1843 MAGAZINE

How poor Kenyans became economists' guinea pigs

Randomised controlled trials have many problems. They may still be the best tool for solving poverty

Mar 1st 2024

Share

By Linda Kinstler

In early March 2022 the residents of Okela-C, a village in western Kenya, were sowing seeds in their fields in advance of the spring rains. Peter Otedo, a 45-year-old father of six, had spent the morning working on the

Otedo, a 43 year-old father of six, had spent the morning working on the plot of farmland behind his home – a sturdy, two-room concrete structure with a corrugated-iron roof and patterned tile floors. He had built it himself, along with the adjacent mud-walled building containing a kitchen, over the course of two years. Before that, his family had squeezed inside a single-room hut with a leaky thatched roof. "We couldn't sleep through the night in the old house," said Otedo, who was born and raised in the village. Now, his family has a good life, at least by the standards of Okela-C. His wife has steady work as a housemaid and they can afford to send all their children to school.

Maurice Marendi is one of Otedo's neighbours. He was also born in the village, though he doesn't know exactly when – he reckons he's 63 or 64. Unlike Otedo, he lives in a rudimentary hut made of clay, tree branches, sand and twine, situated on a large plot of land on which he has planted young acacia trees. Marendi's house has a dirt floor. He charges his mobile phone at a neighbour's home and his toilet is an open-air lean-to shielded by dried sheaths of maize. His wife died in 2007, leaving him to support their four children. Three years later, one of his daughters died of kidney disease. He dreams of one day sending his younger son to a technical school, but doesn't yet have the money.

Otedo and Marendi were born into similar circumstances, in one of the most impoverished regions of Kenya, but now lead very different lives. That is in large part because their village was selected in 2011 to take part in an economic experiment. GiveDirectly, a charity, aims to alleviate poverty by giving money to people in developing countries. According to its website, it has "delivered $700m+ in cash directly into the hands of over 1.5m people living in poverty" since 2009.

To measure the effectiveness of these cash transfers, the charity decided to conduct a kind of experiment called a randomised controlled trial (RCT). Researchers keen to understand the impact of, say, mosquito nets or mobile phones will give one to every member of a randomly selected "treatment group", while the "control group" receives nothing. Both groups are monitored for years, even decades, at which point the results are pored over by academics and development organisations. "You are basically trying to observe many different possible worlds," said Patrick Forscher, a behavioural economist at the Busara Centre, a research institute in Nairobi. "You want to set [the trial] up in such a way that the only difference between treatment and control is the

intervention. That is the magic of RCTs."

RCTs are most commonly associated with medical trials, but over the past two decades they have become popular with development economists as a means of figuring out how aid money should be spent. For much of the 20th century, researchers trying to compare the effectiveness of different kinds of aid relied primarily on observational studies and analysis of the data collected. The RCT generation – known as the "randomistas" – climbed down from academia's ivory towers and went into the field. They did not merely observe but intervened in people's lives through experiments, sometimes elaborately designed, that allowed direct comparison between those who received treatments and those who didn't.

In 2019 the leading "randomistas" – Michael Kremer, Esther Duflo and Abhijit Banerjee – shared the Nobel prize in economics for their use of RCTs to discover the best ways to alleviate global poverty. The citation for their award said that their findings "have dramatically improved our ability to fight poverty in practice", and that "their experimental research methods now entirely dominate development economics." The trio's disciples populate the ranks of top economics departments around the world. "At some point, we were the new kids on the block doing original things, and now what we are doing is conventional stuff," Duflo told me. "It's hard to get more conventional" than a Nobel prize. For economists fighting poverty, it can feel like RCTs are the only game in town.

The RCT that Otedo and Marendi participated in was based across 120 villages in Siaya county, an administrative region in western Kenya. Some were to be "treatment" villages – where some residents would be given cash transfers – while others were to be "pure control" villages, where no one would receive any money. Okela-C was chosen as a treatment village. Otedo's household was one of 137 in the original study that were randomly selected to receive cash transfers amounting to a total of $1,000 (slightly more than double annual per-head consumption), which they could spend on whatever they wanted. Marendi's household was part of the control group within the village, meaning it would receive no cash transfers. Researchers would, however, measure how much (if at all) Marendi's wellbeing was influenced by the good fortune of his neighbours. Households like these were called "spillovers".

called "spillovers".

Right to a fair trial ***Opening image:*** **Maureen Atieno took part in a GiveDirectly randomised controlled trial.** ***(Above)*** **Peter Otedo, who received money in GiveDirectly's RCT, used it to build a house and a chicken coop.**

Over the course of several years, Okela-C was visited by foreign academics and Kenyan field workers who collected data for them. The villagers had to answer questions about their lives and give saliva samples, to measure their cortisol levels. Each household, whether in the treatment or control groups, received small rewards for their time, usually in the form of food – a bag of rice, a box of biscuits.

As the cash-transfer experiment expanded to include more villages, problems started to emerge. The distinction between the treatment and control groups sometimes became porous: in one village, the treatment group agreed to share their cash with the control group behind the researchers' backs. The RCT also created obvious and abiding disparities between and within communities. One of the treatment villages lay just over the road from a control village. Every day

of the treatment villages lay just over the road from a control village. Every day, those in the control village caught a glimpse of what their lives might have been like had the randomisation algorithm smiled on them.

“The money changed my life so much,” Otedo told me. He spent all of it on construction materials for his house, and still remembers the exact sums he paid for the sand, cement, tiles, poles, doors and nails. He only found out that not everyone had received the money when he heard people complaining. Neighbours asked him how they too could get hold of some. “I told them, just wait, luck will fall on you.” Others, he said, were suspicious, suggesting the money had been sent by the Illuminati.

“When someone says, ‘this money is free’, it creates space for rumours,” said Mario Schmidt, an anthropologist at the Max Planck Institute for Social Anthropology who has spent years studying the effects of RCTs in this region. “The rumours were everywhere, and they were amplified by religious and political actors.” The cash was cursed, people said. They used a phrase in Dhuolo, the local language, *pesa marach* – “bad money”.

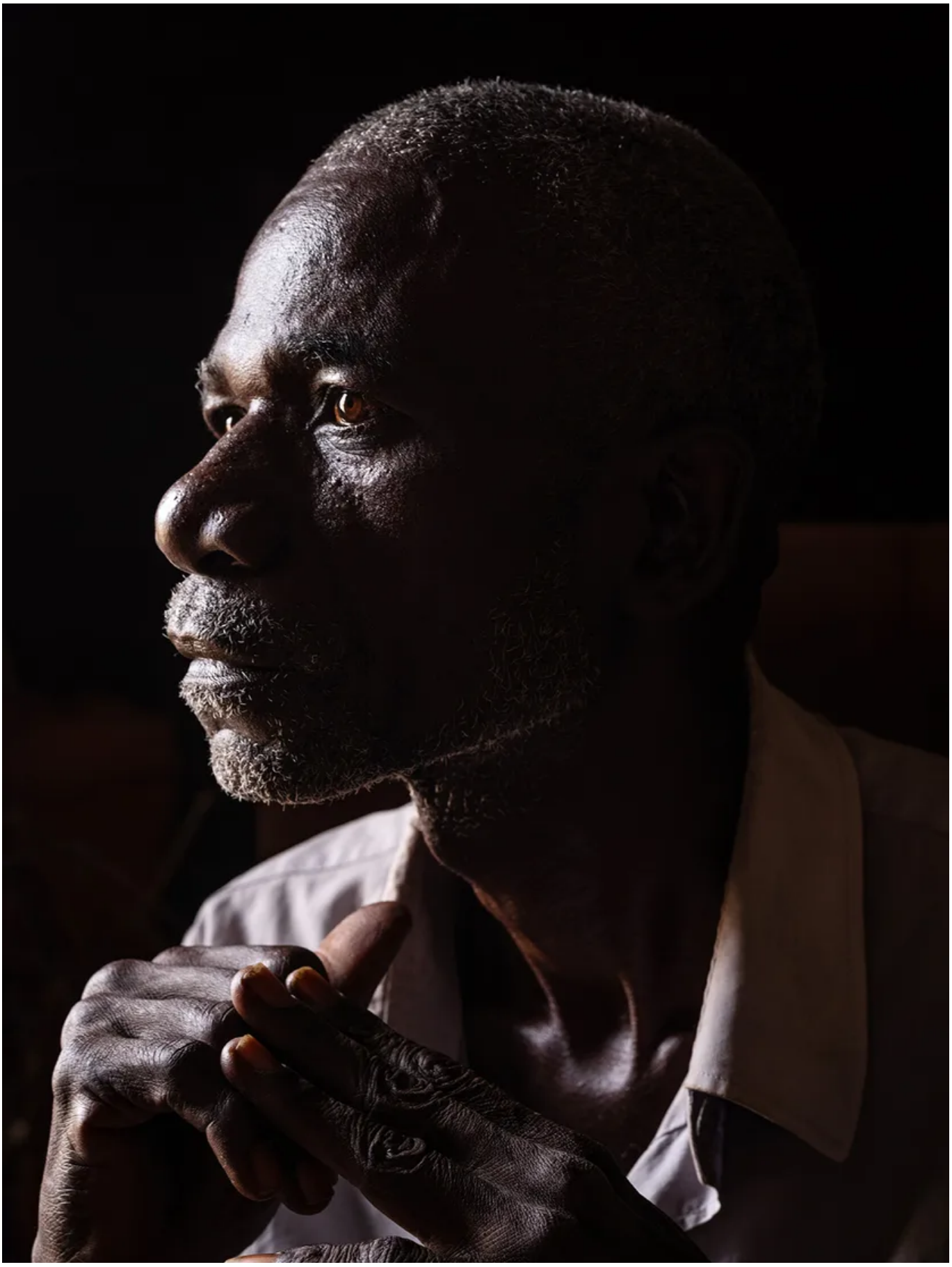
Some 50km from Okela-C lies the small town of Busia, which straddles the border with Uganda. Lorries carrying oil, grain, fruit and textiles jam the single road that runs through it, as they queue to cross the border. Market traders from both countries hawk their wares on the Kenyan side, where prices are higher. Locals know Busia as an ordinary border town, the capital of the county that shares its name, but it has a global reputation. If you drive down its main road you’ll see billboards emblazoned with the logos of research organisations, indicating that visitors have arrived at the heart of the RCT revolution.

In 1994, a chance series of events turned Busia into the global epicentre of experiments in development economics. “It’s kind of like the birthplace for this movement,” said Dean Karlan, chief economist at USAID, America’s aid agency, and a former student of Duflo. To date, at least 270 RCTs have been conducted in Kenya, though this is likely to undercount the real number (27 are currently under way in Busia alone). Over the years, researchers have examined, among other things, how much the price of a malaria net affects demand; the social attitudes of churchgoers; the effects of rural electrification; whether scholarships empower women; if savings accounts help or hinder business growth; whether warning people about the risks of alcohol abuse stops them

growth; whether warning people about the risks of alcohol abuse stops them drinking; and what happens when people hide money from their spouse.

Kenya proved to be a welcoming environment for development economists. There are fewer restrictions on research than in neighbouring countries – the government tends to regard RCTs as a form of aid in themselves. Each county in the region has its own specialty: textbooks, mosquito nets and deworming in Busia; cash transfers in Siaya. There have been so many in Busia in recent years that it can feel as though there are few aspects of everyday life left to examine. Latterly, the region has become so saturated with research that economists have had to look farther afield for participants.

The ubiquity of RCTs in the field of development economics, as well as in the daily life of impoverished Kenyans in the region, is prompting a growing number of people to voice concerns about the ethics and the methodology behind them. In 2018, an RCT run by two development economists, in partnership with the World Bank and the water authority in Nairobi, Kenya's capital, tracked what happened when water supply was cut off to households in several slum settlements where bills hadn't been paid. Researchers wanted to test whether landlords, who are responsible for settling the accounts, would become more likely to pay as a result, and whether residents would protest.



Luck of the draw ***(above)*** **Maurice Marendi, a widower and father-of-four was not chosen to receive money. He lives in a basic hut made of clay, tree branches, sand and twine.**

Hundreds of residents in slum settlements in Nairobi were left without access to clean water, in some cases for weeks or months; virtually none of them knew that they were part of an RCT. The study caused outrage among local activists and international researchers. The criticisms were twofold: first, that the researchers did not obtain explicit consent from participants for their involvement (they said that the landlord's contracts with the water company allowed for the cut-offs); and secondly, that interventions are supposed to be beneficial. The economists involved published an ethical statement defending the trial. Their research did not make the cut-offs more likely, they explained, because they were a standard part of the water authority's enforcement arsenal (though they acknowledged that disconnections in slums had previously been "ad hoc"). The statement did little to placate the critics. As a result of the furore, a number of research organisations began to reappraise their own ethical standards.

Angus Deaton, an economist at Princeton, has long been wary of the ethical implications of RCTs. In 2019 he published a paper that posed a series of questions about this type of trial: "How is informed consent handled when people do not even know they are part of an experiment? Beneficence is one of the basic requirements of experimentation on human subjects. But beneficence for whom?" Most RCTs are designed, financed and analysed on the campuses of elite Western universities by researchers who visit their field sites once or twice a year.

Some also question the value of the results of RCTs. The randomistas have a tendency to operate as if they have little prior knowledge about how the world works. But for Duflo, experiments are the only way to challenge assumptions. "Often one's intuitions are incorrect," she said. But do you really need an experiment to tell you whether pillows and blankets will help children fall asleep, or whether access to clean water will improve health?

It's as if "there was no source of knowledge ever, except for RCTs," said Lant Pritchett, a development economist. He pointed to a paper that used an RCT to conclude, in part, that girls in Afghanistan were more likely to go to community school when there was one in their village. ("I am not shitting you," he said.) David Ndii, a Kenyan economist who advises the country's president, has argued that the randomista revolution is "little more than tilting at windmills", a dubious fad in the discipline of economics that does not generate new knowledge.

Some young researchers are making efforts to reform the trials – there is now a database that keeps track of experiments to avoid duplication and over-saturation. They have pushed for consent to be obtained more explicitly and for more Kenyans to be involved as lead researchers. Scholars have proposed a moratorium on what they deem involuntary social experimentation until researchers can ensure that people are not being harmed along the way.

Most critics of RCTs acknowledge that they can be useful and illuminating – if carried out in the right way, and if their findings are interpreted with reference to their subjects' particular political and cultural contexts. RCTs have helped economists understand how people can escape the poverty trap; how financial strain lowers worker productivity; how to improve technology adoption, and how to bolster childhood immunisation rates. The success of Progresa, a cash-transfer programme in Mexico that began in 1997, has spawned copycats across the world.

"I think that RCTs are immensely important," said Patricia Kingori, a British-Kenyan sociologist who has spent years following field-workers conducting medical trials. Karen Levy, an RCT pioneer who now advises global development donors and NGOs, emphasised that the field has come a long way: today, most RCTs are co-authored with Kenyan collaborators, and more research is being conducted by Kenyan economists themselves. "How we do research matters," she said. "Should we do research? Yes."

One of the earliest references to a controlled trial occurs in the Bible. According to the "Book of Daniel", in 597BC Daniel, a Jewish servant in the Babylonian court of King Nebuchadnezzar, refused to abandon his vegetarian diet. One of the king's advisers, Ashpenaz, worried that

vegetarianism would enervate Daniel, making him less able to serve. Daniel proposed that they put Ashpenaz's theory to the test. He and three others were fed a vegetarian diet for ten days while the others ate meat. When Ashpenaz compared the two groups at the end of the ten days, the vegetarians were healthier, stronger and sharper (and soon became the king's favourites).

The goods life ***(from top to bottom)*** **Young children play at market stall in Busia, Kenya. Vendors and locals lounge on plastic chairs in the centre of Busia, Kenya. A woman sells fish in the middle of the market.**

That experiment was controlled but not randomised. The first mention of randomisation comes from the 17th century, when Joan Baptista van Helmont, a Flemish doctor, devised an experiment to determine whether bloodletting was the best way to cure illness. He proposed that a few hundred invalids be divided into two groups. One would be treated with bloodletting – the other would go without. “We shall see how many funerals both of us will have,” wrote van Helmont. (There is no evidence that the experiment was actually carried out.)

Most economists credit Ronald Fisher, a British statistician, with introducing the idea of randomisation to field studies outside a laboratory. In 1919 he started working as a researcher at Rothamsted, an agricultural research institute just outside London, where he was tasked with analysing the results of crop-growing experiments. He suggested that the best way to determine the optimal growing conditions for each crop was randomly to allocate different fertilisers to different plots. Randomisation, he argued, was the only way to eliminate fully sources of bias in experimentation.

In 1935 Fisher outlined several approaches to experimentation and data collection in his book "The Design of Experiments", which remains a bible for researchers. His "lady tasting tea" experiment is still taught in universities today. Muriel Bristol, one of Fisher's colleagues, claimed that she could taste the difference between tea that was prepared by pouring milk into the cup first and tea that was prepared with the milk added last. To test her theory, Fisher served her eight cups of tea in random order, half prepared one way and half the other. (There are differing accounts of the results.)

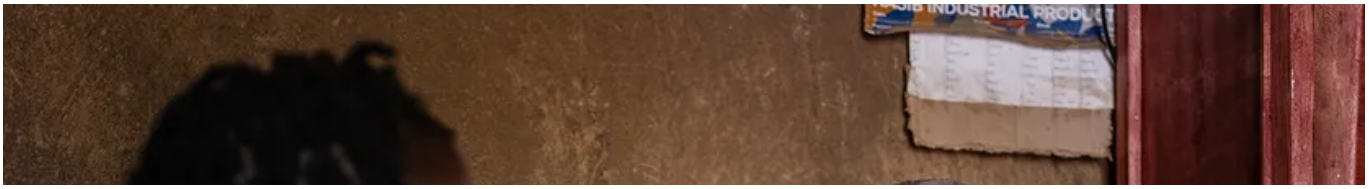
Fisher's emphasis on randomisation as a superior form of knowledge production was rooted in his conviction that it was the only way to harness "human reasoning powers'' so that any "thinking man" could understand. During the cold war, he argued that the technique would protect scientific studies from being corrupted by state ideology, as happened in the Soviet Union, and from corporate influence, which he saw at work in the United States. He dedicated his life to the idea that data-led experimentation allows scientists to make evidence-backed decisions. The same ethos drove the implementation of the first RCTs in medicine around the time that Fisher was conducting his experiments. (In 1962 the Food and Drug Administration declared that it would not approve medicines unless they had been subjected to a controlled study.)

It wasn't until the 1990s that many economists began to consider how randomisation might be applied to development. "There was a realisation in applied microeconomics that a lot of empirical results relied upon a lot of assumptions," Michael Kremer told me. "There was an interest in getting more 'credible identification'" – finding ways to determine causality with greater accuracy.

Kremer is in large part responsible for the outsize role that western Kenya has come to play in the research industry. After finishing university in 1985, he travelled to Kenya and wound up teaching there for a year. Nearly a decade later, when working at the Massachusetts Institute of Technology, Kremer returned to Kenya on holiday. One of his friends, who had been the headmaster of a school in the west of the country, mentioned over dinner that he was working with an NGO to launch a programme giving grants to seven schools in the region. Kremer proposed that he choose 14 eligible schools to study and give money to seven of them – the equivalent of an RCT. "This was [just] a dinner as far as I thought," he said. "That's how this got started."

The NGO took Kremer's advice and worked with him to measure the effects of the programme. Afterwards, Kremer found himself returning to Busia once or twice a year, often alongside his colleagues and graduate students. "The medical RCTs were our template, our model," said Edward Miguel, one of Kremer's former PhD students who has travelled to Busia nearly every summer since 1997. (They are not entirely comparable. Social-science experiments, unlike medical trials, are impossible to make double-blind: try disguising large grants of cash from their recipients.) But the approach to development felt fresh. "We were inventing the wheel as we were trying to ride on it," Duflo told me.

Later on, Kremer and Miguel embarked on what would become a landmark RCT: evaluating the effects of distributing deworming pills, which cure intestinal disease and prevent its spread, in schools. Students at different schools were phased into the treatment at different years, and their health and educational outcomes were surveyed by the researchers. The researchers came up with a way to measure the spillover effects of the pill distribution and found that school attendance and overall health improved even among students who did not receive the pills. The treatment worked so well that the Kenyan government adopted the programme. Now nearly all Kenyan school children receive deworming treatments.



A fair chance GiveDirectly partners with Innovations for Poverty Action to implement the research.

"Kids were getting more education, girls were graduating from school, people were earning more after they were treated," Kremer said. "We've learned the lesson about preventive health – that providing it for free makes a big difference and that generalises far beyond Kenya." (The deworming programme has also been adopted in Ethiopia, India, Nigeria and Vietnam.) The Abdul Latif Jameel Poverty Action Lab (JPAL), a research centre co-founded by Banerjee and Duflo, estimates that over the past 15 years, the lives of over 600m people around the world have been improved by programmes that originated from RCTs – including in America, where researchers used Facebook to craft messages to users encouraging them not to travel at the height of the covid-19 pandemic.

RCTs became popular so quickly because they met the needs of development professionals at the time; they offered clarity and exactitude to an industry that had been mired in missteps and concerns over waste. The Millennium Villages project, launched in 2005, built entire communities in sub-Saharan Africa with philanthropic funding. Millions of dollars were poured into the programme but a decade later, it was widely deemed a failure. One follow-up report from north

a decade later, it was widely deemed a failure. One follow-up report from north Ghana found that the project had "no observed impact" on poverty or hunger.

RCTs offered a way of avoiding such embarrassments, promising targeted research that could help governments and aid organisations switch their development goals towards smaller, more achievable projects without the risks that larger structural reforms to the economy required. (It also helped that RCTs created a blueprint for graduate students and their professors to publish the academic papers needed for career advancement.)

To their critics, the interventions studied by RCTs are so small, and the timelines required so long, that the actual effects on poverty can seem marginal at best. Even Kremer's and Miguel's deworming project, which is considered one of the most successful RCTs to date, may have done little to augment overall student success. "Deworming is trivial as compared with practical educational improvement," said Pritchett. (Miguel said this view is a caricature of RCTs that minimises their insight when aggregated.)

Today, nearly 20 years after findings from the original deworming study were published, the RCT is still ongoing in the form of the Kenya Life Panel Survey, a study of those who were given deworming pills as children in the late 1990s. Part of the survey includes two-hour-long cognitive examinations of the original participants, in which they are asked a series of questions ranging from the mundane ("Please name the days of the week in backwards order starting from Sunday") to the more complex ("I will now read a scenario and ask you what you would do. What would you do if you found a lost child that is looking for their parents on the road?").

The children of the original recipients are now themselves research subjects: Miguel and several other colleagues are currently collecting data which will assess whether the health and developmental consequences of RCTs might be passed down the generations. This lengthy duration is a virtue, Miguel believes: "A lot of the value in the research is in the longitudinal data set."

Yet other researchers have questioned the ethics of continuous data collection in general. "When does the cycle of collecting data stop?" asked Joel Mumo from the Busara Centre. "What's enough? How do you justify experimenting on people over and over again?"

[redacted] In spring 2022 I met up with a team of field workers who were on their way

In spring 2023 I met up with a team of field workers who were on their way to administer cognitive tests as part of the Kenyan Life Panel Survey. I found them at a dilapidated guesthouse off a dirt road in Port Victoria, a town on the shores of Lake Victoria, where they'd spent the night after a heavy storm had clogged the road with mud. Gladys Wanjala and Limet Magero, who worked for Innovations for Poverty Action (IPA), were just waking up the rest of their team to begin a long day of interviews.

Although most RCTs are designed and funded by Western universities and charities, the task of conducting them falls to local research organisations, known as "implementing partners". IPA, which was founded by two of Michael Kremer's colleagues, is the biggest. Its local employees, many of whom work as "enumerators" or "field officers", receive training in the questions to ask, the tone in which they should ask them and the goals of the study. They then head into the countryside for the hard work of recruiting and interviewing study participants, and tracking control and treatment groups. Sometimes they stay in remote villages for months at a time. Most if not all of the field workers are Kenyan; some first encountered IPA as research subjects themselves.

Bad fortune A field worker speaks to villagers ahead of launching a survey. Many participants are suspicious of the researcher.

Their work is gruelling and often emotionally draining. They are paid a salary of $10-20 per day – not a fortune in Kenya. Field workers have been known to give their own money to recipients so that they can afford food, which can distort the outcome of a study. “When they got to the end of the month, they would just fabricate [the] data,” said Kingori, the sociologist. “The fact that these trials are designed in this way is setting them up to fail in real life. They are constantly being subverted by these field workers.” She told me of a case from a medical RCT in which a child died in one recipient family. A field worker agreed to substitute the family’s other child in the study, so that the household could continue to receive the treatment. Field workers told me that they’d heard stories of their peers filling in respondent surveys themselves, in order to hit their daily quotas. Many of these stories date from the early days of RCTs. Recently, IPA and similar organisations have improved their training and fraud detection. GiveDirectly told me that “data fraud and monetary fraud are… punished through contract termination.”

Officially, all researchers are required to secure informed consent from their subjects. But that doesn’t mean a subject understands what exactly they are signing up for, that they are presented with the option to decline or that the trial might go on for an indefinite period of time. “People are constantly trying to work out, ‘What is the value exchange that is going on here?’” said Kingori. “They understand that some extraction is taking place, but they can’t quite work out what the value is.”

Virtually every field worker I spoke to told me stories of locals demanding to know why they were placed in the control group, challenging the randomisation techniques or refusing to speak to the researchers who return to their villages year after year. Eric Ochieng, a research manager based at the Busia office of IPA, told me that he had been approached on the street by subjects asking why they were given nothing when others received electricity or cash. Others don’t understand why, despite opting to participate in several trials, they always seem to end up in the control group. “Sometimes they come

trials, they always seem to end up in the control group." Sometimes they come and ask, 'What is it with my name that the computer never selects me?'" Ochieng told me. "We do our best to explain that it is random, that there may be another intervention, [that] they might get it, that everyone has a chance." Many remain doubtful that participants are truly selected at random. One group of recipients was so suspicious that they asked researchers to draw names out of a hat in public.

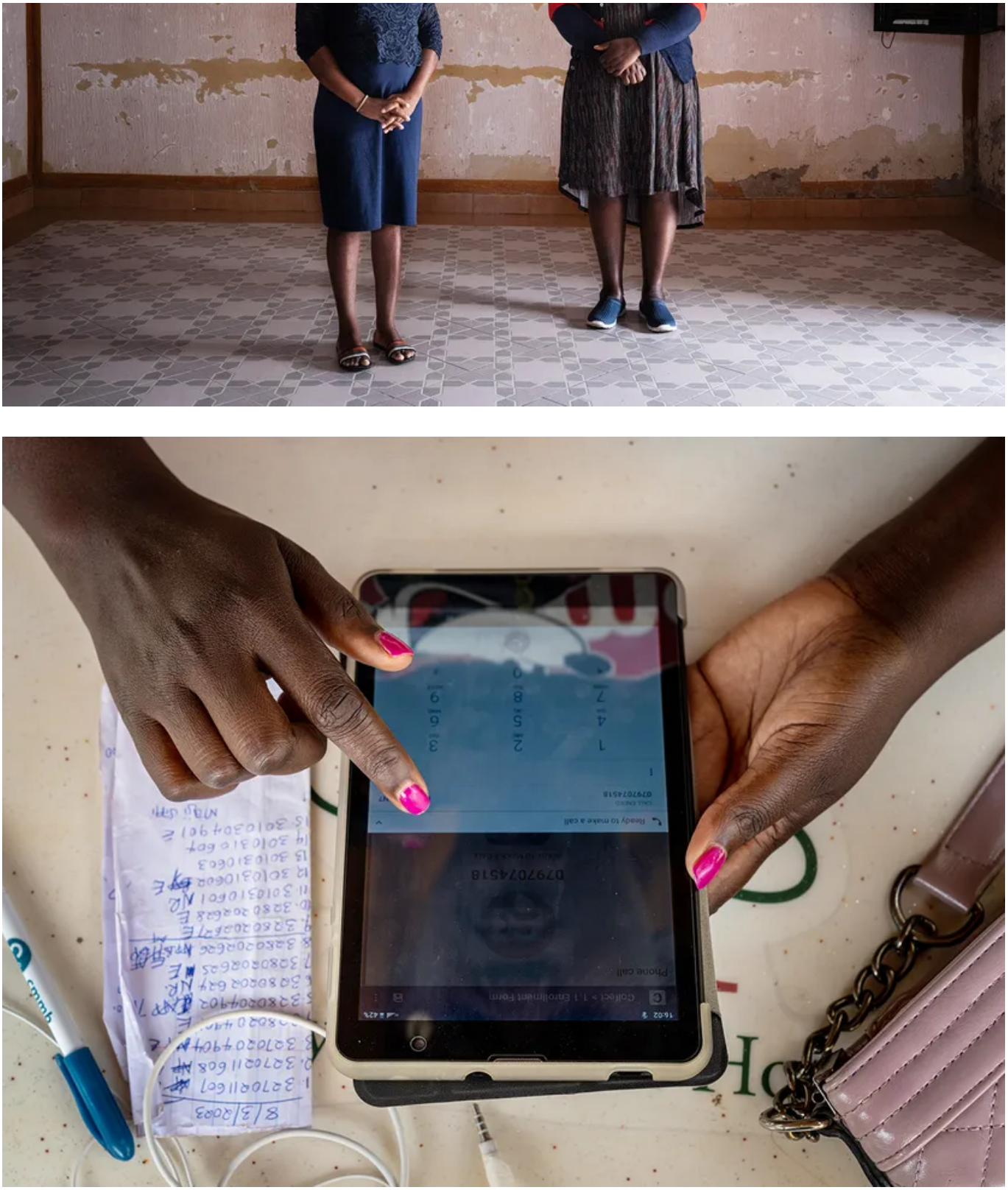
Miguel, who co-authored the landmark deworming study, is keenly attuned to the ethical challenges. "In the deworming case, it was explained that there would be an expansion and more communities would be phased in," he said. No NGO has sufficient resources to distribute their intervention to every Kenyan, he explained, so random selection, as well as being scientifically sound, is often the fairest way to proceed. "But then it becomes a question, is it ethical to collect data from the control group? What are they getting out of this?" Miguel said. "The way that researchers reconcile these two ideas is to say, well, everyone, whether in the treatment or control, gets some compensation for their time."

But the concept of "randomisation" can seem abstract to families whose main concern is securing clean water, sufficient food and sturdy shelters. And the forms of compensation the control group does receive can seem a pittance compared with their neighbours' windfalls. Cash-transfer studies can be especially divisive. "Some of the men married a second wife, some homes broke apart, some wives left their husbands," said Andrew Wabwire, a field manager for REMIT, a research company. As with Okela-C, rumours have spread that the money is cursed – that people would turn into snakes if they accepted it. Wanjala, the IPA field worker I met at Port Victoria, has been turned away from households that she had been asked to survey. Wabwire's staff now tend not to ask about the cash transfers explicitly when they visit homes to conduct surveys, because it might bring up bad memories.

Magero told me that in the 16 years she has worked on RCTs, she had only ever encountered one man, a "learned man", who actually understood how the studies work. "There is something good that comes out of this research, it's just that some people can't really understand," she said. "They just want [to see the] direct benefit to them, they don't want the communal benefit that is coming."

[redacted]om Wein, director of a research firm in Nairobi, has some simple

Tom Wein, director of a research firm in Nairobi, has some simple suggestions for how development economists can go about their work more ethically: they should thank study participants properly, inform them of the results of the study and keep them up-to-date with ongoing research. “By and large, when you talk to people in development, they care very deeply about doing things the right way,” said Wein. He runs a project that helps researchers measure how well they are respecting the dignity of their subjects.



Cross-examination ***(from top to bottom)*** **Three field workers, Evans Omondi, Harrison Oria, and Mercy Atieno call women attending a maternity clinic. Two field officers, Linet Madero and Gladys Wangal, prepare to lead an investigation on the cognitive effects of deworming.**

GiveDirectly, the charity that has sponsored most of the cash-transfer RCTs, is also paying more attention to what it describes as “recipient dignity”. Since 2016 it has carried out audits of all its studies, assessing how dealings with recipients can be more respectful. The charity has also launched telephone

recipients can be more respectful. The charity has also launched telephone helplines so that these people can contact the organisation more easily if they have questions. Field workers no longer collect saliva samples to check villagers' cortisol levels (by now, research has established that cash transfers decrease stress).

With some of its studies, GiveDirectly now gives the control group cash once the study has been completed. This change, the charity believes, reduces the risk of exacerbating local inequalities and tensions while protecting the integrity and validity of the research. Mumo thinks this kind of approach is fair. "In medicine, if the drugs work, you give them to everyone," he said. Sending the original interventions to everyone in the control group is also a way of informing all participants that the study is over – a fundamental fact which is not always communicated. "We have to go back to the communities and tell them that we are done," Mumo said. Miguel is investigating how researchers should share results with recipients.

Despite all methodological challenges and ethical dilemmas, the randomistas maintain that RCTs add to the sum of human knowledge. There aren't obvious alternative methods that generate the granular, evidence-based results that funders and international organisations have come to rely on. Duflo hopes that the next decade will bring wider adoption of RCTs and their findings among governments. The path to implementation on a national scale is "often more tortuous", she says, than the obstacles to experimentation itself.

But some influential policymakers remain doubtful of their value. Arvind Subramanian, a former chief economic adviser to the Indian government, told me that during his time in office, RCTs did not figure into his calculations. "They were never meant to analyse big macroeconomic questions – they're about small, microeconomic interventions," he said. "The ability of RCTs to answer any of these big questions is close to zero." The rise of RCTs, in his view, is due to the influence of a "very incestuous club of prominent academics, philanthropy and mostly weak governments. That's why you will see RCTs used disproportionately in sub-Saharan African contexts, where...state capacity is weak."

Gulzar Natarajan, a leading Indian development economist who is currently secretary of finance for the state of Andhra Pradesh, has argued that RCTs merely provide "standalone technical fixes" that do not work in practice. When

merely provide "standalone technical fixes" that do not work in practice. When it comes to implementation across entire countries, the same features that initially seemed appealing about RCTs begin to look like failures. "The state's capacity to administer and monitor, masked by the small size and presence of energetic research assistants in the field experiment, gets exposed. Logic gets torn apart when faced with practical challenges," he argues. (Duflo points out that JPAL has a long-term partnership with Tamil Nadu, an Indian state, to make policy out of findings from RCTs.)

Back in Okela-C, Maurice Marendi can't help but revisit his many encounters with researchers, and wonder why he was not selected to receive money. "I don't know why I was left behind and other people benefited," he told me. "For Maurice, this was one of the most important interactions of his life," said Adrian Wilson, an anthropologist who studies development economists in Kenya. "It was a moment where he could have ended up with a transformative amount of money and didn't." (GiveDirectly claims that the primary reason Marendi received no money is that he "refused" a payment after the RCT had ended, citing a village elder who claimed to be familiar with the situation.)

Marendi often chats to Otedo, who admits the money changed his status within the village ("[My neighbours] are looking at me as somebody, you see?"). Both men claim there is no resentment between those who received the funds and those who did not, but the difference between their circumstances is always visible.

Marendi said that field workers visited him three times and took two saliva samples, which they said would be used to test his stress levels. "They kept asking questions," he said. "How much do you spend per day? What is your occupation?" As we spoke, he pulled out the consent forms that the researchers had given him to sign. When I asked him if he knew why they had visited his hut in the first place, he said that, as far as he understood, "they came to boost the economy in Africa." He hopes that, one day, he will finally receive the funds that his neighbours were given long ago. For now, he waits to be released from the control. ●

Linda Kinstler is a contributing writer for *1843 magazine* and the author of "Come to This Court and Cry: How the Holocaust Ends".

PHOTOGRAPHS **NICHOLE SOBECKI**

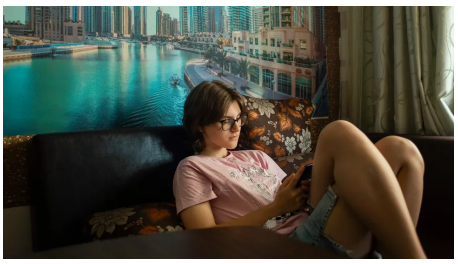
More from 1843 magazine

1843 magazine | Why I opened a secret school for Afghan girls

When the Taliban cracked down on girls' education, one woman knew what she had to do

1843 magazine | The hopes and dreams of Ukraine's teenage refugees

Photographer Polly Braden has followed the lives of schoolgirls who fled after Russia's invasion



1843 magazine | Life and death in Putin's gulag

Navalny's death has exposed the similarities between Russia's current penal system and Stalin's