

# Digital Technology in Social Assistance Transfers for COVID-19 Relief: Lessons from Selected Cases

**Alan Gelb and Anit Mukherjee**

## Abstract

Many countries have launched unprecedented relief packages to cushion the economic and social impact of the COVID-19 pandemic. This short review considers some initial lessons emerging from selected countries around the use of digital technology to implement these government-to-people (G2P) social transfer programs. Information is still limited on how well the programs have functioned; in particular, there is a dearth of rapid demand-side survey evidence on the experience of beneficiaries receiving transfers and the likely magnitudes of inclusion and exclusion errors. Nevertheless, the emerging picture provides some indications of how investments in digital systems and their deployment along the social transfer value chain have been facilitating the response. Lessons from the COVID-19-related scale-up of social assistance can be harnessed by developing countries to rethink and strengthen the architecture of social protection systems in the future.

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**Digital Technology in Social Assistance Transfers for COVID-19  
Relief: Lessons from Selected Cases**

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We thank Robert Palacios and Charles Kenny for helpful comments on previous drafts.

The Center for Global Development is grateful for contributions from the Bill & Melinda Gates Foundation in support of this work.

Alan Gelb and Anit Mukherjee, 2020. "Digital Technology in Social Assistance Transfers for COVID-19 Relief: Lessons from Selected Cases." CGD Policy Paper 181. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/digital-technology-social-assistance-transfers-covid-19-relief-lessons-selected-cases>

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## I. Introduction

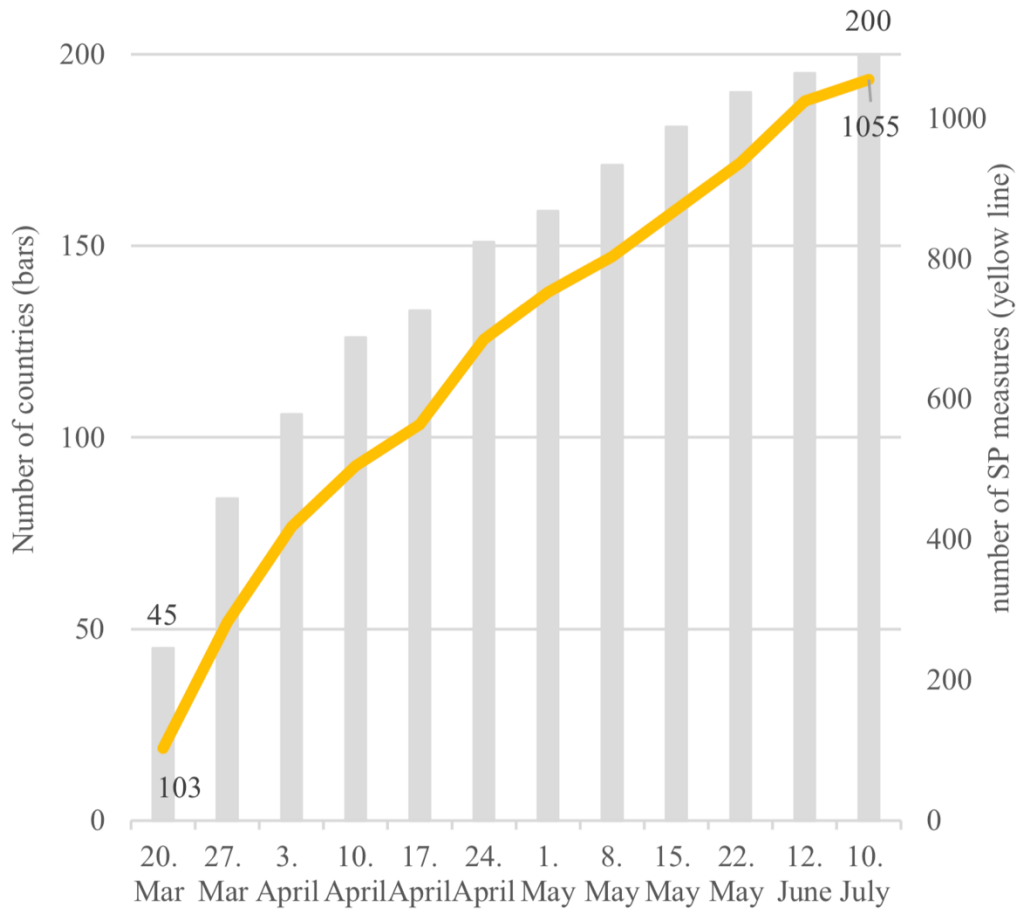
As the COVID-19 pandemic continues to extract a toll on lives and livelihoods, many countries have launched unprecedented relief packages to cushion the impact on their people. By July 2020, 200 countries and territories had either implemented or announced social protection measures reaching over 1 billion people, ten times the number in March when countries began announcing measures to respond to the threat of the pandemic (Figure 1).<sup>1</sup> In scale and scope, the global response has been nothing short of extraordinary, even if, as in most cases, it has not been possible to do more than provide limited support. The question is how effectively, efficiently and equitably the programs have been implemented, and how sustainable they will be considering the heavy toll of the pandemic on developing economies.

The majority of these programs in developing countries are in the form of social assistance—conditional and unconditional transfers, child support grants and social pensions—broadly termed Government-to-People or G2P payments. Especially with the constraints on in-person interactions due to the nature of the pandemic, many countries have followed a ‘digital first’ approach, sometimes with alternative arrangements for populations who are either out of reach of digital systems or unable to work with them. The earliest measures have now been implemented for over three months and some initial evidence from a few countries is starting to emerge on how they are performing on the ground.

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<sup>1</sup> For updated information on social protection programs initiated see <https://openknowledge.worldbank.org/handle/10986/33635>

**Figure 1. Social protection responses to COVID-19**



Source: <https://openknowledge.worldbank.org/handle/10986/33635>

In this paper, we do not provide detailed information on the individual programs, the measures taken and their coverage. This is being done by others far more comprehensively than we can hope to do.<sup>2</sup> **The focus here is more specific: to consider some of the early lessons around the use of digital technology for COVID-19 related G2P transfers.** We draw on a number of programs, including in India, Pakistan, South Africa, Namibia, Togo, Brazil and Columbia, and organize the analysis along the stages of the “**social assistance value chain.**” The programs are drawn on selectively, to illustrate the use of technology at particular points in the

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<sup>2</sup> For information on social response measures taken in response to COVID-19 and their features across countries see Gentilini et.al. 2020, Palacios 2020 and Beazley, Durban and Barca 2020, as well as the country cases available at <https://www.worldbank.org/en/programs/g2px> and other material available at <https://www.g2p-network.org/>

value chain—for example, soliciting and managing applications for assistance, screening applicants, or using digital wallets to make payments to beneficiaries.

While official disbursement data provides some indication of how quickly the programs have been able to respond, there is a dearth of rapid demand-side survey evidence on the experience of beneficiaries and the likely magnitudes of inclusion and exclusion errors. Nevertheless, the early picture, including information from anecdotal reports, provides some indications of how countries' investments in digital infrastructure and their use of digital systems have contributed to shape their response to the COVID-19 pandemic.

## **II. Role of Digital Infrastructure: ID, Mobiles, Payments, and Data Integration**

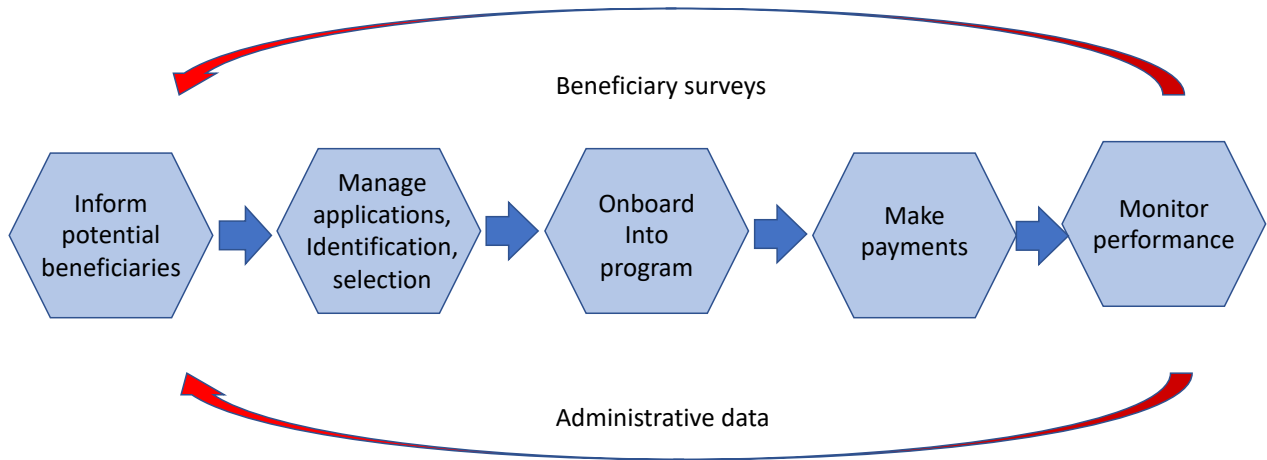
The potential role of digital in social protection extends through the entire value chain of activities associated with G2P programs and payments: (i) informing potential beneficiaries about programs, (ii) onboarding them (in cases where they are not already included in existing programs), (iii) identifying them, (iv) screening them for eligibility, (v) making payments, and (vi) following up to resolve problems and grievances (Figure 2). Digital ID systems, mobile communications, and digital payment systems comprise three important building blocks in the value chain; together, they enable governments to identify potential beneficiaries, communicate with them, and transfer funds electronically. This **'digital trinity'** is sometimes referred to as the JAM, a name coined in India but useful in thinking about other countries as well.<sup>3</sup>

The other critical way in which technology has been shaping the COVID-19 response has been through the management of beneficiary registers (and other relevant databases) and the ability to communicate between them to facilitate an integrated response. Data integration, between the digital trinity and individual programs and, also, between social program registers, and other relevant datasets, is the fourth dimension of digital infrastructure considered in this paper.

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<sup>3</sup> The terminology JAM (for Jan Dhan financial account, Aadhaar ID and mobile) was first proposed in the Indian Economic Survey, 2014-15. For a global picture of the JAM and its use, see Gelb, Mukherjee and Navis, 2020.

Figure 2. Social assistance value chain



### **ID, Mobile and Payment Systems as a Measure of Digital Capacity**

Prior to COVID-19, some countries had made sustained investments over many years in extending the basic digital infrastructure—creating nation-wide ID systems, facilitating the spread of mobile networks, and encouraging financial inclusion and digital payments systems, both general ones used for person-to-person (P2P) and commercial transactions, and particular systems for social transfers. In a number of developing countries, especially in Africa, mobile money had driven the adoption of digital payments, primarily through facilitating P2P remittances and payments. In some others such as India, with “bank-based” financial systems, mobile wallets and other facilities linked to bank accounts offered similar digital payment services.

But this transition was not complete. The “Citizens and States” report published by the Center for Global Development sets out a mixed picture, with uneven progress in the digital trinity across countries and regions (Figure 3) and large segments of digital exclusion. Low-income countries lagged in terms of access. In many countries, if you were poor, out of the workforce, with little education, and a woman, you were not likely to have a financial account. Exclusion was correlated across the three dimensions, in the sense that people lacking one component—say, an ID—were less likely to have access to the other two. Gender gaps in financial inclusion, and also in control over mobiles, were large in some countries, with Pakistan a notable example in both areas.

**Figure 3. Digital trinity components by region, 2017 (percent)**

World Bank Region*	Overall			Gender gap**		
	Has a national ID	Has a financial account	Owns a mobile phone	Has a national ID	Has a financial account	Owns a mobile phone
East Asia & Pacific	97.1	72.3	90.5	-0.3	5.9	2.8
Europe & Central Asia	96.4	65.3	90.8	-0.9	6.1	2.7
Latin America & Caribbean	94.7	54.4	78.7	0.0	6.5	2.6
Middle East & North Africa	93.0	35.2	82.6	3.1	19.0	14.5
South Asia	93.3	69.9	67.7	2.7	10.6	21.6
Sub-Saharan Africa	69.7	45.0	62.8	9.2	9.2	10.8

\* excluding high-income countries

\*\* calculated as percentage of men minus percentage of women

Source: Findex 2017 and <https://www.cgdev.org/publication/citizens-and-states-how-can-digital-id-and-payments-improve-state-capacity>

Cash still played a major role in transactions, especially smaller ones made by poor people. Commercial acceptance of digital payments has often lagged, especially among smaller merchants who face a chicken-and-egg problem: the incentive to invest in digital acceptance is less if there are not large masses of customers wanting to use it, as well as inter-operable payments arrangements. Acceptance had been identified as a critical problem in India, for example, a country which had made great strides in extending the JAM trinity across its population but where most payments to merchants were still made in cash.<sup>4</sup> China appears to be a notable exception, with the rise of Alipay and WeChat Pay propelling massive growth of ubiquitous card-less digital acceptance.<sup>5</sup>

## Digital Integration

Even when countries had moved towards putting in place the digital building blocks for individual G2P programs, their data registers were often not integrated to enable a coherent social protection response.<sup>6</sup> Some countries were advanced in this area. Brazil's social register, the *Cadastro Unico*, served multiple social programs and, like Pakistan's National Economic and Social Registry (NSER) covered a wider range of households than enrolled in existing programs. Some countries, such as Turkey, could link personal records across a wide

<sup>4</sup> Reserve Bank of India, 1919.

<sup>5</sup> For a description of China's distinctive digital payments system see Klein 2020.

<sup>6</sup> Barca and Chirchir 2020 provide a detailed picture of an integrated social protection system.



range of economic and social databases using the national ID number.<sup>7</sup> This could provide information to supplement or update the social register, helping to distinguish potential social beneficiaries along multiple criteria.

The degree of integration varied across countries, even those that had made large investments in digital infrastructure. Comparing South Asian countries, India was highly advanced in all three dimensions of the JAM, having moved, in 2013, to re-shape its subsidy system towards Direct Benefit Transfer (DBT) deposits into bank accounts.<sup>8</sup> But it maintained a diverse patchwork of programs and schemes, mostly implemented at state level, with separate registries and legal restrictions on data-sharing. The cooking-gas subsidy provided to poor households was the only program implemented at national level. Pakistan was less advanced than India on digital infrastructure coverage, particularly in terms of financial inclusion, but maintained a relatively integrated data system, with the NSER and a wide range of other databases all keyed into the national ID number. Bangladesh had achieved reasonably high ID and mobile coverage, and had seen considerable take-up of mobile money, but there was little data integration across a multitude of social programs.<sup>9</sup> By and large, in addition to scoring lower on digital ID, mobile and financial access coverage, low-income countries had lower levels of data integration.

These four dimensions of digital infrastructure—the digital trinity and data integration—can be considered as indicators of countries’ potential to respond rapidly and coherently to the crisis using digital mechanisms, channeling funds to affected people with minimal physical interaction and containing opportunities for multiple payments, fraud and diversion.

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<sup>7</sup> Palacios 2020 notes that Turkey is able to link records across as many as 28 databases using the national ID number.

<sup>8</sup> The DBT approach covers a wide range of benefit programs and schemes, including LPG subsidies, scholarships and pensions. In FY20.21, some 880 million transactions for 386 schemes <https://dbtbharat.gov.in/>

<sup>9</sup> <https://www.cgdev.org/blog/using-what-you-have-scale-payments-covid-response-early-indications-south-asia>

### **III. The Challenge of Delivering Social Assistance to the “New Poor”**

Prior to the COVID-19 pandemic, most countries maintained some combination of social insurance for formal-sector workers (sometimes a small group) and social protection systems covering the very poor. The latter sometimes covered a large part of the population, as in South Africa where almost one in three citizens benefited from a pension, disability payment or child support grant. This left out the middle, a vast number of vulnerable people not enrolled in existing programs but frequently depending on informal employment and often internal migrants. Many members of this “missing middle” were to emerge as “new poor” in the aftermath of COVID-19 shutdowns. Reaching this group has emerged as a central challenge for social protection.

On payments, many existing social programs, perhaps the majority, had moved away from directly handing out cash to some form of digital transfer, at least for beneficiaries who did not live in very remote areas. But fewer programs transferred funds through general-purpose bank or mobile money accounts that offered savings, payments and other financial services. With low levels of digital acceptance among merchants, most grants were simply cashed out, a process that would become more difficult during the COVID-19 lockdowns, creating further hardships for vulnerable populations.

To help cushion the impact of COVID-19, countries responded to the crisis in multiple ways. Some increased support to enrolled beneficiaries under existing programs. Thus, for example, South Africa increased child allowances, partly to offset the loss of school meals due to the shutdown and augmented its unemployment benefits.<sup>10</sup> India increased food rations delivered through its extensive Public Distribution System (PDS) and waived co-payments for subsidized LNG cooking gas provided to poor families through its Ujjwala program. Pakistan increased grants to poor women already enrolled in its Benazir Income Support Program.

Some countries expanded access to existing programs while others created new programs to plug protection gaps among the “missing middle”. Some countries followed a combination, expanding rolls on the basis of existing information (which was recognized as neither comprehensive nor always accurate in the conditions of the COVID-19 crisis) while soliciting new applications. National and sub-national governments have used a combination of these approaches, together with in-kind support such as food parcels and mobile kitchens.<sup>11</sup> A further initiative in some countries has been measures to reduce the use of physical cash by expanding the role of digital payments more generally, by raising transaction limits and reducing, or eliminating, charges.

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<sup>10</sup> Unemployment insurance would normally be classified as social insurance but South Africa’s COVID-19 modifications depart from insurance principles, shifting it towards social assistance. See <https://home.kpmg/xx/en/home/insights/2020/04/south-africa-government-and-institution-measures-in-response-to-covid.html>

<sup>11</sup> For a detailed overview of the multiple measures put in place by India’s states see MSC 2020.

The new emergency support programs for the “missing middle” that have been launched by many countries, including South Africa, Namibia, Togo, Columbia, Brazil and Pakistan, have sometimes been able to draw on integrated social registries that included a wider range of people than those already receiving benefits. This was the case for the Ehsaas program in Pakistan and emergency aid in Brazil. In other countries, such as South Africa and Namibia, they were not able to draw on such information and had to generate new beneficiary lists from scratch. The new programs were sometimes targeted to particular groups. India channeled payments to 200 million women holders of Jan Dhan bank accounts registered under the Aadhaar ID system, while Bangladesh announced a new program to provide wage support for workers in the garments sector who had lost their jobs. These are just some examples of countries trying different strategies to identify vulnerable populations at risk of falling into poverty due to the economic disruption caused by COVID-19—a challenge that would need to be addressed in a timely manner.

## **IV. Digital Technology Along the Social Assistance Value Chain—Emerging Lessons**

### **Investments in digital systems have played a critical role in scaling up programs and payments**

Digital systems have facilitated the processing and payment of millions of grants across many countries, on a scale that would not have been remotely feasible without them. Technology has been applied to all parts of the “user journey”, from initial identification and onboarding to selection and payments. Countries with stronger digital infrastructure, including ID and payment systems and social registers have generally been able to implement and disburse emergency assistance programs more rapidly than those without these assets (Palacios 2020). While most examples have been in middle-income countries, Togo offers an example of an “all-digital” emergency program in a low-income country.<sup>12</sup>

The facilitating role of digital systems should be emphasized, especially as much discussion centers on their limitations.<sup>13</sup> Undoubtedly, the stresses imposed by the COVID-19 crisis have revealed areas for improvement. They will encourage a further push towards digitization in general, and towards digitized and more integrated social protection programs in particular.

### **Backup processes are essential**

Innovative and flexible digital implementation can help to reduce the risk of digital exclusion. For example, recognizing that some individuals, or even families, might not have mobiles, Namibia permitted up to ten emergency relief applications to be submitted through

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<sup>12</sup> <https://qz.com/africa/1867044/togo-digitizes-social-welfare-with-mobile-cash-transfer-program/?fbclid=IwAR0r->

<sup>13</sup>For example, <https://www.thehindu.com/opinion/lead/getting-cash-transfers-out-of-a-jam/article31568674.ece>

a single SIM, with each application distinguished by its unique ID number.<sup>14</sup> Nevertheless, even in countries that have made major digital investments, backups are essential, whether to reach populations with less digital access or capacity, adjudicate claims and grievances, or deliver emergency relief as a complement to digital payments. Local bodies and NGOs have sometimes played vital roles in helping vulnerable individuals and groups who fall between the cracks in mainline systems.

Especially in the context of the COVID-19 pandemic, systems relying on in-person service have also faced severe challenges. They have often been constrained by social distancing requirements, while the delivery of in-kind relief has sometimes involved long waiting lines and has not always been free of allegations of fraud and corruption. South African social security offices, for example, were not able to process new benefit claims during the shutdown and have been operating at about one third normal levels after reopening, while questions have arisen over the integrity of food parcel distribution.<sup>15</sup>

No system is perfect—rather than being hailed as a complete solution, digital systems should be seen as a way to handle most claims quickly and efficiently, leaving scarce and costly human resources available to service the fewer remaining cases.

### **Digital campaigns can galvanize “active” beneficiaries**

Multi-media campaigns inviting applications for support can mobilize people and generate awareness. Namibia, South Africa, Brazil, Pakistan and Togo all invited digital applications for emergency relief, to be made through mobiles, WhatsApp or websites. All received very large volumes of applications in a short period, sometimes overwhelming channels. With a population of only 2.4 million, Namibia needed to verify almost 2.3 million applications resulting in some 970,000 unique individuals identified as candidates for further screening.<sup>16</sup> The picture was comparable in the other countries—South Africa received 13 million applications, out of which around 6 million were deemed to be valid; in Pakistan, the Ehsaas program received 146 million SMS requests for assistance, out of which the number of unique claimants was found to be 48 million. Some 1.4 million applications were received for Togo’s Novissi program, out of which almost 600,000, mostly women, would be approved.

Transferring funds to the accounts of “passive” beneficiaries saves these steps, as in the case of India’s transfers to 200 million female Jan Dhan account accounts. But active communications are still needed; especially if the accounts are dormant, some beneficiaries may not be aware that they have received transfers.

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<sup>14</sup> Namibia is one of the few countries in the world where SIM registration is not compulsory. The mobile number is therefore a means of transmitting information rather than a financial address as in the case of mobile money where the number links to an account.

<sup>15</sup> <https://www.groundup.org.za/article/get-inside-sassa-offices-you-must-sleep-outside-says-grant-applicant/>, and <https://www.news24.com/citypress/News/councillors-accused-of-looting-food-parcels-meant-for-the-poor-20200419>

<sup>16</sup> Dokovic et. al. 2020.

## Digital onboarding and screening can work—up to a point

In addition to digital onboarding, the new emergency programs have relied on digital screening to handle their very large numbers of applications. Beyond checking for uniqueness, South Africa, Namibia, Turkey, Pakistan and Brazil, among other countries, were able to screen applications against multiple criteria, using databases linked by the widely-held national ID number.<sup>17</sup> In addition to selecting additional beneficiaries from the *Cadastro Unico*, Brazil's public IT company Dataprev<sup>18</sup> cross-checked claims against some 20 constantly updated databases, including tax, social security, public employment, and Brazilians resident abroad. In Pakistan, applicants were checked against the NSER database and assigned a proxy-means-test poverty score, as well as reviewed against several other criteria, including tax records and public employment rolls.<sup>19</sup>

South Africa and Namibia did not have a similar nation-wide poverty survey to rank applications but were able to screen them against a number of criteria, including for uniqueness, tax and formal employment status (eligibility for unemployment compensation), as well as for existing coverage by social benefit programs.<sup>20</sup> In all of these cases screening was facilitated by a widely-held national ID. Togo did not have a strong national ID system but was fortunate to have conducted a recent voter registration. Its voter roll had the advantage of including occupation and place of residence, both targeting criteria for the Novissi program. Digital screening has played a critical role in reducing opportunities for diversion and corruption and containing the fiscal costs of new programs introduced and implemented under extreme time pressure, especially in countries with higher levels of data integration.

The examples also indicate some of the limitations of digital onboarding and concern that the most vulnerable can be excluded because of a “digital divide”. A sizeable minority of people will lack access to, or control over, mobile communications or the capacity to use them to apply for or to receive grants. In-person application at social security was strongly discouraged for South Africa's SRD grant, and although it was announced that volunteers would be sent into poor communities to help with applications it is not clear how effective this has been.

Gender inequities can sometimes be a particular concern for access. In normal conditions G2P programs have sometimes been designed to address gender gaps, to provide additional long term benefits by empowering women. However, the urgency of the COVID-19

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<sup>17</sup> For more information on country programs see Palacios 2020 and the country cases on the World Bank's G2PX website.

<sup>18</sup> Empresa de Tecnologia e Informações da Previdência

<sup>19</sup> Brazil's emergency program reached 66 million people; of these, 19 million beneficiaries had been enrolled under the Bolsa Familia program while 11 million more were identified through the Cadastro Unico. An additional 36 million had applied to the program (Assumcao 2020). Pakistan's Ehsaas program covered existing Benazir beneficiaries as well as others applying for the support and identified as poor by the NSER. <https://www.cgdev.org/blog/covid-19-pakistans-black-swan-event-digital-payments>

<sup>20</sup> Over several years prior to the COVID pandemic, Namibia had invested in a data exchange system along the lines of Estonia's X-Road model. Van Staden 2017.

responses can result in programs that fail to address the specific impacts of COVID-19 on women and girls.<sup>21</sup> In Pakistan, for example, access to mobiles tends to be limited for women and many use mobiles registered in the name of a male household member. This led to concerns that women who were not already covered by the Benazir program might have had difficulty in filing independently for an emergency grant (Bourgault and O'Donnell 2020). Early survey results provide some confirmation that this may have happened; in one report, 63% of men said they received increased government support compared to just 25% of women.<sup>22</sup>

Regarding digital screening, social registers, often depending on data collected some years previously, will not provide an accurate picture of current poverty status. In the present case, the problem is exacerbated by the economic dislocation caused by COVID-19. In Pakistan, it was decided that applicants within the two lowest ranges of NSER-based poverty scores could be rapidly approved for assistance but that those in the third lowest category needed to be referred to local union-level officials for further screening and priority classification.<sup>23</sup>

Screening against other reference data becomes more difficult when they are of low quality or when high demands on the capacity of the originating agency make it harder to rectify errors rapidly. Disbursement of South Africa's emergency grant was considerably delayed because of the difficulty in checking eligibility against the records of the unemployment insurance fund to exclude those eligible for benefits under their programs. In response to widespread complaints, efforts were made to improve the data; some 30 percent of processed applications that had initially been turned down were subsequently approved.<sup>24</sup>

Using digital systems for informing, on-boarding and screening beneficiaries therefore involves tradeoffs. High speed and low cost are certainly huge positives, as is the ability to implement such processes on a large scale in a pandemic setting without requiring close human interaction. The effectiveness of these approaches is increased if countries have made investments in high-quality, integrated data. But the examples also illustrate the tradeoffs. The reality of the digital divide means that special measures may be needed to ensure that women and poor and vulnerable groups have access to programs. And screening against inaccurate data risks significant delays and large errors, even if they can subsequently be rectified.

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<sup>21</sup> Zimmerman et.al. (2020)

<sup>22</sup> See <https://data.unwomen.org/resources/surveys-show-covid-19-has-gendered-effects-asia-and-pacific>

<sup>23</sup> <https://www.cgdev.org/blog/covid-19-pakistans-black-swan-event-digital-payments>

<sup>24</sup> See <https://www.africanews.com/2020/06/18/coronavirus-south-african-social-security-agency-sassa-declines-un-qualifying-coronavirus-covid-19-grant-applications/> and <https://www.itweb.co.za/content/KBpdg7pz6QbqLEew>

## **Digital payments systems have played a vital role despite some limitations**

Countries have used a variety of approaches to deliver scaled-up payments to beneficiaries—financial accounts (banks and mobile money), as well as digital vouchers, e-wallets and other mechanisms that do not offer a full range of financial services. Some have taken advantage of the crisis to expand financial access, including by using tiered KYC to facilitate the remote opening of bank and mobile money accounts. A review of six countries with such active onboarding programs found the potential for 60 million new accounts opened since the onset of COVID-19, approximately 4 percent of the global unbanked population (Glenbrook 2020). In some cases, remote opening had been permitted for the first time. Such regulatory streamlining and innovation can be a positive legacy of the COVID period.

Drawing on the infrastructure created for its DBT platform, almost all payments in India’s scaled up response have been made through bank accounts. These are also the main mechanism for social and emergency payments in South Africa, while some important programs in Bangladesh, notably education supplements paid to mothers, are now made through mobile money.<sup>25</sup> In all three countries, routing social payments through bank or mobile money accounts has spurred financial inclusion, at least in terms of the number of accounts. Togo’s Novissi program, which covered residents of three more urbanized “lockdown” areas, also engaged beneficiaries through a mobile money payment platform.

Other countries have not sought to channel emergency payments through financial accounts, either because they have been seen as one-off relief measures or because other payment methods were considered to require less set-up time. Namibia used e-wallets very successfully, with 98 percent of transfers cashed out within a short time period. Such flexible e-wallet systems could be of interest for many countries but, of course, they require a widespread bank, ATM or agent ecosystem for cashing out the vouchers.<sup>26</sup>

In Pakistan, social payments had previously been delivered through custom arrangements including biometric verification, though there has recently been a move to route them through multi-purpose accounts. With low financial inclusion, emergency payments to new Ehsaas beneficiaries have been delivered in cash at 17,000 dedicated payment points, also subject to biometric authentication. While the COVID-19 response has triggered innovations in G2P payments systems which have succeeded in getting funds rapidly to people, only some country responses provide an impetus towards a sustainable digital payments system for the longer term.

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<sup>25</sup> <https://www.cgdev.org/publication/primary-education-stipends-bangladesh-do-mothers-prefer-digital-payments-over-cash>

<sup>26</sup> Banks in Southern Africa had developed the e-wallet system to be accessible by people both with and without bank accounts—funds can be sent to any mobile device for cash-out at ATMs and selected commercial establishments. An additional advantage of the system in Namibia was that charges were paid by the originator of the wallet, rather than the recipient, simplifying the cash-out process. The banks waived charges to the government, absorbing the costs under their corporate social responsibility programs. <https://www.fnbnamibia.com.na/eWallet/index.html>

The main limitation of digital payments for COVID relief is the same as before the pandemic—a high propensity to cash out benefits immediately. With increased payment volumes, this has resulted in crowding at many pay-points, increasing the risk of contagion. Relative to the option of cash handouts from a limited number of public pay-points the flexibility of cash-out arrangements for financial instruments probably results in less crowding and congestion as well as more space to manage liquidity. In Namibia, for example, the transfer of e-wallets was broken into batches to reduce crowding, so that beneficiaries would not all receive their notification at the same time. This also gave banks the ability to top up their ATMs several times each day. Other countries such as Peru and India allowed phased cash withdrawal based on ID and bank account numbers, thereby reducing overcrowding at payment points reportedly with limited success.<sup>27</sup>

A second limitation, in some cases, has been the capacity of digital systems to handle large, sudden, increases in the number and value of payments. This was reported as a problem in India, for example, with a sharp surge in transfers resulting in high rates of failures of cash-out attempts through business correspondents using the Aadhaar-Enabled Payments System (AEPS).<sup>28</sup> It was not clear whether these reflected failures for individual attempts as opposed to actual payment failures (which could be lower) and whether they were being driven by authentication failures, network limitations or inadequate incentives for banks and mobile business correspondents to process transactions. Recent large-scale survey evidence provides some useful insights.<sup>29</sup> On the one hand, cash-out failure rates were found to be moderate, around 11-12 percent, and not too different across banks, ATMs and correspondents. On the other, many households had been slow to cash-out, citing concerns over health and crowded pay-points, while some who had cashed-out found difficulties in purchasing essential goods because of economic disruption. These impediments appear to have been more problematic than the cash-out failures themselves. Reflecting the principle that no system is perfect, households in India have been fortunate in being able to access both cash transfers and in-kind support through the ration system. The survey found that only 1 percent of poor urban households and 4 percent of poor urban households were not covered by one or other of these approaches.

### **Lower transactions charges spur digital payments but may not be sustainable after the COVID-19 emergency**

Several countries have initiated emergency measures to encourage less use of physical cash during the pandemic. On March 19, Rwanda implemented a sweeping cut in fees for digital payments, mandating zero charges on a wide range of transactions and a tripling of the limit on the value of mobile wallet transfers. Within a short time digital transactions had risen to

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<sup>27</sup> <https://economictimes.indiatimes.com/news/economy/policy/finance-ministry-urges-jan-dhan-beneficiaries-to-follow-schedule-for-withdrawal-avoid-rush-to-banks/articleshow/74967572.cms>

<sup>28</sup> <https://www.bloombergquint.com/business/glitches-in-aadhaar-enabled-payment-system-amplified-as-transactions-surge>

<sup>29</sup> Swetha et al 2020. The survey, by Dalberg, covered 47,000 households across 15 states in two rounds. <https://impactsofcovid.in/>



450 percent of their previous values.<sup>30</sup> In Kenya, too, lower fees on mobile money transactions were followed by soaring digital payments which increased from 44 percent to 61 percent of financial transactions in the first two months of the crisis.<sup>31</sup> These cases suggest that measures taken during the COVID-19 crisis can accelerate the transition from cash to digital payments, but it may be difficult to sustain such reductions in fees on a purely commercial basis over the longer run.

### **Communication is central, even when scaling up existing programs**

By and large, scale-ups through existing systems have proceeded relatively smoothly. They can take advantage of established beneficiary lists, awareness among beneficiaries, and payment rails laid down over many years. Even then, examples show some of the difficulties that can accompany scaling up, in addition to the possibly limited capacity of the payments system. Even if well-intentioned, rapid changes in cash-out arrangements can cause confusion—particularly in the context of strict COVID-19 lockdowns. In South Africa, confusion ensued over the scaling up of the child support grant, when the supplement shifted between payments per child and payments per provider. Measures to separate out pension payments to reduce exposure of the elderly to crowded pay-points backfired when there were errors in restructuring beneficiary rolls and confusion in advancing the opening of certain pay-points.<sup>32</sup> Clear, simple, communications are essential.

### **Integration facilitates a coherent response—but raises concerns around data privacy**

With highly integrated social benefit systems linkable to other databases through the national ID, countries like Pakistan, South Africa and Brazil have been able to implement a coordinated response to reach a large number of people, screening for unique beneficiaries and to ensure that beneficiaries are not receiving support from multiple programs. India offers a notable example of a highly digitized social protection system but one that is far less integrated.

As noted previously, India’s extensive and overlapping system of benefits offers high coverage across its poor population. And, with the Aadhaar entrenched as the ID system serving all social benefit programs, it can ensure that the beneficiaries for any one program are unique. But, because of legal restrictions on sharing databases, it cannot check, for example, that a woman receiving an emergency COVID-19 payment into a Jan Dhan bank account is not also receiving other additional benefits or even that she is actually poor. This

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<sup>30</sup> Carboni and Bester 2020.

<sup>31</sup> <https://citizentv.co.ke/business/mobile-money-transactions-soar-9-4pc-covid-19-emergency-measures-333402/and https://www.youtube.com/watch?v=iauQkjb1YLQ>

<sup>32</sup> <https://www.corona-older.com/post/unintended-consequences-of-changes-to-pension-delivery-amidst-covid19-the-case-of-south-africa>

has led to criticism that, even with a very large number of payment beneficiaries, many poor women might not be covered by this emergency program.<sup>33</sup>

Another limitation revealed by India's disconnected COVID-19 response is lack of portability. The residence-based nature of its state-implemented programs has opened up major gaps in support, particularly for internal migrants. In Bihar state of northern India, the government announced a grant for returning migrants provided that they produced a local bank account as proof of state residency. As a result, those who had opened bank accounts outside the state became ineligible for the transfer, even though they might have fulfilled other core criteria of the program.<sup>34</sup>

These examples point to a tension between the short-run imperatives of the COVID-19 response and longer-run concerns around privacy and data protection. From the short-run perspective, the ideal is a highly integrated national system with existing and new programs able to seamlessly onboard applicants for assistance and to allocate resources efficiently among them. While a conventional, survey-based national social and economic register can facilitate this, "static" data collected periodically rapidly becomes outdated, and it also may not reflect the disruption from the pandemic. This increases the importance of also being able to screen against a wide range of dynamic "lifestyle" data, a process facilitated by high coverage of a central ID system and the use of a common number (or possibly tokenized versions) across all personal records.<sup>35</sup> As in Namibia, those applying for relief may be required to consent to the use of a wide range of personal data to cross-check their applications. In such cases, informed consent is provided, at least in a formal sense, but at the same time potential beneficiaries desperate for support may have little option to refuse.

While the issues raised by dynamic screening go beyond the COVID-19 response, it will be important to ensure that such emergency responses do not undermine measures to preserve data privacy in the longer run. In Namibia, for example, special provisions were needed to permit data-sharing, pending the implementation of a general framework for data privacy.<sup>36</sup> The tension will only increase over time as an expanding digital footprint for citizens increases the ability of governments to draw on a wide range of data, potentially extending to real-time monitoring of activities such as mobile phone use patterns.

## V. Conclusion

Digital mechanisms have played a central role in the massive expansion of social transfers in the wake of the COVID-19 pandemic. Experience to date has revealed the importance of investments in ID systems, mobile networks and financial inclusion, as well as in data systems, in facilitating the response. Our review of country examples show strengths and

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<sup>33</sup> See <https://egc.yale.edu/sites/default/files/COVID%20Brief.pdf>

<sup>34</sup> <https://scroll.in/article/963164/bihars-promise-of-rs-1000-aid-is-little-solace-to-millions-of-returning-migrant-workers>

<sup>35</sup> Palacios 2020 discusses the growing potential for "dynamic" screening using a wide range of data sources, including on mobile phone use.

<sup>36</sup> Dokovic et.al. 2020.

limitations and point to areas where delivery mechanisms can be improved and made more sustainable for the longer-term.

Even with digital building blocks in place, countries have needed to innovate to inform, identify, register and pay those affected by the pandemic. Some have used the crisis to expand access to financial accounts; others have supplemented existing data on social beneficiaries by cross-referencing a wide range of information. Registering and screening beneficiaries through cross-referencing administrative databases (ID, tax, financial transactions, the use of mobile phones to communicate, offering more flexible payment mechanisms including online opening of basic bank or mobile money accounts and digital wallets without SIM registration, and waiving cash-out fees have all contributed to a massive expansion of G2P systems globally.

The COVID-19 period will undoubtedly spur further use of digital mechanisms to deliver of social protection. Our review suggests that an important objective for policymakers in the post-COVID period will be to build on the capabilities developed during the crisis to strengthen sustainable social protection and payment systems that are both inclusive and effective, addressing the challenges faced especially by women who are often digitally disadvantaged. It also provides an opportunity for countries to lock in the gains in identification and coverage of beneficiaries, replacing the one-off type of assistance to the “new poor” and the “missing middle” by something more continuous and permanent, as in South Africa where the emergency grant is now proposed to be succeeded by a universal basic income grant.<sup>37</sup> At the same time, countries will need to address the challenge to data protection and privacy posed by more extensive and integrated data systems. There is a need to rethink the social protection architecture altogether and the lessons from the COVID response provides a good starting point.

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<sup>37</sup> <https://af.reuters.com/article/southAfricaNews/idAFL5N2EK4Z4>

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