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News

Field trials aim to tackle poverty

Pioneering lab applies medical sense to development projects.

Declan Butler

Faced with the multitude of problems that result from and contribute to poverty, how can you decide which strategy to use to tackle an issue? One innovative lab is borrowing ideas from the medical world in a bid to find out.

The Abdul Latif Jameel Poverty Action Lab (J-PAL) is pioneering the concept of randomized trials, more commonly associated with drug safety tests, to assess what works and what doesn't in development and poverty interventions. The strategy has inspired the World Bank, which in December will choose winning proposals in a €10.4-million (US\$14.9-million), 3-year programme that will use randomized trials to study the fight against poverty.

Based at the Massachusetts Institute of Technology in Cambridge, J-PAL was founded in 2003 and this year has more than 60 projects on the go in 21 countries. Esther Duflo, one of the lab's founders, says she set it up to help rigorously test the many programmes that are meant to aid the poor. "Whereas one would not dream of putting a new drug on the market without a randomized trial," she says, "such evaluations were, and to a certain extent still are, very rare for social programmes."

Although young, J-PAL has already notched up some successes. One of its first studies, involving more than 30,000 youngsters in rural Kenya, found that deworming children reduced the number of days taken off school by 25% (E. Miguel and M. Kremer *Econometrica* **72**, **159-217**; 2004). Another study, in India, showed that hiring young local women to help at schools with underperforming students significantly increased test scores, and was six times cheaper than the computer-assisted learning already being tested (A. Banerjee *et al. Q. J. Econ.* **122**, **1235-1264**; 2007). "J-PAL's results in education are solid and important," says Nilima Gulrajani, an expert in aid management at the London School of Economics and Political Science.

Planning trials in poor countries is very different from clinical trials, says J-PAL's executive director, Rachel Glennerster. Rather than set up its own experiments, J-PAL joins forces with groups that are already working in the field. The deworming project, for example, had already been planned. J-PAL just joined the project, which was then slightly rethought to allow the science to be done alongside.

Adding research protocols can be a hassle for development groups, says Glennerster, so it takes a lot of discussion and goodwill before J-PAL can join a project and start doing trials.

Pascaline Dupas, a researcher at Dartmouth College in Hanover, New Hampshire, and one of a network of researchers who work with J-PAL, has been tackling a more political issue: bed nets. Treated with insecticide, bed nets are one of the main new tools for controlling malaria, but debate has raged over whether widespread use is best encouraged by handing the nets out free, or charging for them to encourage responsibility. The US Agency for International Development pursues the latter policy, but on the basis of little hard evidence.

In a trial set up in Kenya, Dupas randomized the price at which pregnant women could buy nets. Her results, which are being prepared for publication, come down firmly on giving nets out free. She found that people who got free nets used them just as responsibly as those who paid for them. Moreover, charging even 75 cents reduced net use by 75%.

The lab is also exploring procrastination, which can actually be a major public-health problem. HIV testing is important for preventing the spread of AIDS, but many patients don't pick up their test results. In a soon-to-be-published study, J-PAL has found that giving people as little as 10 cents as a reward for picking up their results on the day they are ready significantly increases compliance.

The lab is currently brainstorming similar ideas to improve a major problem in tuberculosis (TB) treatment. Patients with TB must take their drugs every day for six to eight months to eliminate infection, but often stop as soon as they feel better. With mobile phones now more common in poor countries, the researchers have come up with an idea. A text message reminds patients to take their pill. On opening the pill wrapper they get a code that gives them three minutes' free call time. "I'd love to test this in a randomized trial," says Glennerster.

Mel Spigelman, director of research and development at the Global Alliance for TB Drug Development in New York, says it has yet to work with J-PAL, but "appreciates its efforts to improve global public health". Beating TB, he says, "will take a wide range of creative efforts".

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But Gulrajani urges against excessive enthusiasm for randomized trials in poverty research. She worries that policy-makers may jump on the findings as



Randomized trials show local women can help improve test results in underperforming Indian schools.

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scientific too soon, and apply them too broadly — neglecting painstaking, but seemingly softer, classical social-science studies. At the same time, she praises J-PAL's concept. "It's the first attempt to approach poverty research in a scientific, controlled, experimental way," she says. "You are going to see this being increasingly adopted. It is a fantastic idea."

See Editorial, page [947](#) This article is part of the Global Theme on Poverty and Human Development, organized by the Council of Science Editors. All articles from the Nature Publishing Group are available free at www.nature.com/povhumdev The content from all participating journals can be found at www.councilscienceeditors.org/globalthemeissue.cfm



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