

# What Works to Close Digital Gender Gaps?

## Assessing Two Policy Levers

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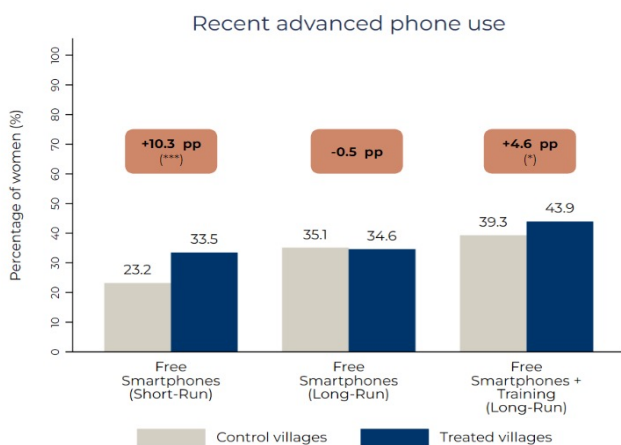


*In many lower-income countries, women access and use phones at rates lower than men. What works to close digital gender gaps?*

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### Topic at a Glance

Mobile phones can help individuals access information, networks, and resources, allowing them to benefit both socially and economically. Yet in many lower-income countries, women lag men in phone ownership and usage for a variety of economic and normative reasons. We investigate two approaches to closing digital gender gaps. The first is a statewide program, which distributed millions of smartphones, along with free data, to women across the state of Chhattisgarh in central India. In the second study, we layered digital literacy training on top of the smartphone distribution program. Despite initially reversing the gender gap in smartphone ownership, the smartphone distribution program had no long-term impact on digital gender gaps. In contrast, low-cost digital literacy training had lasting impacts, reducing digital gender gaps and increasing women's smartphone use. Digital literacy training also improved women's connection with others and mental health, highlighting important areas that phones can improve women's well-being in settings where their mobility and networks are limited.



*Caption:* In the short-run, there is an increase in women's advanced use in phone distribution areas. However, in the long-run, this effect disappears. When supplemented with training, advanced usage increased by 4.6 pp.

### New Insights

In lower-income countries like India, the rapid spread of mobile phones has connected low-income households to vital information, markets, and services. In 2017 (on the eve of the program we study), 24 percent of Indian citizens had smartphone access (GSMA, 2018b). With expanding smartphone penetration and nearly a billion projected users, smartphones and mobile technology are reshaping India's society and economy.

However, smartphone expansion remains gendered. Despite cheap handsets and data and widespread growth in phone ownership, India's gender gap in mobile ownership at the time was 23 percent, and the gap in mobile internet usage 68 percent (GSMA, 2018a). A combination of factors linked to household income, digital literacy and education, and gender norms limits Indian women's access to, and use of, mobile technologies. In rural Chhattisgarh, a relatively remote, low-income, state in central India, we studied two policy tools that could be used to close this gap. In 2018, the state of Chhattisgarh implemented a program called Sanchaar Kranti Yojana, or SKY. SKY distributed over 2 million free smartphones to female household heads, along with 1 Gb of free mobile data. The government also constructed LTE (4G) towers to cover eligible communities that lacked high speed data coverage. Community-level program eligibility was determined based on a population threshold, permitting us to analyze the causal impact of SKY approximately 4 years after it took place. To do this, we leveraged the program targeting criteria, working with IDInsight to conduct a survey of over 20,000 respondents living in communities just above and below the program population threshold in 13 districts across Chhattisgarh.

In this same setting, our research team identified skills gaps related to digital literacy as a significant barrier to women's use (Barboni et al. 2018). In a second study, we tested the relevance of addressing this barrier through an interactive digital literacy training, using a randomized control trial (RCT) across 212 villages in rural areas of a single district. Importantly, all these villages were eligible for SKY, so we evaluated the impact of training in a setting where women were already selected for free smartphone distribution. In these

45-minute trainings, we taught women key phone-related skills, including how to “wake up” the phone, dial a call, save a number, answer a call, and conduct a voice-based Internet search. Women received take-home handouts with simple visual instructions for common mobile phone tasks. These small-group trainings were interactive, allowing women to try out new skills as they were being taught. As part of the study design, we also randomized the timing of the baseline survey, such that half the respondents were interviewed in the weeks preceding phone distribution and half in the weeks following, allowing us to estimate the immediate effects of SKY.

The Impact of Smartphone Distribution on Women’s Phone Ownership and Usage: The distribution program had immediate effects on women’s smartphone ownership and use, increasing women’s reported smartphone ownership by 56 percentage points – reversing the gender gap. It had a smaller, but significant, impact on women’s advanced phone usage (which we define as engaging in smartphone-specific tasks like taking a picture, watching a video, or surfing the web) – which increased by 10.3 percentage points.

Approximately four years later, across the sample of 13 districts where we examined the impact of free phone distribution on phone ownership, less than a quarter of women reported that the phone they used was their own. In comparable non-treated areas, a similar percent of women reported owning a phone, meaning SKY did not significantly improve women’s reported phone ownership over the long-term. In terms of usage, 56 percent of the women surveyed in the multi-district survey reported having used a smartphone in the past 30 days; again, with no difference between women in treated and non-treated villages. The gender gap also is similar: women are 13 percentage points less likely to use smartphones than men in both SKY and non-SKY villages. This early evidence suggests that - on average - the phone distribution program impacted women’s phone engagement in the short, but not long run.

In contrast, the impacts of digital literacy training are encouraging. Three years after training, women who were invited to the training were more than 4 percentage points more likely to have used a smartphone in the past month. These women were also more likely to use phones for advanced uses. Alongside phone-related impacts, training had important downstream consequences for women – expanding their social networks, increasing their interactions with family members, and improving their mental health.

## Policy Recommendations

As digital modes of economic activity become more essential, reducing gender gaps in mobile phone ownership and usage is a policy priority. Our research, which leverages a large-scale mobile phone distribution program for women in India, shows that simply giving women free smartphones is insufficient in helping them overcome the normative, economic, and knowledge re-

strictions that contribute to the gender gap that restrain them over the long term. In contrast, combining phone distribution initiatives with training programs that enable women to utilize the phones can help to close gender gaps while also providing considerable mental health advantages.

## Limitations

This evidence base highlights the importance of addressing digital skills gaps, in addition to tackling phone affordability and access, to close digital gender gaps in lower income settings. It is possible that there are certain types of locations or women that directly benefit in the long-term from programs that improve phone access without addressing skills constraints; we look forward to building on this early analysis to explore this possibility.

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