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PAYING THE POOR

Using cash incentives to encourage healthy behaviour among poor communities is being hailed as a new silver bullet in global health. **Megan Tan** and **Gavin Yamey** investigate why this popular idea went so badly wrong in Guatemala

Worth the wait? Patients at a rural clinic in Guatemala

The *Economist* calls it "the world's favourite new anti-poverty device."[1] Global health donors, development agencies, and governments in developing countries praise it as a way of empowering women and investing in community development. A remarkably simple idea that took root in the late 1990s—offering poor mothers cash incentives to enrol their families in health and education programmes—is now being used in over 40 developing countries, from Mexico to Burkina Faso, Cambodia to Yemen.

Although each country's incentive programme has its own characteristics, the basic idea is the same: impoverished mothers are paid a regular cash stipend in exchange for meeting certain predetermined conditions, or "coresponsibilities" as they are often called in Latin America. Typically, these conditions include attending regular medical check-ups and ensuring that children go to school. In most countries, parents must also attend educational seminars on topics such as nutrition, hygiene, and money management. Advocates believe that that these cash rewards, known as "conditional cash transfers," will get transformed over the long run into improved maternal and child health and economic development.

By the beginning of 2011, the money that so many poor women had come to rely on simply stopped arriving

But against this backdrop of intense fervour for cash rewards, a series of missteps and crises led Guatemala to recently suspend its conditional cash transfer programme, called *Mi Familia Progresa* (My Family Makes Progress) or MIFAPRO. The suspension takes the shine off the reputation of cash transfers as a silver bullet and serves as a cautionary tale for donors and developing countries that are currently planning similar programmes.

High hopes

Although the World Bank classifies Guatemala as a middle income country, over half the population lives in poverty. The country's income inequality is among the highest in Latin America.

"About 80% of the children here have undernutrition," says Maria Dolores Diaz, director of the National Hospital of Huehuetenango, an indigenous region in the western highlands. This chronic undernutrition, coupled with poor access to running water and basic healthcare services, puts indigenous children in rural areas at high risk of early death, particularly from preventable and treatable diseases such as diarrhoea and pneumonia. The great hope for MIFAPRO, launched in April 2008 through an executive order issued by Guatemala's recently elected president, Álvaro Colom, was that it would be a powerful tool for tackling such high rates of childhood illness and death.

MIFAPRO was modelled on conditional cash transfer programmes in Mexico, Brazil, Argentina, and other Latin American nations. Household surveys were used to identify the poorest 20% of the population, who were then targeted for cash rewards. Like their counterparts in other Latin American nations, the women who qualified for the programme were required to take their children for regular health check-ups and to ensure that they attended school at least 90% of the time. Proof of attendance—in the form of a card stamped and signed by healthcare workers and teachers—would be required in order to receive the cash.

As long as the mothers met these conditions, they would receive a monthly reward of 300 quetzals (£24; €30; $36), a massive financial incentive given that a poor family in Guatemala typically lives on 250 quetzals a month. Since most of the rural families who would be eligible for MIFAPRO do not have access to bank accounts, the government planned to disburse cash directly to beneficiaries from the local MIFAPRO offices every other month.

MIFAPRO got off to a good start. Doctors in underserved regions saw a large increase in the use of health services. Pregnant women took long bus journeys to attend antenatal visits. Children who had never before seen the inside of a clinic were brought in for their vaccinations. For the first time ever, long queues formed outside rural clinics.

"School enrolment also grew enormously," says Jose Calmo, a middle school teacher in Todos Santos, an indigenous village in the rural highlands of Guatemala. His class size increased from 25 to 42 students within a matter of weeks. One of the most promising results, he says, was that more and more families in his community were sending their daughters—and not only their sons—to school.

By 2011, the programme had expanded to over 90% of the country's municipalities. It was reaching over 830 000 families and 2.4 million children.

Cracks appear

Despite this rapid expansion, cracks in the programme started appearing soon after its launch. Although MIFAPRO quickly succeeded in driving up demand for health and education


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services, the country, which was still coping with the aftermath of a 36 year civil war, was facing a critical shortage of health professionals and teachers and weak health system infrastructure. Supply could not keep up with demand.

In 2009, Acción Cuidadana (Citizen Action), the Guatemalan division of Transparency International, a non-governmental organisation that monitors corruption in international aid, conducted a survey of MIFAPRO beneficiaries. Although MIFAPRO was broadly popular, about 60% of beneficiaries believed that schools had too few teachers and 90% said that health services were insufficient.

"The impact has been significantly limited by the lack of infrastructure," says Marvin Flores, an economist at Acción Cuidadana. "We've seen many cases where mothers bring their children to school, but then there is no teacher . . . or they bring their children to clinic, but then there is no medicine."

At clinics throughout the Guatemalan highlands, doctors and nurses told a similar story of struggling to meet the increased demand that MIFAPRO had generated. "There are so many patients," says Carmelina Chales Perez, an auxiliary nurse, "but since the government sends such limited supplies, sometimes we are left with nothing—with no [antenatal] vitamins, with no medications."

Guatemala's government realised early on that launching MIFAPRO had created a "supply side" problem and that it urgently needed to expand healthcare and educational services. It was clear, however, that Guatemala's 12% tax rate—one of the lowest in the world—would be insufficient to cover the costs of such an expansion. The government therefore turned to the World Bank for help.

In October 2009, the World Bank board approved a $114.5m loan, aimed at increasing capacity in schools and clinics and providing programme support for MIFAPRO. But in Guatemala, the congress must approve all external loans, and getting such approval turned out to be impossible because the opposition parties were sceptical about the cost of the programme.

Eventually, this lack of financing meant that the cash rewards were not even reaching the villages on a regular basis. "From 2008 to 2010, the programme was very well received," says Candeleria Choc, a single mother who was a MIFAPRO beneficiary and a strong supporter of the programme. But by the beginning of 2011, the money that so many poor women had come to rely on simply stopped arriving, without explanation. "It felt a little bit like we had been tricked," she says.

Mired in politics

Historically, Guatemala's president serves only one four year term, and, with President Colom's term due to end in 2012, MIFAPRO's woes became a political football during the September 2011 general election. "It was a programme that was born with very good intentions," says Mariano Rayo, a former congressman. "But in the end the programme got mired in politics, and the excellent results that could have been achieved were lost."

Colom had put his wife, Sandra Torres, who had presidential aspirations of her own, in charge of administering MIFAPRO, creating the impression that she was using the programme to promote her political fortunes. Former congressman Rodolfo Anibal Garcia says that it was damaging to the programme to have placed "a political figure" in charge from day one, since it allowed Torres to turn what should have been a social policy programme into an electoral platform.

The programme was also having trouble targeting the right beneficiaries. Transparency International, together with several teachers, nurses, and even MIFAPRO employees, report that cash transfers were missing the poor or sometimes wrongly going to people with well paid jobs. In April 2010, members of an opposition party, Encuentro, called for an audit of MIFAPRO. The minister of education, Bienvenido Argueta, refused to release the complete list of beneficiary names and was ultimately forced to resign as a result.

Otto Pérez Molina, a former general, took advantage of MIFAPRO's troubles to promote his candidacy in the 2011 presidential elections. "The programme has not been transparent," he said in an interview streamed online by TV Patriota, his online television campaign station. "We have many testimonies from women who have told us that the money was not arriving . . . Some municipalities had four months without payment, others six months without payment."

Pérez Molina won the election, and quickly ordered an internal evaluation of MIFAPRO. He suspended the programme in February, telling the press that the investigation had found widespread corruption and a lack of transparency.

Trying again

Although several short term randomised trials have found that cash incentive programmes were associated with increased use of health services and improved health outcomes,[2] MIFAPRO's troubled history shows how difficult it can be to implement such programmes over the long term under real world conditions. In countries with weak infrastructure, demand can easily overwhelm the programme. And the best laid plans can be derailed by domestic politics. Nicaragua's incentive programme, for example, had a short life span (2000-6) despite evidence of its public health benefits, because of a lack of domestic political buy-in.[3]

MIFAPRO's story should be an opportunity to learn lessons from what went wrong, said Amanda Glassman, director of global health policy at the Center for Global Development in Washington, DC, including how best to ensure checks and balances. "You try once," she says, "and when a design doesn't work so well you see what went wrong, and then you try again."

President Pérez Molina is now trying again. On 30 April 2012 he relaunched a cash incentive programme under the new name *Mi Bono Seguro* (My Secure Bond). The programme maintains the same conditions and cash transfers as MIFAPRO but, as reported in the national newspaper *Prensa Libre* on 30 April 2012, it covered only 7744 families when it launched.

Although the new programme lists the beneficiaries online, it is unclear whether this is enough to address the root problems at the heart of MIFAPRO. One MIFAPRO administrator, who did not wish to be named because her contract forbids her from discussing the programme with third parties, says that the government must take three steps. It must improve the quality of the supply side health and educational services, ensure sustainable financing, and increase community oversight of the programme.

"And the politicians," she says, "they shouldn't think so much about their political career. They should think about the poor."

Megan Tan masters student, Global Health Sciences
megan.e.tan@gmail.com
Gavin Yamey lead, Evidence to Policy Initiative, Global Health Group, University of California, San Francisco, USA
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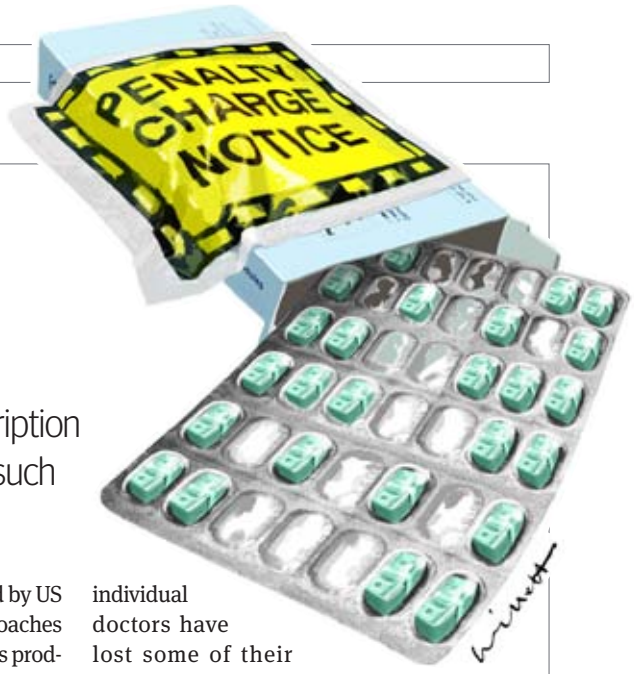

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GlaxoSmithKline fined $3 billion. Can we trust drug companies?

ANOTHER FINE MESS

As GlaxoSmithKline is fined $3bn for illegal promotion of prescription drugs and other breaches, **Andrew Jack** asks whether use of such aggressive marketing practices is set to continue

Anyone seeking insights into the aggressive marketing of drugs to doctors over the past two decades should take a look at the court filings released earlier this month, when GlaxoSmithKline agreed a record $3bn (£1.9bn; €2.4bn) fine with US regulators.[1]

One exhibit[2] shows the company's $29m promotional operating plan for Advair (fluticasone and salmeterol), its bestselling asthma product, in 2003. It includes nearly $2.5m for continuing education and articles in the medical literature "to educate healthcare professionals," $3.4m for "detail aids, sell sheets and reprints," and $643 000 for "mouse pads, stress relievers, clipboard, candy jars, calendars, and pens."

There is $3.5m to train key opinion leaders "to deliver presentations designed to educate healthcare professionals," $800 000 for "physician mapping" to "determine the networks of influence that exist among prescribers," and $1.4m in the second semester of that year alone for regional dinner programmes for key opinion leaders.

Elsewhere, documents[3] covering a range of drugs led by the antidepressants bupropion (Wellbutrin) and paroxetine (Paxil) offer case studies in bad practice: undisclosed consultancy fees paid to celebrity doctors; lavish entertainment at conferences in exotic locations with plenty of spare time beyond the scientific sessions; and "call back" arrangements to distance sales representatives from accusations of "off label" marketing of products.

None of the tactics are new and many are not illegal. But cumulatively they were powerful enough to persuade the company to plead guilty on some charges, and settle claims on still more. They raise questions today for drug companies, but also for policy makers and prescribers.

For drug companies, one concern is whether such practices were exceptional. Judging by the growing wave of settlements reached by US regulators in recent months,[4] these approaches touch much of the industry for many of its products. GSK's fine is the largest and most recent to date, but it followed $2.3bn imposed on Pfizer in 2009, $1.5bn on Abbott in May this year, and several more.[5] Others are pending, including a civil case against Johnson and Johnson, which some estimates put at $2bn.

The second issue is how far these practices are a relic of the past. As in other cases, many of the accusations brought against GSK date from the end of the 1990s to the start of the 2000s, although its settlement on Advair—which the company paid while disputing the details—includes a period as recent as 2010.

Much has changed in recent years. The spiralling fines and lawsuits themselves, and the negative publicity they have generated, have provided motivation for the industry to introduce tough new ethical codes and for chief executives in individual companies to alter their own internal practices.

Some industry critics call for criminal prosecution and imprisonment of executives found guilty of breaking the law, pointing out that large fines and corporate integrity agreements have failed to prevent repeated bad behaviour by companies

GSK, for instance, has removed many senior executives in the United States, banned bonuses to sales representatives linked to the volumes of local prescriptions. It has imposed restrictions on educational materials prepared by outside doctors supported by the company, designed to ensure they do not promote uses outside those authorised by regulators.

Such moves have been accompanied by fresh external controls imposed by regulators, from "sunshine" requirements[6] that require companies to make payments to doctors public, to "corporate integrity agreements," with court appointed auditors scrutinising company decisions over several years.

Furthermore, there has been a shift away from the "arms race" of large numbers of sales reps employed by drug companies in the United States. Pressure has risen to cut costs and individual doctors have lost some of their power to prescribe, with a shift instead towards health insurers and medical networks with centralised formularies.

Some industry critics, such as Sidney Wolfe, head of the health research group at watchdog Public Citizen, argue that gaps remain in the deterrents for repeat abuse.[7] He calls for criminal prosecution and imprisonment of executives found guilty of breaking the law, pointing out that large fines and corporate integrity agreements have failed to prevent repeated bad behaviour by companies, including GSK.

But corporate integrity agreements can give a false impression. Some are tightly focused, and even those agreed several years ago were often put in place after abuses now being brought to light. GSK's settlement, for instance, was triggered by whistleblower complaints dating back to 2003.

Some lawyers acting on behalf of pharmaceutical sector whistleblowers say their "pipeline" of pending cases is diminishing, suggesting the heyday of such practices might have passed. Current aggressive marketing, where it exists, is probably of a different sort, with any abuses being more subtle and concealed.

That leaves a final awkward issue: the conduct of the recipients of drug company funding. The medical profession—in the US, Europe, and beyond—remains heavily reliant on industry funded continual medical education, and many doctors have accepted substantial hospitality and consultancy fees. Very few have been prosecuted. Disclosure remains patchy and inconsistent. Yet it is their decisions that ultimately determine if medicines are reaching patients for whom they are not suitable. If drug companies need to change their attitude, so do prescribers.

Andrew Jack pharmaceuticals correspondent, *Financial Times* **andrew.jack@ft.com**
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References are in the version on bmj.com.
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