The Value of Communication for Mental Health in Ghana

Researchers:

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Sector(s): Crime, Violence, and Conflict, Gender, Health

Sample: 1,131 low-income individuals

Target group: Adults

Outcome of interest: Violence Mental health

Intervention type: Vouchers

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Partner organization(s): Columbia Population Research Center (CPRC), Columbia University Earth Institute

Mental health disorders make up a large portion of the global disease burden, an issue that was amplified by the Covid-19 pandemic. While connecting with friends and family may help people deal with these disorders, low-income citizens may face financial barriers to communication. Researchers used a randomized evaluation to measure the impact of providing mobile calling credits to low-income adults on well-being outcomes in Ghana. Overall, the mobile credit intervention increased the ability for individuals to meet unexpected communication needs, particularly when delivered in installments, leading to meaningful improvements in mental health and modest decreases to domestic violence.

Policy issue

Mental health disorders make up a large portion of the global disease burden. During the Covid-19 pandemic, this issue was amplified as millions of people were forced to stay in their homes, disrupting their ability to stay connected with friends and family. These impacts were particularly burdensome in lower-income countries where many citizens face credit and saving constraints that can prevent them from having the funds needed to make calls or get online. Many countries implemented communications interventions to help alleviate this barrier, such as providing free data for internet use or reducing communication services taxes. Despite the prevalence of these interventions, there is little evidence that explores whether such interventions improve mobile connection or personal well-being. This study measures the extent to which providing free mobile credits to low-income individuals in Ghana can help address these issues.

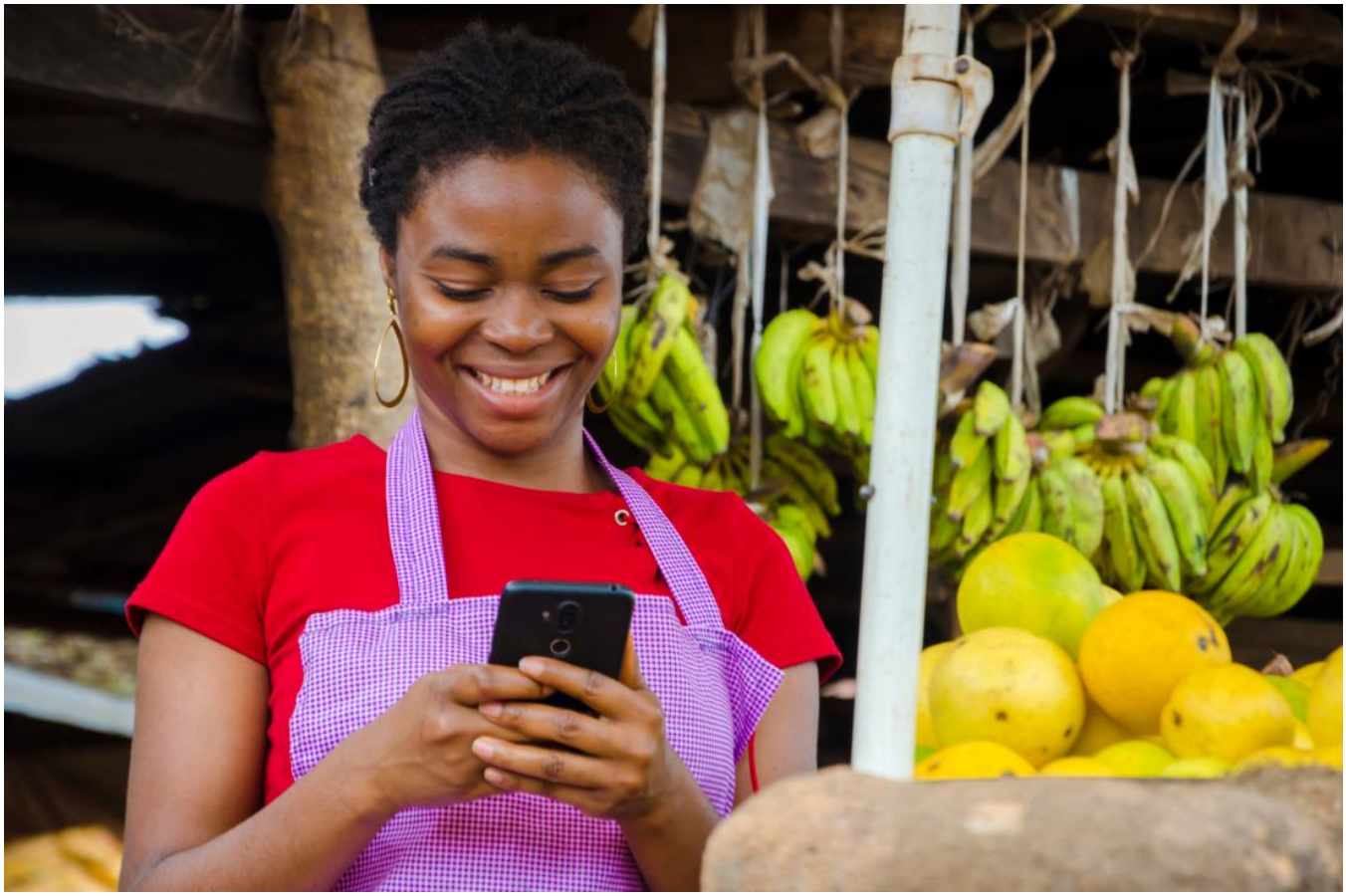
Context of the evaluation

In response to Covid-19, in March 2020 Ghana announced lockdowns in two of the most economically active regions in the country, followed by other national restrictions. Citizens were only permitted to leave their homes for essential items, national transportation was reduced, and schools nation-wide were closed. About one month later, the lockdown was lifted, and some restrictions relaxed. However, many citizens continued to struggle with the damaging economic impact of these regulations.

Mobile connection penetration is very high in Ghana, even among low-income populations. As a pandemic relief measure, the government reduced the Communication Service Tax by 4 percent to decrease the cost of mobile talk time and data purchases

for consumers. In dire situations, individuals can borrow airtime for a service charge (10 percent) or seek digital loans with high interest rates (6.9 percent) from telecommunication providers. While demand for mobile airtime-related activities sharply increased during the pandemic, a survey with evaluation participants revealed many low-income citizens were unable to meet their increased communication needs due to economic hardships caused by the pandemic.

The evaluation focuses on a nationally representative set of low-income households, from which about a fifth were located in the previously locked-down regions. A majority of the individuals were in the bottom 75th percentile of the income distribution, worked in the informal sector, and were self-employed.



Woman uses phone in a market.

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Details of the intervention

Researchers used a randomized evaluation to measure the impact of providing mobile calling credits to low-income adults on well-being outcomes, such as mental health, domestic violence, and spending. The researchers randomized 1,131 individuals by districts into three groups:

1. *Lump-sum mobile credit*: 376 individuals received 40GHS (US$7) in mobile credits one time.
2. *Installment mobile credit*: 371 individuals received 20GHS (US$3.50) monthly installments of mobile credits over two months.
3. *Comparison*: 384 individuals received no mobile credits.

The communications credits could be used to make a phone call, transfer airtime, visit the web, or access other social media services. The researchers partnered with a major local telecommunication company to directly deliver these credits to participants, starting with the first installment and lump sum delivery in October 2020 and second installment in November 2020

The researchers surveyed participants about borrowed airtime and digital loans taken out during the intervention, as well as their ability to make unexpected calls. They also measured mental health using a psychological scale to identify severe distress in participants; spending on food, utilities, personal care, education, health, and durables; and domestic violence using participants' self-reports of whether they had been hit or threatened by their partner during the study period.

Results and policy lessons

Overall, the mobile credit intervention increased the ability for individuals to meet unexpected communication needs and stay connected with others. This led to meaningful improvements in mental health and modest decreases to domestic violence but had no effect on overall spending on basic goods.

*Mitigation of Communication Constraints***:** Individuals that received mobile credits were 37 percentage points (74 percent) less likely to be unable to make unexpected calls in the previous week relative to those in the comparison group. The intervention also allowed individuals that received credits to decrease the unexpected need to borrow airtime by 22 percentage points (78 percent) and the need to seek digital loans by 3.5 percentage points (44 percent), as compared to those that received no credits. These results were largely driven by the installment program, which had a significantly greater impact on mitigating communication constraints than the lump-sum credit.

*Mental Health***:** The mobile credit intervention reduced participants' mental distress on the psychological scale by 9.8 percent. Individuals who received the credits in installments were 24 percent less likely to suffer from severe mental distress relative to the comparison group. However, there was no effect on severe mental distress for those that received the credit in a lump sum. Individuals in the informal sector who received mobile credits experienced larger mental health improvements than those in the formal sector.

*Domestic Violence***:** Individuals who received mobile credits in installments were 9.7 percent less likely to threaten their partners and 6.8 percent less likely to hit their partners relative to the comparison group, while the lump-sum distribution did not yield any changes in domestic violence indicators. Across both the installment and lump-sum strategies, the very poor experienced the largest reductions in domestic violence.

*Individual Spending***:** While individuals who received mobile credits increased their spending slightly on durable items and utilities, there was no effect on overall spending compared to those who did not receive credits. This is likely because the small size of the mobile credit transfer was not large enough to make an impact on consumption. There was no difference in these effects between distribution methods. However, participants that received credits and were living in areas that were previously locked down were more likely to increase their total spending, particularly on utilities and durables. The authors suggest this reflects the ongoing economic hardship of the pandemic lockdowns.

The authors find that US$1 spent on this communication credit policy has the potential to deliver more than US$1 of benefit. This suggests a policy distributing free mobile credits to low-income citizens, particularly in installments, during an unexpected pandemic may be a cost-effective method to improve psychological well-being and reduce domestic violence.