9. International Programmes

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In last year's Update Report, we described how behavioural approaches were becoming increasingly popular with policymakers across the world, with BIT very much at the heart of that movement. We also described the results from our first trial on tax compliance in Guatemala, which tripled tax revenues from late income tax payers. These results showed that it was possible to translate findings from low cost interventions originally implemented in the UK to very different contexts around the world.

In the past year, we have increased the number, range and ambition of overseas programmes that we support from the UK. Our tax compliance interventions have shown similarly impressive results in Costa Rica and Poland, and our projects are being extended through an exciting new partnership with the Global Innovation Fund.

We have also begun a new set of projects tackling more entrenched behaviours – such as health seeking behaviour during pregnancy in Mexico, medication adherence in Moldova, and a big new programme of work on anti-corruption. Some of these projects will take time to deliver findings, so in this year's report we introduce the details of our interventions.

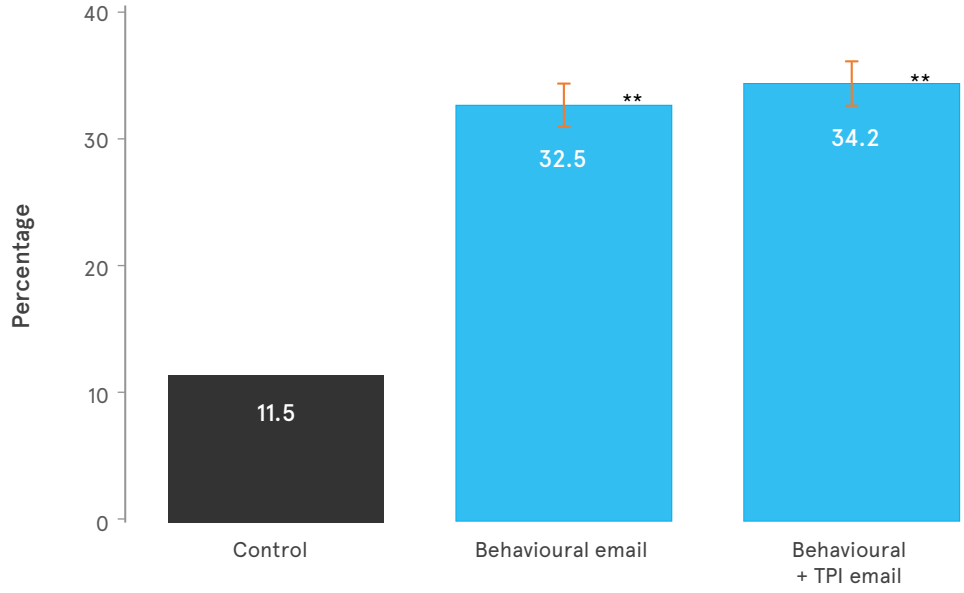
Increasing tax payments in Costa Rica

In March 2015, a BIT and World Bank partnership set up three trials in Costa Rica. The trials evaluated the impact of sending behaviourally informed email and SMS reminders to 80,000 firms that failed to submit their 2014 income tax declarations. In addition, we tested the impact of including third-party information: transactions recorded by other firms, state institutions and credit or debit card sales.

The first trial involved 12,515 firms for which the tax authority had a registered email address and third-party information. These firms were randomly allocated to either a control group that received no email, a treatment group that received a behaviourally-informed email reminder with a general statement highlighting use of third-party information or a treatment group which received a similar email, but with an example of third-party information detailing specific transactions made by that firm during the financial year.

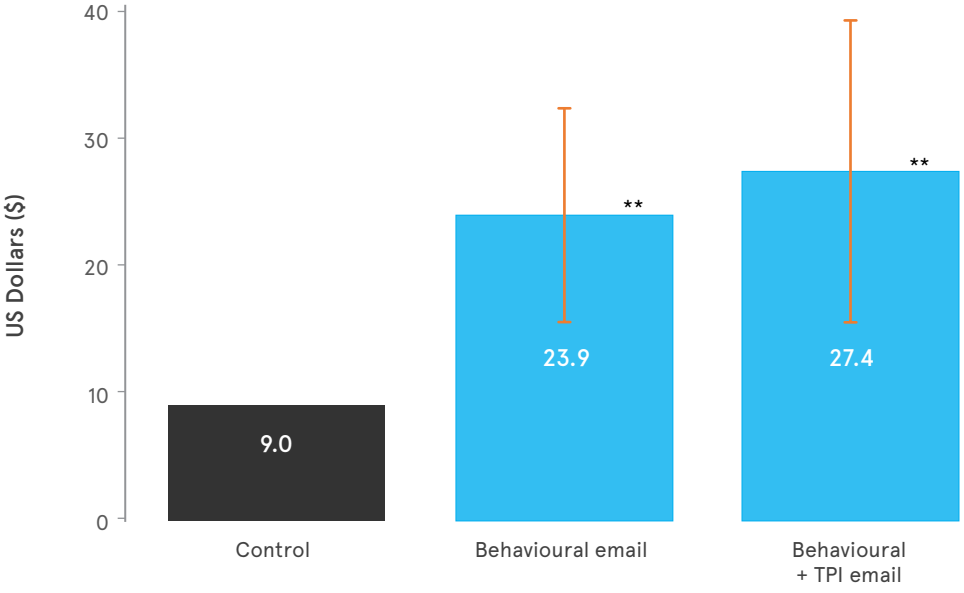
Our results are presented in the following two graphs. The first graph shows how the behavioural reminders nearly tripled the rate of declaration by firms from 11.5 to 32.5 per cent. Including third-party information increased declaration further still (to 34.2 per cent). The second graph shows the impact on payment (converted to USD). The behavioural emails increased the average amount paid from $9 to $24, with specific third-party information increasing payment further to $27 (although this was not statistically significantly different from the behavioural emails without third-party information).

Figure 9.1: Rates of tax declaration under different email conditions



N=12,515
** p<0.01, * p<0.05, + p<0.1

Figure 9.2: Average amount paid under different email conditions



N=12,515
** p<0.01, * p<0.05, + p<0.1

CRC converted to USD on 28/07/16

The 37,242 firms not covered by third-party information were assigned to a second trial, this time testing the impact of a behavioural email compared to a behavioural email with general information on third-party information (but no examples specific to the firm). The results showed that the behavioural emails more than quadrupled the tax declaration rate from 4 to 19 per cent. They also tripled the average amount paid, albeit from a very low baseline, from $0.18 to $0.65. The general information on third-party information had no additional impact for these firms.

The third trial was slightly different. It focused on the remaining 30,842 firms without registered email addresses and used text message prompts instead. The text message prompts significantly increased declarations from 4 to 7 per cent, but did not increase actual payments.

The combined effect of all the trials was to substantially increase tax declaration and payment. We estimate that the email trials brought in $151,000 of extra tax revenue at no additional cost to the tax authority. Most of this comes from the sub-set of taxpayers in the first experiment, whose third-party information was available to the tax authority. These emails would have brought in an estimated $243,000 if sent to all taxpayers in the sample.

Increasing tax payments in Poland

The World Bank and BIT also partnered to test the impact of reminder letters on tax payment in Poland. The trial involved 31,929 taxpayers in two regions – Lubuskie and Wielkopolskie – who had declared their 2014 Personal Income Tax but failed to pay on time.

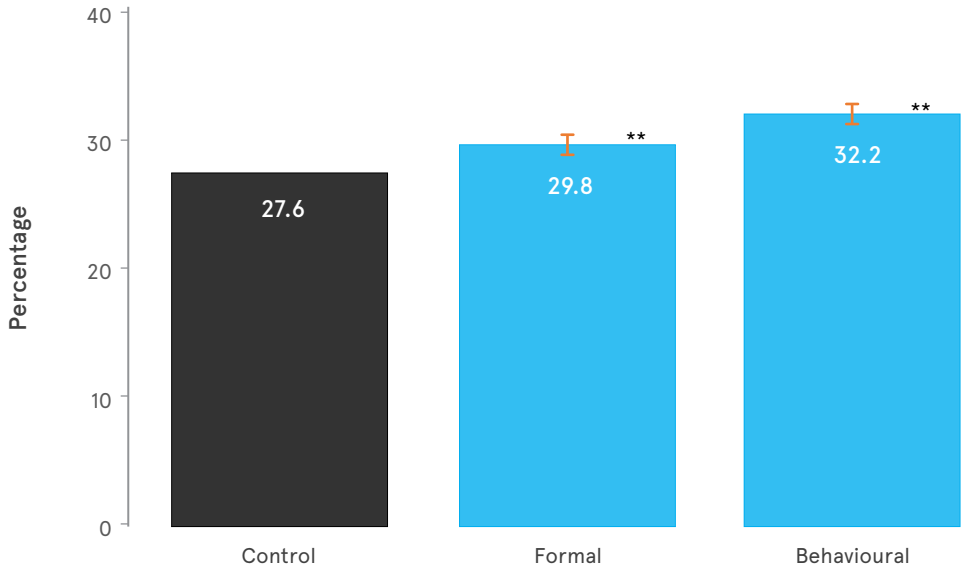
Taxpayers were randomly allocated to receive one of three interventions: no letter, the formal letter originally used by the Polish Tax Authority or a letter adapted using behavioural insights. The behavioural letter included persuasive messages, made the actions required clearer and used a 'milder' tone.

The formal letter and the behavioural letter were both found to increase the rate of payment from the control group average of 27.6 per cent (see Figure 9.3). However, the behavioural letter was significantly more effective, increasing the payment rate by 17 per cent, whereas the formal letter increased the payment rate by 8 per cent.

The second graph (Figure 9.4) shows the impact of the letters on the average amount paid. The behavioural letter increased the average amount paid by an equivalent of $40 to an average of $326. This is significantly higher than the average paid by those that received the formal letter ($269) but not significantly different from the control group average ($287). This is likely due to the high variance in the 'amount paid' variable. If instead we calculate the effect of the letters on the logarithm (log) of the amount paid conditional on payment (which reduces this noise), taxpayers that were sent the behavioural letter paid significantly more than those who were sent both the formal letter and no letter at all (the control group).

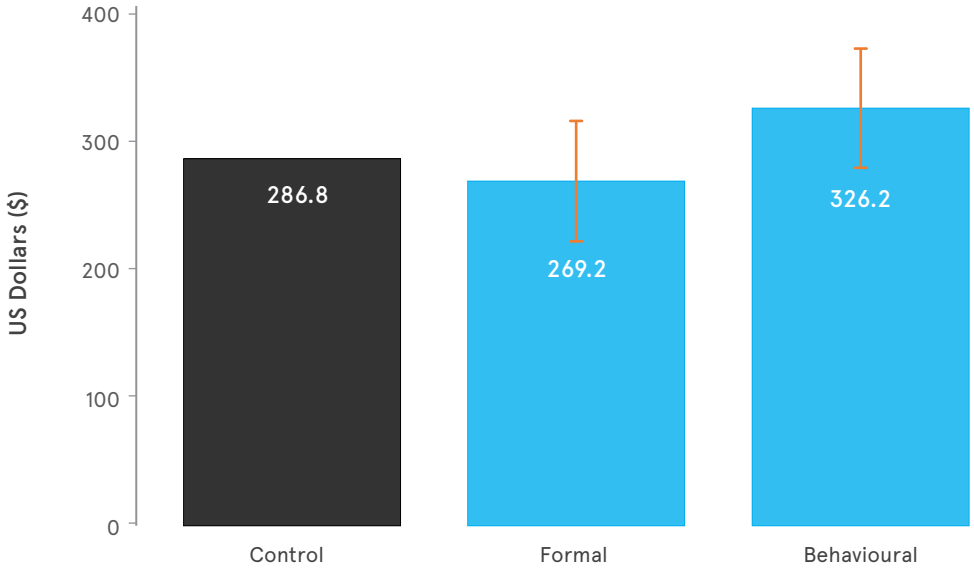
Overall, the evidence suggested that the behavioural letter increased both the rate of payment and the average amount paid, whilst the formal letter only increased the payment rate. Our cost benefit analysis showed that, if sent to all taxpayers in the sample, the behavioural letter would have brought in an additional $1.1 million of tax revenue.

Figure 9.3: Payment rates by letter type



N=31,929
** p<0.01, * p<0.05, + p<0.1

Figure 9.4: Average amount paid by letter type



N=31,929
** p<0.01, * p<0.05, + p<0.1

PLN converted to USD on 28/07/16

Increasing tax payments in Guatemala

BIT and the World Bank also implemented a second trial in Guatemala. It aimed to prime honesty among Guatemalan taxpayers filing online declarations. This second trial, however, was found to have no impact on tax declaration

In the trial, 715,190 taxpayers over a four month period were exposed to one of six behavioural messages, or a control message. These six intervention messages were informed by various insights from behavioural literature and were included as part of a pop up CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). This CAPTCHA was located on the tax declaration website, immediately prior to individuals reaching a declaration form.

The results of the trial showed that none of the treatments had a significant impact on tax declaration. Many factors may have contributed to the interventions not increasing declarations; we can only speculate on the main cause. However, as each of the six interventions was ineffective, we suggest that it may have been the way the information was conveyed that was crucial here, rather than the content of the messages. Specifically, including the messages in a CAPTCHA box rather than on the declaration form itself, may have meant that individuals ignored the prompts as they focused on progressing to the main form.

It is important to acknowledge null results and their importance. Doing so reduces the `file-drawer' problem and helps researchers and evidence-based policy makers make more informed decisions.

Scaling Interventions and building government capacity with the Global Innovation Fund

We have now shown that behaviourally informed tax interventions can have a dramatic impact across a diverse range of countries, including Guatemala, Costa Rica and Poland. As a result of this experience, and our work partnering with foreign governments to build capacity (see more in Australia and Singapore sections of this update), BIT have launched a major new partnership with the Global Innovation Fund. This partnership will take the underlying principles of our previous projects to scale over several lower-middle income countries.

Our aim is to institutionalise our approach to testing and trialling interventions, with a focus on increasing tax compliance and reducing the impact of the informal economy. We will also work on other policy areas where behavioural interventions can improve the lives of those living on less than $5 per day. Finally, we will use this long-term partnership to collect more comprehensive and longer-term outcome measures to better understand the impact of behavioural solutions on transforming the lives of those who face disadvantage.

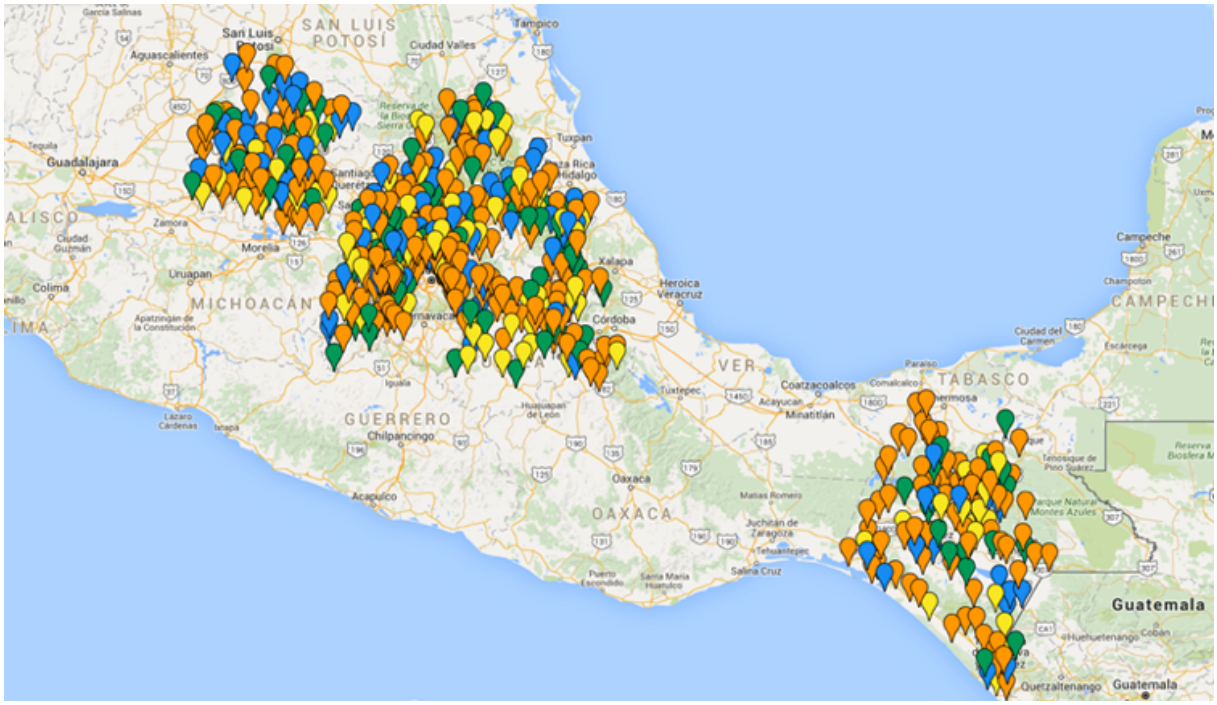
Maternal Health in Mexico

Over the past year, BIT has been fortunate to have had the chance to work on Prospera, Mexico's world famous cash transfer programme. Prospera is a Conditional Cash Transfer programme (CCT) that provides conditional financial incentives for families. Prospera was initially rolled out as a randomised control trial in 1997 and several studies have found that it improved health and education outcomes. There is, however, limited evidence of the impact of CCTs on health seeking behaviour outside of the direct CCT conditions, for example, planning for emergencies or the use of nutritional supplements.

We have been working with the President's office, Qué Funciona para el Desarrollo (QFD) and Unicef in Mexico to design and implement an innovative way to improve the health of pregnant Prospera beneficiaries and their babies. Previous research has shown that text messages can encourage people to attend their health appointments.[30] Our approach has grown from these findings. Mothers are encouraged to use a new two-way SMS system (i.e. both parties can send messages) called Prospera Digital – one of the first of its kind in the world. Instead of straightforward government health advice, mothers have the chance to interact and influence the advice they receive, create personalised appointment reminders and plan for emergencies as well as the final delivery.

The programme was launched in December 2015, and by May 2016, 320 clinics and 2500 beneficiaries have been randomised into four different intervention groups. The interventions aim to increase maternal health visits, the uptake of nutritional supplements and to improve health outcomes for mothers and newborns. We expect to have results next year.

Figure 9.5: Map of Mexico showing clinics in the trial (colours indicate the 4 intervention groups)



Tuberculosis (TB) medication adherence in Moldova

One of the world's big behavioural challenges is getting people to take all of their pills as prescribed. In last year's Update Report, we announced the launch of a 16 month trial which aimed to increase the wellbeing of tuberculosis (TB) patients and their adherence to medication in Chisinau, the capital of Moldova.

The typical treatment course for TB involves six months of antibiotics. In Moldova, patients are required to take this daily medication in the presence of a clinician. This interpretation of the World Health Organisation's recommended Daily Observed Treatment (DOT) presents a big friction (time) cost to patients and staff every day. For our trial we randomly allocated patients to receive Virtually Observed Treatment (VOT). Instead of having to travel to their clinic every day, VOT patients are asked to use an app to send a video of them taking their medication. These videos are evaluated by trained 'VOT observers', who then send the patient's feedback. The trial is currently underway and we should have the results next year.

We believe that this trial will be of interest to many governments around the world tackling TB and more widely, the global health issue of encouraging people to take all of their pills.

The Anti-Corruption Summit

The first global Anti-Corruption Summit, held in London in May 2016, focused on the practical steps that could be taken to tackle corruption across the world. Popular and policy accounts of corruption can often misinterpret why people engage in corrupt behaviours. It is often assumed that corruption is the result of individuals weighing up the benefits and costs, including the probability of being caught and the potential penalties. The traditional response to corruption under this 'rational' model would be to increase the penalties or the probability of detection.

Behavioural studies have revealed that the causes of corruption and honesty are more complex.[31] Corruption and honesty can be motivated by social pressure, a lack of trust in the contexts in which transactions take place or due to 'moral licensing'. Research also shows that observed social norms can influence our likelihood of engaging in dishonest behaviour[32] and that people are more likely to be dishonest if they can do so by omission (not providing or updating information) rather than by commission (actively providing false information).[33]

At the Anti-Corruption Summit, the Prime Minister announced that BIT will be partnering with UK Government departments to trial the effectiveness of behavioural approaches across a range of policy areas susceptible to corrupt practices. Starting this year, we will be working in Mexico, Argentina and Colombia to test this approach. Whilst we recognise that corruption is a complex and challenging issue, we are excited to discover areas where behavioural approaches can be effectively applied.