Behavioral sciences to protect human capital investments during and after the COVID-19 pandemic

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The novel coronavirus (SARS-Cov-2, which causes COVID-19) presents multi-dimensional challenges for countries as the effects of the virus, and the response efforts, intersect with other sectors and development priorities. Impacts have been felt across sectors and globally, and there have been immediate impacts on human capital attainment and investment. The COVID-19 response, in both the immediate crisis period and the medium/long term, will demand changes in health and other behaviors at the individual, group, and society levels to help mitigate these impacts and risks.

Behavioral science can provide insights into designing effective COVID-19 responses, as well as how to sustain progress in other important areas when resources are focused primarily on urgent COVID-19 response and attention is limited. At the heart of addressing the COVID-19 health crisis, from immediate response, to recovery and action on its impacts, lies large demand on behavior change, whether at the individual, group or society level. While much of the immediate focus so far has been on social and behavior change communications to manage infection rates, there are other areas of human capital development and protection where insights and actions can benefit from behavioral science. This note is intended to introduce a behavioral lens to health and nutrition, education, and social protection efforts to reduce negative impacts on human capital accumulation (mainly health, nutrition and education), and to enhance preparedness, response, and adaptation to COVID-19.

To protect human capital, three multi-faceted needs are at forefront:

Table 1. Needs and actors/groups for human capital protection in the face of a public health crisis

<table>
<thead>
<tr>
<th>Need</th>
<th>Key actor/group</th>
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<tr>
<td>Adapt and continue <strong>service delivery and quality</strong> (preventative and remedial to the crisis, as well as ongoing services).</td>
<td>Service providers</td>
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<tr>
<td>Maintain <strong>desirable behaviors</strong> and efforts towards human capital investments, while adapting to new behaviors related to COVID-19 prevention and management.</td>
<td>Communities and households</td>
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<tr>
<td>Develop an <strong>enabling environment</strong> for human capital investments to continue.</td>
<td>Communities</td>
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1 This note has been developed by the Mind, Behavior, and Development Unit. Contacts on the content are Ana Maria Munoz Boudet, Ellen Moscoe, and Julie Perng.
2 See Annex 1 for a theory of change of channels and impacts for the short and medium term.
There are three actors on human capital -service providers, communities and households- that will be impacted by changes in the decision environment and by beliefs, information, and other forces that will shape their knowledge, attitudes, and behaviors. Supporting them adequately in their efforts will reduce the risk of the COVID-19 pandemic negatively affecting human capital investments, and reduce setbacks on specific indicators. This note will highlight behavioral considerations relevant to human capital protection in the face of COVID-19 for these three actors and their main needs (Table 1). Service providers, are called to ensure safety and continuity of services, and to adapt to changes in human capital-related programs such as health, nutrition and education services. These efforts can be hampered by required adaptations in work processes and relations with beneficiaries and users, and by the crisis’ effects on re-shifting priorities in the short term, and potential long-term impacts on human capital outcomes. Communities need to utilize collective efforts to maintain health outcomes, foster social cohesion (combat in-group/out-group bias), and coordinate on targeting and implementation of programs such as safety nets, food distribution and others that might be designed to support those affected by the crisis. Households, which include parents/caregivers and children, will focus their efforts to maintain individual and family health and nutrition; adapt to changes in programs and services (e.g. becoming the ‘implementers’ of some of these programs as it is the case for education or early childhood development); and respond to shocks to reduce negative impacts in health, nutrition and education outcomes. Cognitive biases that affect interpretation of information and decision-making will particularly impact behaviors of households, and should be considered in the design of communications, interventions, and programs.

Service delivery providers

Changes in human capital-related programs will require service providers to adapt to new delivery mechanisms to ensure continuity in services, including rapid innovation, tools, and adapted processes adoption. Service providers will be challenged to utilize new methods to do their work they might not be prepared or equipped to (e.g. online teaching); they’ll also be asked to use new methods of communications, reporting, and assessments; among other changes. In addition to adapting in their specific sector and area of work, they also face the need to adopt and transmit communications and information on broader programs (e.g. containment and prevention), and cover for sectors and services that might have a more limited field presence. Supporting mechanisms for the adaptation, and understanding barriers (mental models, mindsets, non-recognition of difficulties or lack of knowledge) and addressing them adequately will help them with adaptation.

Service providers are the main channel to amplify and ensure knowledge and adoption of government guidance; as well as of the adoption, use, and feedback on changes for their respect services by the community. To succeed, they must be equipped with adequate communication tools, and to be able to convey clear, simple and actionable messaging to the community. Simplified tools with clear priorities and targets, constant check-ins and guidance, peer groups organization, and ‘unloading’ (stress, challenges under new models, etc.) moments are among the tools to support service providers while balancing the demands they might be face. In addition to channeling information, service providers can serve to model desired behaviors (from prescribed ones such as handwashing to dealing with longer-term barriers, such as uncertainty about the future) on an ongoing basis.

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3 See Annex 2 for a summary of biases and solutions.
Critical trainings for all service providers who are interacting with beneficiaries and learning and utilizing new methodologies, tools, and processes (such as online teaching, new methods of communications and assessments, and working with limited resources) on a wider array of issues associated with COVID-19 impacts will be required. In addition to trainings with clear background explanations on each recommended communication modality or new processes, trainings may will need to include additional topics such as mental health, self-efficacy and how to deal with uncertainty, and basic information on the entire set of services available to a household (including those from different sectors), and how to provide feedback, track and/or escalate issues and cases, including those outside of their specific sector (e.g. health issues when discussing education). Communications and support for service providers are as central as it is to households.

To tackle potential surge in demand and low cognitive bandwidth for processing new information, solutions such as changing the choice architecture and automation in case management and other processes or systems could be helpful. Service providers could use more automated systems; receive or create Q&A and scripts to assist in giving guidance, reminders; leverage tablets and other IT-related solutions for record-keeping; and more. Other technological solutions such as AI chatbots or messaging could be used to both collect feedback and deliver support on focused issues such as mental health. Strategies on how to implement salient solutions for them as well as their beneficiaries could be of strong value (e.g. paint, handprints, soap on a rope, and visible sanitizers could provide reminders on sanitation). Additionally, early warning systems in place for other disasters could be leveraged by service providers, and automated targeting mechanisms could be developed, with increased transparency of targeting efforts that reduce burden for service providers while increasing community compliance and take-up.⁴

To help encourage service providers, policymakers need to design recognition systems, such as social recognition programs that can increase motivation and job satisfaction as well as to encourage service providers to exercise agency, whether in finding ways to keep and organize different modalities of community engagement, or to propose their own innovative solutions to respond to the needs in the context of the communities they serve, can act as motivators. Incentives towards innovations that combine recognition of adherence to required behaviors are key to keep engagement and motivation for service delivery, as long as there is a clear focus on the desired objectives set for their work, and there should be acknowledgment of their situational challenges (e.g. establishing specific ‘goals’ such as ensuring that children that have been under monitoring for poor growth do not experience setbacks, promoting distance learning targets for at-risk students, and others).

Communities

In order to maintain health outcomes in the face of COVID-19, communities can support their members’ compliance with health protocols and utilize healthcare services as directed. This may require maintaining and ensuring community awareness of COVID-19 impacts and mitigation strategies, and reinforcing linkages between the community and the health system. Community leaders and groups should be leveraged by local and central governments, as well as take independent action to align messages and communications around COVID-19, identify and highlight trusted sources, and reduce

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spread of conflicting information. In addition, communities may need to coordinate on equitable, conflict-reducing actions related to shared resources (e.g. water), as well as in the distribution of supplies, food, time for community-related tasks, and other support. Engaging communities in positive efforts for community wellbeing can serve as a tool for maintaining community cohesion, particularly when highlighting actions that can be taken to protect own members.

**Existing community-based efforts, such as community-driven development (CDD) programs, self-help groups, and other community-level infrastructure** can be leveraged to deliver services and information, as well as collect feedback and data. For example, the Afghan government is utilizing facilitators from its national CDD project to communicate about the virus, and in India, self-help groups have been mobilized around COVID-19 response. Leaders such as church and local government authorities and community volunteers and facilitators could be channels to mobilize communities and share information not only on the virus, but also on programs and services; they can also channel feedback and information to authorities. Additionally, crowdsourcing information to solve health problems can help in diagnostics and surveillance.³

**Focusing on social cohesion will help strengthen desirable social norms around new behaviors, and can also combat fragmentation and support services and benefits distribution.** Public campaigns, which are one of the main information tools around COVID-19, should be designed based on context and content. Communications may cover social unacceptability of undesirable behaviors, encouragement to develop action plans, showcasing of positive behaviors (e.g. positive ways in which communities or societies are acting), or messaging on altruistic behaviors (e.g. volunteering or donating in the public interest) to be followed. These campaigns will gain effectiveness when they clearly identify community and group membership with positive aspects of the desired action change, utilize strong visual cues when feasible, and provide up-to-date information.⁶ They could also be combined with formally developed policies to enforce new norms and improve coordination.⁷ Using communities to support targeting of benefits and services, by mobilizing community cohesion, can aid with allocations of the government support to those more in needs or add vulnerability variables and insights from the communities.

**Households (parents, caregivers, and children)**

**Households’ main efforts of complying with recommended behaviors should be aided by clear and directed communications and tools.** Recommendations for new behaviors for all household members are comprehensive (e.g. increased and adequate hand washing, social distancing, home-schooling, nutrition, early childhood development-focused activities, and access and use of education and health services in a new format or under new requirements). With regards to preventative behaviors, intervention

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³ For example, a mobile surveillance app was utilized in Sri Lanka (with usage increasing slowly but with positive feedback) to help track potential dengue outbreaks and provide targeted alerts and information. (Source: Wazny, K. (2018). Applications of crowdsourcing in health: an overview. *Journal of global health, 8*(1).)


effectiveness will be aided by adequate communications (clear, directed, simple and purposive). It is critical to communicate the gains from regular engagement in preventative behaviors such as handwashing and maintain nutrition standards and practices. Aside from communication efforts directed to households, the creation of spaces for individuals to act with agency in areas under their control can generate ownership. For example, they could interact with feedback systems, or engage in social recognition tools such as video or photo competitions in multimedia platforms, where the emphasis on pro-sociality and sustained action by individuals is highlighted and potentially incentivized. Social and behavior change and public awareness communications campaigns on COVID-19 and its implications need also to ensure that all household members, including children, are targeted so that intra-household accountability increases.

**Similar principles apply for supporting parents, caregivers, and children in adopting new roles and re-formulation of programs.** User interface of learning platforms, application processes and forms to receive social assistance, food support or others, should be designed with intuition and simplicity in mind. If feasible, there should be hands-on support for some groups of the population that might not be able to rely on internet or other tools (via text or voice messaging, assisted voice systems, or other personal communication tools). All household members must be provided with information that is clear, directed, and actionable. In addition, for difficult tasks or adoption of programs or policies, small financial or in-kind incentives or vouchers could be awarded to close the intention to action gap.

**Children should also be included as actors and encouraged and supported to maintain connections with education systems to help protect their human capital.** Relevant activities include maintaining engagement in the face of non-traditional learning and interruptions to attention. Setting up regular routines can aid to reduce mental health impacts (anxiety, learned helplessness, hassle, apathy). In order to increase engagement with education at home, lessons on self-regulation strategies such as goal setting and planning, and psychosocial support can help to keep engagement and motivation. In addition, timely reminders can help students keep in mind important deadlines and milestones.

**In sum, one of the tools to support human capital development in the face of the COVID-19 pandemic is the use of behavioral sciences in the development of programs, policies, communications. By understanding the contextual needs and behavioral impacts of the crisis, and utilizing behavioral approaches, policymakers and teams can support the health and educational needs of individuals.**

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*For more information on this topic, please see the World Bank Group Policy Response to COVID-19, and the Human Development-led presentation on Protecting Human Capital During Pandemics.*

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8 For example, a contest for sharing isolation activities was conducted on social media in Italy. On communication principles, see Yoeli, E., & Rand, D. G. (2020, April 17). A checklist for prosocial messaging campaigns such as COVID-19 prevention appeals. https://doi.org/10.31234/osf.io/rg2x9

A public health crisis is expected to impact human capital, particularly in countries with low resilience and development; this shock lead to economic burden for those without access to childcare, food, and consistent educational/health systems, and who face rising prices, loss of income, school closures, and unexpected medical costs.
Annex 2: Behavioral biases and key takeaways for interventions during COVID-19

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<thead>
<tr>
<th>How biases impact decision-making</th>
<th>Examples of relevant biases</th>
<th>Potential high-level behavioral approaches</th>
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<tr>
<td><strong>Interpretation of information:</strong> Cognitive processes that impact the ability to acquire and interpret new information can be of heightened importance due to the need to quickly change knowledge and behavior in response to the pandemic.</td>
<td><strong>Availability bias:</strong> Continued exposure to negative news could lead people to give more weight to this negative information. <strong>Over/underestimation of small probabilities:</strong> People may misunderstand the magnitudes of small probabilities, leading to poor decision-making.</td>
<td>Use rapid assessments to determine key behaviors that are impacted by cognitive biases. Modify interventions in order to account for these and ensure continuous monitoring and evaluation on the behavioral responses throughout the short- and medium-term.</td>
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<td><strong>Cognition and decision-making:</strong> In a fast-changing and complex decision environment, cognitive biases can impact decisions directly related to the pandemic and also unrelated decisions that may be impaired.</td>
<td><strong>Limited attention:</strong> People may suffer from information overload if the messages or instructions they receive are vague or differing and may not have sufficient attention to devote to optimal decision-making so may rely on heuristics for important decisions. <strong>Mental health:</strong> An important health outcome in its own right, worsened mental health (including stress, depression, anxiety, or other disorders) can further impact individuals by impairing their focus and decision-making.</td>
<td>Determine key preliminary behaviors and impacts from the pandemic that are impacted by cognitive biases and leverage behavioral insights to modify interventions in order to maximize usage and impact. Develop communications strategies with attention to framing, reducing cognitive load, and considering behavioral responses when choosing to whom, when, and how to communicate information.</td>
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<td><strong>Social norms and social networks:</strong> Behaviors are likely to be influenced by perceived (pre-existing or new) moral, social, and gender norms. The management of the pandemic and associated distress can heighten the role of social networks in polarizing responses.</td>
<td><strong>Social norms:</strong> Norms determine socially acceptable/desirable behavior and are of heightened importance during a crisis where compliance with health recommendations is critical. <strong>In-group/out-group bias:</strong> Threats heighten identification with one’s “in-group.” Distress, political polarization, and misinformation may lead to lower social trust and further exclude those perceived to be the out-group.</td>
<td>Use rapid assessments to determine key actors and norms that may interact with human capital development in the face of the pandemic. Develop communications strategies that leverage social norms and use social networks to increase social cohesion.</td>
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