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LANDSCAPE ANALYSIS
TRACKING THE FIRST- AND SECOND-ORDER IMPACTS OF COVID-19

CONTEXT

The COVID-19 pandemic, as well as the global response, continued to evolve in 2021 -- from the rollout of COVID-19 vaccinations globally to the rise in cases due to the Delta variant and the emergence of the Omicron variant at the end of 2021. Building on previous landscape analyses, the U.S. Agency for International Development (USAID) continues to assess the first- and second-order impacts of COVID-19 on low- and middle-income countries. The pandemic’s impacts have been widespread across development sectors and regions, and threaten to setback decades of progress. Weakened health systems, ballooning debt, lost educational opportunities, and the first increase in extreme poverty in decades are just some signs of the public health crisis’ rippling disruptions across the globe.

This analysis is organized around eight categories of impacts: health; vaccine distribution and administration; macro- and microeconomic trends; migration and remittances; pressures on governance, democracy, and stability; food security; and education. This analysis is not exhaustive, but instead intends to provide a high-level synthesis of some of the major storylines of 2021, leveraging the best available data to understand the pandemic’s most significant global impacts.

The data used in this analysis are derived from a range of public sources, including real time, daily updates on caseloads and second-order impacts, modeled forecasts, quantitative estimates of underlying risks and vulnerabilities, high-frequency phone surveys of households, and qualitative research and reports from third-party institutions.

If you have any questions about this analysis, please contact covidanalytics@usaid.gov.

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The emergence of contagious variants continues to extend the pandemic, with the Delta variant dominating caseloads in the latter half of 2021 followed by the highly contagious Omicron variant in late 2021. Since April 1, 2021, 180 million cases and 2.6 million deaths have been reported across 192 countries and territories, accounting for 58 percent of COVID-19 cases to date. However, limited surveillance and diagnostics makes it difficult to understand the true magnitude of the pandemic, particularly in low- and middle-income countries where both cases and deaths are suspected to be much higher than reported. The long-lasting effects of the pandemic have reversed public health gains, as some routine childhood immunizations saw their first decline in coverage in years.

Supply gaps in 2021 have impeded equitable vaccination coverage, and barriers to delivery will need to be addressed to meet global vaccination targets in 2022. While 9.5 billion doses have been administered globally, upper middle-income and high-income countries have led vaccine progress, fully vaccinating 73 percent and 71 percent of their populations compared to 4.5 percent for low-income countries. Given current increases in global vaccine supply, ensuring low- and lower middle-income countries are able to achieve vaccination targets will require global coordination to address country readiness and boost vaccine access and ultimately, vaccinations.

Economic recovery has been swift, but uneven and fragile. While the global economy is estimated to grow by nearly 6 percent in 2021, recovery has been uneven, with varying access to vaccines and economic policy support primarily driving the divergence. The income gap between countries is expected to diverge for the first time in nearly 30 years. Changing consumer behaviors and the surge in demand for goods beginning in late 2020 have placed unprecedented pressure on global supply chains and have contributed to increasing inflation. Rising debt and restricted investment have placed significant pressure on developing countries’ financial positions, with external public debt for 73 of the poorest countries globally increasing by 12 percent in 2020, reaching their highest levels in a decade. Low-income, small island, landlocked, and other structurally weak economies are particularly vulnerable moving forward.

There has been a precipitous drop in income and corresponding rise in extreme poverty, despite country governments from almost all regions and income groups having enacted a range of social protection measures since the start of the pandemic. The latest World Bank estimates suggest there are 97 million more people living in extreme poverty due to the pandemic. Migrants experiencing income losses also face an array of other interrelated, COVID-induced challenges, including higher risk of infection, inability to access basic services, and in some countries, inability to access COVID-19 vaccines.

Democratic violations have become less frequent and severe throughout the pandemic, but improvements have not been consistent across regions or income groups. In 2021, democratic violations increased slightly among low- and middle-income countries in Asia and the Middle East and North Africa. Measures of democratic backsliding suggest new and emerging democracies face the highest risk of backsliding due to the pandemic.

COVID-19 continues to exacerbate economic drivers of food insecurity, with global food prices climbing throughout most of 2021. The pandemic likely contributed to food insecurity through economic shocks, including COVID-19, though other drivers of food insecurity such as conflict and climate induced extreme weather events are also relevant. Nearly 20 million more people are estimated to be acutely food insecure in 2020 than in 2019. An additional 9.3 million children were wasted in 2020, and 2.6 million more children are expected to be stunted by 2022.

Education disruption has been more severe in the developing world than among high-income countries. The share of primary-aged children who are out-of-school or below minimum proficiency levels is expected to increase in low- and middle-income countries, and education disruptions are exacerbating pre-existing educational inequities. Long-term economic output could be hampered by pandemic-induced learning loss, with the World Bank estimating lifetime earnings could fall by as much as $17 trillion for this generation of students.
Asia and Latin America and the Caribbean continue to carry the cumulative burden of reported COVID-19 cases and deaths in the developing world

As of January 10, 2022, more than 310 million cases and 5.4 million deaths due to COVID-19 have been reported in 192 countries and territories. Fifty-one percent of these reported cases, and sixty-four percent of reported deaths, have been in low- and middle-income countries. However, insufficient testing and high case positivity rates could mean the true magnitude of COVID-19 is much larger worldwide and especially in low- and middle-income countries. Among countries with testing data, the aggregate testing rate per 1,000 population for high-income countries is 5.9 times the rate for all other countries, and 57.5 times the rate for low-income countries. The Economist estimates that the true number of deaths caused by COVID-19 could be more than 19 million since the beginning of the pandemic, more than 14 million in excess of those reported, most of which are concentrated in developing countries. These “excess” deaths include those directly caused by the virus, or those that could have indirectly occurred due to reduced access to healthcare. Based on available data from countries reporting sex-disaggregated cases and deaths, men are 30 percent more likely to die from COVID-19, despite COVID-19 infections being equally likely among men and women.

Among low- and middle-income countries, the highest overall reported burden of COVID-19 cases to date has been in Asia, largely driven by India, which accounts for 60 percent of all cases in Asia, and 12 percent of all cases globally. Compared to other USAID regions, Latin America and the Caribbean (LAC) has reported the second highest overall number of cases and the most confirmed COVID-19 deaths. Brazil, which makes up 38 percent of LAC’s population, accounts for 46 percent of cases and 40 percent of deaths in the region to date. When cases were declining or stagnant in most regions, Europe and Eurasia (E&E) experienced a surge in cases in October 2021, comprising 59 percent of all daily cases in low- and middle-income countries by the end of the month. After experiencing a subsequent gradual decline in cases, E&E is experiencing another increase, with daily cases almost doubling from late December 2021 to mid-January 2022, likely due to the emergence of the Omicron variant. Meanwhile, the relatively lower reported burden of cases and deaths in Sub-Saharan Africa (SSA) likely reflects poor quality of testing and reporting systems, and may also be a function of the demographic age structure of the region and variations in connectivity to urban centers. These differential trends and impacts across regions will continue to evolve alongside the virus itself.
Variants of concern are key drivers for pandemic waves in 2021 and 2022

The Delta variant – first identified by the World Health Organization (WHO) in October 2020 and classified as a variant of concern in May 2021 – created a surge in caseloads globally for most of 2021, including India’s outbreak in the spring. In the latter half of 2021, the Delta variant had higher infection rates than original strains of the SARS-CoV2 virus, representing the majority of cases in more countries than any prior variant of concern. These numbers were quickly surpassed by the emergence of the Omicron variant, detected in November 2021, and currently accounts for the majority of sequenced cases globally. As of early January 2022, the Omicron variant was detected in 62.4 percent of all cases sequenced among the 30 countries reporting sequencing data. Meanwhile, the Delta variant has plummeted from nearly 99 percent of sequenced cases in late 2021 to 37 percent of sequenced cases by early January.

The Omicron variant caused the most rapid surge in South Africa seen yet, despite SARS-CoV-2 antibodies present in up to 73 percent of the population, likely due to the variant’s greater infectiousness. This surge in caseload was accompanied by a rapid decline in cases, and a relatively lower case fatality rate was observed compared to previous variants. However, the magnitude of cases and rapid spread of the Omicron variant could still strain weaker health systems.

Deep-seated health system challenges exposed as pandemic reverses global public health gains

The pandemic has revealed several underlying weaknesses in the health systems of developing countries. According to a World Health Organization (WHO) national survey completed by 135 countries, 94 percent of countries reported disruptions to essential health services between October 2020 and February 2021, with lower middle-income countries reporting the highest levels of disruptions, on average. Essential care services were less sought out during the pandemic and resources were reallocated to support the COVID-19 response. For households without the internet or mobile phones, timely, accurate health information is more difficult to access during these service disruptions, especially for children in resource-poor communities.

According to the WHO survey, 48 percent of countries reported disruptions to primary care between October 2020 and February 2021, while 44 percent of countries reported disruptions to family planning and contraception services and 25 percent reported disruptions to facility-based births. Further, nearly half of countries reported disruptions to HIV testing services (49 percent) and HIV prevention services (46 percent). Following pandemic-related disruptions to malaria services, the estimated number of global malaria cases rose to 241 million in 2020, an increase of 14 million since 2019, with most increases coming from SSA. Of the 69,000 additional malaria deaths in 2020, approximately two-thirds were linked to disruptions in prevention, diagnosis, and treatment services. However, this estimated increase is significantly lower than worst-case projections by the WHO from April 2020, which initially projected that severe service disruption could result in a doubling of malaria deaths. And, for the first time in more than ten years, tuberculosis deaths increased in 2020, reversing years of global progress. To support countries in adapting essential health services, the WHO recently published a review of best practices for maintaining the provision of essential health services based on experiences during prior public health outbreaks.

Routine vaccination among children also dropped dramatically during the pandemic: up to 23 million children missed out on routine vaccinations in 2020, 3.7 million more children than in 2019. This drop in vaccinations was experienced across a majority of countries, with diphtheria tetanus toxoid and pertussis (DTP3) vaccine coverage dropping from 86 percent to 83 percent coverage globally, the first decline in DTP3 coverage since 2015. School closures have caused severe disruptions to immunization against human papillomavirus (HPV), which protects women against cervical cancer, resulting in 1.6 million girls missing out on HPV vaccines in 2020 and reversing a positive trend over the past decade. Fortunately, monthly vaccine coverage estimates suggest that the disruption was largely transitory, with most regions returning to normal levels following a steep drop in March and April of 2020.

Healthcare workers also suffered grueling conditions and abuse, in addition to their heightened risk of exposure to the virus. From February to December 2020, the International Committee of the Red Cross recorded 848 incidents of COVID-related acts of violence against health workers in 42 countries. These conditions could exacerbate the existing health workforce shortage; in a recent survey of National Nurses Associations (NNAs), 20 percent of NNAs reported an increased rate of attrition in 2020. Women, who make up 70 percent of social sector and healthcare workers worldwide, are more likely to be on the “front-line” as responders, and thus more likely to be exposed to the virus.
Mental health emerges as one of the most significant and pervasive second-order health impacts

Stress, anxiety, and depression have increased in 2020, driven in part by the fear and uncertainty surrounding the pandemic, strict response measures, and loss of jobs and income. This has disproportionately affected women: of an estimated 53 million additional cases of depression and 76 million additional cases of anxiety, roughly two-thirds were women. Most low- and middle-income countries were already ill-equipped to deal with mental health needs, and the pandemic and lockdowns have exacerbated pre-existing mental health conditions. According to a WHO survey between June and August 2020, at least 90 percent of low- and middle-income countries reported disruptions to mental, neurological, and substance use services; however, the United Nations Children’s Fund’s (UNICEF) Service Coverage Surveys indicate that service provision may be returning in 2021. In August 2020, 63 countries reported decreases in mental, psychosocial, or addiction services compared to August 2019. By April 2021, that had decreased to 37 countries, with 103 countries reporting either no change or an increase in mental health services. Due to prolonged school closures, mental health programs in schools remain the most severely disrupted category of psychosocial services, with 66 percent of countries reporting some degree of disruption as of March 2021.

Global vaccine rollout took off in 2021, though major challenges remain for ensuring equity

Vaccination rates have increased exponentially since COVID-19 vaccinations were first approved for emergency use by the WHO. As of January 10, 2022, 9.5 billion COVID-19 vaccine doses have been administered globally -- 59.2 percent of the global population have received at least one vaccine dose and 50 percent of the global population have been fully vaccinated. However, progress is largely being driven by upper middle-income and high-income countries, which have fully vaccinated 73 and 70.7 percent of their total populations, respectively. In contrast, low-income countries have fully vaccinated only 4.5 percent of their population.

To address the disparity in vaccine progress at the country level, the WHO, U.S., and others announced global targets to fully vaccinate 40 percent of the world by the end of 2021 and 70 percent by September 2022. Among the 130 countries that have fully vaccinated 40 percent or more of their populations, 55 percent are high-income countries while 22 percent are upper middle-income countries. And among countries that have fully vaccinated 70 percent of their populations, 77 percent are high-income countries. In contrast, 47 countries have not yet reached 20 percent fully vaccinated, 87 percent of which are low- and lower middle-income countries and the vast majority of which are in SSA. Sixteen countries have not yet reached 3 percent fully vaccinated, nearly all in SSA. There are substantial gaps in the availability of disaggregated data by priority risk group, age, and sex, limiting the ability of countries and donors to assess and respond to within-country inequities.
Supply risks are increasingly overshadowed by country readiness and delivery challenges

Despite the increasing availability of doses, many countries face key gaps and challenges to vaccine delivery and administration. Country readiness is now the binding constraint to ensuring equitable distribution of available vaccine supply in 2022. As of November 2021, 21 vaccines have been approved for use in countries across the world, while 132 vaccines are candidates undergoing clinical trials and 194 vaccines are in preclinical trials. Vaccine production capacity increased dramatically in 2021, and is expected to continue to increase throughout 2022. The estimated supply of vaccines distributed during the first half of 2021 was 5.6 billion doses, and 8.3 billion doses in the second half of the year. Approximately 4.22 billion doses of COVID-19 vaccinations were committed to 92 low- and middle-income countries as part of COVAX’s Advance Market Commitment (AMC92), with the largest donors being the United States followed by European donors and the United Kingdom. However, pledged doses have been slow to reach countries -- of the 4.22 billion doses pledged, only 979 million (23 percent) have been delivered as of January 10, 2022.

In addition to addressing the supply gap, successful delivery and vaccine uptake require countries to be ready to receive and administer COVID-19 vaccinations at an unprecedented scale and speed while managing complex supply chain requirements and logistics. In late 2020 prior to the launch of global vaccination efforts, the World Bank found that among 128 low- and middle-income countries, the majority of countries showed varying degrees of readiness for vaccinating their populations against COVID-19, and that prior success with other immunization campaigns were not a strong predictor of country readiness to deliver COVID-19 vaccines. WHO, UNICEF, Gavi, and partners established a country readiness workstream as part of COVAX to ensure uptake of vaccinations, providing guidance and technical assistance to support countries with optimizing vaccination programs. As a condition of receiving vaccine supply through COVAX, AMC92 countries have submitted COVID-19 National Development and Vaccination Plans (NDVP), which aim to support countries with developing national strategies for the deployment, implementation, and monitoring of COVID-19 vaccination efforts.

Vaccine delivery has been especially challenging in active conflict zones and humanitarian settings. Typically recipient governments will accept liability for vaccines delivered, but this is difficult in conflict areas or places with no official government to accept liability. Multilateral partnerships have developed approaches to limit legal liability for vaccine delivery in such settings to facilitate efforts to vaccinate vulnerable populations, such as migrants and asylum seekers.

Vaccine confidence is uneven globally and threatens to undermine global vaccination goals

For some countries with sufficient supply in-country, vaccine confidence is emerging as a key barrier to increasing vaccination rates. Supplementing vaccine confidence survey data from unvaccinated Facebook users in 108 countries with global vaccination rates shows that as vaccination rates increase, vaccine confidence (those who are vaccinated, have an appointment to get vaccinated, or would probably or definitely get a vaccine) has slightly increased. Vaccine confidence is far from uniform, however. While high quality data on vaccine hesitancy is limited and varies by USAID region, E&E has the lowest surveyed vaccine confidence rate among USAID regions. While the root causes of E&E’s low vaccine confidence are complex, government distrust and past vaccine experiences are reported as potential key contributing factors. There have been anecdotal reports of disinformation around COVID-19 vaccines, which raises concerns about vaccination progress given prior studies based on routine vaccination campaigns indicate that engaging on platforms where disinformation is common (social media) result in disbelief of vaccine safety.
COVID-19 is increasing income inequality, even as the global economy begins to rebound

The World Bank and International Monetary Fund (IMF) estimate that the global economy will grow by 5.6 or 5.9 percent, respectively, in 2021 -- a strong recovery following economic contractions in 2020 that ranged from a decrease of 9.3 percent in MENA to a decrease of 2 percent in SSA. This is, however, a slight decrease in projected growth relative to the IMF’s July 2021 estimates, reflecting the effects of supply disruptions (primarily affecting advanced economies) and growing concern around the slow rollout of vaccines in low-income countries. The World Bank is slightly more pessimistic than the IMF, projecting weaker growth in 2021 and 2022, both globally and for developing economies. Whereas output declined among all income groups, the gap between pre- and post-pandemic output projections in low-income countries continues to widen throughout 2021 and 2022. In South Asia and SSA, the pandemic’s effects on GDP have been far worse than during the 2008-2009 global financial crisis. Among USAID regions, MENA is expected to have the largest recovery (6 to 10 percent according to the World Bank and IMF, respectively) in 2021, whereas SSA's gains will be more moderate (2.7 to 3.5 percent, respectively). All regions are expected to experience growth in 2021; however, the projected pace of recovery may be insufficient to overcome the economic contraction of 2020 and substantial economic risks remain.

The pandemic continues to exacerbate global, cross-country income inequality. For the first time in nearly 30 years, the income gap between countries is expected to diverge. Compared to 2020, that divergence is even more severe in 2021, with the bottom 40 percent of the population losing 2.8 percentage points more income than the top 60 percent. Pre-pandemic inequalities have been magnified by differential access to COVID-19 vaccines. As advanced economies vaccinate a majority of their population and resume “normal” economic behaviors, the gulf between their economic prosperity and that of lower-income countries lagging behind on vaccinations may widen if lower-income countries remain locked in cycles of resurgent infections, constantly navigating the difficult trade-offs between lockdowns and resumption of economic activity. Economic fortunes between more and less developed economies are also diverging due to disparities in the sizes of COVID fiscal stimulus packages issued to date.

Swift recovery in global trade clouded by supply chain disruptions and inflationary concerns

Global trade rebounded swiftly in late 2020 into 2021, with world trade taking only four calendar quarters since the start of the pandemic-induced recession to return to pre-COVID levels, compared to nine quarters for the 2009 global financial crisis and 13 quarters for the 2015 recession. The IMF forecasts that total exports of goods and services from emerging and developing economies will expand by 11.6 percent in 2021, following a 5.2 percent contraction in 2020. However, the trade recovery has been uneven geographically, largely driven by strong export performance of East Asian economies. As of the first quarter of 2021, region-wide export levels remained below pre-pandemic levels in the Middle East, South Asia, Africa, and in Eastern European economies in transition. Trade in goods has shown greater resilience than trade in services, with exports still remaining subdued in mid-2021 across many services industries, including tourism, transport, and construction.

Changing consumer behaviors and the surge in demand for goods that began in the second half of 2020 and continued into 2021 have placed unprecedented pressure on global supply chains.
Associated trade activity encountered numerous pandemic-induced supply-side capacity constraints and logistical challenges, including misallocation and shortages of shipping containers, shortages of other transport sector equipment, less reliable services, continued COVID-19 restrictions across port regions, and congestion and longer delays at ports. Shortages of key inputs and reduced workforce capacity due to infections and pandemic restrictions have contributed to crippling supply chain bottlenecks.

The mismatch between surging demand and de facto reduced supply capacity has led to record container freight rates on nearly all container trade routes. The Shanghai Containerized Freight Index spot rate for the Shanghai-Europe trade route quadrupled from $1,000 per container unit in June 2020 to $4,000 per unit by late 2020 before nearly doubling again to $7,500 by November 2021. Persistently high maritime freight charges could exacerbate supply chain disruptions, significantly increase import and consumer prices, and ultimately undermine a recovery in global manufacturing. The U.N. Conference on Trade and Development (UNCTAD) estimates that escalating freight cost will result in global import price levels increasing by 11 percent, on average, and as high as 24 percent in small island developing states (SIDS). Least developed countries and SIDS, where consumption and production are highly dependent on maritime trade, are most vulnerable to increasing production costs and consumer price increases.

Supply shortages, alongside the release of pent-up demand and the rebound in commodity prices, have caused headline inflation rates to increase rapidly in recent months in the U.S., Germany, and some emerging market and developing economies. In some countries in SSA, the Middle East, and Central Asia, food prices have increased significantly amid local shortages and the rise in global food prices. If pandemic-induced supply-demand mismatches, elevated shipping costs, and price and inflation distortions persist or worsen, these pressures could have reverberant effects on the macroeconomic stability and growth outlooks for low- and middle-income countries with large external debt and financing needs.

**Recovery of the tourism sector will depend on vaccination rates**

Tourism is one of the world’s major economic sectors. It was the third-largest export category globally in 2019, and accounts for as much as 80 percent of exports in SIDS. International tourism arrivals fell by 74 percent in 2020, and seems to have fallen further in the first half of 2021, sinking to an average global decline of 80 percent compared to pre-pandemic levels. Asia and the Pacific suffered the heaviest setbacks from January to July 2021, with a 95 percent drop in international arrivals compared to the same period in 2019. The Middle East recorded the second largest decline (82 percent), followed by Europe and Africa (both declined by 77 percent). Travel restrictions, slow containment of COVID-19, and economic tightening may keep tourism rates below 2019 levels through 2024. UNCTAD estimates that in countries with high vaccination rates (greater than 50 percent), tourism may ultimately rebound and fall only 37 percent overall in 2021 (compared to 2019). In countries with lower vaccination rates, the tourism contraction is expected to be on par with that in 2020 (75 percent). Globally, this decrease in tourism has cost more than $4 trillion of global GDP in 2020 and 2021. These GDP losses have been felt most severely in Central America, East Africa, and Southeast Asia.

**Rising debt and restricted investment further constrain developing countries’ financial positions**

The total external debt burden of 73 of the poorest countries globally increased by 12 percent in 2020, more than twice the total growth rate for other low- and middle-income countries (4.6 percent). Net external public debt inflows to low-income countries rose 25 percent to $71 billion, the highest level in a decade. This 2020 debt spike has exacerbated already elevated pre-COVID-19 concerns related to debt sustainability in emerging and developing economies, which had already recorded a historically unprecedented accumulation of debt over the past decade and increasingly so on
non-concessional terms from private lenders and non-Paris Club members, with high associated borrowing costs. By September 2021, nearly half (29 countries) of the 65 lower-income countries with IMF Debt Sustainability Analysis (DSA) ratings were considered to be at high risk of external debt distress and another five countries were already in debt distress. In light of concerns that these increasingly indebted countries would be unable to effectively manage debts while responding to the pandemic, the World Bank and IMF established the Debt Service Suspension Initiative, allowing eligible countries to request a temporary suspension of debt service payments owed to official bilateral creditors. Since taking effect in May 2020, the initiative has delivered more than $5 billion in relief to more than 40 eligible countries.

The pandemic has also substantially impacted foreign direct investment (FDI), with impacts in the developing world generally stiffest among economies with substantial global value chain-, tourism-, and resource-based activities. FDI flows to developing and transition economies fell by 12 percent to $667 billion in 2020, far lower than the 61 percent decline seen among developed economies. However, when excluding India, China, and Hong Kong, FDI to other developing economies declined by 31 percent. Eurasian transition economies suffered the stillest decline (58 percent), followed by LAC (46 percent), and Oceania (44 percent). FDI flows to structurally weak and vulnerable economies notably deteriorated, with SIDS and landlocked developing countries recording declines of 40 percent and 31 percent, respectively.

In terms of new project finance activity, developing countries bore the brunt of the investment downturn in 2020. The number of newly announced greenfield investment projects in developing countries fell by 42 percent, compared to a 19 percent decline in developed countries. Meanwhile, the number of international project finance deals -- important for infrastructure -- in developing countries declined by 14 percent, compared to an 8 percent increase in developed countries. The tightened investment climate in 2020 resulted in a collapse in investment to Sustainable Development Goal (SDG)-relevant sectors in the developing world, with all but one SDG investment sector registering declines in announced greenfield and project finance investment flows ranging from 35 to 67 percent. New investment projects into water, sanitation and hygiene as well as to transport, telecommunications, non-renewable energy, and health infrastructure were particularly impacted.

Workplace mobility remains below pre-pandemic levels in most regions

Population mobility patterns, a proxy for economic activity, have continued to unfold largely in step with COVID incidence and government lockdown measures, generally declining more with stricter lockdowns and during spiking caseloads. By October 2021, workplace mobility in low- and middle-income countries remained below pre-pandemic levels in all regions except MENA and SSA, which experienced 6 percent and 2 percent increases, respectively. Asia was furthest below baseline, experiencing a 16 percent decrease in workplace mobility. Most regions have experienced a similar ebb and flow in workplace mobility throughout the pandemic, the most severe occurring during the first major lockdown in March and April 2020 (47 percent decline for all developing countries globally), followed by slightly less significant dips in January (30 percent decline) and July 2021 (23 percent decline). While LAC has had some of the most restricted and lagging mobility throughout the pandemic, the region did not experience the most recent mobility decrease recorded elsewhere in July 2021.

MICROECONOMIC IMPACTS

Social protection measures increased exponentially in the first half of 2021

From May 2020 to May 2021, more than 3,000 social protection measures have been planned or implemented in 222 countries or territories. The number of social protection measures has grown rapidly in 2021, with a 148 percent increase since December 2020, which translates to a 120 percent increase in social assistance, 110 percent increase in social insurance, and 330 percent growth in labor market interventions since last year. High-income countries have a relatively low percentage of social assistance measures compared to other interventions, but the total amount of spending on social assistance is higher in high-income countries than low- and middle-income countries. Broadly speaking, social assistance measures tend to be
the most common measures deployed in the face of the pandemic in almost all regions and income groups. Social assistance measures have been most prominent in South Asia, constituting three quarters of the total assistance offered in the region, compared to a global average of 55 percent of assistance offered.

Cash transfers continue to be the most prevalent type of social assistance intervention globally, accounting for 42 percent of total assistance. These cash transfer programs appear to be fairly generous. Of the 125 countries with available data, cash transfer programs constitute an average of 31 percent of monthly GDP per capita, with a range from 18 percent in North America, to 55 percent in SSA. These programs are limited in time duration, though that has been increasing in 2021.

Relatedly, in 2020, mobile money accounts grew by 12.7 percent, up to 1.21 billion accounts worldwide, double the pre-COVID forecast. Other contributing factors to this increase include less restrictive regulations for opening new accounts and increasing flexibility in “know your customer” regulatory processes.

An unprecedented amount of working hours lost throughout pandemic

The International Labor Organization (ILO) estimates that 8.8 percent of working hours were lost globally in 2020, equivalent to 255 million full-time workers losing their jobs. Approximately half of the working hour losses were due to reduced hours (including those workers reduced to “zero” working hours, i.e., furlough schemes). Lower middle-income countries experienced a disproportionate loss of working hours with an 11.3 percent decrease in total working hours, compared to 7.2 percent among upper middle-income countries, 6.8 percent among low-income countries, and 8.3 percent among high-income countries. This shortfall in working hours is estimated to have corrected in low- and middle-income countries in the first two quarters of 2021 to an average of a 4.3 percent loss, though exacerbated by continued waves of infections. Regionally, the Americas saw the largest loss in working hours, with a 13.7 percent loss in 2020. High-income countries are expected to experience a more sustained loss, dropping to a 7.3 percent loss in the first quarter of 2021, and a 5.1 percent reduction in the second quarter.

Relative to 2019, total employment in 2020 dropped by 114 million workers, either due to unemployment or workers dropping out of the labor force. Previously, the global economy was forecasted to add 30 million jobs in 2020. Informal workers, which make up 60 percent of the labor market, were most likely to lose their jobs from the pandemic – three times more likely than full-time employees, and 1.6 times more likely than self-employed individuals. Working hour losses were also felt disproportionately by youth (ages 15-24), who saw an 8.7 percent decline in employment compared to 2019, almost entirely due to inactivity in the labor market rather than unemployment.

Rural populations are particularly vulnerable to reduced income incurred by a loss of work, and have less access to coping mechanisms. Similarly, skill level does not have uniformly distributed impacts due to the pandemic. Skilled workers are more likely to work in sectors not impacted as heavily by the pandemic, have more options for telework or other remote working options, and have higher access to the internet. This may further deepen socio-economic disparities and the rural/urban divide.

These labor market disruptions have had disproportionately more severe consequences for women -- women’s employment declined by 5 percent in 2020 compared to 3.9 percent for men. Furthermore, an estimated 90 percent of women who lost their jobs in 2020 exited the workforce, suggesting that the working lives of women may be disrupted for an extended period or permanently. The burden of childcare, homeschooling, and housework has fallen disproportionately on women, reinforcing gender roles, according to the ILO.
Poverty increases in 2020, though the rise is less severe than initially thought

This fall of employment and working hours has translated into a precipitous drop in labor income and a corresponding rise in poverty, given the most at risk are often closest to poverty. One study based on a series of high frequency phone surveys administered between May and August 2020 in four low-income countries -- Ethiopia, Malawi, Nigeria and Uganda -- estimated that 256 million individuals, 77 percent of those countries' populations, reside in households that have lost income during the pandemic.

In June 2021, the World Bank estimated that 97 million more people were living in extreme poverty (defined as less than U.S. $1.90 per day) in 2020, compared to the total number of extreme poor that was expected for 2020 if the pandemic had not occurred, a slightly more optimistic outlook than the World Bank's prior estimate of a 119-124 million increase in January 2021. Meanwhile, International Food Policy Research Institute (IFPRI) modeling from May 2021 provides a more pessimistic outlook, forecasting that 150 million more people have fallen into extreme poverty, representing a 20 percent increase from pre-COVID poverty levels. The World Bank estimates demonstrate that the number of newly impoverished people is not uniform across regions; 82 percent of the increase is concentrated in just two regions -- 58 million in South Asia and 22 million in SSA. Compared to prior World Bank estimates from June 2020, these latest model estimates indicate that the impact may be smaller in SSA and larger in South Asia than initially anticipated.

While total global poverty is expected to decline modestly as the economic recovery takes hold in 2021, the 2021 reduction will be insufficient to counteract the pandemic-induced poverty increase estimated for 2020 and the World Bank expects the COVID-induced poor in 2021 to continue to be 97 million people. Furthermore, the 2021 poverty reduction is not uniform over regions; SSA and low-income countries are projected to see poverty increases throughout 2021, while other regions and income groups are projected to see decreases. Based on recent GDP, debt, and student dropout forecasts, and assuming a 1 percent increase in inequality in the distribution of income and calorie intake across countries, Pardee Center for International Futures modeling indicates that COVID-19 could set back progress on eradicating extreme poverty by 6 to 12 years.

Impacts on businesses have been widespread and heterogeneous

According to the World Bank Business Pulse Survey of 76 countries, on average, business sales dropped by 27 percent from October 2020 to January 2021 following a precipitous fall of 45 percent from April 2020 to October 2020. One quarter of the companies surveyed reported a drop of over 50 percent of sales in the October to January period, compared to pre-pandemic sales, while they reported a steeper drop of 72 percent in the early months of the pandemic. Between one quarter and one third of firms saw revenue stay the same or even increase during the pandemic, with the same ratio of firms reporting stable or increasing sales as the pandemic has worn on. Businesses in countries with higher caseloads, smaller firms, and firms in highly exposed sectors, such as hospitality, have faced a higher risk of COVID-induced shocks. Even controlling for sector, firm size, and country, different companies can experience dramatically different losses in sales. Business executives surveyed by the World Economic Forum indicated that digitization, stimulus support, and policies that appropriately balanced the tradeoffs between social, health, and economic considerations have been key to their ability to navigate their firms through the crisis.

Only 10 percent of companies in low-income countries report receiving any form of government support, in contrast to nearly 50 percent of businesses receiving support in high-income economies. Larger firms generally seem to have received more public support; the proportion of micro-firms surveyed globally that accessed public support during the pandemic is 25 percent, compared to 43 percent for large firms surveyed. A major barrier to access of support seems to be awareness -- 74 percent of respondents report not receiving public support due to not being aware of available government programs.
According to the World Bank Business Pulse Survey, a minority of businesses globally had employees working remotely; less than 20 percent of firms reported investing in new hardware, software, or digital solutions; and only one-third of firms reported increased usage of digital technologies, such as internet, social media, and other digital platforms, in response to the pandemic. Digital adoption varies considerably across countries, from nearly 90 percent in Brazil, South Africa, and Kenya, to just above 5 percent in Niger and Lebanon. While Information and Communication Technologies (ICT) access had been expanding significantly prior to the pandemic, ICT availability and usage remained far from universal. The COVID-19 crisis has widened this digitalization gap, with advanced economies pulling even further ahead.

### Migration & Remittances

Mobility restrictions continue to place pressure on developing countries

The nature and extent of global human mobility has vacillated since the start of the pandemic. Initially, the pandemic prompted a surge in entry restrictions (such as travel bans and border closures), but since August 2020 those have been surpassed by medical criteria and conditions (such as proof of vaccination or a recent negative COVID-19 test), which now represent 67 percent of the total number of travel or entry conditions and restrictions. This trend toward enforcing conditions for travel and entry as opposed to outright restrictions has remained steady since late 2020, with notable exceptions including the European Economic Area and Asia and the Pacific -- the only regions where entry restrictions are equally or more common than entry conditions.

Perhaps in part due to the persistence of these entry restrictions and conditions, traditional labor migration patterns have not yet stabilized. Several regions -- most notably East Asia and the Pacific (EAP), Europe and Central Asia (ECA), and South Asia -- have been struggling with a massive influx of migrant workers returning home due to pandemic-induced layoffs. Some migrant-hosting countries subsequently lost at least half of labor migrants in 2020, and, in other countries, up to 75 percent fewer workers chose to move overseas compared to 2019. Many workers who were forced to return home were not paid wages and had to leave behind savings and other assets.

Similarly, worrying trends toward more restricted movement and “trapped” migrants can be seen among forcibly displaced persons. In 2020, 40 percent fewer internally displaced persons (IDPs) and 21 percent fewer refugees returned to their homes, and refugee resettlement registered a drastic plunge, with just 34,400 refugees resettled -- the lowest level in 20 years. Pandemic-related movement restrictions caused voluntary repatriation to be put on hold, deeming avenues for refugees to safely return even more limited. Although some countries gradually restarted voluntary repatriation, widespread restrictions have remained in place. Thus, more displaced persons are staying displaced longer, putting them at heightened risk for COVID-19 infection, violence, job and income loss, and food insecurity.

Migrants and IDPs face unique challenges that threaten to exacerbate first- and second-order impacts

Migrants face a number of interrelated risks and challenges -- from higher risk of infection due to working and living conditions, to loss of employment and income, to elevated food and housing insecurity. COVID-19, and related control policies, have exposed pre-existing barriers for migrants in accessing basic services, such as exclusion based on legal status; inaccessible information or insufficient services; financial barriers; fear, health, and safety concerns; xenophobia; and digital exclusion. Financial barriers in particular were exacerbated by the pandemic’s disproportionate impact on migrants’ employment and livelihoods, and compounded by the exclusion of migrants from income support measures in most contexts. As many services transitioned to digital platforms due to COVID restrictions, migrants with limited digital access or literacy were disadvantaged.
Many of these barriers are becoming increasingly salient as COVID-19 vaccines are rolled out in more and more countries. In some countries, certain categories of migrants are excluded from receiving a vaccine, while in others, migrants may not have the information, financial resources, trust, or technology necessary to access the vaccine. For example, as of May 2021, despite IDPs being included in 67 National Deployment and Vaccination Plans, the International Organization for Migration only observed 39 countries that included IDPs in practice. This disparity was especially evident in Asia and the Pacific and the Middle East and North Africa.

**Resilience of digital remittances in 2020 may mask declining informal transfers**

Overall, formal remittance transfers to the developing world proved to be more resilient in 2020 than initially expected, decreasing by only 1.6 percent compared to 2019. Faced with travel restrictions and unprecedented economic contraction, many migrants tried to send as much money home as they could in 2020, often digitally. International remittances processed via mobile money increased by 65 percent, with over $1 billion being sent and received each month in 2020. Already a significant source of external financing for developing countries, remittances have become an even more essential lifeline and de facto “social protection system” during the pandemic. Nevertheless, this resilience has not been equally felt across regions. In LAC, remittances were bolstered by the economic recovery in the U.S., whereas remittances fell sharply in SSA, almost entirely due to a 28 percent decline in remittance flows to Nigeria. Excluding Nigeria, remittance flows to the rest of SSA increased by 2.3 percent, on par with MENA.

These data reflect formal remittance flows (i.e., those sent electronically, through banks or other formal financial institutions), and may mask an overall decline in total remittance flows, as pandemic-related travel restrictions are expected to have impeded informal cash remittances carried home by migrants. This concern is potentially substantiated by the trends observed in 33 countries participating in the World Bank’s COVID-19 Household Monitoring initiative. On average, 60 percent of households are reporting a decrease in remittances since the beginning of the pandemic, although these phone surveys were conducted between May and August 2020 and do not reflect full remittance trends across all of 2020. In LAC, which recorded an increase in formal remittances in 2020, 53 percent of households had reported decreased remittances in mid-2020.

**Governments have responded to the pandemic in myriad fashions**

The pandemic has prompted many governments to take unprecedented actions to mitigate the spread of COVID-19 and address its first- and second-order impacts. All regions globally recorded a sharp increase in stringent government measures in March 2020, despite the fact that many low- and middle-income countries had not recorded any cases at that time. MENA has recorded some of the most stringent measures overall throughout the pandemic, particularly restrictions on internal movement, though they have notably loosened restrictions since September 2021. Oceania, on the other hand, has seen an increase in stringency in recent months.
Democratic violations have become less frequent and less severe throughout the pandemic

While some government response measures may be justified in the context of a public health emergency, in some cases the extent of restrictions may violate a set of norms and principles outlined in the International Covenant on Civil and Political Rights. From March 2020 to June 2021, both the frequency and severity of democratic violations have generally decreased worldwide, although some regions and income groups have seen violations rising again during the first half of 2021. Violations have increased slightly among low- and middle-income countries in Asia and MENA in 2021. Lower middle-income countries recorded the worst violations on average at the beginning of the pandemic, and the severity of violations in those countries has been increasing slightly since December 2020 (though still lower than the beginning of the pandemic), whereas upper middle-income countries have seen the severity of violations decreasing over time.

The number of countries committing each type of violation has been decreasing over time, except for violations of time limits for emergency measures. The number of low- and middle-income countries with no end date for some or all emergency measures increased from 22 in June 2020 to 32 by December 2020, and has remained at 32 through June 2021 (though the specific countries have changed each quarter). Restrictions on media freedom continue to be the most common, and most severe, type of violation in low- and middle-income countries. However, several African countries adopted innovative practices for curbing the spread of misinformation without limiting media freedom.

Democratic backsliding and “closing” democratic spaces

Governments’ at-times excessive and oppressive restrictions contributed to a widespread weakening of global democracy and freedom in 2020. In the most extreme cases, some political leaders exploited the pandemic by deliberately spreading misinformation or leveraging restrictions to consolidate power. Amidst postponed elections, bypassed legislatures, and other abuses of power, Freedom House warns that the impact of COVID-19 on democracy and human rights will be mostly negative over the next three to five years. Despite evidence of backsliding in 2020, it is difficult to isolate the specific effects of the pandemic on this worrying trend.

As of June 2021, V-Dem identified eight low- and middle-income countries at risk of democratic backsliding as a result of pandemic violations, including four countries in Asia and three countries in LAC. V-Dem weighs violations in “mid-range” democracies more heavily in the democratic backsliding risk assessment, based on the assumption that, at low levels of democracy, there is little room for additional backsliding and, at high levels, the institutions of democracy are resilient. Therefore, new and emerging democracies typically face the highest risk of backsliding due to the pandemic.
COVID-19 continues to exacerbate global food security concerns as food prices rise throughout 2021; conflict and climate change remain persistent threats

The pandemic continues to exacerbate the economic drivers of food insecurity. Between 720 and 811 million people in the world are estimated to have faced hunger in 2020, roughly 118 million more than 2019. Meanwhile, conflict, extreme weather events and economic shocks, which are each increasingly frequent and severe, remained the largest drivers of humanitarian food assistance needs globally in 2020. The Integrated Food Security Phase Classification (IPC) framework classifies acute food security in phases, with Phases 3 (Crisis), 4 (Emergency), and 5 (Famine) considered critical for life-saving intervention. In the 55 countries and territories that requested external assistance from the U.N. in 2020, at least 155 million people were estimated to be acutely food insecure (IPC Phase 3-5 or equivalent), nearly 20 million more than in 2019. Nearly half of the estimated acutely food insecure in 2020 were concentrated in only five of those 55 countries and two thirds were concentrated in just 10 countries. Among the 40 countries with 2021 multi-agency estimates available thus far, approximately 140 million people are estimated to be experiencing Phase 3 levels of food insecurity or worse this year, compared to approximately 124.6 million people in those same countries in 2020.

Looking ahead to 2022, food security analysis from the USAID-funded Famine Early Warning Systems Network (FEWS NET) centered on 29 countries in SSA, Western Asia, Central America, and the Caribbean projects that 105 million people across those 29 countries will be in need of emergency food assistance in 2022, eight million more than the need estimated by FEWS NET for those same countries in 2021. As was the case in 2020 and 2021, the majority of anticipated 2022 needs are concentrated in large crises where compounding effects of conflict, macroeconomic, and weather shocks are eroding the ability of populations to cope with any future shocks.

Global food prices have climbed throughout most of 2021. As of November, the Food and Agriculture Organization Food Price index averaged 134.4 points, 30 percent higher than in October 2020 and at its highest level since June 2011. Rising food prices since October 2020 have been driven by a combination of higher cereal prices, especially for premium varieties of wheat, and higher vegetable oil prices. Rising food prices pose a serious threat to food security at the household and country levels, especially in contexts with pre-existing macroeconomic instability; however, rising food prices alone will not necessarily erode food security in all contexts, as wages and other sources of income may be keeping pace with food price increases in some countries. Despite global commodity prices remaining high, global production outlooks for grains in 2021 and 2022 remain positive.

Women and children have been particularly disadvantaged as a result of the pandemic's effects on acute and chronic food insecurity. Based on modeling by the Standing Together for Nutrition Consortium, COVID-19-related disruptions could result in an additional 9.3 million wasted and 2.6 million stunted children by 2022. Globally, the gender gap in the prevalence of food insecurity has also grown throughout the COVID-19 pandemic, with moderate to severe food insecurity being 10 percent higher in women than in men in 2020, as opposed to a 6 percent gap in 2019.

Education setbacks are widespread as the world lost nearly half a year of schooling since last year

Between February 2020 and August 2021, education systems worldwide were fully closed for 121 instructional days and partially closed for 103 days, on average. School closures often lasted longer in low- and middle-income countries than in high-income countries, and those countries were often less prepared to deliver remote learning. At least 186 countries have implemented remote learning programs -- including via online platforms and TV and radio programming -- to provide learning continuity. However, the deployment, uptake, and effectiveness of such programs has varied greatly, and in most countries, offered an inadequate substitute for in-person learning.
A series of 470 interviews conducted by Human Rights Watch identified an array of challenges associated with distance learning that have impeded learning outcomes -- including irregular or sporadic participation among students; low digital literacy among students, parents, and teachers; and lower quality curricula with fewer subjects taught and fewer hours of instruction. Furthermore, at least 463 million children could not be reached by remote learning programs, with three out of four unreached students living in rural areas and/or poor households.

November 2021 World Bank simulations indicate that, under an intermediate outlook scenario, COVID-19 could result in a global decline in learning-adjusted years of schooling from 7.8 to 7.1 years. Further, the share of primary-aged children out-of-school who are “schooling deprived” or below a minimum proficiency in reading and thus “learning deprived” -- also known as “learning poverty” -- may rise from 56 to 67 percent in low- and middle-income countries, with the latter likely to experience worse learning poverty increases. This disengagement from learning may have a massive impact on students later in life, as economic output is hampered by lack of education. The World Bank estimates that education disruptions could cost this generation of students $12 trillion in lost lifetime earnings in the intermediate scenario, or as much as $17 trillion, which translates to 14 percent of current global GDP, in the simulation’s pessimistic scenario. The U.N. has also warned that prolonged school closures may be contributing to disruptions to reporting and referral mechanisms of child protection services and that failure to meet the urgent educational needs places children at higher risk for recruitment and use by armed forces.

Education system disruptions exacerbate pre-COVID inequalities

The digital divide has been a particularly pronounced barrier for education in the COVID context. As the pandemic worsened in 2020, many teachers said that access to digital technologies would be critical to continuing education. Evidence from before the pandemic has demonstrated that there is a strong positive relationship between access to a home computer and academic performance, graduation rates, and student enrollment, controlling for other socio-demographic factors. For regions such as SSA with particularly limited digital access, literacy, and adoption, this could lead to worsening educational outcomes. For example, high-frequency phone surveying in four low-income Sub-Saharan African countries administered between May and August 2020 indicated that student-teacher contact dropped from 96 percent pre-pandemic to just 17 percent during the pandemic.

The pandemic’s effect on girls’ education may be particularly devastating. The U.N. Population Fund warns that the pandemic will delay efforts to end child marriage and female genital mutilation, which could result in as many as 13 million additional childhood marriages and up to two million more cases of female genital mutilation and may force many girls to abandon school.