *caused* a *7% increase* in the *income* of the *included* population.

= the ( indicator with the intervention
compared to what would have been in the
absence of the intervention 

= $Y_t(1) - Y_t(0)$


So we use a
comparison group

What do we need to measure impact?



Providing cash transfers
to the disadvantaged
and low income groups



	Before	After
Project (treatment)		92
comparison		

The majority of evaluations have just this
information ... which means we can say absolutely
nothing about impact

Before versus after single difference comparison

$$\text{Before versus after} = 92 - 40 = 52$$

	Before	After
Project (treatment)	40	92
comparison		

“the cash transfer project has led to a higher incomes in a number of villages”

This ‘before versus after’ approach is outcome monitoring.

Outcome monitoring has its place, but it is not impact evaluation

Post-treatment comparison comparison

$$\text{Single difference} = 92 - 84 = 8$$

	Before	After
Project (treatment)		92
comparison		84

But we don't know if they were similar before...
though there are ways of doing this (statistical
matching = quasi-experimental approaches)

$$\text{Double difference} = (92-40)-(84-26) = 52-58 = -6$$

	Before	After
Project (treatment)	40	92
comparison	26	84

Conclusion: Longitudinal (panel) data, with a comparison group, allow for the strongest impact evaluation design (though still need matching).

SO WE NEED BASELINE DATA FROM PROJECT AND COMPARISON AREAS

What do we need to measure impact?

	Before	After
Project		
Comparison		

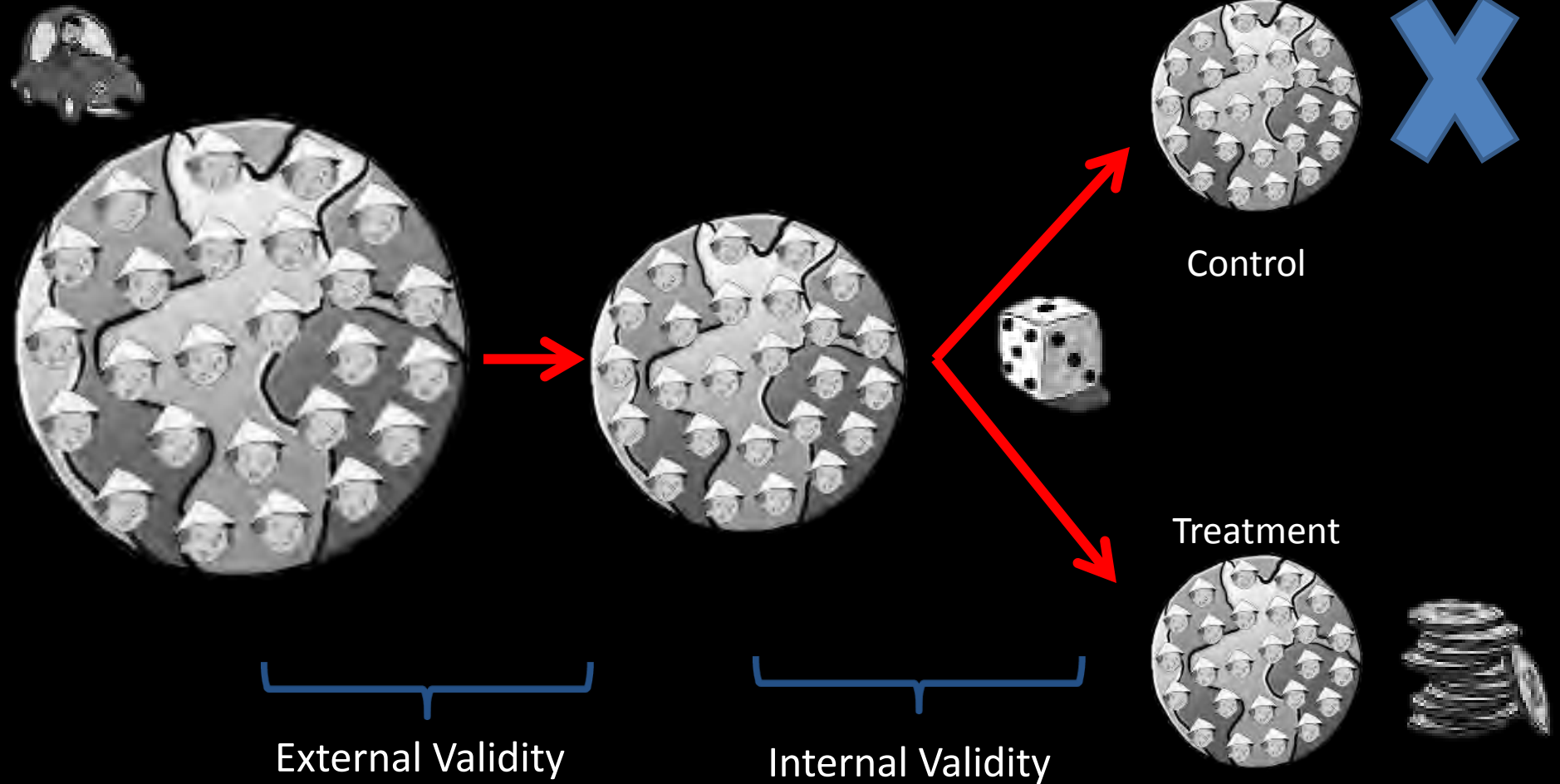
So in fact

	Before	After
Project		
Comparison		

Step I
Eligible units

Step II
Evaluation sample

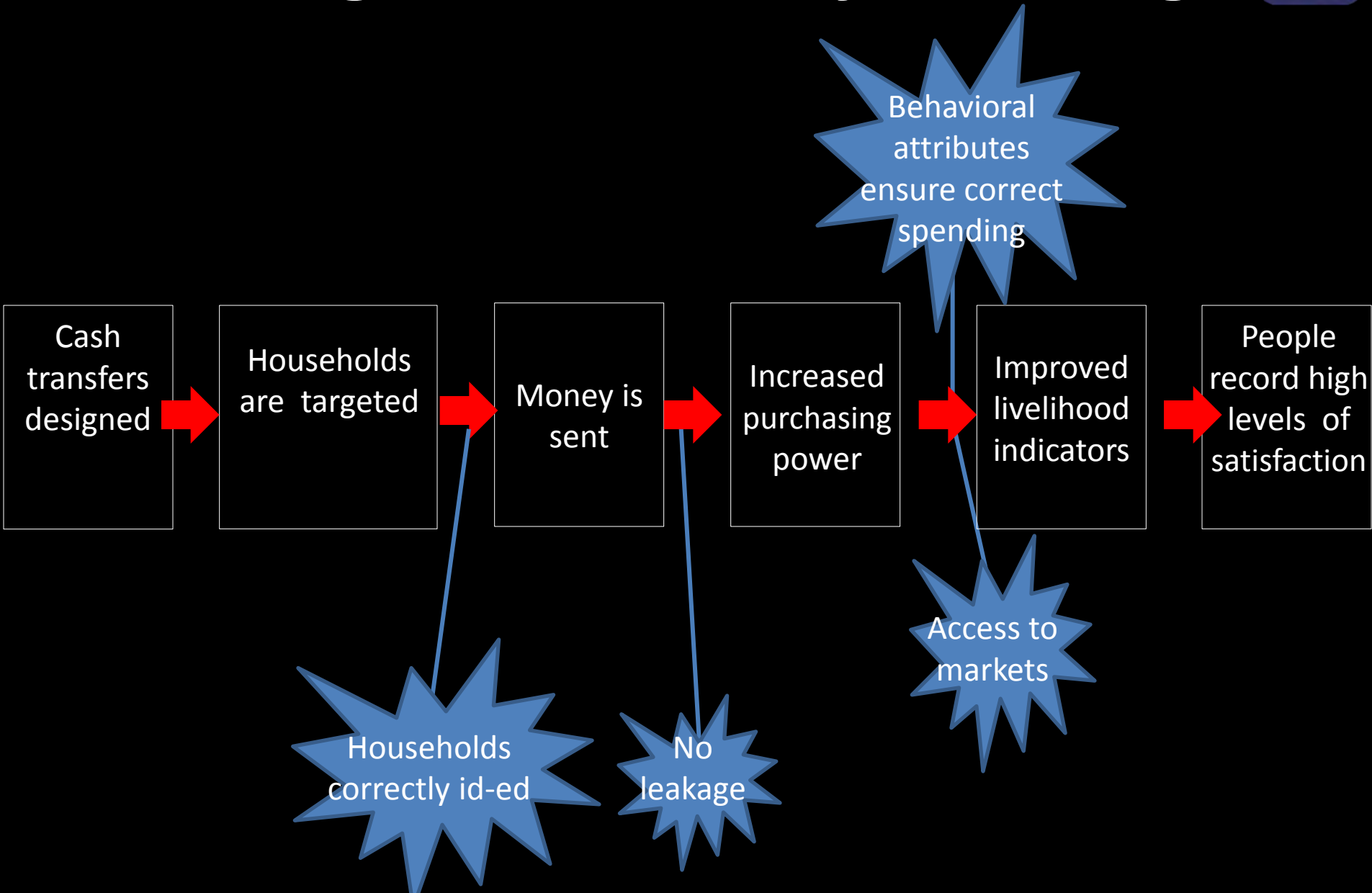
Step III
Random Assignment



 Ineligible

 Eligible

Starting with a theory of Change



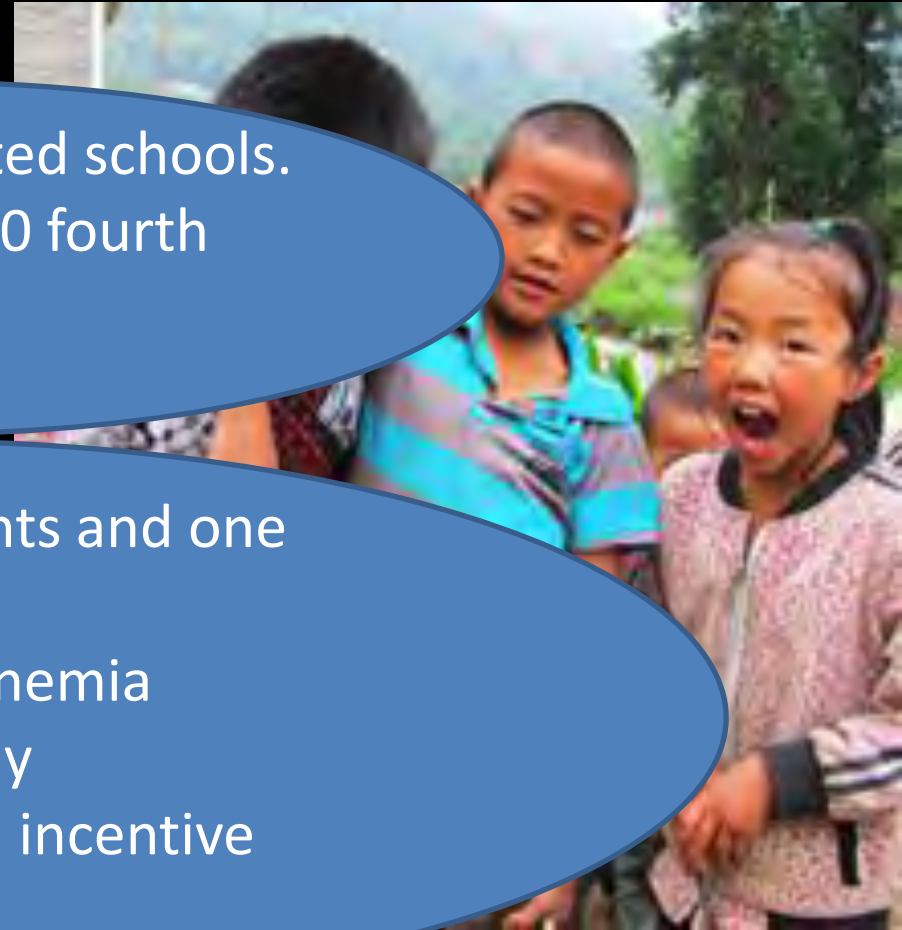
Paying for Performance: China's battle against Anaemia

- To assess the impact of information, financial incentives, and iron supplementation on anaemia and cognitive development in rural China

72 *randomly* selected schools.
Approximately 4000 fourth
and fifth graders.

Four arms: three treatments and one control:

- Information only about anemia
- Information and a subsidy
- Information, subsidy and incentive
- Control group



Paying for Performance: China's battle against Anaemia

- To assess the impact of information, subsidies and financial incentives to reduce anaemia among children in rural China

- Hemoglobin levels increased much more in due to subsidies and incentives;
- Test scores higher due to subsidies and even greater due to incentives.



What do you need?

Efficacy: Does it work in laboratory conditions?

Would it have happened anyway?

Are there other ways, that are *cheaper to get the same impact?*

Did the program *cause* the change?

If the program caused the effect, how *much* was the effect?

Theory of change

Counterfactual

Mixed methods

Outcome variables

Internal validity: power, sample size, spill overs,

External validity: Heterogeneity, representativeness, context



International Initiative
for Impact Evaluation



2010-13

Improving lives through Impact Evaluation
a strategy for 3ie

3ie



Improving the
supply side and
the demand
side of
evidence based
developments

3ie sub grant windows

- Primary studies
 - Open Windows
 - Thematic windows
 - Policy windows
- Systematic reviews

International Initiative for Impact Evaluation
Synthetic Review 008



**Behaviour Change Interventions to Prevent HIV among
Women Living in Low and Middle Income Countries**

Sandra McCoy, R. Abigail Kangwende and Nancy S. Padian
December 2009



So, what about
policy influence?

We take sophisticated techniques

$$e^{i\pi} + 1 = 0$$

$$e^{iu} = \cos(u) + i \sin(u)$$

$$\gamma = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{2} + \dots + \frac{1}{n} \right)$$

$$V-E+$$

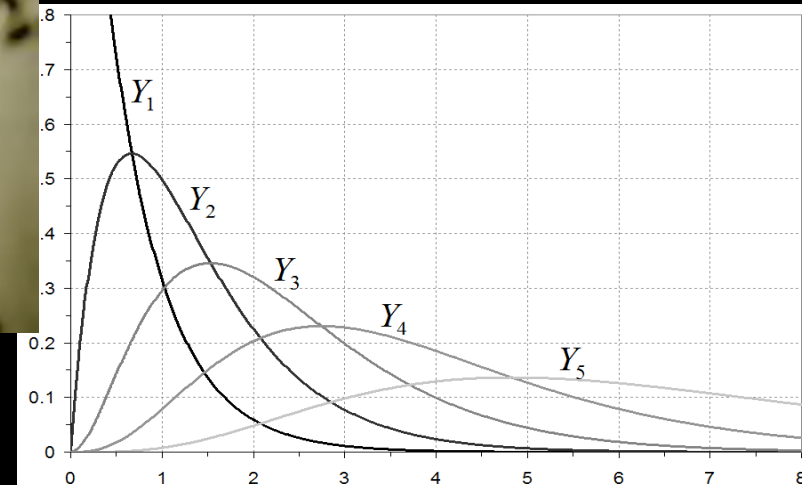
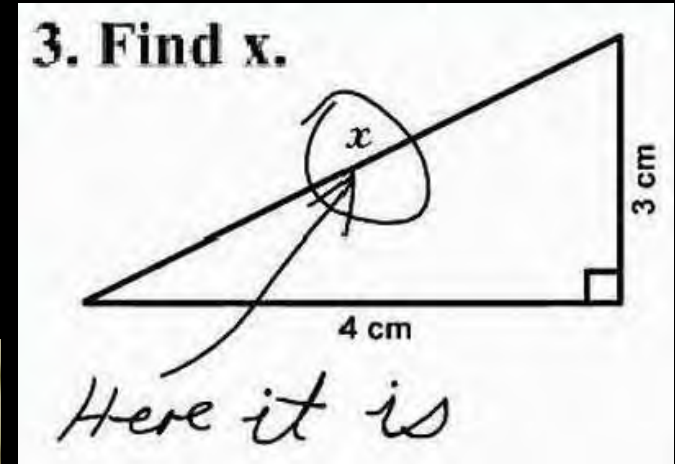
$$S-I = \sum_{k=1}^n \frac{f(k)}{(2k)!} (f^{(2k)}(n))$$

score is $\hat{y} = b_0 + b_1 x$

$$= \frac{1}{n} \sum_{i=1}^n y_i = \frac{1}{n} \sum_{i=1}^n \left(b_0 + b_1 x_i + \epsilon_i \right)$$

$$= b_0 + b_1 \bar{x} + \bar{\epsilon}$$

$$= 3.169 \cdot 3.22 \cdot \sqrt{1 + \frac{1}{12} + \frac{12 \cdot (4)}{12 \cdot 2}}$$



Which make nice academic studies



Which get published in top journals



Which is meant to lead to..



Mozambique



Ghana



Gujarat



Zambia

Funding Windows



Open Windows



Thematic Windows



Policy Windows

Open Windows



Thematic Window



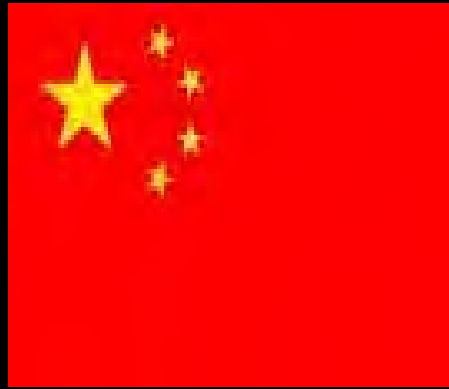
Policy Window



Policy Window



- Policy window grants for *governments*
- Technical advice for *agencies*



Preparation grants include:

Sri Lanka, Philippines, Fiji, Ecuador,
South Africa, NEPAD, Uganda etc.

What is in it for governments and implementing agencies?

- Increase evaluation capacity (training and quality assurance).
- Evaluation of programs that are innovative and will be scaled up.
 - Financial support
 - Technical support
- Systematic reviews of evidence
- Policy impact clinics
- Commitment to evaluation evidence.
- Others –bursaries, support.

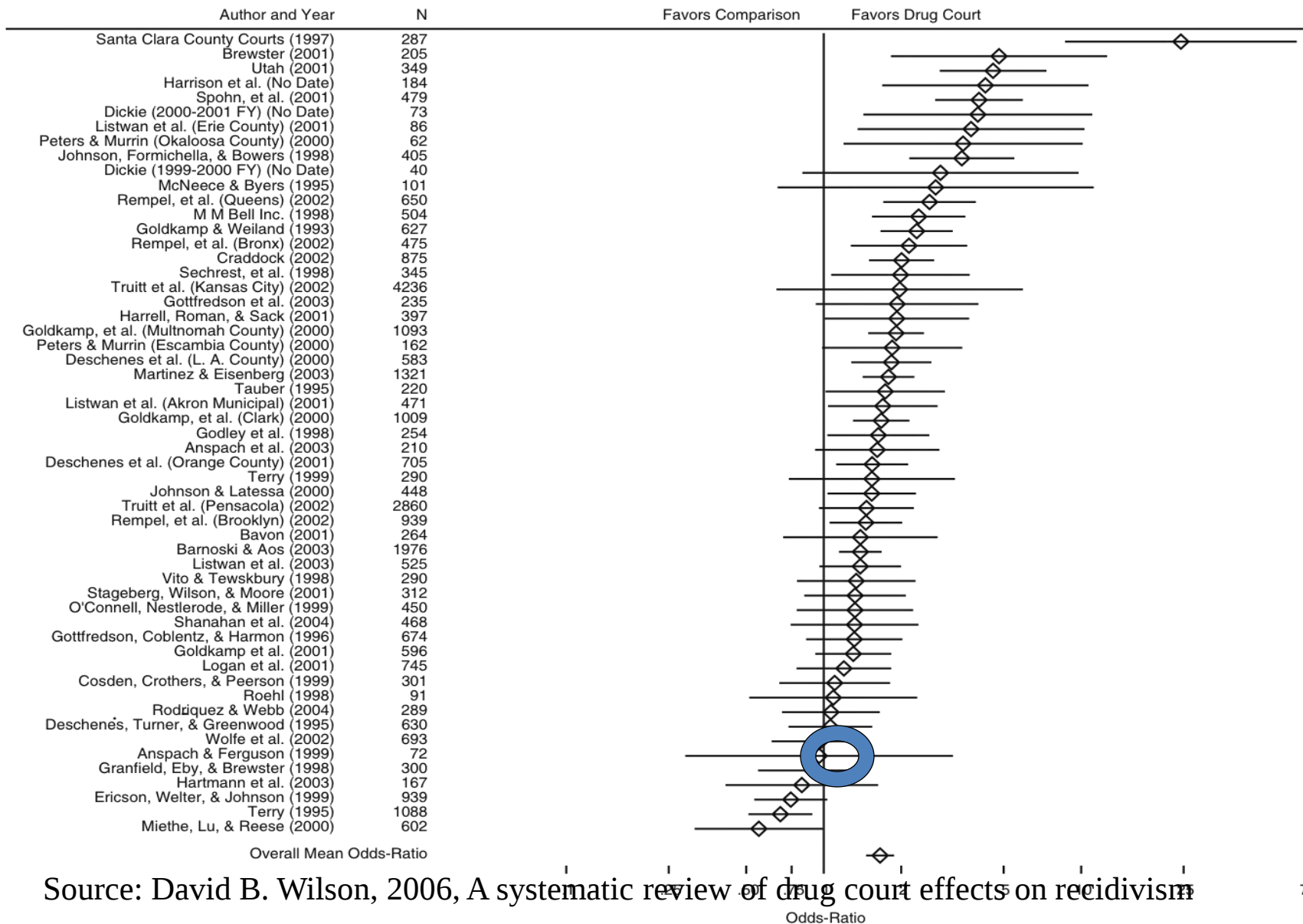


Figure 1. Odds ratios and 95% confidence intervals for all offenses by study.

GoBiFO

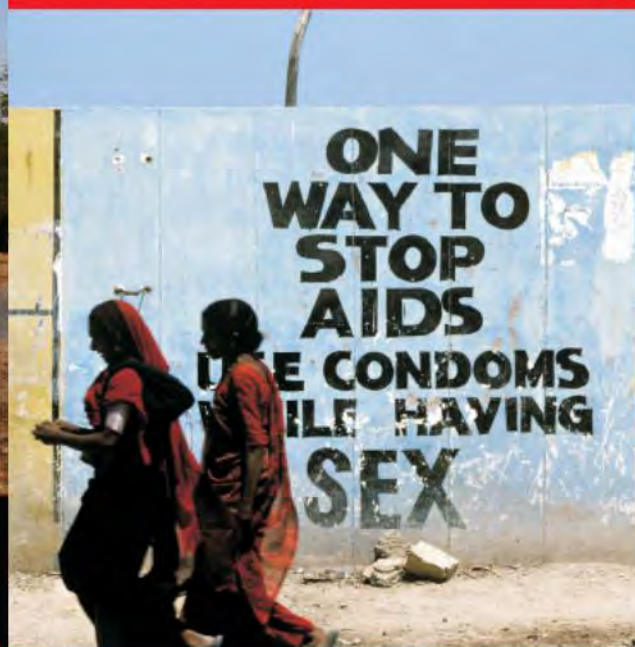
- 2006-9 community directed post-conflict reconstruction intervention in rural Sierra Leone.
- Block grants of \$4667
- Outcomes: delivered to marginalized groups, improved action capacity
- 236 eligible villages; pairs randomized.

Results: Mixed.
Material benefits: Yes.
Collective action: No





Water, sanitation and hygiene interventions to combat childhood diarrhoea in developing countries
Hugh Waddington, Birte Snilstveit, Howard White, and Lorna Fewtrell
August 2009



Behaviour Change Interventions to Prevent HIV among Women Living in Low and Middle Income Countries
Sandra McCoy, R. Abigail Kangwende and Nancy S. Padian
December 2009



Community-Based Intervention Packages for Preventing Maternal Morbidity and Mortality and Improving Neonatal Outcomes
Zohra S Lassi, Batool A Haider, and Zulfiqar A Bhutta
March 2010

www.3ieimpact.org
jpuri@3ieimpact.org