

Williams College ECON 379:
Program Evaluation for International Development

photo: Flore de Preneuf / World Bank



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Program Evaluation for International Development

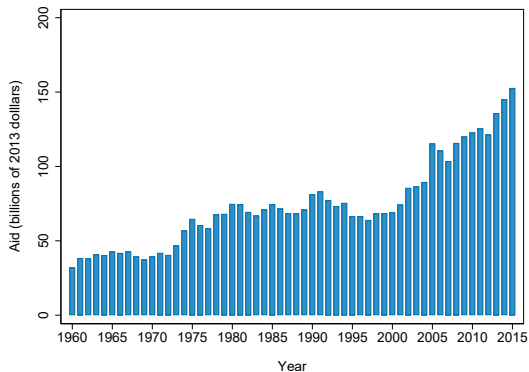
Module 1: Why Should We Evaluate Development Policy?

Professor: Pamela Jakiela

photo: Daniella Van Leggelo-Padilla / World Bank

Why Evaluate?

Does Aid Help?



Between 1960 and 2015, developing countries received 4.15 trillion dollars in foreign aid

Why Does Aid Exist?



photos: World Bank

Aid is intended to reduce poverty and promote growth in “less-developed” countries (though this is not the only reason countries spend money on foreign aid)

A 90-Second History of Foreign Aid

1960s: the **Big Push** – aid for infrastructure and industrialization

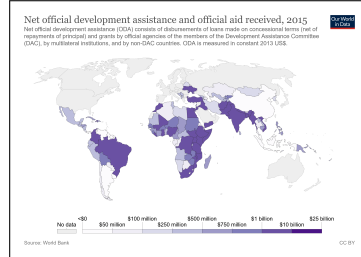
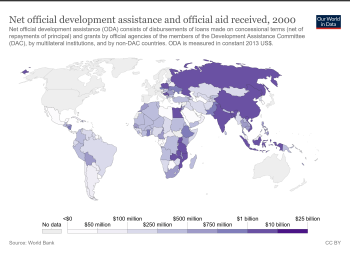
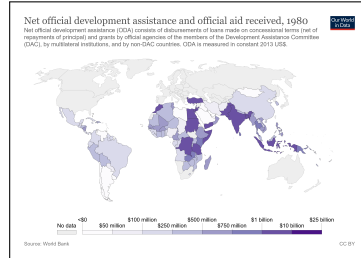
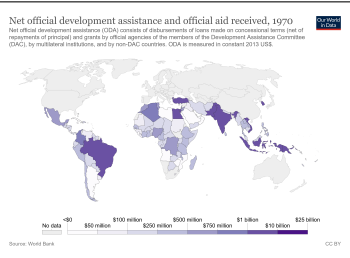
1970s: after failure of the Big Push, lending shifts toward meeting **basic needs**

1980s: the debt crisis and **structural adjustment** lending

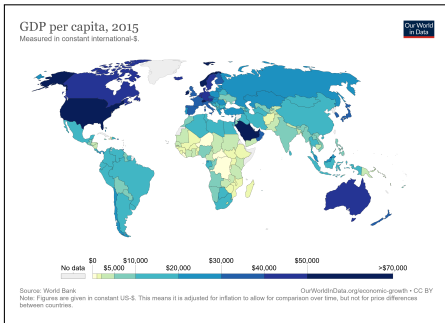
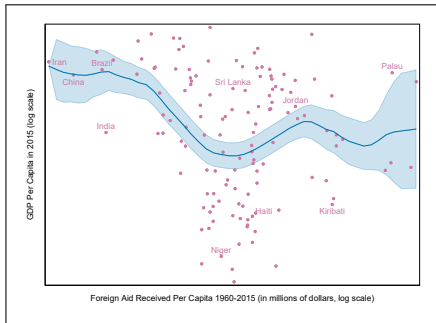
1990s: governance, NGOs, beginnings of the modern era (in foreign aid)

Epilogue: Millennium Development Goals, Sustainable Development Goals

Which Countries Received the Most Aid?

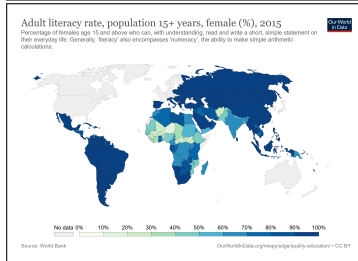
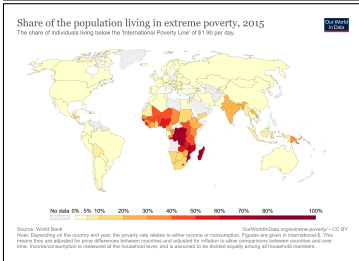
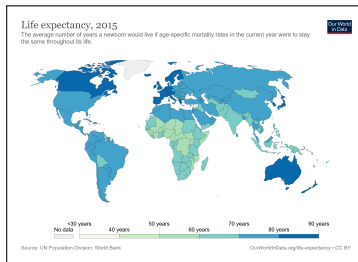
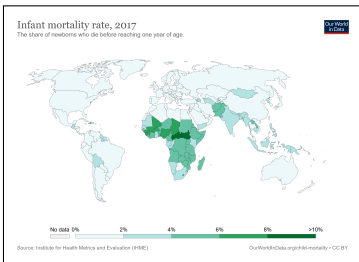


Did Aid Lead to Better Development Outcomes?

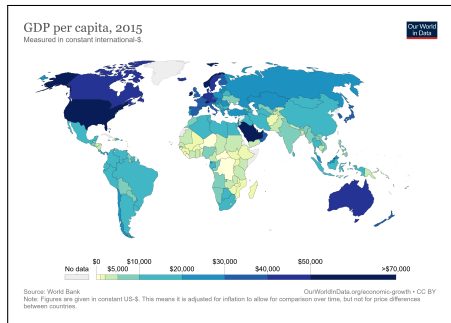
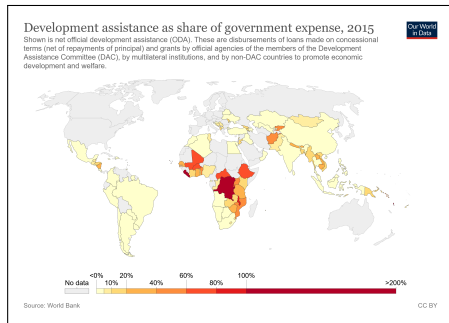


Many countries that received substantial amounts of aid per capita are still very poor

Did Aid Lead to Better Development Outcomes?



Did Aid Lead to Better Development Outcomes?



Foreign aid pays for a large share of government expenditure in many of the poorest countries

- In spite of billions of dollars in aid, many countries are not “developed”

Did Aid Lead to Better Development Outcomes?

Tanzania has received over 80 billion dollars in aid since 1960 (inflation adjust 2013 dollars)

- Some human development outcomes have improved since 1960: life expectancy went up, both infant and maternal mortality declined, and educational attainment increased

Would Tanzania have been better off without aid (or with less of it)?

- Argentina and Mongolia only received about 6.5 billion (2013) dollars in aid
⇒ Should we compare Tanzania to Argentina or Mongolia?

As Professor Duflo said: we can't know what would have happened in Tanzania without aid

What Can We Learn, and When Can We Learn It?

An “ideal” experiment:

Suppose Kenya, Tanzania, and Uganda all applied for a loan, but one got it (at random)

- No one is going to do this, and they (probably) shouldn't
- But such an experiment might help us learn about the impacts of aid on development

Some questions we might be able to answer:

- Do microfinance loan help women start small businesses and support their families?
- What were the impacts of school construction on education and adult wages?
- Does subsidizing malaria treatment or bednets improve child health?

The Other “W” Questions

Who?

Three types of individuals who often wish to initiate a program evaluation:

- Researchers, policymakers, donors
 - ▶ Often asking different research questions
 - ▶ All (policy-relevant) knowledge is (to some degree) context specific

Who is interested in the results of a program evaluation?

What?

Which programs **should** be evaluated?

- Is it replicable?
- Are there opportunity costs?
- Is it innovative or untested? Do we care about the results?

When **shouldn't** a program be evaluated?

- When are the opportunity costs low?
- When are the impacts of a program known?
- When is it unethical to have a comparison group?

Where?

Program evaluation is a tool of both development and labor economics

- Randomized evaluations of social policy increasingly common in “developed” countries
- NGOs play an outsized role in service provision in LMICs

Certain countries may be over-represented (e.g. Ghana, Kenya, Malawi)

- Where is data publicly available (cf. Demographic and Health Surveys)?
- Other countries (e.g. India, Indonesia) are large but **not** over-represented

Where does aid go within countries? Where do evaluations take place?

- Existing literature suggests aid ends up in wealthier places in poor countries

When?

What are the differences between **retrospective** and **prospective** program evaluation?

- RCTs are not always prospective; quasi-experimental evaluations not always retrospective
 - ▶ **Example:** regression discontinuity design around eligibility cutoff

What are (some of) the strengths of prospective evaluation?

- (I'm not going to tell you the answer, but Gertler et al. have thoughts)

What are (some of) the (potential) weaknesses of prospective evaluation?

- External vs. internal validity, (short) evaluation windows

How to Evaluate

Three Questions

1. What is the treatment? What is X ?

- ▶ Example: **microfinance** (provision of small, uncollateralized loans to poor borrowers)
 - ▶ Is the treatment a loan? Or being offered a loan? Or having an MFI in your neighborhood?
- ▶ What is the **estimand**? Difference treatments lead to different (expected) treatment effects

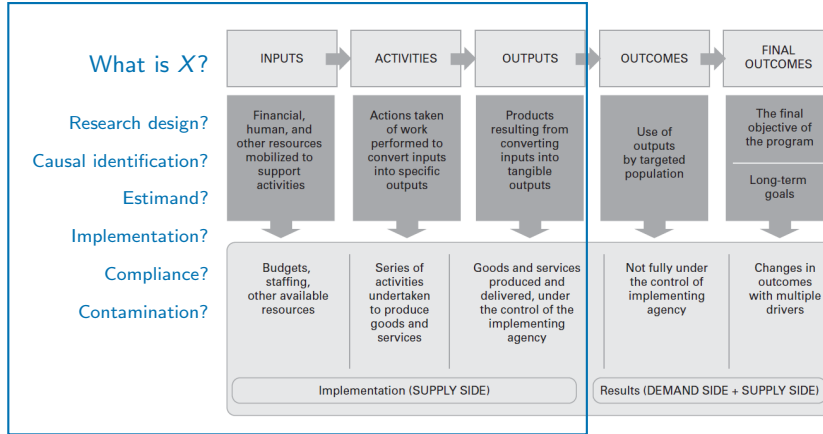
2. What do we expect X to impact? What is Y ?

- ▶ What are the outcomes, and how can/should we measure them?
- ▶ Example: receiving a loan, having a microenterprise, HH income, empowerment, etc.

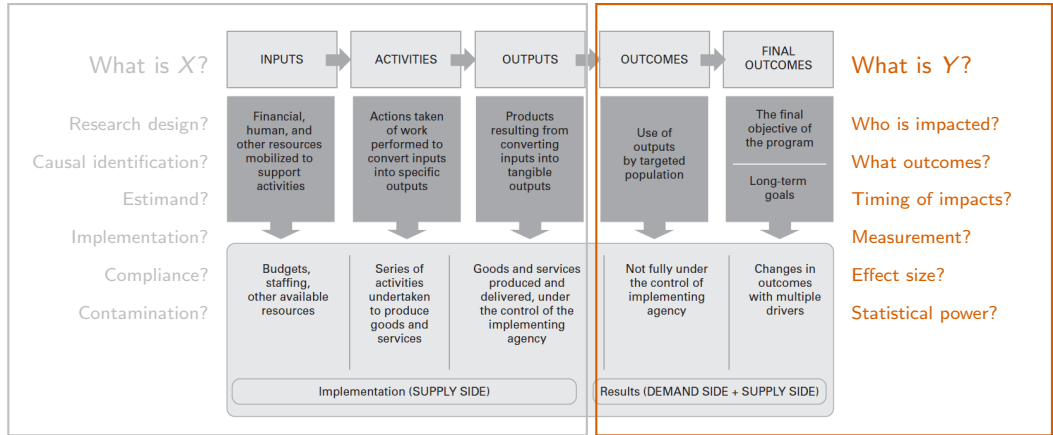
3. How can we measure causal impacts of X ?

- ▶ What is the **identification strategy**? (some possible answers: RCT, DD, IV, RD, “HFB”)

The Results Chain



The Results Chain



The Results Chain: Examples

Example 1: the World Bank funds the construction of new roads

Example 2: the Indonesian government builds thousands of new schools

Example 3: an NGO subsidizes effective treatment for malaria episodes

Evaluating the Impacts of Subsidized Malaria Treatment

Comparison Group

No subsidy. Households received vouchers to purchase unsubsidized ACTs at the pre-AMFm retail price in Kenya: KSh 500 (approximately US\$6.25, using a 2009 exchange rate of KSh 80/ US\$1).

ACT Subsidy

Households were randomly selected to receive vouchers for ACTs at one of three subsidy levels:

- **92 percent** (US\$0.50 per adult dose, corresponds to the Kenyan government's target retail price of KSh 40 under the AMFm)
- **88 percent** (US\$0.75 per adult dose)
- **80 percent** (US\$1.25 per adult dose)

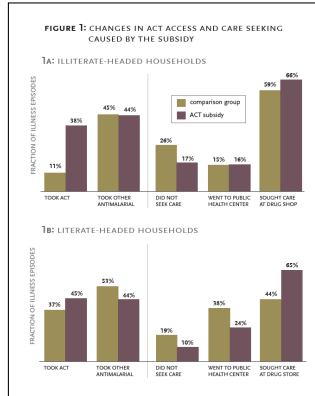
ACT & RDT Subsidy

Households received one of the three ACT subsidy levels above and were also randomly assigned to receive vouchers for rapid diagnostic tests (RDTs) either for free or at an 85 percent subsidy (US\$0.20).



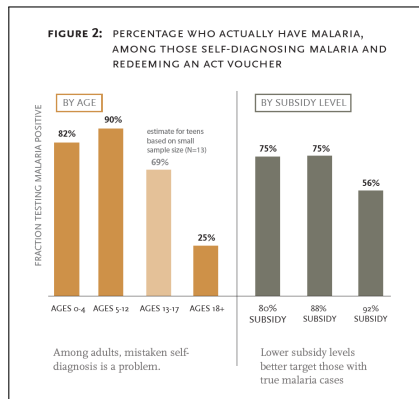
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Evaluating the Impacts of Subsidized Malaria Treatment



source: J-PAL

Evaluating the Impacts of Subsidized Malaria Treatment



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Evaluating the Impacts of Subsidized Malaria Treatment

Subsidizing ACTs provides measurable benefits, especially for vulnerable children and the poorest households. Many households effectively miss out on the existing free treatment at public facilities and either do not seek care for malaria at all or take less effective medicines. For these families, a retail-sector ACT subsidy substantially improves access to proper treatment.

A slightly lower subsidy can improve targeting without compromising access for children. Moving from the AMFm target subsidy level (roughly 92 percent) to a somewhat lower subsidy (80 percent) reduced overtreatment among adults, while keeping access constant for children. These results suggest that an ACT subsidy is clearly needed, but that a slightly lower subsidy may achieve similar benefits at a lower cost.

Rapid diagnostic tests may be a promising means to improve targeting. People were very willing to try out rapid diagnostic testing, including sharing the cost of the test. More than half of adults who suspected malaria but got a negative test result decided not to purchase the subsidized ACT. Imperfect compliance with malaria test results is also common among public health workers, and thus it may take some time for people with malaria to become familiar with and trust RDTs.

source: J-PAL