

## INCREASING ADHERENCE TO COVID-19 GUIDELINES: LESSONS FROM RIGOROUS EVIDENCE

*Please note:* This document was prepared by the J-PAL Health Sector in 2020 to provide recommendations for responding to the COVID-19 pandemic. It is not an exhaustive review of all the rigorous evidence on the discussed topics.

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As of December 14, 2020, the novel coronavirus 2019 (COVID-19) has spread to every region of the world, infecting more than 70 million people and killing more than 1.5 million.<sup>1</sup> No cure has yet been identified, and preventive vaccines are not yet widely available. As vaccines become ready for widespread administration, ensuring their uptake will be critical for stemming the pandemic. In the meantime, and likely for some time even after vaccines become available, take-up of other preventive measures remains critical.

The World Health Organization (WHO), national health agencies, and other experts have issued guidance on such [preventive measures](#), which include practicing social distancing and frequent handwashing. However, following this guidance is not always feasible for everyone. Individuals living in overcrowded conditions may not be able to practice social distancing, those whose livelihoods depend on frequent and close interactions with others may not be able to afford avoiding these activities, and those without access to clean water and soap would not be able to wash their hands frequently.

Other individuals may not be aware of the guidelines, may not understand the specific steps to follow, or they may not be convinced of the need to practice these behaviors. Misinformation about COVID-19 can also undermine public health guidelines. In instances where lack of clear messaging or inadequate understanding of the need to practice recommended behaviors are the primary barriers to guideline adherence, evidence from rigorous research can help to inform government actions.

This note provides some general lessons on increasing uptake of healthy behaviors and on improving the delivery of health products and services. These lessons draw from the results of recent randomized evaluations on strategies to increase adherence to COVID-19 prevention guidelines as well as from the results of randomized evaluations on increasing take-up of healthy behaviors more generally. In addition to motivating adherence to various COVID-19 prevention guidelines, many of the lessons are likely to be applicable for increasing adoption of the COVID-19 vaccines. Policymakers may consider implementing some of these recommendations now to increase demand for this vaccine once it is widely available.

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<sup>1</sup> World Health Organization. 2020. "Weekly Operational Update on COVID-19 14 December 2020."  
<https://www.who.int/publications/m/item/weekly-epidemiological-update---14-december-2020>

This note does not tailor recommendations to specific contexts or provide details on implementation. Rather, we encourage policymakers to reach out to Anupama Dathan ([adathan@povertyactionlab.org](mailto:adathan@povertyactionlab.org)), J-PAL Health Sector Manager, for follow-up conversations on incorporating the evidence into policy decisions.

## **DESIGNING INFORMATION CAMPAIGNS TO INCREASE UPTAKE OF PREVENTIVE BEHAVIORS**

Many governments are advising residents to stay home, practice social distancing, regularly wash hands, and take various other actions to prevent COVID-19. Many individuals will find it impossible to regularly practice the recommended behaviors due to financial insecurity, lack of access to clean water or soap, and other constraints. For those who are physically able to take up these behaviors, what information is shared and through whom may influence adherence. Evidence on behavior change campaigns shows that framing information in a specific and actionable way is important. Carefully considering the messengers who convey the messages and the platforms through which this information is disseminated are also essential for increasing the reach of public health messages and combatting misinformation.

*Framing information in an effective manner is essential for changing behaviors.*

Implement specific and actionable information campaigns to encourage key preventive behaviors for COVID-19. A large body of evidence<sup>2</sup> from around the world shows that simply urging people to change behavior usually does not work. Rather, policymakers may find it beneficial to continue issuing specific information on what behaviors to take up and why these actions are important. For example, advice to systematically wash hands upon returning from the grocery store or to set an alarm to remember to wash hands every two hours may be more effective than more general exhortation to “wash hands regularly.” Likewise, encouragement to replace handshakes with head nods or elbow bumps may be more actionable than simply telling individuals to avoid handshakes.

### COVID-19 research

Two studies from J-PAL affiliates provide evidence that specific and actionable information can indeed also change COVID-19 preventive behaviors.

- In India,<sup>3</sup> individuals received short, 2.5-minute video clips in which a well-known individual provided specific, actionable information on how to identify COVID-19 symptoms and how to report them to frontline health workers. They also received information on COVID-19 preventive behaviors and how and why to adopt them. These videos led individuals to reduce travel, increase self-reported handwashing, and doubled symptom reporting rates to community health workers.
- In the United States,<sup>4</sup> people tended to underestimate risk to elderly people. Providing information on elderly individuals' actual probability of death led participants to overcome their initial perceptions and

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<sup>2</sup> Studies from J-PAL affiliates on specific and actionable information provision include [Galiani et al. 2015](#); [Benneer et al. 2013](#); [Dupas 2011](#); [Dupas et al. 2018](#); [Maughan-Brown et al. 2015](#); [Meredith et al. 2013](#); [Kling et al. 2012](#); [Banerjee et al. 2020](#); [Abel et al 2020](#)

<sup>3</sup> [Banerjee et al. 2020](#)

<sup>4</sup> [Abel et al 2020](#)

watch more videos on protecting others. When prompted, participants were more likely to donate to the US Centers for Disease Control's (CDC) Emergency Fund to fight COVID-19.

*Choosing effective messengers is critical for changing behavior. Social networks, peers, and celebrities can all be effective at spreading information.*

Directly leverage the influence of well-connected community members and peers (while avoiding face-to-face interactions) to help spread accurate information on new recommendations. While top-down messaging that is framed in a specific and actionable way can change behavior, studies from around the world<sup>5</sup> have found that leveraging the community is also important for sustained behavior change. Where guidelines on social distancing may make in-person interactions difficult or inadvisable, online and mobile platforms can be good ways to leverage this influence.

#### COVID-19 research

Two studies from J-PAL affiliates provide further evidence on the impact of peer and social networks on behavior change for COVID-19 prevention.

- In India,<sup>6</sup> providing information on COVID-19 prevention and symptom reporting through short videos increased self-reported adherence to COVID-19 preventive behaviors by those receiving links to the videos as well as by their neighbors at roughly the same rate. The messages did not increase conversations about COVID-19. This suggests that behavior change among non-recipients was due to peer effects: neighbors directly observed behavior changes among those who did receive the messages and imitated them.
- In the United States,<sup>7</sup> role models impacted donations to the US Center for Disease Control's (CDC) Emergency Fund to fight COVID-19. Participants who read messages and watched videos about the behavior of fellow citizens were more likely to emulate those actions. For instance, learning that other Americans were volunteering or donating to the CDC made participants more likely to learn about volunteering or to donate to the CDC.

Educating celebrities early on in an epidemic and leveraging their voices can help to increase the reach of public health messages and avoid the spread of misinformation. Depending on the content and accuracy of their message, all individuals with a media following can have a positive or negative impact on public opinion and behavior. Celebrity endorsement or information-sharing may be particularly powerful when celebrities speak in their own voice.<sup>8</sup>

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<sup>5</sup> Studies from J-PAL affiliates on peer effects and social networks for health include Dupas 2014; Oster and Thornton 2012; Kremer and Miguel 2007; Goldberg et al. 2019; Banerjee et al. 2019; Galiani et al 2015; Galiani et al. 2012; Banerjee et al, 2020; Abel and Brown 2020

<sup>6</sup> Banerjee et al, 2020

<sup>7</sup> Abel and Brown 2020

<sup>8</sup> Alatas et al. 2020

### COVID-19 research

One study by J-PAL affiliates supports the recommendation that hearing directly from celebrities can shift behavior around COVID-19.

- In West Bengal, India,<sup>9</sup> participants received 2.5-minute videos on COVID-19 prevention featuring Abhijit Banerjee, a well-known intellectual from West Bengal. In the videos, Abhijit Banerjee instructed individuals to report any COVID-19 symptoms to health workers and emphasized why adopting preventive behaviors is important. The videos doubled symptom reporting to community health workers and increased self-reported adherence to other preventive behaviors such as mask-wearing, handwashing, and reduced travel.

*Note that, to date, this recommendation is based on two studies rather than a broader body of research.*

***The platform through which information is spread is an important consideration. Edutainment can be effective, as can different social media platforms.***

Where possible, incorporate key public health messages into new or existing entertainment media (or “edutainment”) to help improve adherence to recommended behaviors. Media such as television, radio, or other entertainment platforms can be used to change attitudes and behaviors by embedding educational messages in a bigger storyline.<sup>10</sup> As people around the world are spending more time at home, the ability to identify with characters facing similar changes to their personal life may further underscore edutainment’s potential to influence individual behavior.

### Relevant research

While J-PAL affiliates have not yet studied edutainment in a COVID-19 context, studies from before the pandemic demonstrate the impact of edutainment on behaviors.<sup>11</sup> For example, in Nigeria,<sup>12</sup> the edutainment television series *MTV Shuga* improved knowledge and attitudes towards HIV and risky sexual behavior and increased the likelihood of getting tested for HIV. Effects were stronger for viewers who reported being more involved with the story or identified with the characters.

Social media apps like Twitter and WhatsApp can be a powerful delivery platform to share key public health messages and combat misinformation. Such apps have become a vital part of information-sharing in the 21<sup>st</sup> century, and evidence shows that leveraging them can be an effective means of amplifying messages to shift beliefs and behaviors.<sup>13</sup> This is particularly true when the messenger is trusted and information is framed in a specific and actionable manner, as discussed above. Because they can also be a source of misinformation,

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<sup>9</sup> Banerjee et al. 2020

<sup>10</sup> Studies from J-PAL affiliates on edutainment include Banerjee et al. 2016; Banerjee et al. 2019; Green et al. 2018; Jensen and Oster 2009; La Ferrara et al. 2012

<sup>11</sup> Studies from J-PAL affiliates on edutainment include Banerjee et al. 2016; Banerjee et al. 2019; Green et al. 2018; Jensen and Oster 2009; La Ferrara et al. 2012

<sup>12</sup> Banerjee et al. 2019

<sup>13</sup> Alatas et al. 2020; Banerjee et al, 2020; Bowles et al. 2020

monitoring online platforms such as Facebook, Twitter, WhatsApp, and others for false messages can help identify situations where correcting misconceptions can be particularly important.

### COVID-19 research

Two studies from J-PAL affiliates and invited researchers have shown the importance of leveraging social media during COVID-19, both to share information on important preventive behaviors and to combat misinformation.

- In Zimbabwe,<sup>14</sup> a local civil society organization sent WhatsApp messages to their newsletter subscribers to convey truthful information about COVID-19 and to debunk misinformation about fake cures. These messages from a trusted source increased knowledge about COVID-19 and reduced reported harmful behavior such as violating lockdown orders.
- In India,<sup>15</sup> users received WhatsApp messages containing a link to videos from a trusted, well-known expert advising individuals to report COVID-19 symptoms and follow local guidelines. By leveraging WhatsApp, these messages reached millions of people, which in turn increased reporting of symptoms and reported adherence to guidelines.

Evidence on information provision demonstrates that receiving messages from those with whom one feels a connection—community members, peers, characters on TV shows and other forms of entertainment, celebrities, etc.—can be important for uptake of recommended behaviors. Messaging this information with specific and actionable steps can be additionally impactful, while leveraging platforms such as social media can help to widely disseminate information.

## **LEVERAGING CASH TRANSFERS TO INCREASE UPTAKE OF PREVENTIVE BEHAVIORS**

Since the COVID-19 pandemic is a health crisis accompanied by a severe economic one, cash transfers can provide income support and potentially increase uptake of healthy behaviors.

*Leverage cash transfers, especially those conditioned on uptake of COVID-19 preventive behaviors, to improve prevention. Unconditional transfers can provide income support.* While both conditional and unconditional transfers have costs associated with determining eligibility, targeting the transfer to intended households, and delivering the cash, a review of the literature<sup>16</sup> shows that cash transfers conditioned on certain behaviors increase take-up of those behaviors. Cash transfers with no conditions increase spending on overall household priorities and improves general well-being. Policymakers may consider the outcome(s) they are hoping to achieve, as well as the relative costs and benefits of each type of transfer across all target outcomes, when determining which transfer to implement.

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<sup>14</sup> Bowles et al. 2020

<sup>15</sup> Banerjee et al, 2020

<sup>16</sup> J-PAL's policy insight on the topic is available [here](#).

### COVID-19 research

One study by J-PAL affiliates found that cash transfers improved several indicators of household well-being, including in health, during the COVID-19 pandemic.

- In Kenya,<sup>17</sup> households received universal basic income during COVID-19. These cash transfers effectively reduced hunger, sickness, and depression in spite of the pandemic. They also reduced hospital visits and decreased reported social interactions.

## **IMPROVING THE DELIVERY OF HEALTH PRODUCTS AND SERVICES**

The practices described above can help motivate individuals and households to take up healthy behaviors. As governments and other actors think through distribution of essential commodities once they are developed, research yields insights on how to deliver them to maximize uptake.

When feasible, subsidizing recommended preventive health products and eliminating user fees can increase uptake. Uptake of preventive health products, such as vaccines, is highly sensitive to price. A review of more than 15 studies from around the world<sup>18</sup> shows that take-up reduces dramatically even with small price increases, and especially so for products with large social externalities. Making protective masks, COVID-19 tests, soap, and other preventive commodities free of charge can help to ensure increased uptake. This is also important for ensuring take-up of COVID-19 vaccines.

### Relevant research

While J-PAL affiliates have not yet studied the impact of free distribution of health commodities in a COVID-19 context, a number of studies<sup>19</sup> from before the pandemic demonstrate the impact of price on adoption. For instance, in Kenya<sup>20</sup> price had a significant impact on take-up of deworming tablets. When a program moved from free provision of deworming tablets to charging US\$0.30 per child, take-up fell from 75 percent to 18 percent.

## **BUILDING TRUST IN HEALTH SYSTEMS**

Programs or policies that increase trust in the health system could improve reporting and cooperation with health guidelines, which in turn could help increase testing, reduce the spread of the disease, and reduce mortality.

Implement interventions that increase trust in health systems. The efficacy of interventions can vary based on context. Improving perceptions of quality may be effective in some areas, while ensuring patients see

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<sup>17</sup> Banerjee et al. 2020

<sup>18</sup> J-PAL's policy insight on the topic is available [here](#).

<sup>19</sup> J-PAL's policy insight on the topic is available [here](#).

<sup>20</sup> Kremer and Miguel 2007

doctors they trust may be effective in many others. Such interventions may be most impactful in areas with low baseline utilization of health care services or amongst populations with low levels of trust in the health system (including marginalized groups that may include migrants, LGBTQ individuals, indigenous communities, or racial minorities depending on the context). Additional trust-building policies, such as ensuring patient confidentiality with regard to immigration status, could also help address wariness of the formal health system. Such measures would likely improve the resiliency of the health systems over time; they may also possibly improve outcomes if implemented during or right before a major health shock, though this has not been studied to date.

*Note that, to date, this recommendation is based on two studies rather than a broader body of research.*

### Relevant research

While J-PAL affiliates have not yet studied trust-building policies in a COVID-19 context, studies by J-PAL affiliates from before the pandemic highlight their importance for health system strengthening.

- In Sierra Leone,<sup>21</sup> community monitoring of government-run health clinics and status awards for clinic staff (both implemented roughly two years prior to the 2014-16 West African Ebola health crisis) improved the community's perception of health care quality, utilization of health services, and Ebola-related health outcomes during the Ebola epidemic. During the crisis, the interventions increased Ebola testing rates and reduced mortality among patients, driven by improvements in the community monitoring intervention.
- In the United States,<sup>22</sup> black men, typically more mistrustful of the health care system due to historical injustices, were more likely to trust providers of the same race. Seeing doctors they trusted increased their preventive health care utilization rate, including take-up of the seasonal flu vaccine.

*This note highlights some general lessons on how policymakers may be able to increase adherence to COVID-19 guidelines and improve the delivery of key health products. It does not intend to provide details on implementation or tailor recommendations to specific contexts. Policymakers interested in learning more about the evidence presented here are encouraged to reach out to Anupama Dathan ([adathan@povertyactionlab.org](mailto:adathan@povertyactionlab.org)), J-PAL Health Sector Manager, for follow-up conversations on incorporating the evidence into policy decisions.*

### **ABOUT J-PAL**

*The Abdul Latif Jameel Poverty Action Lab (J-PAL) is a network of 227 affiliated professors from universities around the world. Our mission is to reduce poverty by ensuring that policy is informed by scientific evidence. We engage with hundreds of partners around the world to conduct rigorous research, build capacity, share policy lessons, and scale up effective programs. J-PAL was launched at the Massachusetts Institute of Technology (MIT), and now has regional offices in Africa, Europe, Latin America & the Caribbean, the Middle East and North Africa, North America, South Asia, and Southeast Asia. For more information visit [povertyactionlab.org](http://povertyactionlab.org).*

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<sup>21</sup> Christensen et al. 2020

<sup>22</sup> Alsan et al. 2019