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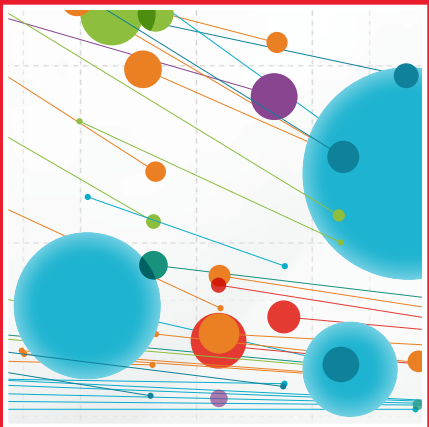
Charting pathways out of multidimensional poverty: Achieving the SDGs



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For a list of any errors and omissions found subsequent to printing, please visit http://hdr.undp.org and https://ophi.org.uk/multidimensional-poverty-index/.

Global Multidimensional Poverty Index 2020

Charting pathways out of multidimensional poverty: Achieving the SDGs

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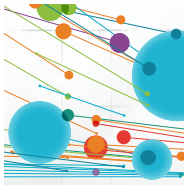


Introduction

The lives of poor people are an intricate balance; their steps out of poverty even more so. Millions of daily labourers, herders and farmers eking out subsistence on rugged terrain have no access to clean drinking water and no electric light at home. Street vendors' children may be undernourished, and entire families illiterate. In tough times many children drop out of school. Improvements may come—an electrification scheme, better water and sanitation, upgraded schools with lunch programmes, and good local health clinics. But conflicts, migrations, disasters and shocks also threaten.

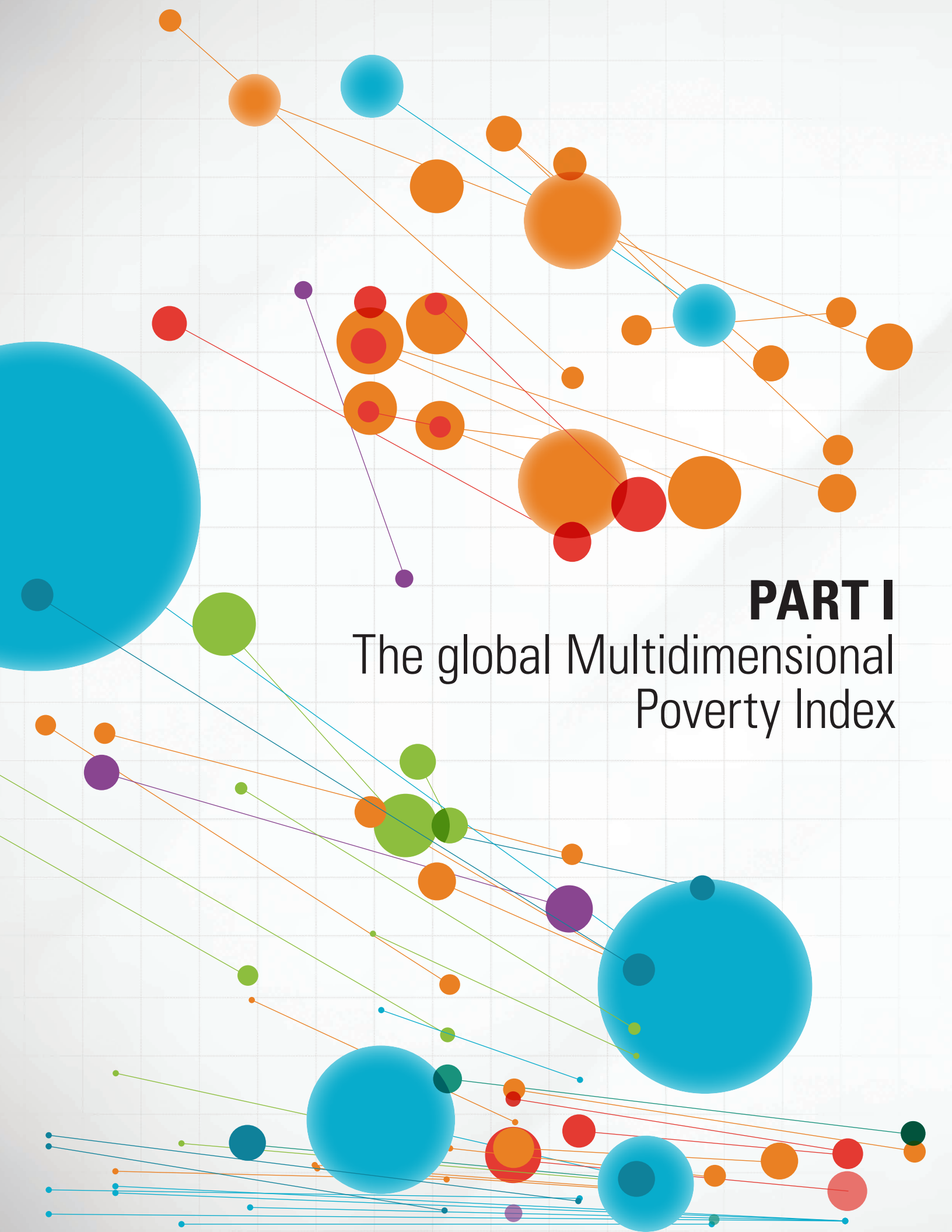
Launched in 2010 by the Oxford Poverty and Human Development Initiative at the University of Oxford and the Human Development Report Office of the United Nations Development Programme for the flagship Human Development Reports, the global Multidimensional Poverty Index (MPI) measures the complexities of poor people's lives, individually and collectively, each year. This report—released 10 years after that launch—focuses on how multidimensional poverty has declined. It provides a comprehensive picture of global trends in multidimensional poverty, covering 5 billion people. It probes patterns between and within countries and by indicator, showcasing different ways of making progress. Together with data on the $1.90 a day poverty rate, the trends monitor global poverty in different forms.

This is a key moment to study how nonmonetary poverty goes down. It is 10 years before 2030, the due date of the Sustainable Development Goals (SDGs), whose first goal is to end poverty in all its forms everywhere. And it is a year when a pandemic and economic slowdown are pushing many more into poverty, while the spectre of racism still haunts, and environmental threats such as locusts surge.

Multidimensional poverty is strongly associated with other SDG challenges. Concentrated in rural areas, multidimensionally poor people tend to experience lower vaccination rates and secondary school achievement, insecure work and greater environmental threats. By detailing the connections between the MPI and other poverty-related SDGs, the report highlights how the lives of multidimensionally poor people are precarious in ways that extend beyond the MPI's 10 component indicators.

The COVID-19 pandemic unfolded in the midst of this analysis. While data are not yet available to measure the rise of global poverty after the pandemic, simulations based on different scenarios suggest that, if unaddressed, progress across 70 developing countries could be set back 3–10 years.

The firm hope is that it will not. As Amartya Sen observes, Britain during World War II suffered food shortages and an overall decline in food availability. Yet with judicious rationing and proactive policies, life expectancy rose. In the decade before the war, life expectancy had risen by 1.2 years for men and by 1.5 years for women. But during the war it rose by 6.5 years for men and by 7 years for women.[1] Evidence suggests a similar story in Sierra Leone, which had the fastest reduction in MPI value among all countries with trend data. And this occurred during the Ebola crisis, not after. One by one these stories seem tenuous, even improbable. But the hope is that the information on multidimensional poverty summarized here and detailed online will encourage and empower readers to fight to end poverty during these difficult times, even against all odds. If they do, progress is possible.



PART I
The global Multidimensional Poverty Index

Key findings

- Across 107 developing countries, 1.3 billion people—22 percent—live in multidimensional poverty.[2]
- Children show higher rates of multidimensional poverty: half of multidimensionally poor people (644 million) are children under age 18. One in three children is poor compared with one in six adults.
- About 84.3 percent of multidimensionally poor people live in Sub-Saharan Africa (558 million) and South Asia (530 million).
- 67 percent of multidimensionally poor people are in middle-income countries, where the incidence of multidimensional poverty ranges from 0 percent to 57 percent nationally and from 0 percent to 91 percent subnationally.
- Every multidimensionally poor person is being left behind in a critical mass of indicators. For example, 803 million multidimensionally poor people live in a household where someone is undernourished, 476 million have an out-of-school child at home, 1.2 billion lack access to clean cooking fuel, 687 million lack electricity and 1.03 billion have substandard housing materials.
- 107 million multidimensionally poor people are age 60 or older—a particularly importantly figure during the COVID-19 pandemic.
- 65 countries reduced their global Multidimensional Poverty Index (MPI) value significantly in absolute terms. Those countries are home to 96 percent of the population of the 75 countries studied for poverty trends. The fastest, Sierra Leone (2013–2017), did so during the Ebola epidemic.
- Four countries halved their MPI value. India (2005/2006–2015/2016) did so nationally and among children and had the biggest reduction in the number of multidimensionally poor people (273 million). Ten countries, including China, came close to halving their MPI value.[3]
- In nearly a third of the countries studied, either there was no reduction in multidimensional poverty for children, or the MPI value fell more slowly for children than for adults.
- The countries with the fastest reduction in MPI value in absolute terms were Sierra Leone, Mauritania and Liberia, followed by Timor-Leste, Guinea and Rwanda. North Macedonia had the fastest relative poverty reduction, followed by China, Armenia, Kazakhstan, Indonesia, Turkmenistan and Mongolia. Each of these countries cut its original MPI value by at least 12 percent a year.
- In 14 countries in Sub-Saharan Africa, the number of multidimensionally poor people increased, even though their MPI value decreased, because of population growth.
- How countries reduced their MPI value varies by indicator and by subnational region. Twenty countries significantly reduced deprivations for every indicator. Bangladesh, Lao People's Democratic Republic and Mauritania had pro-poor reductions in subnational regions.
- Multidimensional poverty trends do not match monetary poverty trends, suggesting different drivers.
- Charting trends in multidimensional and monetary poverty measures and using global data and national statistics, as Atkinson (2019) proposed, provides an overall picture of a country's poverty situation.
- Before the pandemic 47 countries were on track to halve poverty between 2015 and 2030, if observed trends continued. But 18 countries, including some of the poorest, were off track.

The 2020 global Multidimensional Poverty Index (MPI) provides current levels of multidimensional poverty in developing countries, the highlights of which are listed in the key findings. Part I first introduces the global MPI and presents trends in poverty reduction for 5 billion people living in a subset of those countries. It then presents projections to answer two pressing questions: Are countries on track to halve poverty by 2030, and how might their poverty be affected by the COVID-19 pandemic?

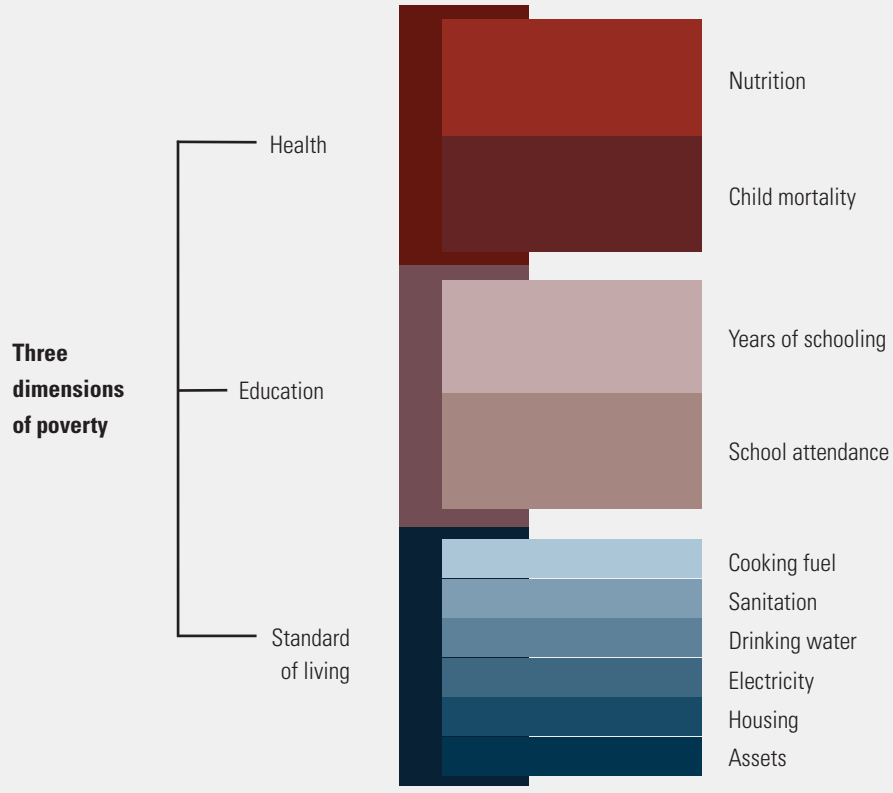
What is the global Multidimensional Poverty Index?

Sustainable Development Goal (SDG) 1 aims to end poverty in all its forms everywhere.[4] Although previously defined only in monetary terms, poverty is now understood to include the lived reality of people's experiences and the multiple deprivations they face. Since 2010 the global MPI has compared acute multidimensional poverty across more than 100 countries. The global MPI examines each person's deprivations across 10 indicators in three equally weighted dimensions—health, education and standard of living (figure 1) and offers a high-resolution lens to identify both who is poor and how they are poor. It complements the international $1.90 a day poverty rate by showing the nature and extent of overlapping deprivations for each person.

In the global MPI, people are counted as multidimensionally poor if they are deprived in one-third or more of 10 indicators (see figure 1), where each indicator is equally weighted within its dimension, so the health and education indicators are weighted 1/6 each and the

FIGURE 1

Structure of the global Multidimensional Poverty Index



Source: OPHI 2018.

standard of living indicators are weighted 1/18 each. The intensity of multidimensionally poor people is measured by the average number of weighted deprivations they experience. The MPI is the product of the incidence of poverty (proportion of poor people) and the intensity of poverty (average deprivation score[5] of poor people) and is therefore sensitive to changes in both components. The MPI ranges from 0 to 1, and higher values imply higher poverty.

To ensure transparency, the detailed definition of each indicator is published online, with country-specific adjustments and the computer code used to calculate the global MPI value for each country.[6]

The global Multidimensional Poverty Index in 2020

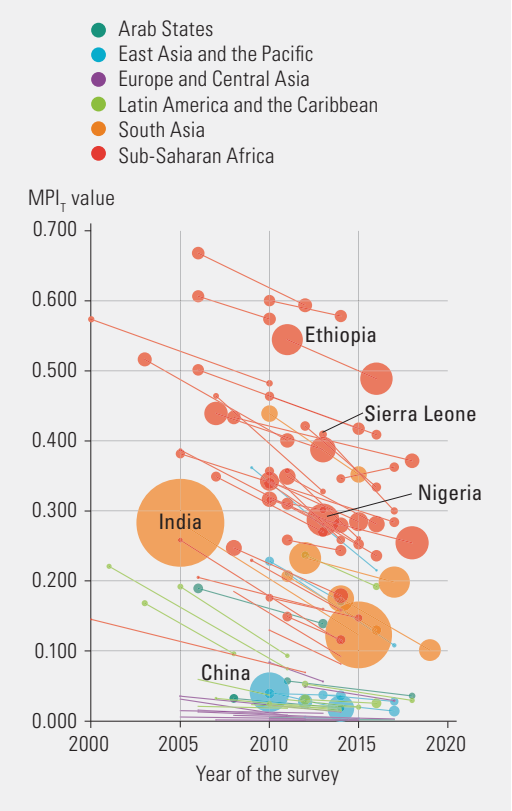
The 2020 update of the global Multidimensional Poverty Index (MPI) covers 107 countries—28 low income, 76 middle income and 3 high income[7]—and 5.9 billion people in developing regions. MPI values and data for the MPI's component indicators are also disaggregated by age group, for rural and urban areas and for 1,279 subnational regions. Data for 25 countries covering 913 million people have been updated from the 2019 release.[8] The 2020 estimates are based on 47 Demographic and Health Surveys (DHS), 47 Multiple Indicator Cluster Surveys (MICS), 3 Pan Arab Population and Family Health Surveys and 10 national surveys. All surveys are dated 2008–2019, and data for 83 countries—home to 92 percent of multidimensionally poor people—were collected in 2013/2014 or later.[9] The global MPI is thus a key resource for recent poverty data across developing regions.

Trends in multidimensional poverty: Progress and challenges

While the United Nations Development Programme has previously published tables with estimates on global trends in multidimensional poverty, this is the first study that focuses on harmonized trends to shed light on the dynamics of poverty reduction and to increase understanding of what is possible.[10] The analysis covers 75 of the 107 countries included in the global MPI, home to roughly 5 billion people across all developing regions (figure 2).[11] The timespan for the analysis ranges from 3 years between surveys to 12 years. The MPI estimates used in this section are rigorously harmonized and denoted by MPI_T so indicator definitions match between time periods (for example, if one survey collected only child nutrition rather than adult nutrition, data for the other survey are restricted to child nutrition as well).[12] Due to this harmonization, the MPI_T values in statistical table 2 may differ from those in statistical table 1 (which represents the best possible MPI estimate that can be calculated with the information available).[13] Box 1 defines key terms used in the discussion of poverty trends.

FIGURE 2

Poorer countries with the highest initial Multidimensional Poverty Index values and countries with low values tend to have slower absolute reduction rates



MPI_T is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Note: The figure shows the level of multidimensional poverty in the starting and ending periods of the study. The size of each bubble represents the number of multidimensionally poor people in each year, the colour indicates the region of the country and the trend line connecting the bubbles depicts the speed of reduction. The horizontal placement refers to the years of the surveys.
Source: Alkire, Kovesdi, Mitchell and others 2020.

BOX 1

Definitions for measuring changes in multidimensional poverty

Absolute change (annualized). The difference in a poverty measure between two years, divided by the number of years between surveys.

Relative change (annualized). The compound rate of change per year.[1] It shows the percentage by which the previous year's poverty has changed.

What has changed? Changes in…

Multidimensional Poverty Index value (MPI_T value) is the most comprehensive measure of multidimensional poverty. It considers changes in both the incidence and the intensity of poverty (but not the number of poor people).

Headcount ratio (also called incidence) is the most familiar measure. It shows the change in the percentage of people who are multidimensionally poor (but not the intensity of poverty or the number of poor people).

Intensity shows how the average deprivation score of poor people has changed.

Number of multidimensionally poor people (calculated as the product of the incidence of multidimensional poverty and the population size) shows how the overall number of multidimensionally poor people in a country has changed and reflects both demographic change and population growth (but not the MPI_T or the intensity of poverty). It is important for budgeting and targeting.

Note
1. The compound rate of change is the geometric progression ratio that provides a constant rate of return over the time period.

Sixty-five countries significantly reduced multidimensional poverty

Sixty-five countries, home to 96 percent of the population of the 75 countries studied, significantly reduced multidimensional poverty.[14] The fastest country, Sierra Leone (2013–2017) did so during the Ebola epidemic (box 2).

Figure 2 depicts changes in MPI_T value for all 75 countries between two periods of time. Poorer countries with the highest initial MPI values and countries with low MPI values tend to have slower absolute reduction rates, whereas countries in the middle of the distribution, with moderate to high MPI values had the fastest reductions. Overall, 62 of the 65 countries with a significant reduction in MPI value had a significant reduction in the incidence of poverty. In 23 of those countries, more than 2 percent of the population moved out of poverty every year during the included period—rising to nearly 4 percent a year in Sierra Leone. The incidence of poverty in these countries in their starting year ranged from 20 percent in Mongolia to 82 percent in Liberia, showing that progress is possible across countries with very different

BOX 2

Reducing multidimensional poverty in Sierra Leone during the Ebola crisis

From December 2013 to March 2016, the Ebola crisis spread in West Africa. As terrible as the tragedy was, it did not create a widespread slide into poverty. The fastest reduction in multidimensional poverty among the 75 countries studied, covering nearly 5 billion people, was in Sierra Leone, where the percentage of people in multidimensional poverty fell from 74 percent in 2013 to 58 percent in 2017—the same years as the Ebola crisis. The percentage of people who were multidimensionally poor and deprived declined for all 10 indicators, with the biggest reductions related to deprivations in cooking fuel and electricity. Sierra Leone also had the largest annualized absolute reduction in depriviation in clean cooking fuel and in child mortality among the 75 countries studied. It had the fastest absolute reduction in MPI value among children of all countries, though poverty among adults declined faster. And although the poorest regions did not move the fastest, 12 of Sierra Leone's 14 subnational regions reduced their MPI_T value.

Public health emergencies require fast responses, and human error as well as tragedy seem inevitable. Despite this, Sierra Leone shows that it is possible to reduce the interlinked deprivations of multidimensional poverty during an epidemic.

poverty rates. The remaining countries moved more slowly.

Halving multidimensional poverty is possible

Four countries—Armenia (2010–2015/2016), India (2005/2006–2015/2016), Nicaragua (2001–2011/2012) and North Macedonia (2005/2006–2011) halved their global MPI_T value and did so in 5.5–10.5 years. These countries show what is possible for countries with very different initial poverty levels. They account for roughly a fifth of the world's population, mostly because of India's large population.[15] Ten countries—including China and Indonesia—came close to halving their level of multidimensional poverty (MPI_T).[16] Only two countries (Nicaragua and North Macedonia) halved the incidence of multidimensional poverty. SDG 1 and the Third Decade on Poverty Reduction call for ending multidimensional poverty using integrated approaches and policy frameworks;[17] these trends show that progress is possible.

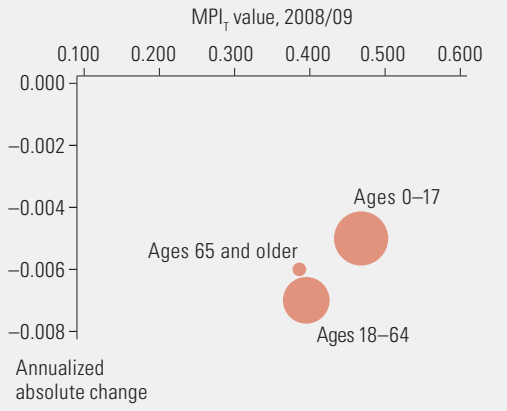
Some reductions overlook children

Across the 75 countries studied, nearly half of poor people are children under age 18. But in nearly a third of these countries, either there was no reduction in multidimensional poverty for children (ages 0–17), or the MPI value fell more slowly for children than for adults (ages 18–64). In 13 countries there was no statistically significant reduction in multidimensional poverty among children.[18] And in 11 of the 60 countries with a significant reduction for both age groups—all of them in Sub-Saharan Africa—the reduction in poverty was faster for adults than for children. This includes Madagascar, where multidimensional poverty fell most slowly among children, even though they were the poorest age group (figure 3). A focus on children is critical, as in 13 of the 60 countries studied there was no reduction in child poverty, and these countries span every major geographic region except South Asia as well as low to high levels of MPI.

On a positive note, Mauritania, Sierra Leone, Timor-Leste, Liberia and Rwanda had the fastest reduction in child poverty in absolute terms. India and Nicaragua's time periods cover

FIGURE 3

In Madagascar multidimensional poverty declined most slowly among children, even though they were the poorest age group



MPI_T is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Mitchell and others 2020.

10 and 10.5 years respectively, and during that time both countries halved their MPI_T values among children. So decisive change for children is possible but requires conscious policy efforts.

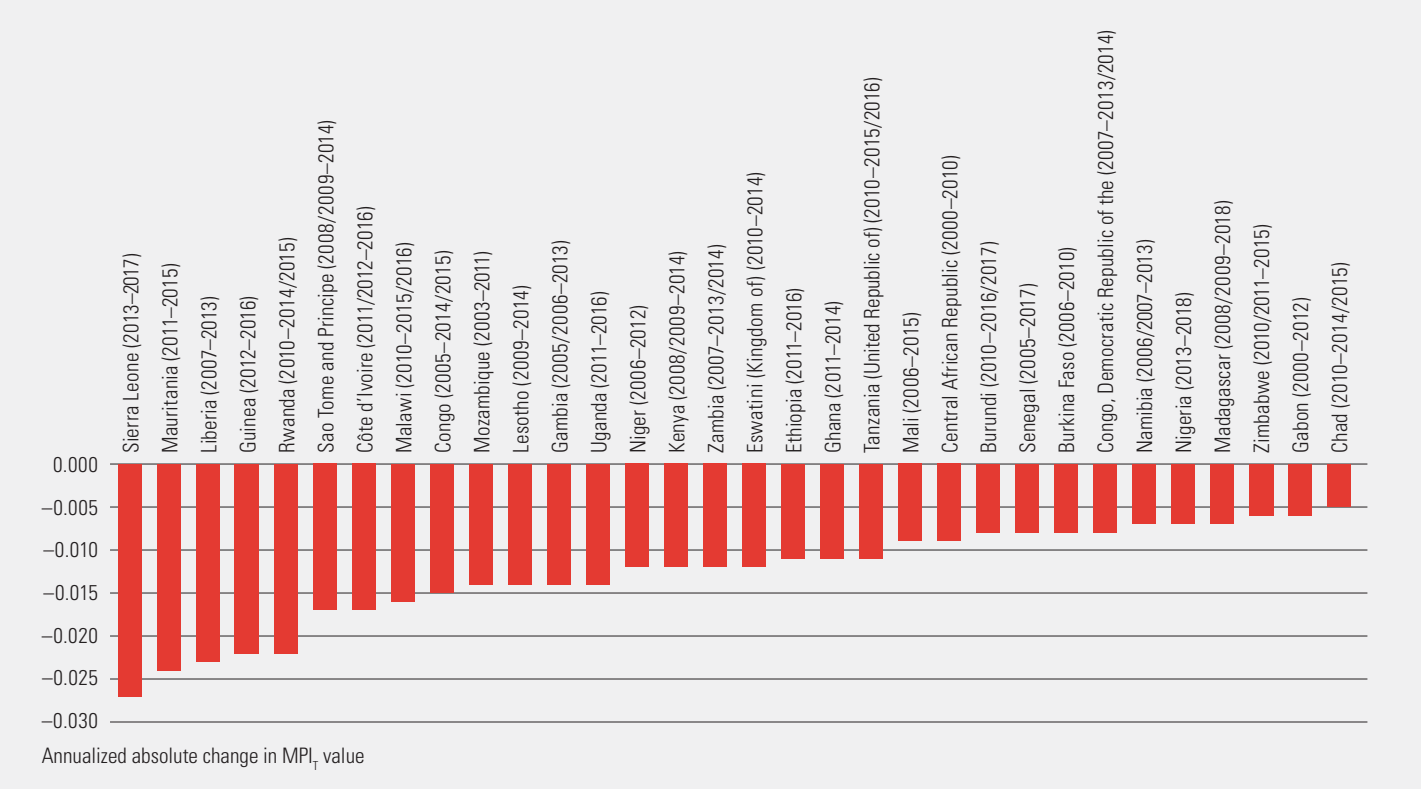
Some of the poorest countries in Sub-Saharan Africa achieved the fastest absolute reductions in multidimensional poverty

Sub-Saharan African countries have the highest poverty rates and some of the bleakest prognoses. Several of these countries struggle with political conflicts, violence, environmental problems and rapid population growth. Yet some of the poorest countries in Sub-Saharan Africa are among those with the fastest absolute reduction in multidimensional poverty (figure 4).

Sierra Leone, Mauritania and Liberia reduced their MPI value fastest. Mauritania started with a multidimensional poverty headcount of 63 percent, Sierra Leone with a headcount of 74.1 percent and Liberia with a headcount of 81.6 percent. Their success was driven by improvements in different indicators (figure 5). In Sierra Leone (2013–2017), deprivations in nutrition, school attendance, cooking fuel, sanitation, water, electricity and housing all fell by more than 2 percentage points a year. In Mauritania (2011–2015), improvement in years of

FIGURE 4

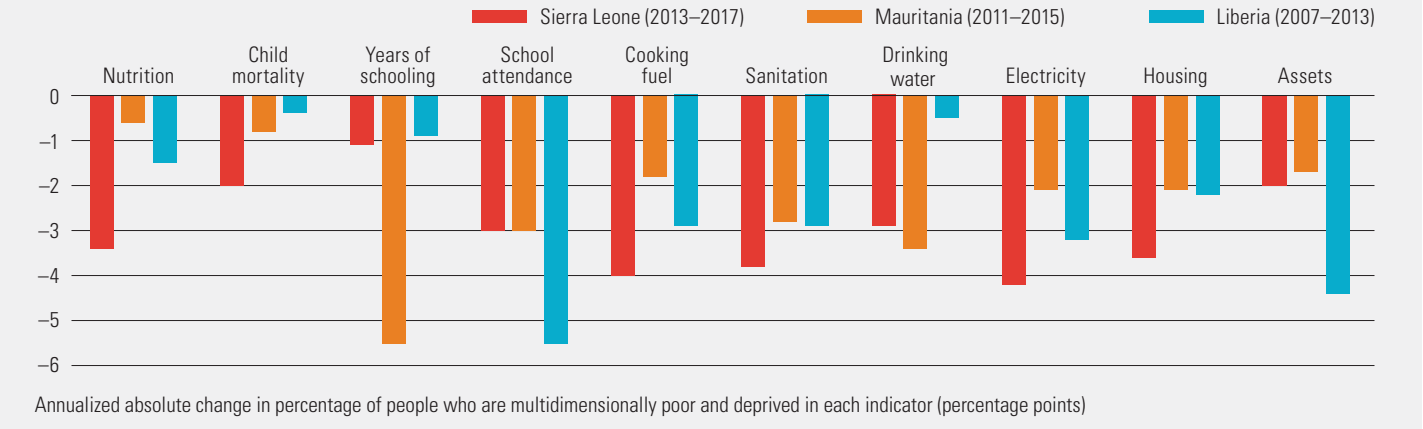
Some of the poorest countries in Sub-Saharan Africa achieved the fastest absolute reductions in multidimensional poverty



MPI$_T$ is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Mitchell and others 2020.

FIGURE 5

Reductions in multidimensional poverty can be driven by improvements in different indicators



Source: Alkire, Kovesdi, Mitchell and others 2020.

schooling was the main factor. Deprivations in school attendance, sanitation, and drinking water also fell by more than 2 percentage points a year. In Liberia (2007–2013), improvements in school attendance and asset ownership drove the reduction. Deprivations in cooking fuel, sanitation and electricity also fell by more than 2 percentage points a year.

Strong reductions in multidimensional poverty in East Asia and Pacific

East Asia and Pacific and Europe and Central Asia boast notable examples of MPI_T reduction relative to starting levels (figure 6). China (2010–2014) led East Asia and Pacific, with an annual relative reduction of over 19 percent, lifting more than 70 million people out of poverty in just four years, thanks to substantial improvements in nutrition, access to drinking water, clean cooking fuel, education and asset ownership. Indonesia (2012–2017), another populous country, reduced incidence by 12.2 percent a year, and 17 of its 33 subnational regions halved their MPI_T value in merely five years. In relative terms, Thailand and Lao People's Democratic Republic reduced their MPI_T value by about 10 percent a year, and Indonesia, Lao People's Democratic Republic and Timor-Leste had statistically significant decreases in the percentage of people who were multidimensionally poor and deprived in every indicator. Only seven years after receiving formal UN recognition, Timor-Leste reduced the incidence of multidimensional poverty from 69.6 percent in 2009/2010 to 46.9 percent in 2016, the fastest absolute reduction in East Asia and Pacific and the fourth fastest among the 75 countries studied.

Fewer multidimensionally poor people in many countries—but not in all countries

Of the 65 countries that reduced their MPI_T value, 50 also reduced the number of people living in poverty. The largest reduction was in India, where approximately 273 million people moved out of multidimensional poverty over 10 years.[19] In China more than 70 million people moved out of multidimensional poverty over four years, and 19 million people in Bangladesh and almost 8 million people in Indonesia did so over five years. In Pakistan almost 4 million people moved out of poverty over five years. Some smaller countries also achieved a remarkable reduction: almost 4 million in Nepal and more than 3 million in Kenya over five years.

Nevertheless, in 14 Sub-Saharan African countries that reduced their MPI_T value, the number of poor people rose because of rapid population growth. In Niger, the country with the highest MPI value, the population grew by a quarter in six years, and the number of multidimensionally poor people increased by 21.7 percent, despite reductions in both the incidence and the intensity of multidimensional poverty. These findings show the impact of population growth on the number of multidimensionally poor people.

Leaving no one behind: When the poorest subnational regions reduce multidimensional poverty the fastest

The SDGs aim to make equitable progress—which means prioritizing interventions for the poorest of the poor. Of the 625 subnational regions included in the analysis, 398—home to over three-quarters of multidimensionally poor people in both periods—had statistically significant decreases in their MPI_T value. Fourteen countries reduced multidimensional poverty in all their subnational regions: Bangladesh, Bolivia, the Kingdom of Eswatini, Gabon, Gambia, Guyana, India, Liberia, Mali, Mozambique, Niger, Nicaragua, Nepal and Rwanda.

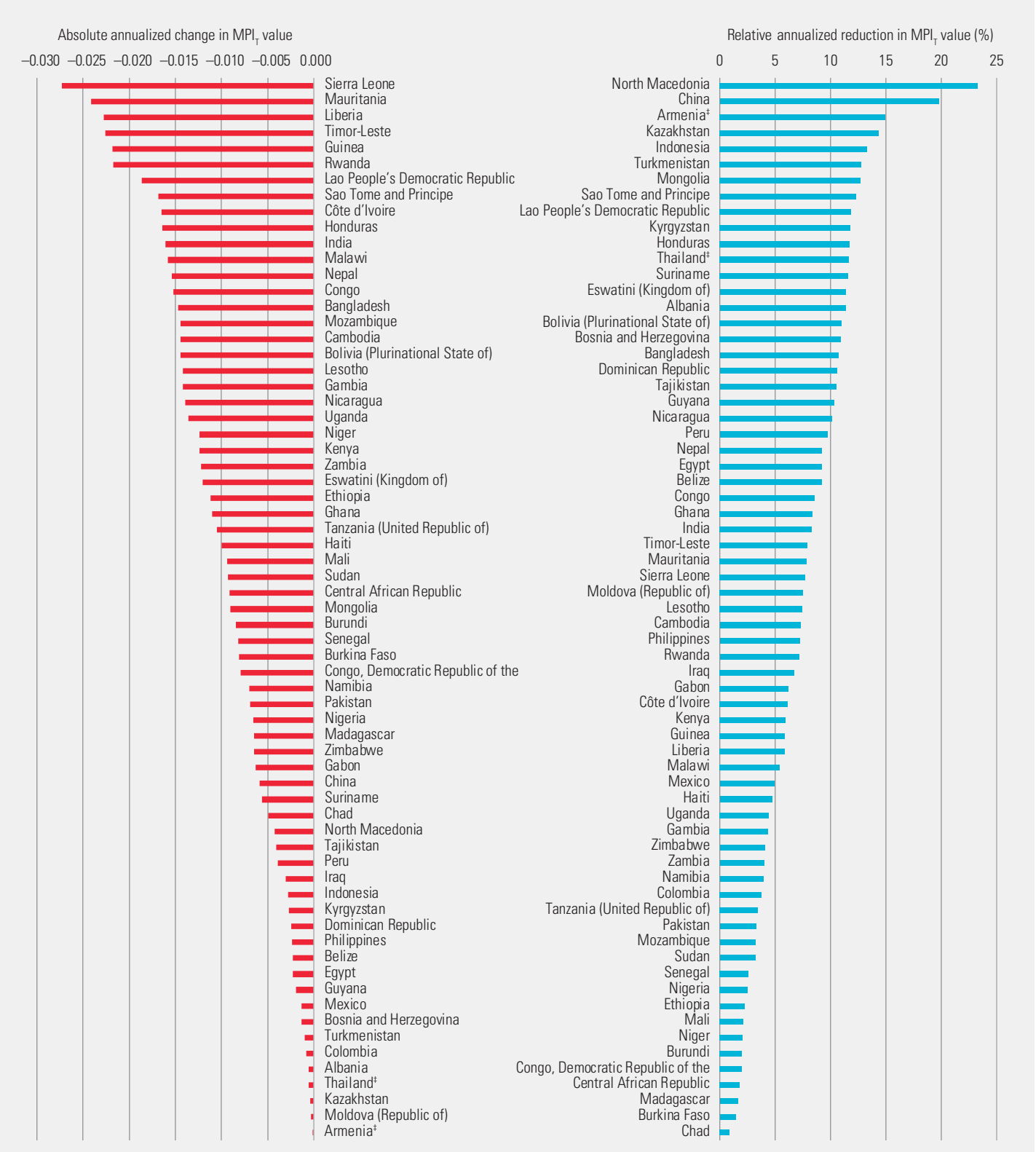
Disaggregating the global MPI_T by subnational region shows whether the poorest areas are making faster progress. Bangladesh and Lao People's Democratic Republic show a clear pro-poor trend, with the poorest regions generally reducing their MPI_T value the fastest in absolute terms (figure 7). Still, the poorest region of Lao People's Democratic Republic (Saravane)—which had more poor people than the three next-poorest regions—did not have the fastest progress.

Every indicator makes a difference

All 10 of the indicators on which the MPI is based played a role in reducing poverty. Of the 75 countries studied, 20 significantly reduced deprivations in every indicator, and 11 of those were in Sub-Saharan Africa.[20] Of the 625 subnational regions studied, 45 reduced deprivations in every indicator. Figure 8 displays the countries that had the largest absolute reduction in deprivation for each of the 10 indicators. All these countries are low income

FIGURE 6

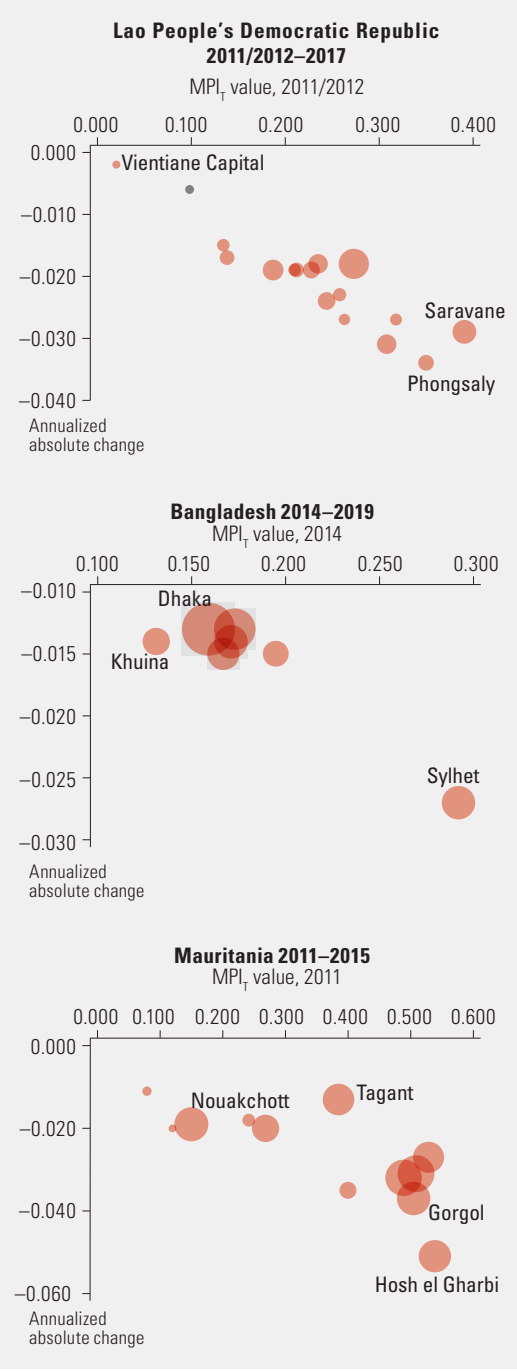
Absolute and relative annualized reductions in multidimensional poverty



‡ indicates that the change in MPI$_T$ is significant only at 90 percent.
MPI$_T$ is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Mitchell and others 2020.

FIGURE 7

Bangladesh, Lao People's Democratic Republic and Mauritania show a pro-poor trend in reducing multidimensional poverty



MPI$_T$ is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.

Note: Regions are ordered horizontally from the least poor in terms of their starting MPI$_T$ value on the left to the poorest on the right, and vertically from the slowest absolute progress on the top to the fastest at the bottom. The size of the bubbles indicates the number of multidimensionally poor people in the initial period. Grey bubbles indicate that no statistically significant change in MPI$_T$ occurred for that region.

Source: Alkire, Kovesdi, Mitchell and others 2020.

except Timor-Leste and Mauritania, which are lower middle income.

The starting and ending percentages for child mortality are by far the lowest because this tragic deprivation has the lowest incidence, so its reduction is the smallest. The proportional reduction of deprivations is smallest in cooking fuel.

Trends in multidimensional and monetary poverty—different but complementary

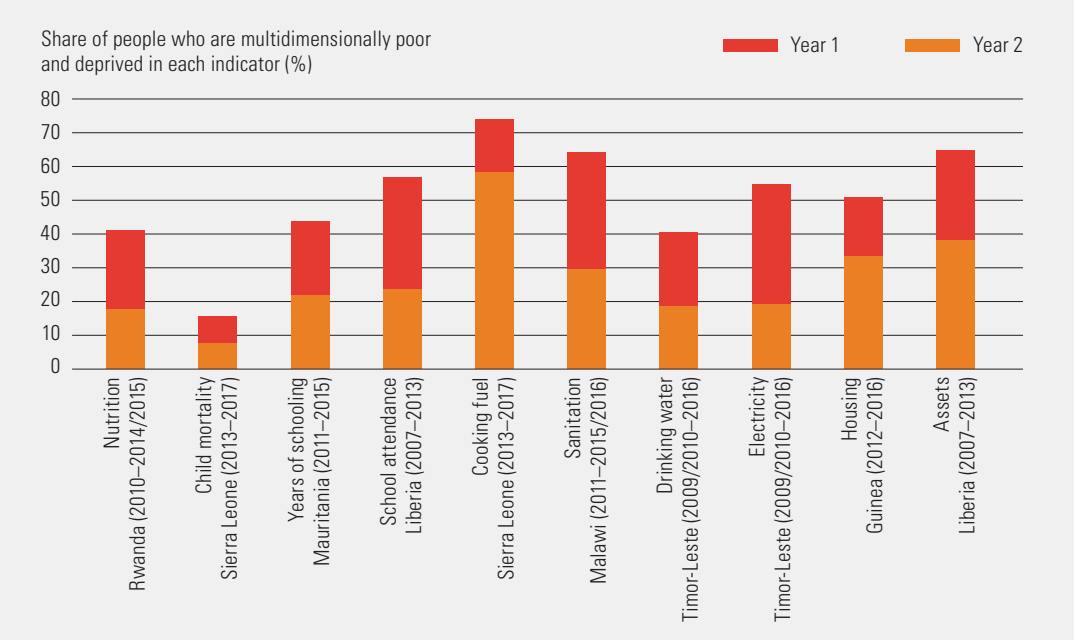
Trends in multidimensional poverty complement trends in monetary ($1.90 a day) poverty.[21] In 52 of the 71 countries with both multidimensional and monetary poverty data, the incidence of multidimensional poverty fell faster in absolute terms (figure 9), while the incidence of monetary poverty fell faster in 19 countries. The difference was particularly striking in the Arab States, where every country saw either a slower reduction in monetary poverty than in multidimensional poverty or an increase in monetary poverty. Some of the poorest countries, such as Niger and Chad, saw larger reductions in monetary poverty than in multidimensional poverty. This is partly because the incidence of multidimensional poverty (which can be compared with the monetary poverty headcount ratio) does not tell the entire story. Niger had the fourth fastest absolute reduction in the intensity of multidimensional poverty and reduced deprivation across all 10 indicators —a reduction captured by the MPI$_T$ but not by the trends in the MPI$_T$ headcount ratio.

Triangulating poverty trends to reveal the overall picture

Overlaying trends in national and international monetary poverty measures and national and international multidimensional poverty measures in one place—as suggested by the late Sir Tony Atkinson, a leading voice in poverty and inequality measurement, in *Measuring Poverty around the World*[22]—can provide a fuller picture of a country's poverty situation. Figure 10 presents this analysis for three countries—Colombia, Pakistan and Sierra Leone—in different regions and with different incidences of poverty.[23] In Colombia multidimensional poverty measured by national definitions fell

FIGURE 8

Which country reduced each indicator fastest and when?



Note: The height of the bar indicates the percentage of people who were multidimensionally poor and deprived in that indicator at the beginning of the survey period, and the orange portion of the bar indicates the percentage by the end of the survey period.
Source: Alkire, Kovesdi, Mitchell and others 2020.

faster than monetary poverty. The incidence of multidimensional poverty according to the global MPI_T in Colombia is low, suggesting the need for a global measure of moderate poverty in addition to the existing measure of acute poverty (global MPI). In Pakistan trends in the incidence of multidimensional poverty according to national definitions and the global MPI_T suggest that multidimensional poverty fell more slowly than monetary poverty. Trend data are not available for Sierra Leone's national MPI, as it was first launched in 2019, but its global MPI_T incidence fell faster than monetary poverty.

South Asia and Sub-Saharan Africa lead in absolute reduction in multidimensional poverty

As the poorest regions in the time periods studied, South Asia and Sub-Saharan Africa had the largest annualized absolute reductions in multidimensional poverty (figure 11). Three South Asian countries (Bangladesh, India and Nepal) were among the 16 fastest countries to reduce their MPI_T value.

Projections of multidimensional poverty

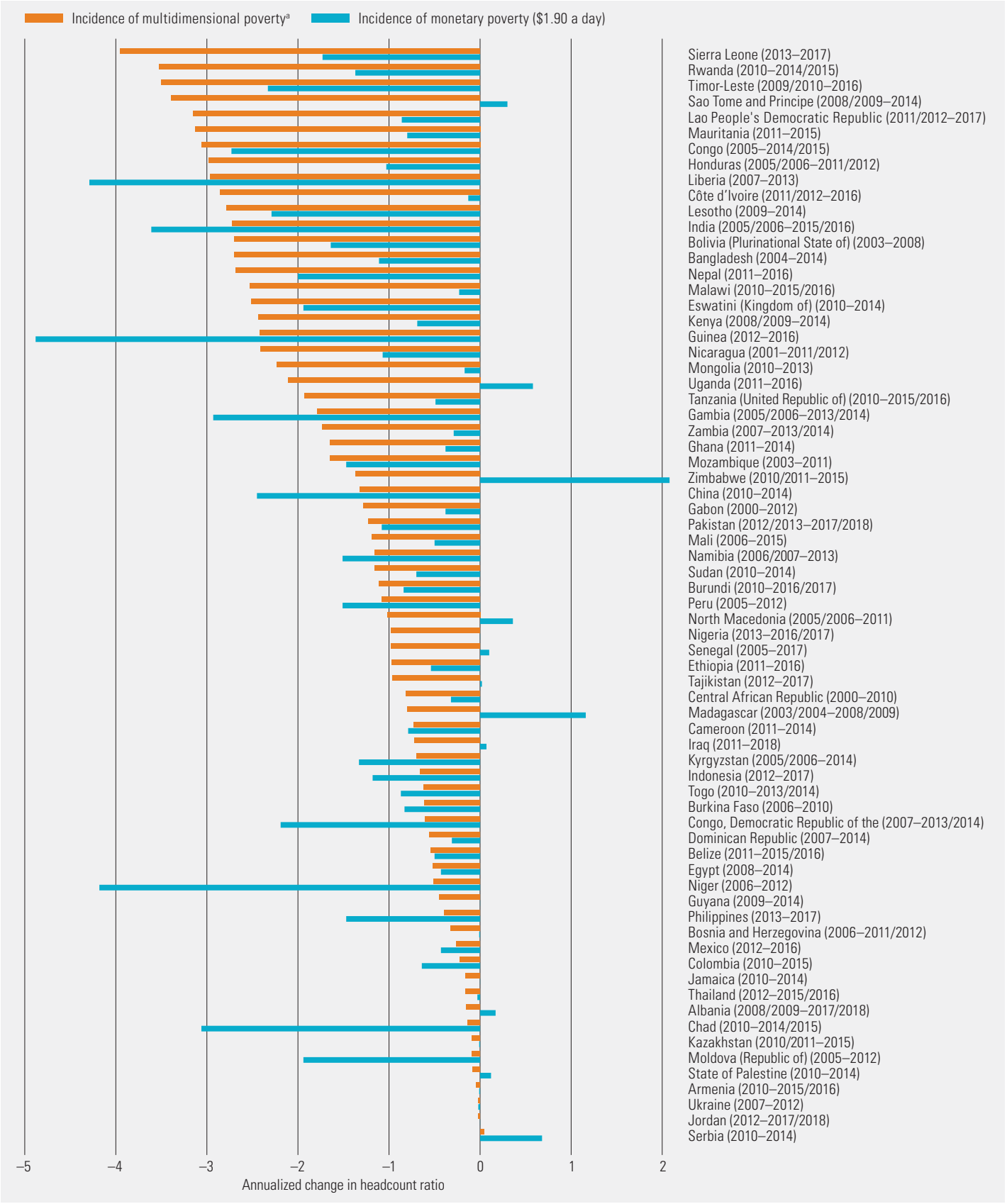
The estimates of changes in multidimensional poverty over time can be used to project whether countries are on track to achieve the SDG target of at least halving the proportion of people living in poverty in all its dimensions by 2030 as well as the possible impacts of COVID-19.[24]

Projections based on observed trends

Before the COVID-19 pandemic, 47 countries were on track to halve multidimensional poverty by 2030, and 18 were off track if the observed trends continued (figure 12).[25] Of the 18 countries that were off track, 14 were in Sub-Saharan Africa and were among the poorest, suggesting that they will require a substantial boost in resources and action to halve multidimensional poverty. Results for the remaining 10 countries differ according to the projection model used, though the model based on linear trends projects that for 9 of those countries, multidimensional poverty will be halved.

FIGURE 9

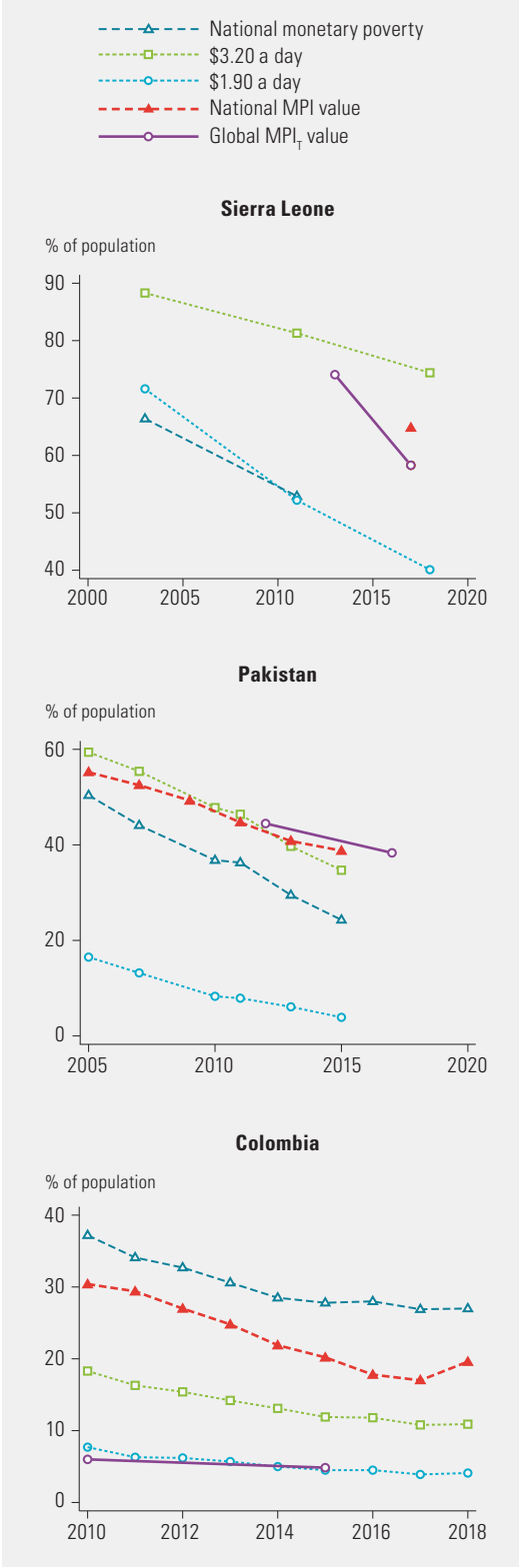
In 52 of the 71 countries with both multidimensional and monetary poverty data, the incidence of multidimensional poverty fell faster in absolute terms



a. Refers to MPI_t, the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Mitchell and others 2020.

FIGURE 10

Overlaying trends in the incidence of national and international monetary and multidimensional poverty provides a fuller picture of a country's poverty situation: Colombia, Pakistan and Sierra Leone



MPI_T is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Pinilla-Roncancio and Scharlin-Pettee 2020.

Impact of COVID-19

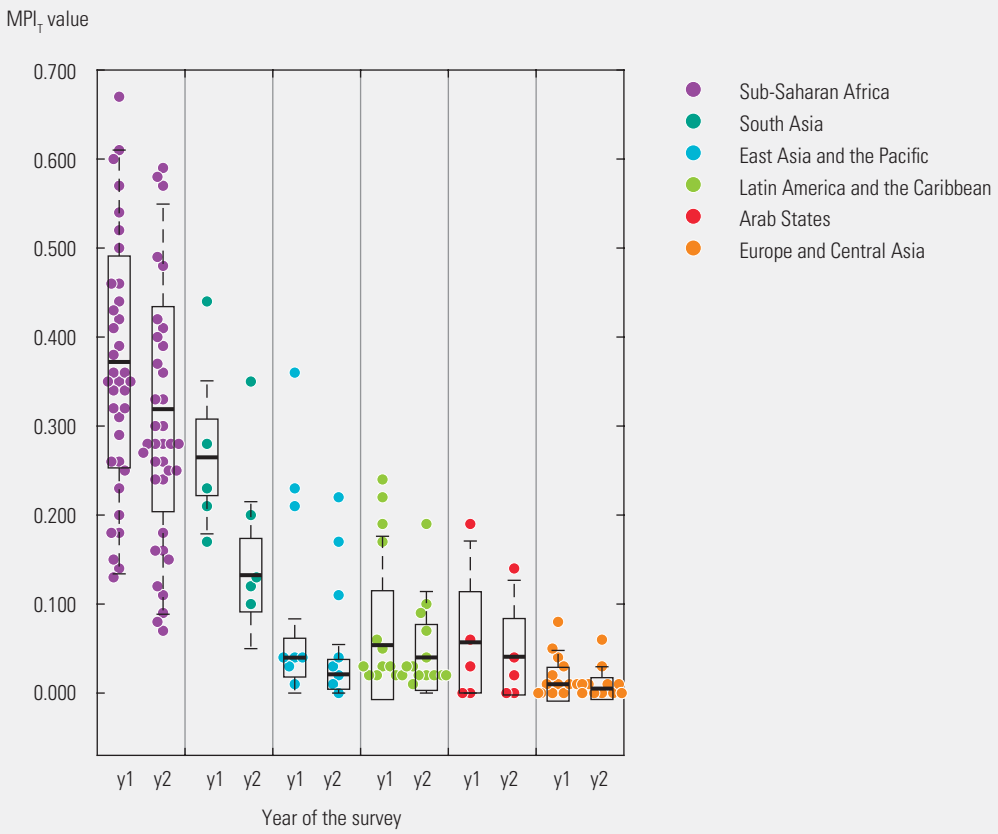
The COVID-19 pandemic has jeopardized progress in reducing multidimensional poverty. Substantial impacts on multidimensional poverty are anticipated through two indicators on which the global MPI is based that are being severely affected by the pandemic—nutrition and children's school attendance.[26] This section provides simulations of multidimensional poverty if deprivation across those indicators increases to different extents.[27] The analysis includes 70 countries with 4.8 billion people.[28]

The COVID-19 pandemic has interrupted education globally, as schools close in the face of national and local lockdowns. School closures peaked in April 2020, with over 91 percent of the world's learners out of school. Between May and July 2020 the proportion of learners out of school fell gradually, from over 70 percent to over 60 percent.[29] In the simulations of the impact on multidimensional poverty, the conservative scenario for school attendance anticipates continued moderate improvements over the remainder of 2020 and assumes that 50 percent of primary school–age children in the countries analysed will experience continued interruption to school attendance.

The COVID-19 pandemic has also disrupted livelihoods and food supply chains globally. According to the World Food Programme, the number of people facing acute food insecurity may increase by 130 million across 55 countries.[30] The simulations of the impact on multidimensional poverty extend this to all 70 countries covered in the analysis, and the moderate scenario for nutrition anticipates that about 25 percent of multidimensionally poor or vulnerable people who were not undernourished before the pandemic become undernourished. In the hope that some potential rise in food insecurity is prevented, or less correlated with other deprivations, the lower-impact scenario explores what would happen if about 10 percent of the already poor or vulnerable but not undernourished become undernourished. Conversely, recognizing that the World Food Programme estimates represent only 56 percent of the population of the countries covered, in the worst-case or upper-impact scenario about 50 percent of the already poor or vulnerable but not undernourished become undernourished.

FIGURE 11

South Asia and Sub-Saharan Africa had the largest annualized absolute reductions in multidimensional poverty



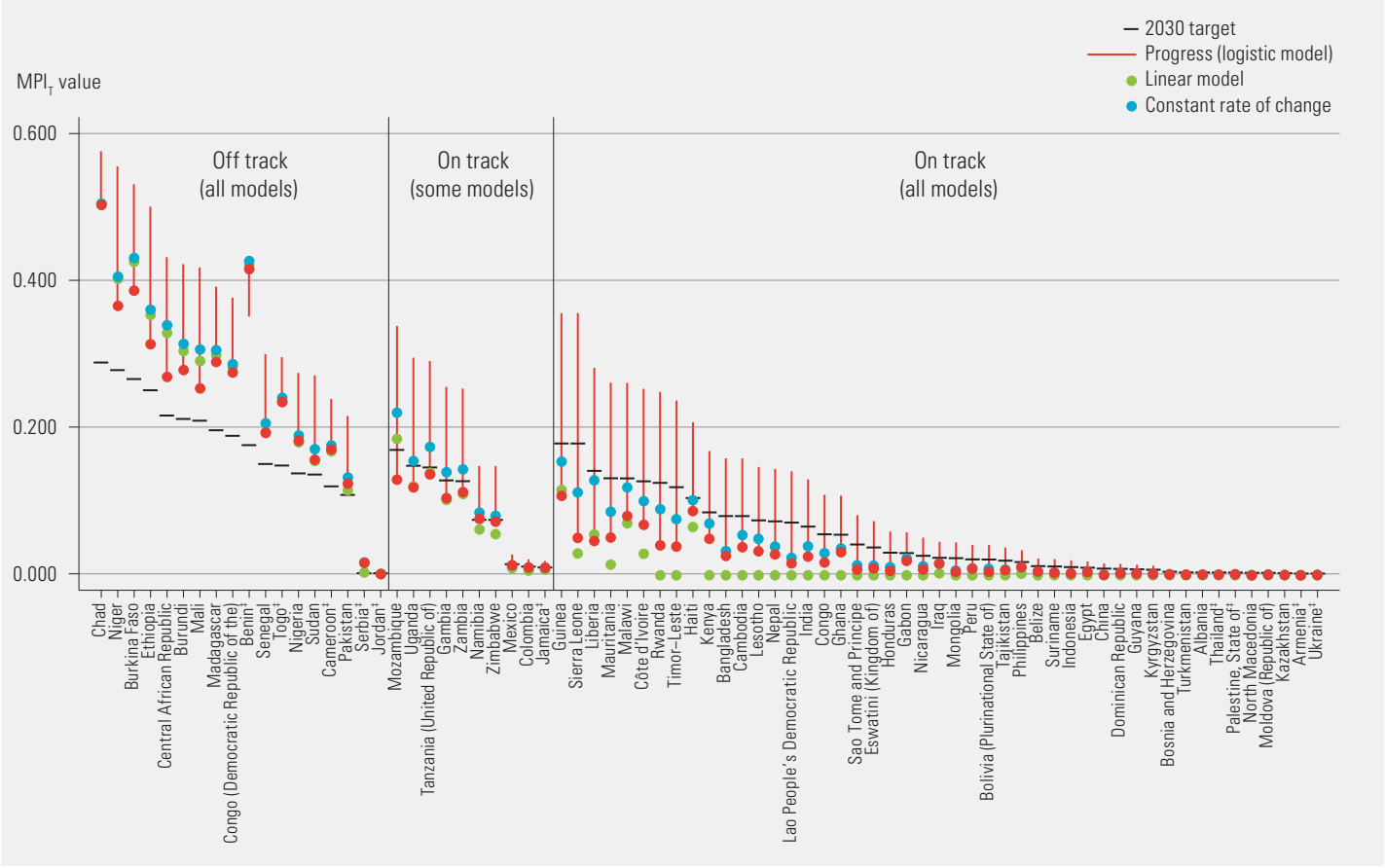
MPI$_T$ is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
Source: Alkire, Kovesdi, Mitchell and others 2020.

Combining the conservative scenario of the impact on school attendance (50 percent) with the moderate scenario of the impact on nutrition (25 percent), the simulations indicate that the aggregate global MPI across the 70 countries could increase from 0.095 to 0.156 in 2020, which is the same value as around 2011 (figure 13). So, the increase in deprivations because of COVID-19 may set poverty levels back by 9.1 years, with an additional 490 million people falling into multidimensional poverty across the 70 countries (table 1).

Recognizing that the impact on school attendance may be less persistent than the impact on livelihoods and nutrition, additional simulations were implemented to assess the impact of COVID-19 on multidimensional poverty through just the nutrition indicator. In that case, under the moderate scenario the aggregate global MPI across the 70 countries could increase from 0.095 to 0.125 in 2020, which is the same value as around 2015 (see figure 13). This increase in deprivations because of COVID-19 would set poverty reduction back by 5.2 years, with an additional 237 million people falling into multidimensional poverty across the 70 countries (see table 1).

FIGURE 12

Forty-seven countries are on track to halve multidimensional poverty by 2030, and eighteen are off track if observed trends continue



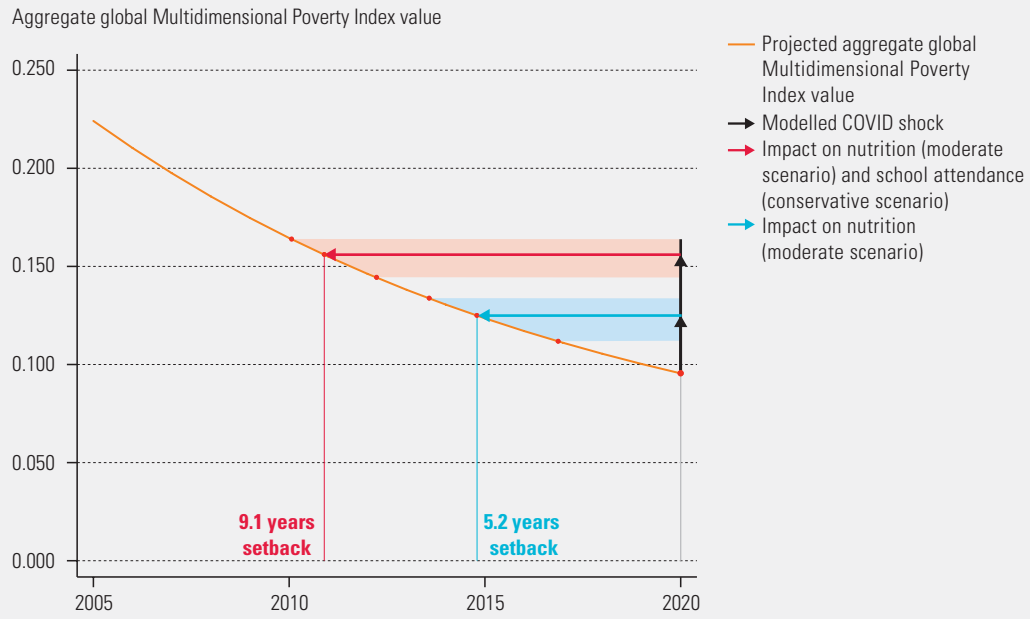
‡ indicates that the underlying change is not significant at $p < .05$.

Note: The top of the red line is the projected starting MPI$_T$ value in 2015, the dots are the projected MPI$_T$ value in 2030 and the black line is the MPI$_T$ value that would reflect multidimensional poverty being halved between 2015 and 2030. If all three dots are below the black line, a country is on track regardless of model.

Source: Alkire, Nogales and others 2020.

FIGURE 13

Under a conservative scenario of the impact of COVID-19 on school attendance and a moderate scenario of the impact on nutrition, simulations indicate that the increase in deprivations because of COVID-19 may set poverty levels back by 9.1 years, with an additional 490 million people falling into multidimensional poverty



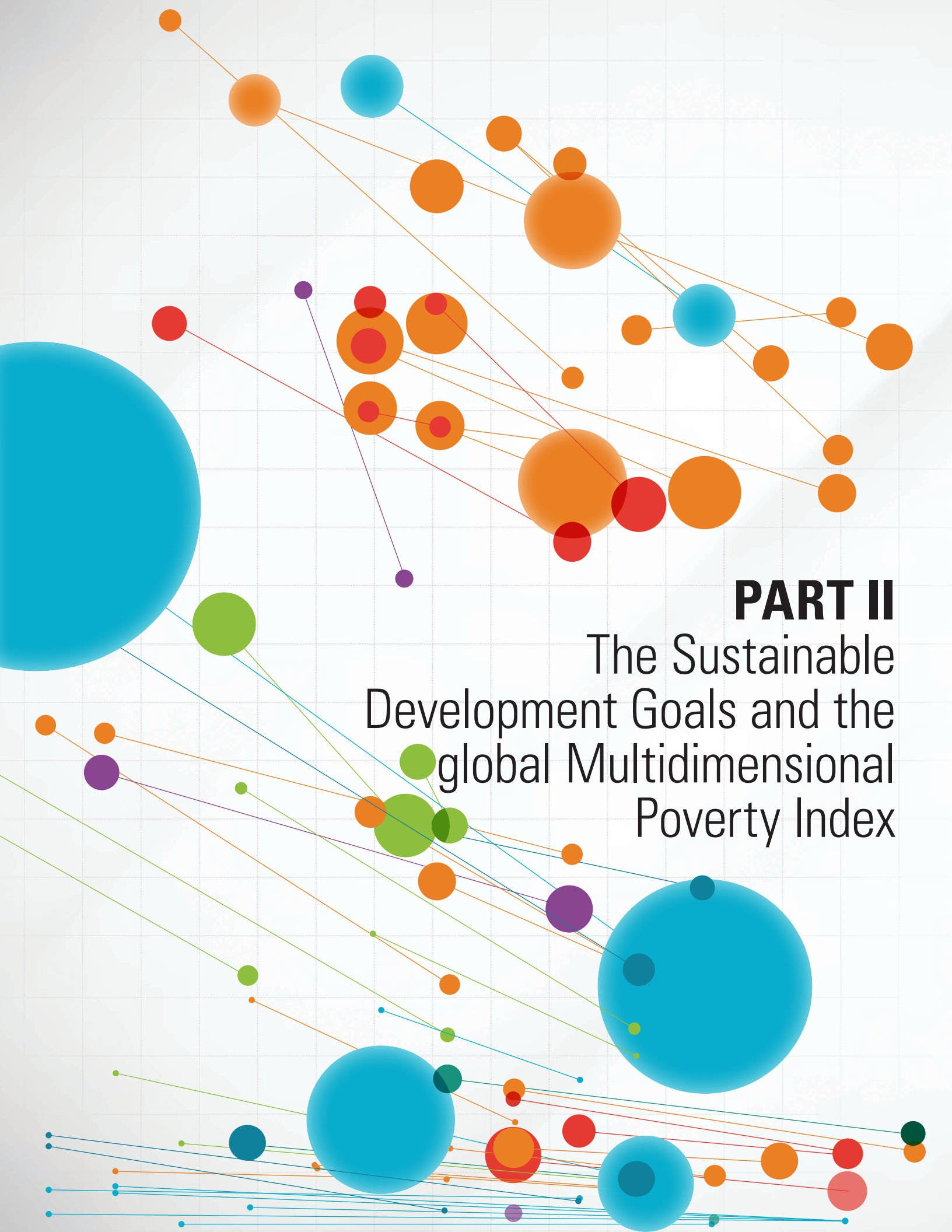
Note: Aggregate global Multidimensional Poverty Index projection, with simulations of setbacks in poverty reduction due to the impact of the COVID-19 pandemic. Simulated (conservative) impact on school attendance: 50 percent of primary school–age children attending school stop attending. Simulated (moderate) impact on nutrition: 25 percent of people who were poor or vulnerable but not undernourished become undernourished. Upper (lower) scenarios: 50 percent (10 percent) of people who were poor or vulnerable but not undernourished become undernourished. The analysis covers 70 of the 75 countries with trends data; Colombia, Dominican Republic, Indonesia, Philippines and Ukraine were excluded because analysis is not feasible due to missing information on the nutrition indicator.
Source: Alkire, Nogales and others 2020.

TABLE 1

COVID-19 scenarios, projected global Multidimensional Poverty Index values, increases in the number of multidimensionally poor people, and length of setback

COVID-19 scenario		Projection for 2020		
Share of people who are poor or vulnerable[a] and become deprived in	Share of primary school–age children who experience interruption to school attendance	Multidimensional Poverty Index	Increase in the number of multidimensionally poor people	Setback
Nutrition	School attendance			
(%)		value	(million)	(years)
10	na	0.112	131	3.1
25	na	0.125	237	5.2
50	na	0.134	310	6.4
10	50	0.144	413	7.8
25	50	0.156	490	9.1
50	50	0.164	547	9.9

na is not applicable.
a. See definition of vulnerable to multidimensional poverty in statistical table 1.
Note: Pre-COVID-19 estimates are 0.095 for MPI value and 941 million for the number of people in multidimensional poverty. The analysis covers 70 of the 75 countries with trend data; Colombia, Dominican Republic, Indonesia, Philippines and Ukraine are excluded because of missing data for the nutrition indicator.
Source: Alkire, Nogales and others 2020.



PART II
The Sustainable Development Goals and the global Multidimensional Poverty Index

Key findings

- Of the 1.3 billion multidimensionally poor people, 82.3 percent are deprived in at least five indicators simultaneously.
- 71 percent of the 5.9 billion people covered experience at least one deprivation; however, the average number of deprivations they experience is five.
- There is a negative, moderate but statistically significant correlation between the incidence of multidimensional poverty and the coverage of three doses of the diphtheria, tetanus and pertussis (DTP3) vaccine. Some of the poorest countries (Central African Republic, Chad, Guinea, South Sudan) vaccinate less than half of surviving infants with the DTP3 vaccine.
- In Nigeria, which has one of the lowest percentages of DTP3 coverage globally, the percentage of people who are poor and deprived in child mortality is the highest among comparator countries Democratic Republic of the Congo, Ethiopia and Pakistan. This suggests that child deaths can be prevented and multidimensional poverty reduced by widespread immunization programmes.
- Multidimensionally poor people have less access to vaccinations: in the four countries studied, the percentage of people living with a child who did not receive the third dose of the DPT-HepB-Hib vaccine[31] is higher among multidimensionally poor people and people vulnerable to multidimensional poverty than among nonpoor people.
- Sub-Saharan African countries have the highest percentages of people who are multidimensionally poor and deprived in years of schooling (Niger, Burkina Faso, South Sudan, Chad and Ethiopia) and school attendance (South Sudan, Burkina Faso, Niger, Chad and Mali).
- In Haiti, with the highest percentage of people who are multidimensionally poor and deprived in years of schooling in Latin American and the Caribbean (22.8 percent), rural women face more disadvantage than their male counterparts, and the differences by sex are higher (by about 2 years) among the nonpoor and vulnerable groups.
- 84.2 percent of multidimensionally poor people live in rural areas, where they are more vulnerable to environmental shocks.
- In every developing region the proportion of people who are multidimensionally poor is higher in rural areas than in urban areas.
- In Sub-Saharan Africa 71.9 percent of people in rural areas (466 million people) are multidimensionally poor compared with 25.2 percent (92 million people) in urban areas.
- In South Asia 37.6 percent of people in rural areas (465 million people) are multidimensionally poor compared with 11.3 percent (65 million people) in urban areas.
- Deprivation in access to clean cooking fuel persists worldwide: 20.4 percent of people in the developing countries covered by the MPI are multidimensionally poor and lack access to clean cooking fuel.
- Deprivation in access to clean cooking fuel among poor people in rural areas and urban areas in Sub-Saharan Africa as well as in rural areas in South Asia, the Arab States and Latin America and the Caribbean requires urgent attention.
- Environmental deprivations are most acute in Sub-Saharan Africa: at least 53.9 percent of the population (547 million people) is multidimensionally poor and faces at least one environmental deprivation. Environmental deprivations are also high in South Asia: at least 26.8 percent of the population (486 million people) is multidimensionally poor and lacks access to at least one of the three environment indicators.
- There is a strong positive association between employment in agriculture and multidimensional poverty, particularly in Sub-Saharan Africa. Agricultural employment may not help reduce poverty in these countries without additional pro-poor policy interventions.

Part II focuses on multidimensional poverty and the Sustainable Development Goals (SDGs) beyond SDG 1. The global Multidimensional Poverty Index (MPI) builds on 10 interlinked household-level deprivations, is available as a national statistic but also disaggregated by age cohort or geography, and illuminates whether the poorest groups are catching up—or being left behind. The first section discusses the interlinkages across the MPI's component indicators. The analysis then moves to the relationships between the MPI and the SDGs related to immunization, education, rural-urban divisions, climate change and the environment, and employment. Possible effects of the COVID-19 pandemic on these SDGs are also considered.

The wide scope of interlinkages

The global MPI provides important information related to Sustainable Development Goal (SDG) 1—ending poverty in all its forms everywhere (box 3). It shows the interlinked deprivations of people in the same household across 10 indicators that relate to SDGs 1, 2, 3, 4, 6, 7 and 11 (figure 14).[32] In doing so, it provides a tool that can inform integrated policies that address interlinked indicators synergistically. But how interlinked are the global MPI indicators?

The SDGs recognize the many interlinkages among deprivations. Interlinkages matter—a single mother who is illiterate and lacks clean water, sanitation and electricity but whose young children are all in school has a very different daily life from a mother with the same deprivations whose children are out of school. A family considered deprived according to indicators for nutrition, child mortality and cooking fuel would be further challenged if they also had to walk 30 minutes to obtain clean water or if they lived in a ramshackle house.

The deprivation loads that people carry affect their behaviour, their ability to respond to policy interventions and their exit strategies from poverty. Of the 1.3 billion multidimensionally poor people, 98.8 percent are deprived in at least three indicators simultaneously;[33] 82.3 percent are deprived in at least five.

If one considers all 10 deprivations across the 107 countries in the global MPI and counts the number of deprivations of all people—including those not considered multidimensionally poor—the results are staggering. Of the 5.9 billion people covered, 71 percent experience at least one deprivation; however, the average number of deprivations they experience is five. Patterns vary by indicator—99.4 percent of the 922 million people without electricity have at least one other deprivation, and 98.3 percent of people deprived in assets and 95.2 percent of people deprived in housing have at least one other deprivation.

Of the 1.52 billion people deprived in nutrition, 19.6 percent are deprived only in nutrition; the other 80.4 percent are deprived in at least one additional indicator (figure 15). For school attendance 6.2 percent are deprived

BOX 3

The global Multidimensional Poverty Index and the Sustainable Development Goals

The overarching aim of the Sustainable Development Goals (SDGs) is to leave no one behind.[1] People who are identified as multidimensionally poor are being "left behind" in several SDGs at the same time. Some 1.3 billion people are multidimensionally poor—half of them children. Disaggregated Multidimensional Poverty Index (MPI) trends in this report show whether countries, children and the poorest regions are catching up or falling further behind.

The SDGs vigorously recommend disaggregation. The global MPI is disaggregated for children and by rural-urban and subnational regions.[2] *World Social Report 2020* highlights disaggregation of the global MPI by rural-urban areas and ethnicity.[3] Additional studies disaggregate it by disability status, female-headed households and other groupings, as microdata permit.[4]

Notes

1. Independent Group of Scientists appointed by the Secretary-General 2019; United Nations 2018.
2. See Alkire, Kanagaratnam and Suppa (2020) and the data tables at https://ophi.org.uk/multidimensional-poverty-index/data-tables-do-files/.
3. UNDESA 2020.
4. Alkire and Kovesdi 2020; Alkire, Ul Haq and Alim 2019; Alkire and others 2014; Alkire and others 2017; Pinilla-Roncancio and Alkire forthcoming.

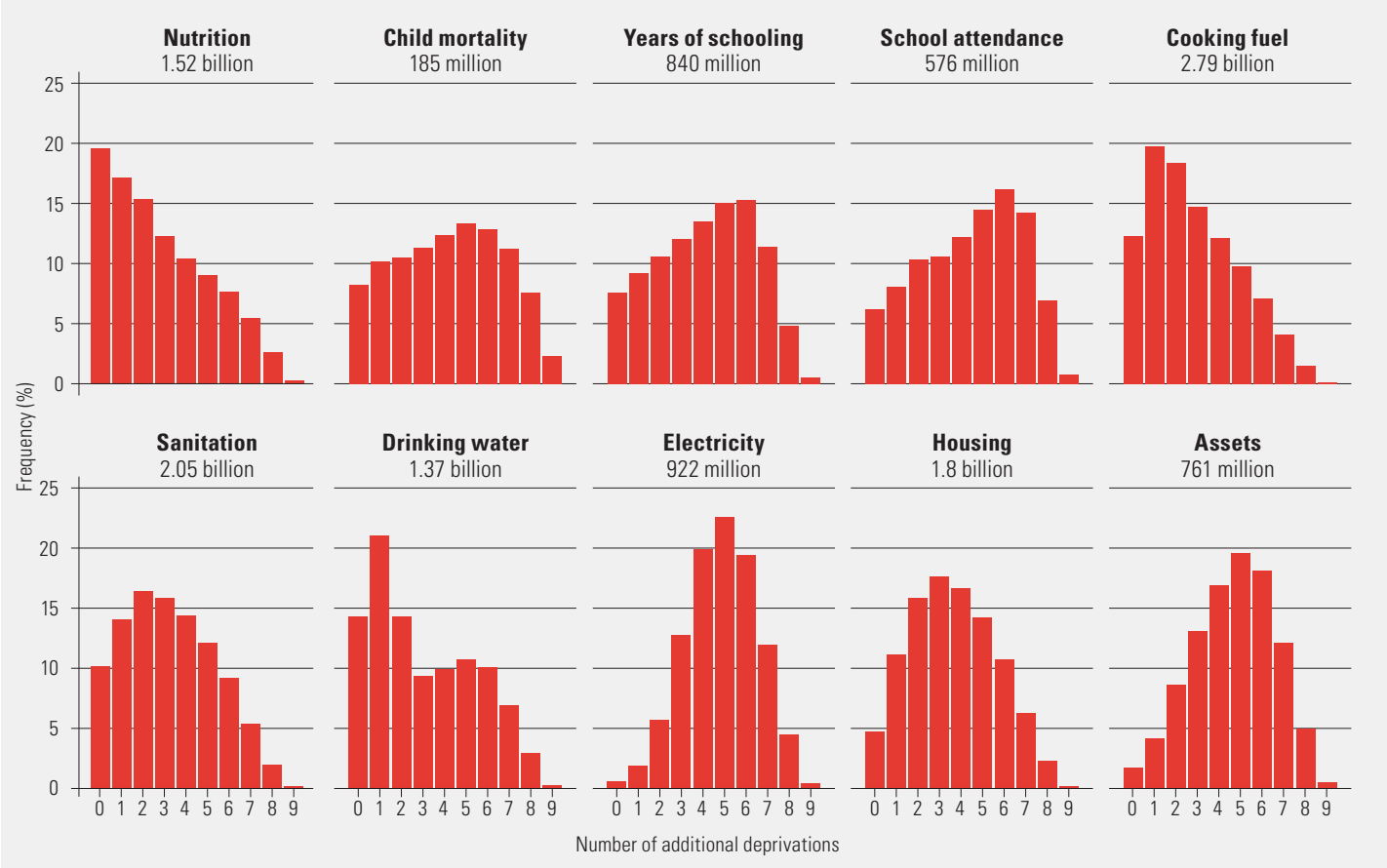
FIGURE 14

Sustainable Development Goals that link to the global Multidimensional Poverty Index

Source: https://sdgs.un.org/goals.

FIGURE 15

Interlinked deprivations across 107 countries



Note: Of the millions of people who are deprived in each indicator, the bars show what percentage of them are deprived in zero, one, two and up to nine of the other Multidimensional Poverty Index indicators simultaneously.
Source: Alkire, Kanagaratnam and others 2020

in only that indicator; the rest have at least one additional deprivation. A better understanding of interlinkages should inform integrated and multisectoral policies so they address linked deprivations effectively.

The next sections explore associations between the global MPI and vital SDG indicators.

The MPI and immunization

As SDG 3 calls for ensuring healthy lives and promoting the well-being of all, immunization has become one of the most cost-effective public health interventions to date, averting 2–3 million deaths a year.[34]

The percentage of children receiving three doses of the diphtheria, tetanus and pertussis (DTP3) vaccine is often used as an indicator of how well countries are providing routine immunization services. In 2018 the global coverage rate for the third dose of the DTP3 vaccine was 86 percent, up from 72 percent in 2000 and 20 percent in 1980. Still, progress has stalled in the current decade, and 83 countries have yet to achieve SDG target 3.8[35] (90 percent coverage). Nine countries, many of which are affected by emergencies, had DTP3 coverage of 50 percent or less: Central African Republic, Chad, Equatorial Guinea, Guinea, Samoa, Somalia, South Sudan, Syrian Arab Republic and Ukraine. Multiple factors, including conflict, underinvestment in national immunization programmes, vaccine stockouts and disease outbreaks, contribute to the disruption of health systems and prevent sustainable delivery of vaccination services. About 1 in 5 (nearly 4 million) unvaccinated and undervaccinated infants live in fragile or humanitarian settings, including countries affected by conflict. These children are the most vulnerable to disease outbreaks. In Yemen children accounted for over 58 percent of the more than 1 million people affected by a cholera outbreak or watery diarrhoea in 2017 alone.

Millions of children are still not reached by potentially life-saving vaccines. For instance, 19.4 million children under age 1 did not receive the three recommended doses of DTP, and 13.5 million children in the same age group did not receive any vaccination.

Ten countries account for 60 percent of unvaccinated children, and 40 percent of children unvaccinated for DTP3 live in just four countries: Nigeria, India, Pakistan and Indonesia.[36] Populous developing countries can contribute considerably to the number of unvaccinated children despite achieving high immunization coverage, as evidenced by India's 2.6 million undervaccinated children and 89 percent coverage rate. Efforts to raise global immunization levels will require a strong focus on the countries where the highest numbers of unvaccinated children live—without neglecting countries where children are most likely to miss out on immunization.

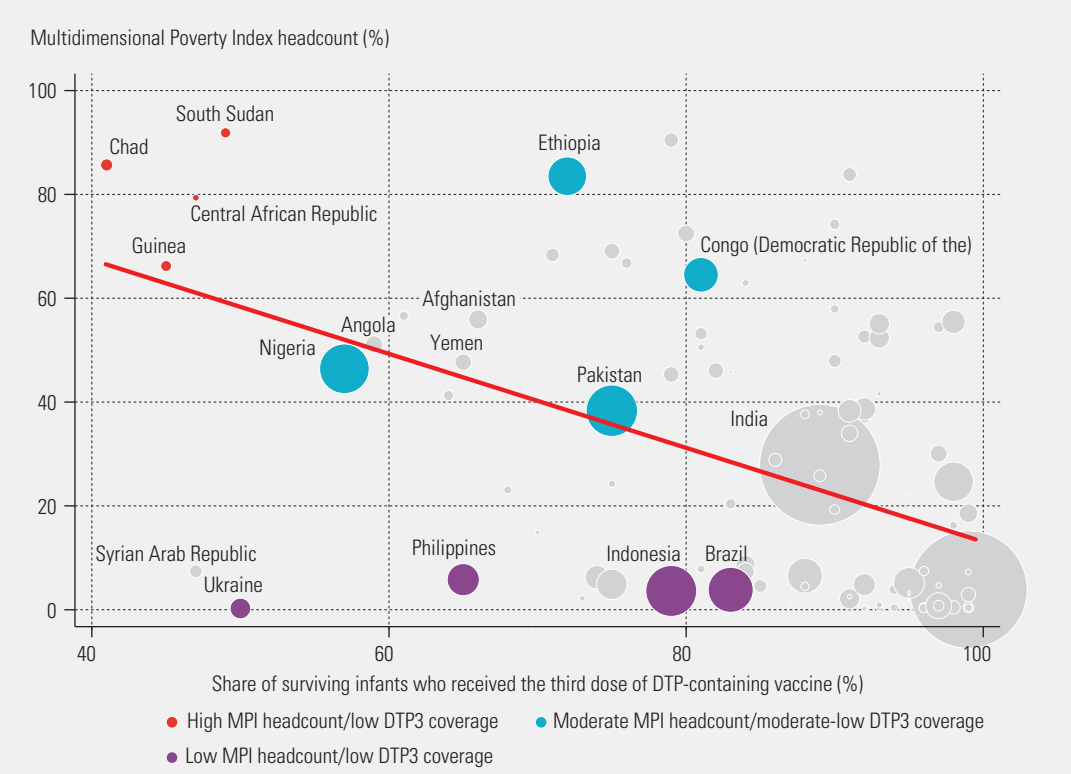
Do countries with lower immunization coverage have higher multidimensional poverty? If so, immunization programmes could help alleviate multidimensional poverty through saving children's lives.

There is a negative, moderate and statistically significant correlation[37] between global MPI value and coverage of DTP3: some of the poorest countries (South Sudan, Chad, Central African Republic, Guinea) vaccinate less than half of surviving infants with the DTP3 vaccine (figure 16).[38] Different factors might explain some counterexamples. On the one hand, several countries (Ukraine, Indonesia, Brazil and the Philippines) have low DTP3 coverage despite low multidimensional poverty. One possible explanation is that the lack of nutrition information in the surveys for these countries leads to an underestimation of multidimensional poverty.[39] On the other hand, multidimensional poverty has likely changed for countries with old survey data, such as Syrian Arab Republic, for which the most recent data are from 2009.

Interesting cases in the comparison of immunization coverage and multidimensional poverty are Democratic Republic of the Congo, Ethiopia, Nigeria and Pakistan, which have low to moderate DTP3 coverage and a moderate incidence of multidimensional poverty. Which indicators drive multidimensional poverty in Nigeria, a country with one of the lowest DTP3 coverage rates (less than 60 percent)? And which indicators affect multidimensional poverty in the other three countries, which have DTP3 coverage of about 80 percent (higher than Nigeria but still below the target of 90 percent)? Are there lessons that these

FIGURE 16

There is a negative correlation between immunization coverage and the incidence of multidimensional poverty



DTP3 is the diphtheria, tetanus and pertussis vaccine.
Note: *N* = 107. The size of each bubble reflects the size of the population in 2018. DTP3 coverage data refer to 2018.
Source: Human Development Report Office MPI calculations based on data from surveys conducted between 2008 and 2019 and UNICEF (2019a).

countries can learn from each other? These questions can be better answered by looking at the micro data.

In the same four countries, child mortality is the indicator with the lowest percentage of people who are multidimensionally poor and deprived (figure 17).[40] Among the four countries the percentage is highest in Nigeria (13.4 percent), which also has one of the lowest percentages of DTP3 coverage globally. This suggests that child deaths could be prevented and multidimensional poverty reduced, by widespread immunization programmes. Ethiopia, where only 5.6 percent of multidimensionally poor are deprived in child mortality, could lift people out of poverty with programmes targeting all indicators in the standard of living dimension, where the percentage of people who are multidimensionally poor and deprived is higher than in the other three countries.

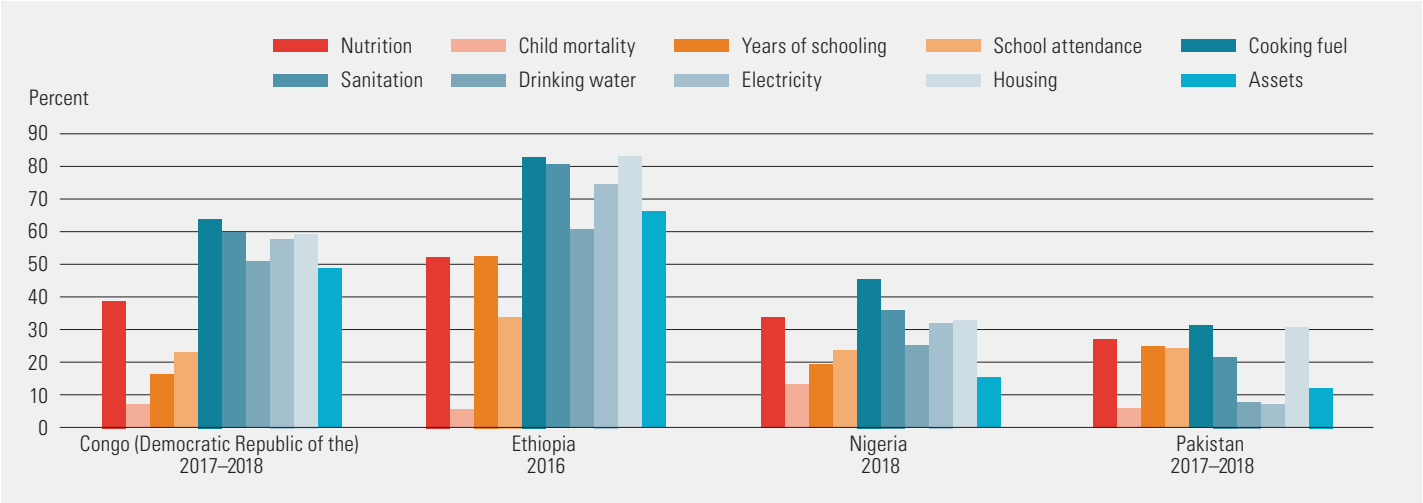
The four countries show a similar pattern for households with a living child age 12–23 months: the percentage of people living with a child who did not receive the third dose of the DPT-HepB-Hib vaccine[41] is highest among multidimensionally poor people (figure 18).

Countries with low immunization coverage such as Nigeria can benefit from programmes that better target child vaccination, which could save the life of the vaccinated child as well as other children's lives; this would, in turn, reduce multidimensional poverty. In addition, people who are not multidimensionally poor (vulnerable or nonvulnerable) can also benefit because one additional deprivation such as child mortality could push them into multidimensional poverty.

The COVID-19 pandemic will likely negatively affect multidimensional poverty through reductions in regular immunizations because of the disruptions, physical distance measures and parental concerns about exposing children to COVID-19 during regular doctor visits[42] However, vaccination services must continue

FIGURE 17

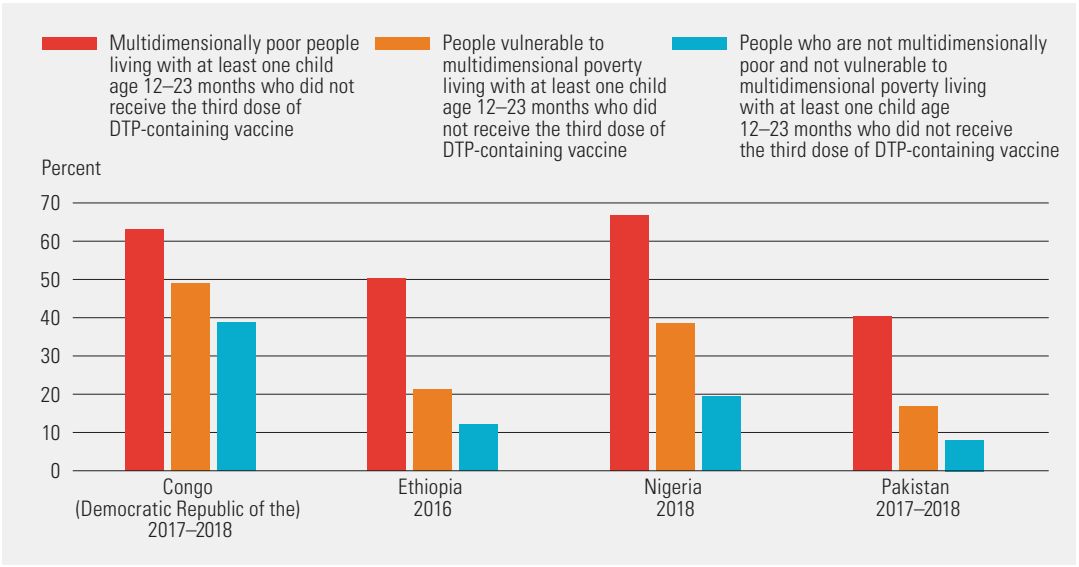
The percentage of people who are multidimensionally poor and deprived in child mortality is highest in Nigeria, which also has one of the lowest percentages of DTP3 coverage globally



Source: Human Development Report Office calculations based on multidimensional poverty estimates from Demographic and Health Surveys and Multiple Indicator Cluster Surveys.

FIGURE 18

In Democratic Republic of the Congo, Ethiopia, Nigeria and Pakistan the percentage of people living with a child who did not receive the third dose of the DPT-HepB-Hib vaccine is highest among multidimensionally poor people



Source: Human Development Report Office calculations based on multidimensional poverty estimates and information on the third dose of the DPT-HepB-Hib vaccine collected in Demographic and Health Surveys and Multiple Indicator Cluster Surveys (according to a vaccination card or the mother's report).

because the health benefits of sustaining routine childhood immunization outweigh the risk of acquiring COVID-19.[43] As the COVID-19 crisis resolves and more information becomes available on how the virus affect children,[44] it will be critical for parents to continue vaccinating their children against other vaccine-preventable diseases. Otherwise, children who are not protected by vaccines will be more vulnerable to other diseases when social distancing measures are relaxed.

To conclude, having an already strong vaccination policy and well-established mechanisms will

be an advantage for developing countries when a COVID-19 vaccine becomes available and ready to be distributed. Efforts from public health officials at every governmental level will be critical for such a vaccine to be accessible for all.

The intersectionality of multidimensional poverty in education

Equitable and inclusive education systems that ensure no one is left behind are the essence of SDG 4. Focusing on the disparity in education, input processes and outcomes is key to achieving this goal.[45] Sub-Saharan African countries have the highest percentages of people who are multidimensionally poor and deprived in years of schooling (Niger, Burkina Faso, South Sudan, Chad and Ethiopia) and school attendance (South Sudan, Burkina Faso, Niger, Chad and Mali; figure 19).

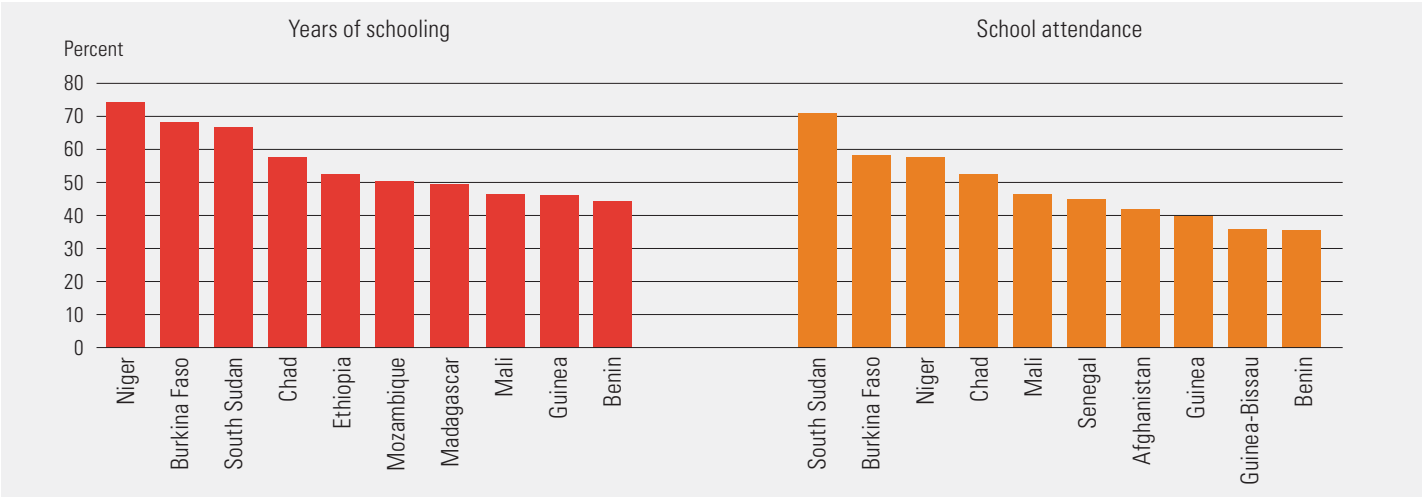
Race, ethnicity, wealth quintile and sex, among other characteristics, can shape individuals' lived experiences and amplify poverty. An intersectional analysis, which is necessary to address SDG target 4.5,[46] shows how individuals experience poverty as overlapping sources of disadvantage. It is highly relevant for the design of policies and programmes to consider that intersecting vulnerabilities can create life deprivations that are greater than the sum of other single factors.[47]

In Mali, with the eighth highest percentage of people who are multidimensionally poor and deprived in years of schooling (46.4 percent), the mean years of schooling of adults older than 25 is higher for men than for women across all four poverty groups (figure 20). The two non–multidimensionally poor groups have a wider sex gap: mean years of schooling is almost 2.8 years greater for nonvulnerable men than for nonvulnerable women and is 1.7 years greater for vulnerable men than for vulnerable women. Even in the nonsevere multidimensional poverty group, women lag by almost one year.

Beyond disparities that consider one intrinsic characteristic of vulnerability, sex in this case, it is relevant to consider how identities that have combined and intersect can face discrimination. In education these identities can determine the privilege of access to high-quality schools as well as prejudices about student performance. In the Caribbean afro-Trinidadian students are stereotypically labelled as the lowest achievers,[48] and in the United States girls of colour face higher rates of discipline for subjective behavioural infractions.[49] Data on intersectionality can shed some light on disparities. In Haiti, with the highest percentage of people who are multidimensionally poor and deprived in years of schooling in Latin America and the Caribbean

FIGURE 19

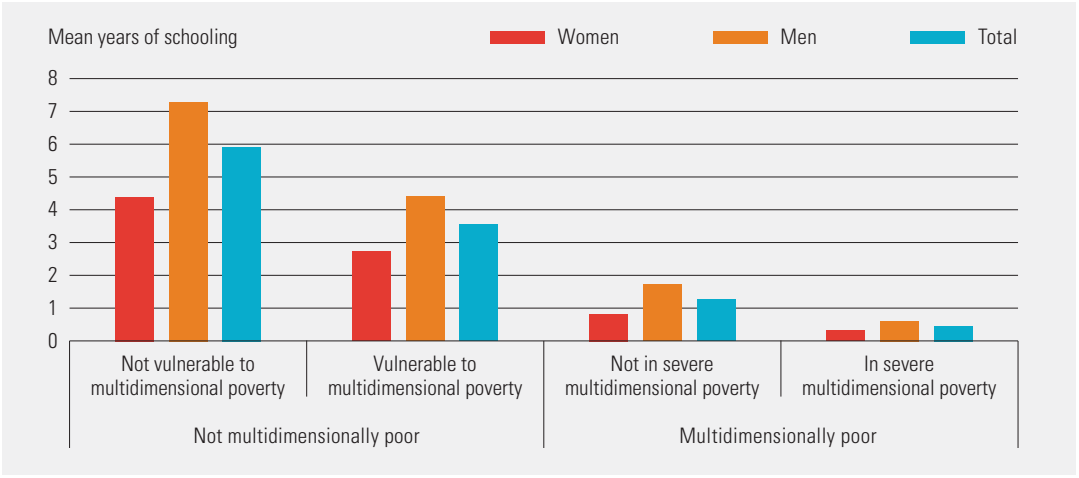
Sub-Saharan African countries have the highest percentages of people who are multidimensionally poor and deprived in years of schooling and school attendance



Source: Statistical table 1.

FIGURE 20

In Mali the mean years of schooling of adults older than 25 is higher for men than for women across all poverty groups

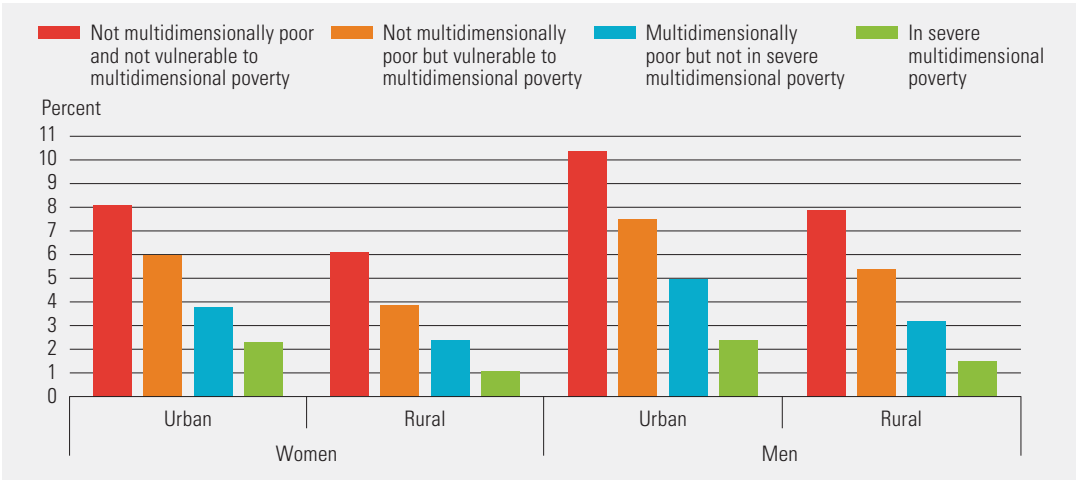


Note: People who are not multidimensionally poor and not vulnerable to multidimensional poverty are those with less than 20 percent overlapping deprivations, people who are not multidimensionally poor but are vulnerable to multidimensional poverty are those with 20 percent or more and less than 33 percent of overlapping deprivations, people who are multidimensionally poor but not in nonsevere multidimensional poverty are those with 33–50 percent of overlapping deprivations and people in severe multidimensional poverty are those with 50 percent or more of overlapping deprivations.
Source: Human Development Report Office calculations based on data from the 2018 Mali Demographic and Health Survey.

(22.8 percent), the differences in mean years of schooling between women and men who live in rural and urban areas in different poverty groups are clear (figure 21). In both poverty groups men have higher mean years of schooling than women. Rural women face more disadvantage than their male counterparts, and the differences by sex are higher (by about 2 years) among the non–multidimensionally poor and vulnerable groups. The differences are similar for urban women and men, though the gap narrows for people in severe multidimensional poverty.

FIGURE 21

In Haiti the differences in mean years of schooling between women and men who live in rural and urban areas in different poverty groups are clear



Note: People who are not multidimensionally poor and not vulnerable to multidimensional poverty are those with less than 20 percent overlapping deprivations, people who are not multidimensionally poor but are vulnerable to multidimensional poverty are those with 20 percent or more and less than 33 percent of overlapping deprivations, people who are multidimensionally poor but not in nonsevere multidimensional poverty are those with 33–50 percent of overlapping deprivations and people in severe multidimensional poverty are those with 50 percent or more of overlapping deprivations.
Source: Human Development Report Office calculations based on data from the 2016–2017 Haiti Demographic and Health Survey.

Quality education across race, ethnicity, wealth quintile and sex can be a powerful tool, a means for children around the world to build opportunities to improve their well-being and escape poverty traps. For the 2030 Agenda, quality education is the foundation on which to create sustainable development, and it can empower local populations to develop innovative solutions to today's challenges. Since 2000 the world has made considerable progress towards universal primary education. But the COVID-19 pandemic threatens this progress and could unleash a human development crisis. The effective out-of-school rate for primary education in the second quarter of 2020 is estimated at 59.6 percent (after accounting for households without access to the internet). And 50 percent of primary school–age children could become deprived in school attendance —which would lead to the largest reversal of progress in history, returning the world to levels before the SDGs and even the Millennium Development Goals.[50]

The MPI and the rural-urban divide

Of the 1.3 billion multidimensionally poor people worldwide, 84.2 percent live in rural areas and are thus more vulnerable to environmental threats. Climate can affect school attendance,[51] and natural shocks can affect electricity and quality housing.[52] Lack of transportation is an ongoing problem in rural areas and may limit access to services, adversely affecting the access to food,[53] health[54] and quality of life, as well as employment opportunities, which can, in turn, impact nutrition and child mortality.

Most people in Sub-Saharan Africa, especially in rural areas, lack access to clean cooking fuel. This dramatically damages their health and impairs productivity improvements. Almost 490,000 premature deaths a year are related to household air pollution due to lack of access to clean cooking fuel; women and children are the most affected. Forest degradation, sometimes leading to deforestation, is another serious consequence of the unsustainable harvesting of fuelwood.[55]

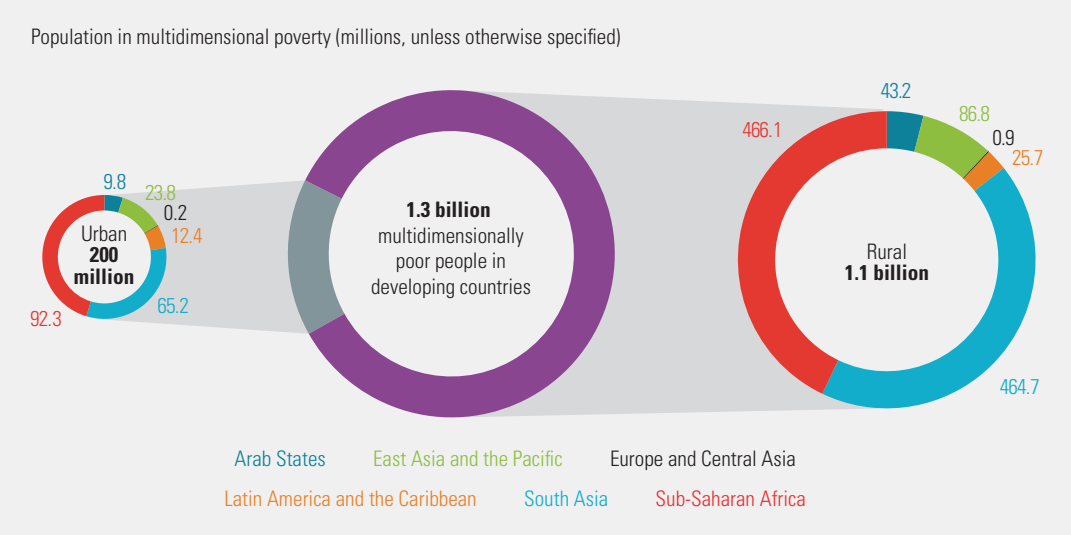
In every developing region the proportion of people who are multidimensionally poor is higher in rural areas than overall and in urban areas. In Sub-Saharan Africa 55 percent of the overall population is multidimensionally poor compared with 71.9 percent in rural areas (466 million people) and 25.2 percent in urban areas (92 million people). So, people in rural areas are almost three times as likely to be multidimensionally poor as people in urban areas (figure 22). In South Asia 29.2 percent of the overall population is multidimensionally poor compared with 37.6 percent in rural areas (465 million people). In the Arab States 25.8 percent of people in rural areas is multidimensionally poor compared with 5.8 percent in urban areas. In East Asia and Pacific 8.7 percent of the population in rural areas—87 million people—are multidimensionally poor compared with 2.3 percent in urban areas. In Latin America and the Caribbean 19.9 percent of people in rural areas are multidimensionally poor compared with 3.1 percent in urban areas —making a person in a rural area six times as likely to be poor as a person in an urban area.

While national averages can hide disparities, disaggregating multidimensional poverty by urban and rural location can provide information about the different deprivations suffered by the poor. The percentage of people who are poor and deprived in each indicator is always higher in rural areas than in urban areas. In addition, the indicator in which the highest percentage of people are multidimensionally poor and deprived is not the same in urban areas and rural areas (figure 23).

Deprivation in cooking fuel among poor people in rural areas and urban areas in Sub-Saharan Africa as well as in rural areas in South Asia, the Arab States and Latin America and the Caribbean, requires urgent attention. While more than 450 million people have gained access to clean cooking fuels since 2010 in China and India as a result of liquefied petroleum gas programmes and clean air policies,[56] the challenge in Sub-Saharan Africa, where 463 million people in rural areas are multidimensionally poor and deprived in cooking fuel, remains acute. Furthermore, deprivation in cooking fuel is associated with indoor air pollution and acute respiratory infections and could thus imply increased risk to COVID-19, which attacks the lungs, making the need for clean air policies even more vital.[57]

FIGURE 22

Of the 1.3 billion people who are multidimensionally poor, 1.1 billion people—84.2 percent—live in rural areas



Note: Aggregates include 106 countries. Seychelles is excluded because disaggregated data by urban-rural area were not available.
Source: Human Development Report Office calculations.

The MPI, climate change and the environment

Poor and disadvantaged people suffer most from climate change and environmental degradation. The most disadvantaged carry a "double burden":[58] they are vulnerable to environmental degradation and must cope with immediate environmental threats from indoor air pollution (SDG 3.9), lack of clean water (SDG 6.1) and unimproved sanitation (SDG 6.2). In addition, the health of poor people is endangered by lack of sufficient nutrition (SDG 2.1) and lack of housing of acceptable quality.

There are numerous links between poverty and the environment. Many poor people depend on natural resources and ecosystem services for their livelihood, employment and well-being. Degradation of the natural environment puts the livelihoods of these people at risk and implies an obstacle to reducing poverty. "On the other hand...poverty can aggravate environmental problems through unsustainable practices of use of natural resources."[59]

Every year natural disasters kill about 90,000 people and affect close to 160 million people worldwide.[60] They have an immediate and a long-term impact on human lives and often destroy the environment and livelihoods of affected people, with lasting effects on their health, well-being and survival.

For example, heavy rainfall in East Africa in April 2020 has caused deaths, displacement, flooding and landslides.[61] Lake Victoria has swelled to historic highs, and rivers have overflowed, leaving millions of people without homes or food and highly susceptible to infectious diseases, including COVID-19. At the same time a locust infestation has spread in the subregion. Although control measures reduced locust populations in the first quarter of 2020, the heavy rains yielded conditions conducive to further breeding of desert locusts, which is now under way.[62] These adverse weather conditions are highly likely to decimate harvests and leave millions of people undernourished.

In Kenya the impact of these natural disasters is greater in provinces with higher multidimensional poverty (North Eastern, Eastern, Western and Rift Valley; figure 24).

The relationship between multidimensional poverty and the environment affects other areas as well, such as lack of access to services that are fundamental to maintaining good environmental health (clean drinking water, sanitation, sewage, garbage collection, access to clean energy).

FIGURE 23

The percentage of people who are multidimensionally poor and deprived in each indicator is always higher in rural areas than in urban areas

Note: Seychelles is excluded because disaggregated data by urban-rural area were not available.
Source: Human Development Report Office calculations.

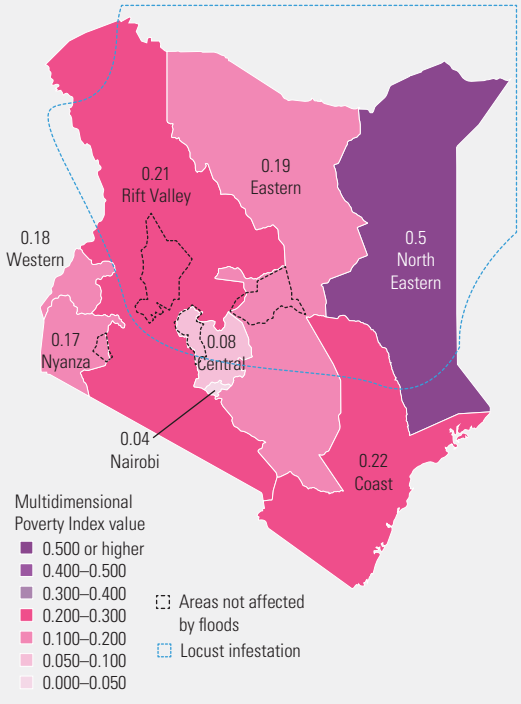
Without adequate sanitation systems, land and water sources become contaminated, which has immediate impacts on human health. Similarly, not having access to clean energy to substitute for solid cooking fuels not only affects the quality of air in homes but also implies deforestation and ecosystem degradation.

Deprivation in access to clean cooking fuel persists worldwide and is most widespread in Sub-Saharan Africa, where 53.9 percent of the population is multidimensionally poor and deprived in this indicator. This deprivation is lower in South Asia (26.8 percent) and the Arab States (12.2 percent; figure 25). Still, more than 20.4 percent of people in the developing countries covered by the MPI are multidimensionally poor and lack access to clean cooking fuel. Similarly, the percentages of people who are multidimensionally poor and deprived in access to clean drinking water (36.1 percent) and in access to improved sanitation (47.9 percent) are highest in Sub-Saharan Africa.

Deprivations in environmental indicators are most acute in Sub-Saharan Africa: at least 53.9 percent of the population (547 million people) is multidimensionally poor and faces at least one environmental deprivation. Deprivations in environmental indicators are also high in South Asia: at least 26.8 percent of the population (486 million people) is in multidimensional poverty and lacks access to at least one of the three environment indicators.

FIGURE 24

In Kenya the impact of recent natural disasters is greater in provinces with higher multidimensional poverty

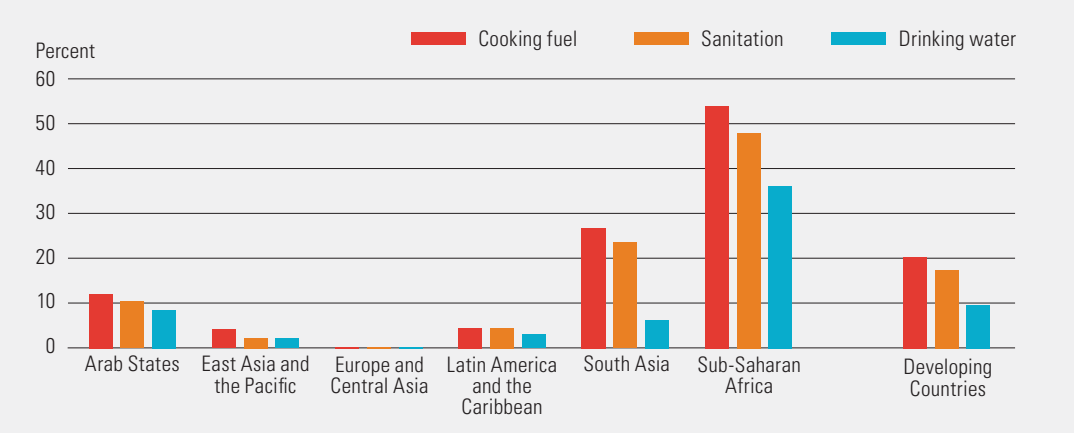


Source: Human Development Report Office calculations based on FAO (2020), OCHA (2020) and OPHI (2019).

Environmental deprivations contribute 24.6 percent to the MPI on average—a much higher share than their weight of 17 percent.

FIGURE 25

The percentages of people who are multidimensionally poor and deprived in access to clean cooking fuel, access to clean drinking water and access to improved sanitation are highest in Sub-Saharan Africa



Source: Human Development Report Office calculations.

There is a significant difference between rural and urban areas (25.1 percent versus 21.1 percent) and across regions (figure 26).

The MPI, work and employment

Having a good job is often a way out of poverty. Work also allows people to fully participate in society while giving them a sense of self-respect and fulfilment.[63] Several SDGs (5, 8 and 9) focus on work. The importance of paid work for poverty reduction is unquestionable, though not all jobs are dignifying. Some can violate human rights or limit freedom and autonomy. SDG target 8.7 calls for immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking, and secure the prohibition and elimination of child labour by 2025. Some work, such as work in hazardous industries, also puts people's health at risk.

Work and employment are not directly included in the global MPI—mainly because the international surveys on which it is based do not collect information on work. But there is a strong correlation between MPI value and child labour (figure 27). Some 36 million children ages 5–14 in child labour—32 percent of all children in that age range—are out of school, completely deprived of education.[64] While the rest of children in child labour can attend school, a growing body of research suggests that they are also penalized educationally. School-age children in child labour miss the opportunity to receive adequate education and develop capabilities that would guide them out of poverty. Even more, children in child labour are unable to fully realize their rights to education, leisure and healthy development, and in turn they are less likely to fully benefit from broader social and economic development and poverty eradication.

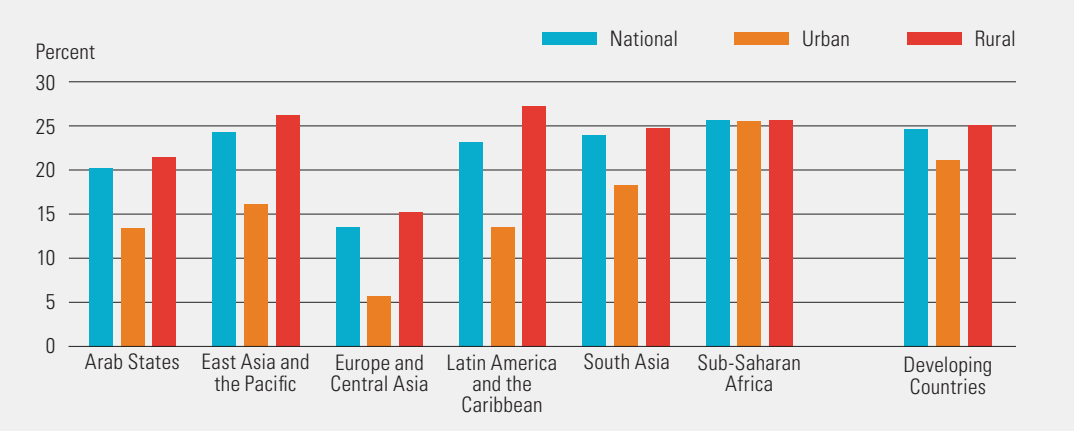
Agricultural employment plays an important role in raising overall employment and reducing poverty in many developing countries, particularly in poor rural areas. But there is also evidence of the limitation of agriculture in delivering steady poverty reduction.[65]

There is a strong positive association between employment in agriculture and multidimensional poverty, particularly in Sub-Saharan Africa (figure 28). This could be due to low agricultural productivity because of underemployment or disguised unemployment or to lack of agricultural commercialization and modernization in low- and middle-income countries with extensive rural poverty. Agricultural employment may not help reduce poverty in these countries without additional pro-poor policy interventions.

Informal employment is usually labelled "vulnerable" or "precarious," and informal workers are often seen as trapped in a cycle of poverty.

FIGURE 26

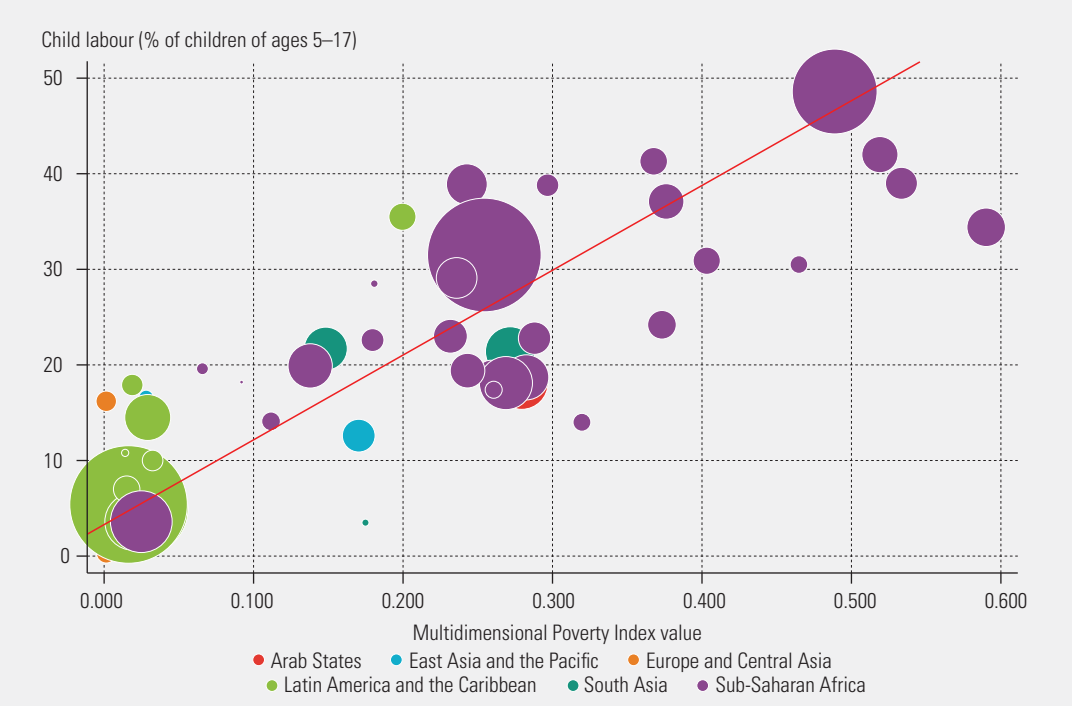
The average contribution of environmental indicators to the Multidimensional Poverty Index differs significantly between rural and urban areas and across regions



Source: Human Development Report Office calculations.

FIGURE 27

Child labour is more prevalent in countries with higher multidimensional poverty



Note: $N = 65$, corr = .86 ($p < 0.001$). The size of each bubble reflects the size of the population.
Source: Human Development Report Office calculations based on data from http://hdr.undp.org/data.

FIGURE 28

Higher employment in the agricultural sector is associated with higher multidimensional poverty in Sub-Saharan Africa

Note: $N = 96$, corr = .76 ($p < 0.001$). The size of each bubble reflects the size of the population.
Source: Human Development Report Office calculations based on data from http://hdr.undp.org/data.

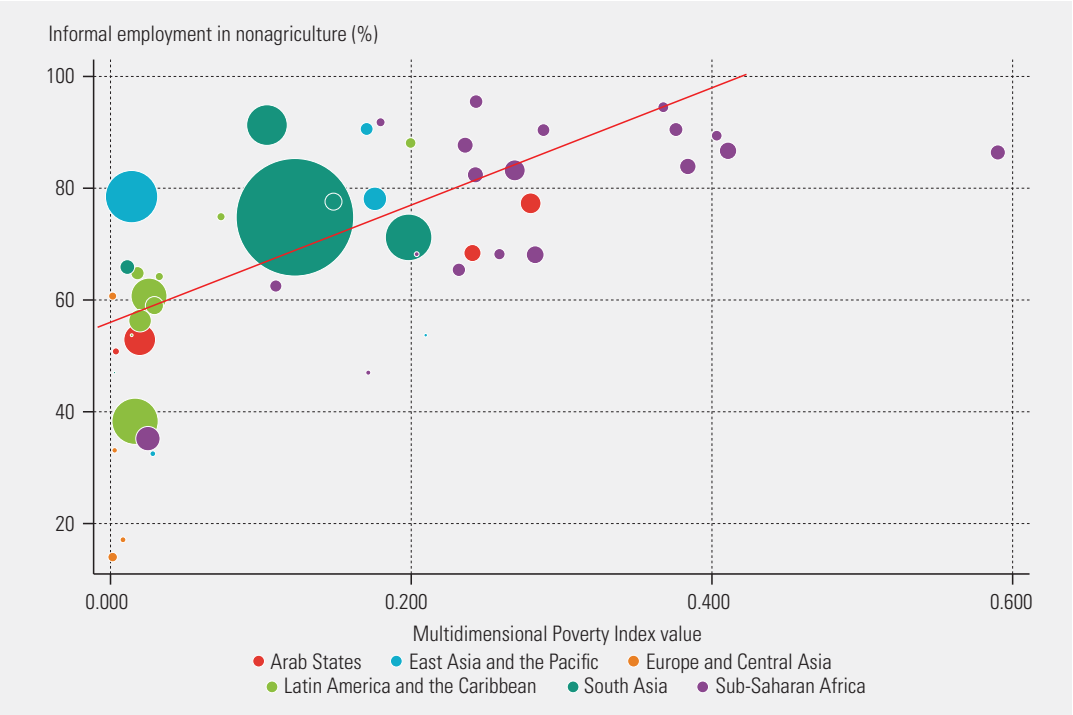
The informal economy thrives during high unemployment, underemployment and poverty. It plays a significant role in these circumstances, especially in income generation, because of the relative ease of entry and low requirements for education, skills, technology and capital. Most people enter the informal economy not by choice but due to a lack of opportunities for employment, including self-employment, in the formal economy.[66] While informal employment provides an income mostly for basic needs—food, housing, health needs and perhaps schooling—it is unclear whether informal employment contributes to poverty reduction. "Not all informal workers are poor and not all working poor are engaged in the informal economy—but there is significant overlap between informality and poverty."[67] Informal earnings could keep workers and their families above the income poverty line, but very little is known about the impact of informal work on multidimensional poverty.

There is a medium-high positive association between share of informal employment in nonagricultural employment and multidimensional poverty, but high variability is observed, likely implying that not all informal workers are multidimensionally poor (figure 29).

Informal employment does not provide any labour-based social protection. In many developing countries a large share of the population is not covered by any social protection—that is, no health insurance, no unemployment benefits, no paid leave, no paid vacation and no old-age pension. In countries with high multidimensional poverty a large share of the population also lacks any social protection (figure 30).

FIGURE 29

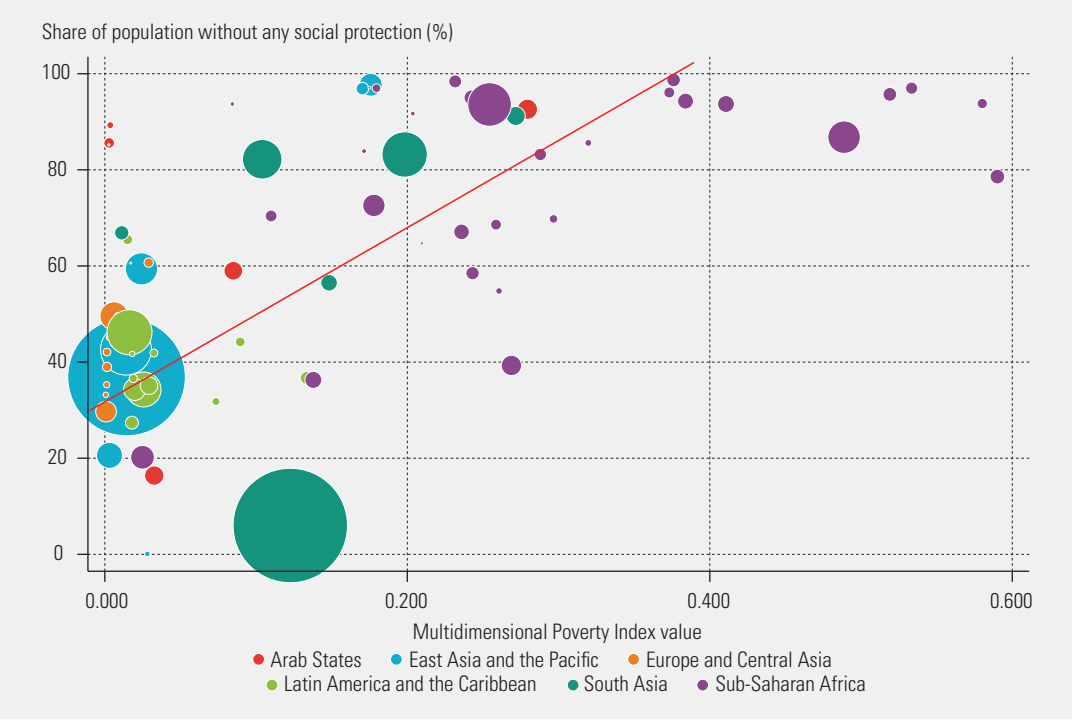
A higher share of informal employment in nonagricultural employment is associated with higher multidimensional poverty



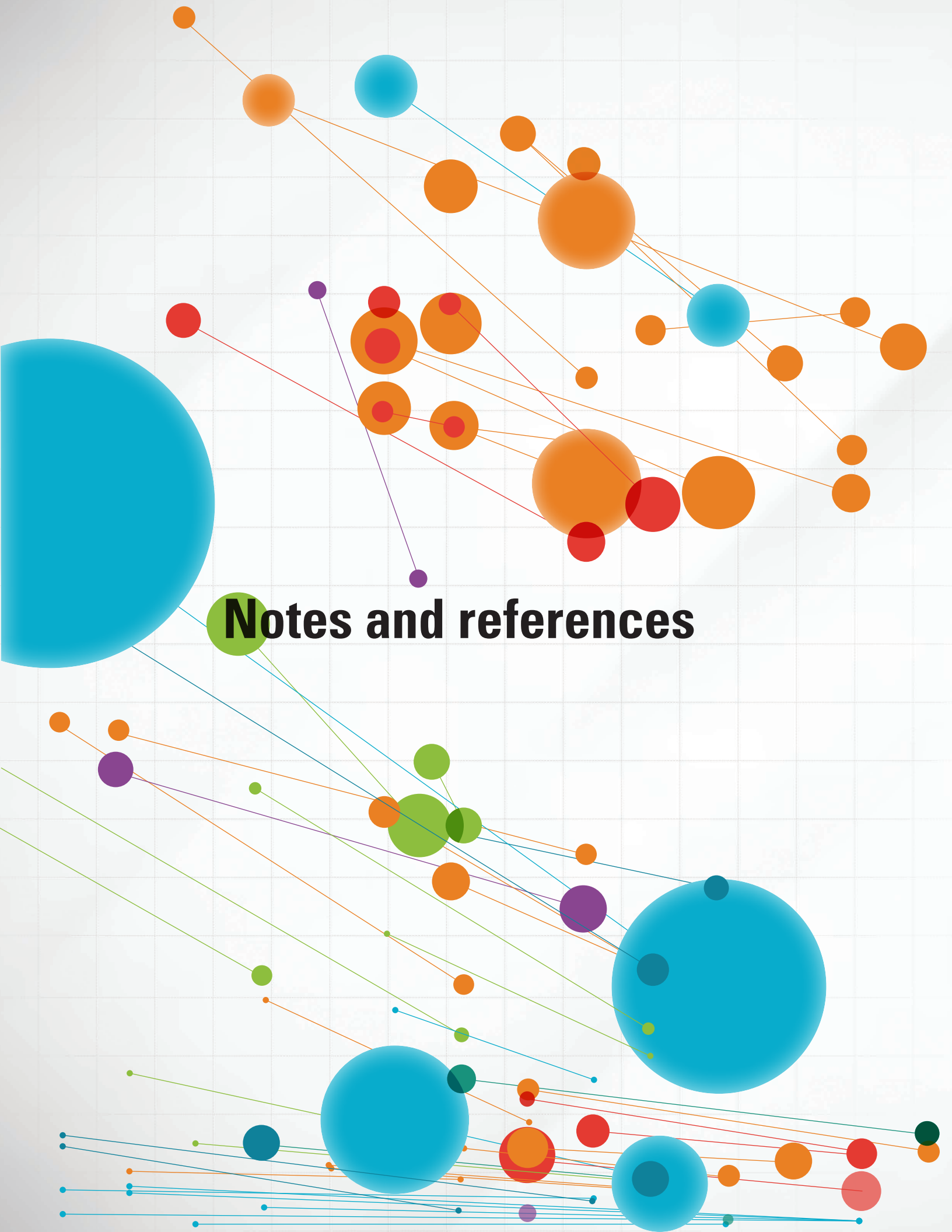
Note: $N = 49$, corr = .68 ($p < 0.001$). The size of each bubble reflects the size of the population.
Source: Human Development Report Office calculations based on data from http://hdr.undp.org/data.

FIGURE 30

In countries with high multidimensional poverty a large share of the population lacks any social protection



Note: $N = 78$, corr = .63 ($p < 0.001$). The size of each bubble reflects the size of the population.
Source: Human Development Report Office calculations based on data from http://hdr.undp.org/data.



Notes and references

Notes

1 Sen 2020.
2 All population aggregates in this report use 2018 population data from UNDESA (2019), unless otherwise indicated.
3 Although these countries' MPI point estimates were halved, there was not sufficient evidence of such a reduction at the 95 percent confidence level.
4 UN General Assembly 2015.
5 The deprivation score of a multidimensionally poor person is the sum of the weights associated with each indicator in which the person is deprived.
6 Alkire, Kanagaratnam and Suppa 2020; UNDP 2020b; http://hdr.undp.org/en/content/mpi-statistical-programmes.
7 Refers to the World Bank's fiscal year 2020. World Bank n.d.
8 The latest survey for each country was used, and the cutoff date for downloading data was 15 March 2020. By that date 25 countries had released new data: Bangladesh (MICS 2019), Botswana (Botswana Multitopic Household Survey 2015–2016), Democratic Republic of the Congo (MICS 2017–2018), Cuba (Encuesta Nacional de Ocupación 2017), Gambia (MICS 2018), Georgia (MICS 2018), Guinea (DHS 2018), Indonesia (DHS 2017), Kiribati (MICS 2018–2019), Kyrgyzstan (MICS 2018), Lesotho (MICS 2018), Madagascar (MICS 2018), Mali (DHS 2018), Mongolia (MICS 2018), Montenegro (MICS 2018), Nigeria (DHS 2018), Papua New Guinea (DHS 2016–2018), Peru (Encuesta Demográfica y de Salud Familiar 2018), Seychelles (Quarterly Labour Force Survey 2019), Sri Lanka (SLDHS 2016), Suriname (MICS 2018), Togo (MICS 2017), Tunisia (MICS 2018), Zambia (DHS 2018) and Zimbabwe (MICS 2019). Of these, Botswana, Cuba, Kiribati, Papua New Guinea and Seychelles were not included in previous releases of the global MPI.
9 HDRO and OPHI are grateful to the Demographic and Health Survey Program, the Multiple Indicator Cluster Surveys programme and national survey providers for their work, which has become more challenging because of COVID-19.
10 All discussion of changes in this section refer to statistically significant changes, which can be considered to have occurred with 95 percent confidence. Beginning in 2021, OPHI plans to publish harmonized trends simultaneously, data permitting, including every updated survey.
11 The population of the 75 countries is about 5 billion. The population was 4.6 billion in the first time period, 5 billion in the second and 5.1 billion in 2018. When analysing trends in multidimensional poverty, the population in the survey years is used to estimate the number of multidimensional poor people. If a survey was conducted between two years, the population of the second year is used.
12 MPI_T is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.
13 For the results and key harmonization decisions, see statistical table 2. For a detailed description of the harmonization process and details for each country, see Alkire, Kovesdi, Mitchell and others (2020). For a detailed analysis of the results, see Alkire, Kovesdi, Pinilla-Roncancio and Scharlin-Pettee (2020).
14 The share is always 96 percent, according to population data from 2018 or the initial or final survey years. Two countries—Armenia and Thailand—had an absolute reduction in MPI_T value that was significant at the 90 percent confidence interval, but not at 95 percent.
15 The results for India have been revised based on previously published data from Alkire, Oldiges and Kanagaratnam (2018).
16 Although these countries' MPI_T point estimates were halved, there is not sufficient evidence of such a reduction at the 95 percent confidence level.
17 UN 2018.
18 The analysis of age-disaggregated data covers 74 countries; age-disaggregated changes in multidimensional poverty could not be calculated for Armenia because multidimensional poverty is very low.
19 In this report the number of people living in multidimensional poverty in India is based on population data from UNDESA (2019), which imply a larger number of multidimensionally poor people in 2006; previous estimates were based on UNDESA (2017).
20 Bangladesh, Bolivia, the Kingdom of Eswatini, Ethiopia, Gabon, Guinea, Honduras, India, Indonesia, Lao People's Democratic Republic, Malawi, Mauritania, Mozambique, Nicaragua, Niger, Sao Tome and Principe, Sierra Leone, Suriname, Timor-Leste and Zambia.
21 Monetary poverty data is based on $1.90 a day estimates from the World Bank's World Development Indicators data (https://datacatalog.worldbank.org/dataset/world-development-indicators), accessed 3 June 2020. Linear interpolations were used for years in which monetary poverty data were unavailable. Further details can be found in Alkire, Kovesdi, Mitchell and others (2020).
22 Atkinson 2019.
23 International measures are comparable; official national measures are adapted to the country context. See UNDP and OPHI (2019).
24 SDG target 1.2 is to reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions. Although a harmonized version of the global estimates of multidimensional poverty is used for countries with available data (rather than national definitions), these estimates nevertheless provide a useful indication of multidimensional poverty reduction.
25 This analysis uses the global MPI to project the expected progress in reducing multidimensional poverty that will be achieved in 75 countries from 2015 to 2030 if current trends continue (see Alkire, Nogales and others 2020). Three models were used: linear (continuation of recent absolute changes), proportional (continuation of recent relative changes) and logistic (continuation of changes adjusted for poverty levels). Linear models may overstate progress, and proportional models may understate it. The logistic model reflects the empirical observation that ordinarily MPI falls more slowly in the poorest countries because most reduction is in intensity rather than incidence. Reduction tends to accelerate greatly in medium-poor countries, where both incidence and intensity fall. It slows in low-poverty countries, perhaps due to familiar challenges in going "the last mile."
26 The COVID-19 pandemic is also likely to have medium- and long-term impacts on other global MPI indicators. For example, child mortality is anticipated to increase where health systems are disrupted (Roberton and others 2020).
27 First, microsimulations were implemented to determine the increase in multidimensional poverty if three scenarios of increased deprivations occurred as a result of the COVID-19 pandemic. Then, the simulated increase in poverty in each country was adjusted to reflect progress to 2020 as projected with the logistic model. Finally, the impact was compared to the country's projected trajectory to establish how many years COVID-19 may set the country back.
28 The nutrition indicator was not collected in the survey of the remaining five countries (Colombia, Dominican Republic, Indonesia, Philippines and Ukraine) and therefore could not be included in the simulation analysis. The population data are based on the 2020 medium-fertility projection from UNDESA (2019).
29 Based on data from https://en.unesco.org/covid19/educationresponse, accessed 2 July 2020. See also UNESCO 2020.
30 WFP 2020.
31 This refers to the pentavalent vaccine, which protects against diphtheria, whooping cough and tetanus (DPT); hepatitis B (HepB); and Haemophilus influenzae type b (Hib).

32 In 2018 the global MPI was revised to provide a closer alignment with the SDGs; see Alkire and Jahan (2018) and Alkire, Kanagaratnam and Suppa (2018).
33 This is not 100 percent because people can be identified as poor if they are deprived only in any two health or education indicators (or even one if the other is missing), as these together weigh 33 percent. In practice, this situation rarely occurs.
34 UNICEF 2019a.
35 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
36 UNICEF 2019b.
37 The correlation is –0.45 and statistically significant at 1 percent.
38 The incidence of multidimensional poverty appears to be lower in Syrian Arab Republic than in Guinea, Chad, South Sudan and Central African Republic; however, the MPI data for Syrian Arab Republic refer to 2009, and it is very likely that the war has changed the country's current poverty situation.
39 When data on an indicator are not collected in a survey, the weights of the remaining indicators in the same dimension are adjusted to sum to 1/3. When data on nutrition are not collected, child mortality receives the full dimension weight. The child mortality indicator included in the MPI does not reflect the typical under-five mortality rate, as the numerator and denominator are different.
40 Because child mortality is typically collected from women of reproductive age (15–49 years), households without women of such ages are assumed to be not deprived in this indicator. Although this helps explain why it affects fewer people, it does not mean that efforts to reduce child mortality are no longer needed.
41 This refers to the pentavalent vaccine, which protects against diphtheria, whooping cough and tetanus (DPT); hepatitis B (HepB); and Haemophilus influenzae type b (Hib).
42 Santoli and others 2020.
43 ImmunizationEconomics.org 2020.
44 Initially, there was little evidence that children could get infected by COVID-19 and that child mortality would increase due to the disease. However, at the time of writing, new data are emerging that suggest that children could be impacted by a COVID related inflammatory illness. Sadly, it also appears that this inflammatory illness is triggering some deaths.
45 UNESCO 2018.
46 By 2030 countries around the globe must eliminate disparities between women and men, rural and urban areas, bottom and top wealth quintiles, people with disabilities and people without disabilities, indigenous peoples and nonindigenous peoples, and areas affected by conflict and areas not affected by conflict for all education indicators.
47 Corus and others 2016.
48 Rampersad 2014.
49 Subjective behavioral infraction can refer to defiance of authority, disrespect, excessive noise, threat and loitering. Crenshaw, Ocen and Nanda 2015.
50 UNDP 2020a.
51 Adejuwon and Jegede 2011.
52 Salvucci and Santos 2020.
53 Dercon and Hoddinott 2005.
54 Varela and others 2019.
55 IEA 2019.
56 IEA 2019.
57 Gordon and others 2014; WHO 2018.
58 UNDP 2011.
59 González de Alba, I.G., and J.M. Salama, p. 15.
60 WHO n.d. Natural disasters include earthquakes, tsunamis, volcanic eruptions, landslides, hurricanes, floods, wildfires, heat waves and droughts.
61 OCHA 2020.
62 FAO 2020.
63 Sen 1975.
64 ILO 2017.
65 FAO 2017.
66 UNDP 2015.
67 WIEGO n.d.

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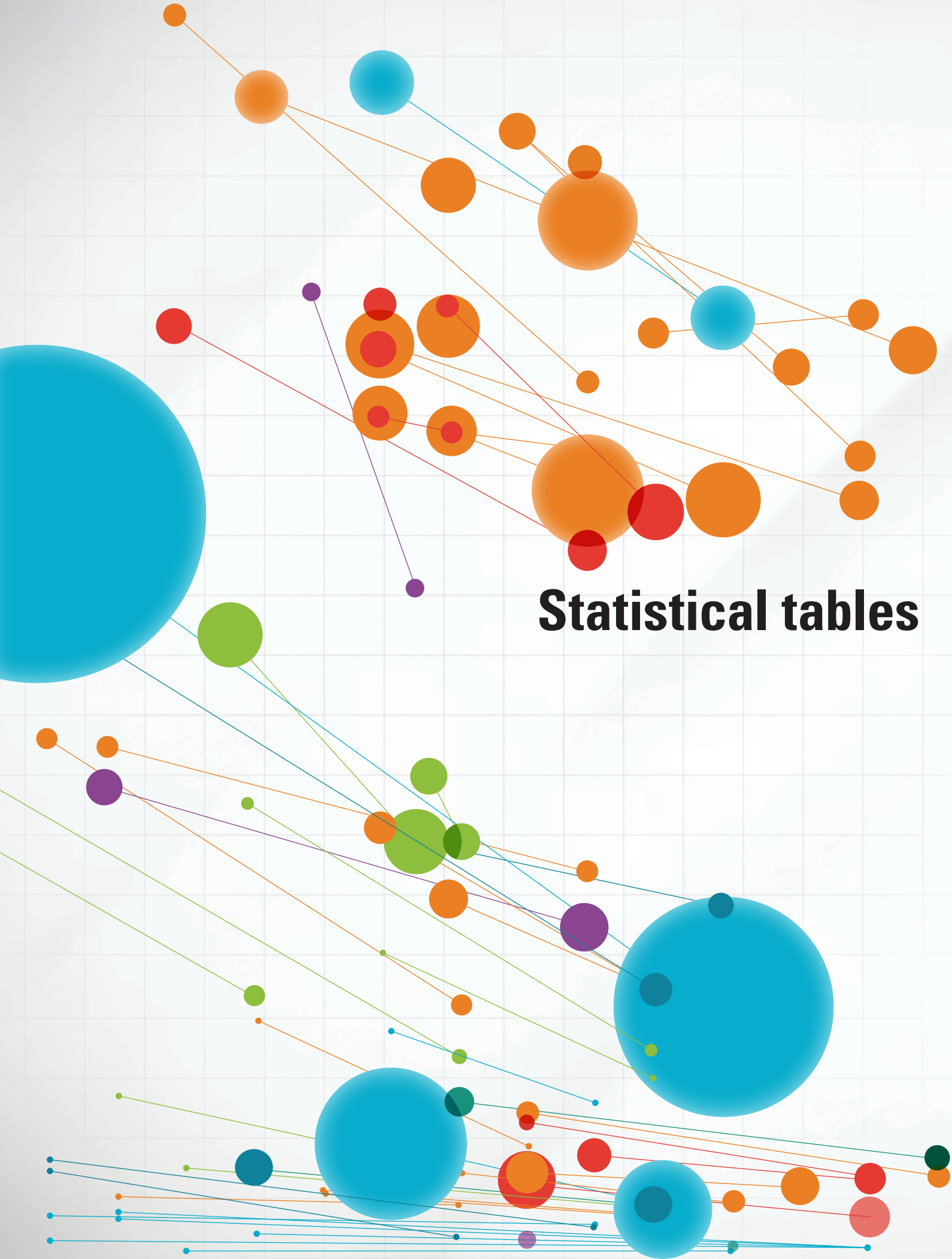


Statistical tables

TABLE 1

Multidimensional Poverty Index: developing countries

	Multidimensional Poverty Index[a]		SDG 1.2 Population in multidimensional poverty[a]						Population vulnerable to multidimensional poverty[a]	Contribution of deprivation in dimension to overall multidimensional poverty[a]			SDG 1.2 / SDG 1.1 Population living below income poverty line (%)	
			Headcount			Intensity of deprivation	Inequality among the poor	Population in severe multidimensional poverty		Health	Education	Standard of living	National poverty line	PPP $1.90 a day
	Year and survey[b]		(%)	(thousands)										
	2008–2019	Value		In survey year	2018	(%)	Value	(%)	(%)	(%)	(%)	(%)	2008–2019[c]	2008–2018[c]
ESTIMATES BASED ON SURVEYS FOR 2014–2019														
Afghanistan	2015/2016 D	0.272[d]	55.9[d]	19,783[d]	20,783[d]	48.6[d]	0.020[d]	24.9[d]	18.1[d]	10.0[d]	45.0[d]	45.0[d]	54.5	..
Albania	2017/2018 D	0.003	0.7	20	20	39.1	..[e]	0.1	5.0	28.3	55.1	16.7	14.3	1.7
Angola	2015/2016 D	0.282	51.1	14,740	15,745	55.3	0.024	32.5	15.5	21.2	32.1	46.8	36.6	47.6
Armenia	2015/2016 D	0.001	0.2	5	6	36.2	..[e]	0.0	2.7	33.1	36.8	30.1	23.5	2.1
Bangladesh	2019 M	0.104	24.6	40,176	39,764	42.2	0.010	6.5	18.2	17.3	37.6	45.1	24.3	14.8
Belize	2015/2016 M	0.017	4.3	16	16	39.8	0.007	0.6	8.4	39.5	20.9	39.6	..	..
Benin	2017/2018 D	0.368	66.8	7,672	7,672	55.0	0.025	40.9	14.7	20.8	36.3	42.9	40.1	49.5
Botswana	2015/2016 N	0.073[f]	17.2[f]	372[f]	388[f]	42.2[f]	0.008[f]	3.5[f]	19.7[f]	30.3[f]	16.5[f]	53.2[f]	19.3	16.1
Brazil	2015 N[g]	0.016[d,g,h]	3.8[d,g,h]	7,856[d,g,h]	8,048[d,g,h]	42.5[d,g,h]	0.008[d,g,h]	0.9[d,g,h]	6.2[d,g,h]	49.8[d,g,h]	22.9[d,g,h]	27.3[d,g,h]	..	4.4
Burundi	2016/2017 D	0.403	74.3	8,040	8,298	54.3	0.022	45.3	16.3	23.3	27.5	49.2	64.9	71.8
Cambodia	2014 D	0.170	37.2	5,680	6,043	45.8	0.015	13.2	21.1	21.8	31.7	46.6	17.7	..
Cameroon	2014 M	0.243	45.3	10,281	11,430	53.5	0.026	25.6	17.3	23.2	28.2	48.6	37.5	23.8
Chad	2014/2015 D	0.533	85.7	12,089	13,260	62.3	0.026	66.1	9.9	20.1	34.4	45.5	46.7	38.4
China	2014 N[i]	0.016[j,k]	3.9[j,k]	54,369[j,k]	55,464[j,k]	41.4[j,k]	0.005[j,k]	0.3[j,k]	17.4[j,k]	35.2[j,k]	39.2[j,k]	25.6[j,k]	1.7	0.5
Colombia	2015/2016 D	0.020[d]	4.8[d]	2,335[d]	2,407[d]	40.6[d]	0.009[d]	0.8[d]	6.2[d]	12.0[d]	39.5[d]	48.5[d]	27.0	4.1
Congo	2014/2015 M	0.112	24.3	1,178	1,273	46.0	0.013	9.4	21.3	23.4	20.2	56.4	40.9	37.0
Congo (Democratic Republic of the)	2017/2018 M	0.331	64.5	54,239	54,239	51.3	0.020	36.8	17.4	23.1	19.9	57.0	63.9	76.6
Côte d'Ivoire	2016 M	0.236	46.1	10,975	11,549	51.2	0.019	24.5	17.6	19.6	40.4	40.0	46.3	28.2
Cuba	2017 N	0.002[d]	0.4[d]	50[d]	50[d]	36.8[d]	0.003[d]	0.0[d]	1.6[d]	25.8[d]	32.2[d]	42.0[d]	..	..
Dominican Republic	2014 M	0.015[d]	3.9[d]	394[d]	412[d]	38.9[d]	0.006[d]	0.5[d]	5.2[d]	29.1[d]	35.8[d]	35.0[d]	22.8	0.4
Ecuador	2013/2014 N	0.018[h]	4.6[h]	730[h]	782[h]	39.9[h]	0.007[h]	0.8[h]	7.6[h]	40.4[h]	23.6[h]	35.9[h]	25.0	3.3
Egypt	2014 D	0.019[l]	5.2[l]	4,670[l]	5,083[l]	37.6[l]	0.004[l]	0.6[l]	6.1[l]	39.8[l]	53.2[l]	7.0[l]	32.5	3.2
El Salvador	2014 M	0.032	7.9	495	505	41.3	0.009	1.7	9.9	15.5	43.4	41.1	29.2	1.5
Eswatini (Kingdom of)	2014 M	0.081	19.2	210	218	42.3	0.009	4.4	20.9	29.3	17.9	52.8	58.9	28.4
Ethiopia	2016 D	0.489	83.5	86,513	91,207	58.5	0.024	61.5	8.9	19.7	29.4	50.8	23.5	30.8
Gambia	2018 M	0.204	41.6	948	948	49.0	0.018	18.8	22.9	29.5	34.6	35.9	48.6	10.1
Georgia	2018 M	0.001[h]	0.3[h]	14[h]	14[h]	36.6[h]	..[e]	0.0[h]	2.1[h]	47.1[h]	23.8[h]	29.1[h]	20.1	4.5
Ghana	2014 D	0.138	30.1	8,188	8,952	45.8	0.016	10.4	22.0	22.3	30.4	47.2	23.4	13.3
Guatemala	2014/2015 D	0.134	28.9	4,694	4,981	46.2	0.013	11.2	21.1	26.3	35.0	38.7	59.3	8.7
Guinea	2018 D	0.373	66.2	8,220	8,220	56.4	0.025	43.5	16.4	21.4	38.4	40.3	55.2	35.3
Guinea-Bissau	2014 M	0.372	67.3	1,139	1,261	55.3	0.025	40.4	19.2	21.3	33.9	44.7	69.3	67.1
Guyana	2014 M	0.014	3.4	26	26	41.8	0.008	0.7	5.8	31.5	18.7	49.8	..	..
Haiti	2016/2017 D	0.200	41.3	4,532	4,590	48.4	0.019	18.5	21.8	18.5	24.6	57.0	58.5	24.2
India	2015/2016 D	0.123	27.9	369,643	377,492	43.9	0.014	8.8	19.3	31.9	23.4	44.8	21.9	21.2
Indonesia	2017 D	0.014[d]	3.6[d]	9,578[d]	9,687[d]	38.7[d]	0.006[d]	0.4[d]	4.7[d]	34.7[d]	26.8[d]	38.5[d]	9.8	4.6
Iraq	2018 M	0.033	8.6	3,319	3,319	37.9	0.005	1.3	5.2	33.1	60.9	6.0	18.9	2.5
Jamaica	2014 N	0.018[m]	4.7[m]	135[m]	138[m]	38.7[m]	..[e]	0.8[m]	6.4[m]	42.1[m]	17.5[m]	40.4[m]	19.9	..
Jordan	2017/2018 D	0.002	0.4	43	43	35.4	..[e]	0.0	0.7	37.5	53.5	9.0	14.4	0.1
Kazakhstan	2015 M	0.002[h]	0.5[h]	80[h]	83[h]	35.6[h]	..[e]	0.0[h]	1.8[h]	90.4[h]	3.1[h]	6.4[h]	2.5	0.0
Kenya	2014 D	0.178	38.7	18,062	19,877	46.0	0.014	13.3	34.9	24.9	14.6	60.5	36.1	36.8
Kiribati	2018/2019 M	0.080	19.8	23	23	40.5	0.006	3.5	30.2	30.3	12.1	57.6	..	..
Kyrgyzstan	2018 M	0.001	0.4	25	25	36.3	..[e]	0.0	5.2	64.6	17.9	17.5	22.4	0.9
Lao People's Democratic Republic	2017 M	0.108	23.1	1,604	1,629	47.0	0.016	9.6	21.2	21.5	39.7	38.8	23.4	22.7
Lesotho	2018 M	0.084[l]	19.6[l]	413[l]	413[l]	43.0[l]	0.009[l]	5.0[l]	28.6[l]	21.9[l]	18.1[l]	60.0[l]	49.7	26.9
Libya	2014 P	0.007	2.0	127	133	37.1	0.003	0.1	11.4	39.0	48.6	12.4	..	..
Madagascar	2018 M	0.384	69.1	18,142	18,142	55.6	0.023	45.5	14.3	15.5	33.1	51.5	70.7	77.6
Malawi	2015/2016 D	0.243	52.6	9,054	9,547	46.2	0.013	18.5	28.5	20.7	23.1	56.2	51.5	70.3
Maldives	2016/2017 D	0.003	0.8	4	4	34.4	..[e]	0.0	4.8	80.7	15.1	4.2	8.2	0.0
Mali	2018 D	0.376	68.3	13,036	13,036	55.0	0.022	44.7	15.3	19.6	41.2	39.3	41.1	49.7
Mauritania	2015 M	0.261	50.6	2,046	2,227	51.5	0.019	26.3	18.6	20.2	33.1	46.6	31.0	6.0
Mexico	2016 N[n]	0.026[m]	6.6[m]	8,097[m]	8,284[m]	39.0[m]	0.008[m]	1.0[m]	4.7[m]	68.1[m]	13.7[m]	18.2[m]	41.9	1.7
Mongolia	2018 M	0.028[o]	7.3[o]	230[o]	230[o]	38.8[o]	0.004[o]	0.8[o]	15.5[o]	21.1[o]	26.8[o]	52.1[o]	28.4	0.5
Montenegro	2018 M	0.005	1.2	8	8	39.6	..[e]	0.1	2.9	58.5	22.3	19.2	23.6	1.7
Myanmar	2015/2016 D	0.176	38.3	20,325	20,579	45.9	0.015	13.8	21.9	18.5	32.3	49.2	24.8	2.0
Nepal	2016 D	0.148	34.0	9,267	9,550	43.6	0.012	11.6	22.4	31.5	27.2	41.3	25.2	15.0
Nigeria	2018 D	0.254	46.4	90,919	90,919	54.8	0.029	26.8	19.2	30.9	28.2	40.9	46.0	53.5
Pakistan	2017/2018 D	0.198	38.3	81,352	81,352	51.7	0.023	21.5	12.9	27.6	41.3	31.1	24.3	3.9
Palestine, State of	2014 M	0.004	1.0	42	46	37.5	0.003	0.1	5.4	53.3	32.8	13.9	29.2	1.0

TABLE 1

	Multidimensional Poverty Index[a]		SDG 1.2 Population in multidimensional poverty[a]						Population vulnerable to multidimensional poverty[a]	Contribution of deprivation in dimension to overall multidimensional poverty[a]			SDG 1.2 SDG 1.1 Population living below income poverty line (%)	
	Year and survey[b]		Headcount (%)	Headcount (thousands)		Intensity of deprivation	Inequality among the poor	Population in severe multidimensional poverty		Health	Education	Standard of living	National poverty line	PPP $1.90 a day
	2008–2019	Value		In survey year	2018	(%)	Value	(%)	(%)	(%)	(%)	(%)	2008–2019[c]	2008–2018[c]
Papua New Guinea	2016/2018 D	0.263[d]	56.6[d]	4,874[d]	4,874[d]	46.5[d]	0.016[d]	25.8[d]	25.3[d]	4.6[d]	30.1[d]	65.3[d]	39.9	38.0
Paraguay	2016 M	0.019	4.5	305	313	41.9	0.013	1.0	7.2	14.3	38.9	46.8	24.2	1.6
Peru	2018 N	0.029	7.4	2,358	2,358	39.6	0.007	1.1	9.6	15.7	31.1	53.2	20.5	2.6
Philippines	2017 D	0.024[d]	5.8[d]	6,096[d]	6,181[d]	41.8[d]	0.010[d]	1.3[d]	7.3[d]	20.3[d]	31.0[d]	48.7[d]	21.6	6.1
Rwanda	2014/2015 D	0.259	54.4	6,188	6,695	47.5	0.013	22.2	25.7	13.6	30.5	55.9	38.2	55.5
Sao Tome and Principe	2014 M	0.092	22.1	43	47	41.7	0.008	4.4	19.4	18.6	37.4	44.0	66.2	34.5
Senegal	2017 D	0.288	53.2	8,199	8,430	54.2	0.021	32.8	16.4	22.1	44.9	33.0	46.7	38.0
Serbia	2014 M	0.001[h]	0.3[h]	30[h]	30[h]	42.5[h]	..[e]	0.1[h]	3.4[h]	20.6[h]	42.7[h]	36.8[h]	24.3	5.5
Seychelles	2019 N	0.003[i,p]	0.9[i,p]	1[i,p]	1[i,p]	34.2[i,p]	..[e]	0.0[i,p]	0.4[i,p]	66.8[i,p]	32.1[i,p]	1.1[i,p]	39.3	1.1
Sierra Leone	2017 M	0.297	57.9	4,338	4,432	51.2	0.020	30.4	19.6	18.6	28.9	52.4	52.9	40.1
South Africa	2016 D	0.025	6.3	3,517	3,616	39.8	0.005	0.9	12.2	39.5	13.1	47.4	55.5	18.9
Sri Lanka	2016 N	0.011	2.9	614	620	38.3	0.004	0.3	14.3	32.5	24.4	43.0	4.1	0.8
Sudan	2014 M	0.279	52.3	19,873	21,874	53.4	0.023	30.9	17.7	21.1	29.2	49.8	46.5	12.7
Suriname	2018 M	0.011	2.9	16	16	39.4	0.007	0.4	4.0	20.4	43.8	35.8	..	..
Tajikistan	2017 D	0.029	7.4	661	678	39.0	0.004	0.7	20.1	47.8	26.5	25.8	27.4	4.8
Tanzania (United Republic of)	2015/2016 D	0.273	55.4	29,415	31,225	49.3	0.016	25.9	24.2	21.1	22.9	56.0	26.4	49.1
Thailand	2015/2016 M	0.003[h]	0.8[h]	542[h]	545[h]	39.1[h]	0.007[h]	0.1[h]	7.2[h]	35.0[h]	47.4[h]	17.6[h]	9.9	0.0
Timor-Leste	2016 D	0.210	45.8	559	581	45.7	0.014	16.3	26.1	27.8	24.2	48.0	41.8	30.7
Togo	2017 M	0.180	37.6	2,896	2,967	47.8	0.016	15.2	23.8	20.9	28.1	50.9	55.1	49.8
Tunisia	2018 M	0.003	0.8	92	92	36.5	..[e]	0.1	2.4	24.4	61.6	14.0	15.2	0.2
Turkmenistan	2015/2016 M	0.001	0.4	23	24	36.1	..[e]	0.0	2.4	88.0	4.4	7.6	..	..
Uganda	2016 D	0.269	55.1	21,844	23,540	48.8	0.017	24.1	24.9	22.4	22.5	55.1	21.4	41.7
Viet Nam	2013/2014 M	0.019[d]	4.9[d]	4,490[d]	4,677[d]	39.5[d]	0.010[d]	0.7[d]	5.6[d]	15.2[d]	42.6[d]	42.2[d]	6.7	1.9
Zambia	2018 D	0.232	47.9	8,313	8,313	48.4	0.015	21.0	23.9	21.5	25.0	53.5	54.4	57.5
Zimbabwe	2019 M	0.110	25.8	3,779	3,725	42.6	0.009	6.8	26.3	23.6	17.3	59.2	70.0	33.9
ESTIMATES BASED ON SURVEYS FOR 2008–2013														
Algeria	2012/2013 M	0.008	2.1	801	887	38.8	0.006	0.3	5.8	29.9	46.8	23.2	5.5	0.5
Barbados	2012 M	0.009[m]	2.5[m]	7[m]	7[m]	34.2[m]	..[e]	0.0[m]	0.5[m]	96.0[m]	0.7[m]	3.3[m]	..	..
Bhutan	2010 M	0.175[h]	37.3[h]	256[h]	282[h]	46.8[h]	0.016[h]	14.7[h]	17.7[h]	24.2[h]	36.6[h]	39.2[h]	8.2	1.5
Bolivia (Plurinational State of)	2008 D	0.094	20.4	1,983	2,316	46.0	0.014	7.1	15.7	21.6	26.6	51.8	34.6	4.5
Bosnia and Herzegovina	2011/2012 M	0.008[m]	2.2[m]	79[m]	73[m]	37.9[m]	0.002[m]	0.1[m]	4.1[m]	79.7[m]	7.2[m]	13.1[m]	16.9	0.1
Burkina Faso	2010 D	0.519	83.8	13,083	16,559	61.9	0.027	64.8	7.4	20.0	40.6	39.4	40.1	43.7
Central African Republic	2010 M	0.465[h]	79.4[h]	3,481[h]	3,703[h]	58.6[h]	0.028[h]	54.7[h]	13.1[h]	27.8[h]	25.7[h]	46.5[h]	62.0	66.3
Comoros	2012 D	0.181	37.3	270	310	48.5	0.020	16.1	22.3	20.8	31.6	47.6	42.4	17.6
Gabon	2012 D	0.066	14.8	260	315	44.3	0.013	4.7	17.5	31.0	22.2	46.8	33.4	3.4
Honduras	2011/2012 D	0.090[q]	19.3[q]	1,668[q]	1,851[q]	46.4[q]	0.013[q]	6.5[q]	22.3[q]	18.5[q]	33.0[q]	48.5[q]	48.3	16.5
Liberia	2013 D	0.320	62.9	2,674	3,033	50.8	0.019	32.1	21.4	19.7	28.2	52.1	50.9	40.9
Moldova (Republic of)	2012 M	0.004	0.9	38	38	37.4	..[e]	0.1	3.7	9.2	42.4	48.4	9.6	0.0
Morocco	2011 P	0.085[h]	18.6[h]	6,098[h]	6,702[h]	45.7[h]	0.017[h]	6.5[h]	13.1[h]	25.7[h]	42.0[h]	32.3[h]	4.8	1.0
Mozambique	2011 D	0.411	72.5	17,524	21,371	56.7	0.023	49.1	13.6	17.2	32.5	50.3	46.1	62.9
Namibia	2013 D	0.171	38.0	849	930	45.1	0.012	12.2	20.3	30.3	14.9	54.9	17.4	13.4
Nicaragua	2011/2012 D	0.074	16.3	973	1,051	45.2	0.013	5.5	13.2	11.1	36.5	52.4	24.9	3.2
Niger	2012 D	0.590	90.5	16,099	20,304	65.2	0.026	74.8	5.1	20.3	37.3	42.4	44.5	44.5
North Macedonia	2011 M	0.010[m]	2.5[m]	52[m]	53[m]	37.7[m]	0.007[m]	0.2[m]	2.9[m]	62.5[m]	17.0[m]	20.5[m]	21.9	4.4
Saint Lucia	2012 M	0.007[m]	1.9[m]	3[m]	3[m]	37.5[m]	..[e]	0.0[m]	1.6[m]	69.5[m]	7.5[m]	23.0[m]	25.0	4.7
South Sudan	2010 M	0.580	91.9	8,735	10,083	63.2	0.023	74.3	6.3	14.0	39.6	46.5	82.3	42.7
Syrian Arab Republic	2009 P	0.029[h]	7.4[h]	1,568[h]	1,253[h]	38.9[h]	0.006[h]	1.2[h]	7.8[h]	40.8[h]	49.0[h]	10.2[h]	..	..
Trinidad and Tobago	2011 M	0.002[h]	0.6[h]	9[h]	9[h]	38.0[h]	..[e]	0.1[h]	3.7[h]	45.5[h]	34.0[h]	20.5[h]	..	..
Ukraine	2012 M	0.001[d]	0.2[d]	109[d]	106[d]	34.5[d]	..[e]	0.0[d]	0.4[d]	59.7[d]	28.8[d]	11.5[d]	1.3	0.0
Yemen	2013 D	0.241	47.7	11,995	13,593	50.5	0.021	23.9	22.1	28.3	30.7	41.0	48.6	18.8
Developing countries	—	0.108	22.0	1,243,895	1,291,125	49.0	0.018	9.8	15.2	25.8	29.6	44.5	20.7	14.7
Regions														
Arab States	—	0.077	15.8	48,627	53,025	48.5	0.018	7.0	9.4	26.1	35.2	38.8	26.0	4.9
East Asia and the Pacific	—	0.023	5.4	108,368	110,514	42.5	0.009	1.0	14.6	27.7	35.5	36.8	5.3	1.7
Europe and Central Asia	—	0.004	1.0	1,144	1,156	38.1	0.004	0.1	3.4	53.0	24.3	22.6	11.6	0.8
Latin America and the Caribbean	—	0.031	7.2	36,682	38,165	43.0	0.011	1.9	7.4	35.9	26.2	37.9	35.9	4.2
South Asia	—	0.132	29.2	521,093	529,846	45.2	0.015	10.3	18.4	29.2	28.5	42.3	22.9	18.2
Sub-Saharan Africa	—	0.299	55.0	527,980	558,420	54.3	0.022	32.9	17.9	22.4	29.3	48.4	43.4	45.7

NOTES

a Not all indicators were available for all countries, so caution should be used in cross-country comparisons. When an indicator is missing, weights of available indicators are adjusted to total 100 percent. See *Technical note 5* at http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf for details.

b *D* indicates data from Demographic and Health Surveys, *M* indicates data from Multiple Indicator Cluster Surveys, *N* indicates data from national surveys and *P* indicates data from Pan Arab Population and Family Health Surveys (see http://hdr.undp.org/en/faq-page/multidimensional-poverty-index-mpi for the list of national surveys).

c Data refer to the most recent year available during the period specified.

d Missing indicator on nutrition.

e Value is not reported because it is based on a small number of multidimensionally poor people.

f Indicator on child mortality captures only deaths of children under age 5 who died in the last five years and deaths of children ages 12–18 years who died in the last two years.

g The methodology was adjusted to account for missing indicator on nutrition and incomplete indicator on child mortality (the survey did not collect the date of child deaths).

h Considers child deaths that occurred at any time because the survey did not collect the date of child deaths.

i Based on the version of data accessed on 7 June 2016.

j Given the information available in the data, child mortality was constructed based on deaths that occurred between surveys—that is, between 2012 and 2014. Child deaths reported by an adult man in the household were taken into account because the date of death was reported.

k Missing indicator on housing.

l Missing indicator on cooking fuel.

m Missing indicator on child mortality.

n Multidimensional Poverty Index estimates are based on the 2016 National Health and Nutrition Survey. Estimates based on the 2015 Multiple Indicator Cluster Survey are 0.010 for Multidimensional Poverty Index value, 2.6 for multidimensional poverty headcount (%), 3,207,000 for multidimensional poverty headcount in year of survey, 3,281,000 for projected multidimensional poverty headcount in 2018, 40.2 for intensity of deprivation, 0.4 for population in severe multidimensional poverty, 6.1 for population vulnerable to multidimensional poverty, 39.9 for contribution of deprivation in health, 23.8 for contribution of deprivation in education and 36.3 for contribution of deprivation in standard of living.

o Indicator on sanitation follows the national classification in which pit latrine with slab is considered unimproved.

p Missing indicator on school attendance.

q Missing indicator on electricity.

DEFINITIONS

Multidimensional Poverty Index: Percentage of the population that is multidimensionally poor adjusted by the intensity of the deprivations. See *Technical note 5* at http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf for details on how the Multidimensional Poverty Index is calculated.

Multidimensional poverty headcount: Population with a deprivation score of at least 33 percent. It is expressed as a share of the population in the survey year, the number of multidimensionally poor people in the survey year and the projected number of multidimensionally poor people in 2018.

Intensity of deprivation of multidimensional poverty: Average deprivation score experienced by people in multidimensional poverty.

Inequality among the poor: Variance of individual deprivation scores of poor people. It is calculated by subtracting the deprivation score of each multidimensionally poor person from the average intensity, squaring the differences and dividing the sum of the weighted squares by the number of multidimensionally poor people.

Population in severe multidimensional poverty: Percentage of the population in severe multidimensional poverty—that is, those with a deprivation score of 50 percent or more.

Population vulnerable to multidimensional poverty: Percentage of the population at risk of suffering multiple deprivations—that is, those with a deprivation score of 20–33 percent.

Contribution of deprivation in dimension to overall multidimensional poverty: Percentage of the Multidimensional Poverty Index attributed to deprivations in each dimension.

Population living below national poverty line: Percentage of the population living below the national poverty line, which is the poverty line deemed appropriate for a country by its authorities. National estimates are based on population-weighted subgroup estimates from household surveys.

Population living below PPP $1.90 a day: Percentage of the population living below the international poverty line of $1.90 (in purchasing power parity [PPP] terms) a day.

MAIN DATA SOURCES

Column 1: Refers to the year and the survey whose data were used to calculate the country's Multidimensional Poverty Index value and its components.

Columns 2–12: HDRO and OPHI calculations based on data on household deprivations in health, education and standard of living from various household surveys listed in column 1 using the methodology described in *Technical note 5* (available at http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf). Columns 4 and 5 also use population data from United Nations Department of Economic and Social Affairs. 2019. *World Population Prospects: The 2019 Revision*. New York. https://esa.un.org/unpd/wpp/. Accessed 30 April 2020.

Columns 13 and 14: World Bank. 2020. World Development Indicators database. Washington, DC. http://data.worldbank.org. Accessed 8 May 2020.

TABLE 2 Multidimensional Poverty Index: changes over time based on harmonized estimates

TABLE 2

	Multidimensional Poverty Index (MPI_T)[a]		Population in multidimensional poverty			People who are multidimensionally poor and deprived in each indicator									
			Headcount		Intensity of deprivation	Nutrition	Child mortality	Years of schooling	School attendance	Cooking fuel	Sanitation	Drinking water	Electricity	Housing	Assets
	Year and survey[b]	Value	(%)	(thousands) In survey year	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Albania	2008/2009 D	0.008	2.1	61	37.8	1.3	0.3	0.4	1.0	1.8	1.0	0.8	0.0	1.3	0.3
Albania	2017/2018 D	0.003	0.7	20	39.1[c]	0.5	0.0	0.5[c]	0.4	0.3	0.1	0.2	0.0[c]	0.1	0.0
Armenia	2010 D	0.001	0.4	11	35.9	0.4	0.1	0.0	0.2	0.0	0.2	0.1	0.0	0.0	0.0
Armenia	2015/2016 D	0.001[c]	0.2[c]	5	35.9[c]	0.1[c]	0.0	0.0[c]	0.1[c]	0.1[c]	0.2[c]	0.0[c]	0.0[c]	0.0[c]	0.0[c]
Bangladesh[d]	2014 D	0.175	37.6	58,036	46.5	16.4	2.3	25.3	9.5	35.9	28.2	4.1	23.8	35.8	26.2
Bangladesh	2019 M	0.101	24.1	39,239	42.0	8.7	1.3	16.6	6.5	22.8	15.3	1.4	4.6	22.8	15.9
Belize[e]	2011 M	0.030	7.4	24	41.1	4.6	2.6	1.9	3.5	4.5	1.9	0.8	2.8	4.4	2.5
Belize[e]	2015/2016 M	0.020	4.9	18	40.2[c]	3.5[c]	1.7[c]	0.7[c]	1.7	3.2[c]	2.3[c]	0.7[c]	2.6[c]	3.0[c]	1.3
Benin	2014 M	0.346	63.2	6,504	54.7	32.0	11.5	42.5	31.0	62.7	61.5	32.4	54.2	44.3	16.3
Benin[d]	2017/2018 D	0.362[c]	66.0[c]	7,580	54.9[c]	33.7[c]	10.3[c]	44.2[c]	35.5	65.6	63.8[c]	36.9	54.7[c]	42.5[c]	17.6[c]
Bolivia (Plurinational State of)	2003 D	0.168	34.3	3,052	49.1	17.1	4.2	16.0	13.0	27.1	33.6	16.0	22.4	33.1	19.1
Bolivia (Plurinational State of)	2008 D	0.096	20.8	2,018	46.2	10.3	2.7	11.6	3.4	17.9	20.3	8.6	13.2	17.1	11.4
Bosnia and Herzegovina[f]	2006 M	0.015	3.9	149	38.9	3.3	..	0.8	0.4	2.5	0.6	0.3	0.1	0.7	0.4
Bosnia and Herzegovina[f]	2011/2012 M	0.008	2.2	79	37.9[c]	2.0	..	0.2	0.2[c]	1.5	0.3	0.0	0.1[c]	0.0	0.1
Burkina Faso[e]	2006 M	0.607	88.7	12,272	68.4	49.3	52.0	62.7	62.7	88.3	88.4	55.5	80.3	81.3	18.2
Burkina Faso[d,e]	2010 D	0.574	86.3[c]	13,469	66.5	41.6	49.9[c]	68.7	58.9	85.8[c]	77.9	42.0	83.4[c]	72.8	13.8
Burundi	2010 D	0.464	82.3	7,140	56.4	53.3	8.7	50.5	28.0	82.1	56.5	53.7	81.4	78.8	60.8
Burundi	2016/2017 D	0.409	75.1	8,131	54.4	50.6[c]	7.9[c]	42.6	24.0	74.9	45.7	42.8	73.5	70.6	53.3
Cambodia	2010 D	0.228	47.7	6,827	47.8	29.2	3.1	26.4	10.4	47.1	42.4	27.2	42.8	29.2	14.6
Cambodia[g]	2014 D	0.170	37.2	5,680	45.8	20.4	1.8	21.6	10.8[c]	36.2	30.6	21.3	26.2	21.8	6.6
Cameroon	2011 D	0.258	47.7	9,966	54.2	28.0	11.3	24.2	18.1	46.9	36.3	33.5	38.8	40.5	24.2
Cameroon[d]	2014 M	0.243[c]	45.5[c]	10,312	53.5[c]	24.4	9.6	23.4[c]	17.6[c]	44.7[c]	40.4	28.9	36.9[c]	39.1[c]	22.8[c]
Central African Republic[e]	2000 M	0.574	89.6	3,261	64.0	45.7	45.5	44.3	63.7	88.9	69.6	44.4	84.9	78.2	69.2
Central African Republic[e]	2010 M	0.482	81.5	3,574	59.2	37.4	40.6	38.8	33.2	81.2	60.1	56.4	78.0	74.8	67.5[c]
Chad[e]	2010 M	0.600	90.0	10,759	66.7	47.0	44.6	64.9	49.2	89.1	84.0	64.6	87.6	87.7	50.6
Chad[d,e]	2014/2015 D	0.578	89.4[c]	12,613	64.7	46.0[c]	40.1	57.7	52.5	88.4[c]	85.3[c]	61.5[c]	85.1	86.0[c]	45.8
China[e,h,i]	2010 N	0.041	9.5	129,675	43.2	6.3	0.8	5.8	1.3	8.5	4.4	7.2	0.3	..	5.5
China[e,h,i]	2014 N	0.018	4.2	58,914	41.6[c]	3.4	0.6	2.2	1.4[c]	3.1	1.0	2.1	0.0[c]	..	1.2
Colombia[j]	2010 D	0.024	6.0	2,692	40.4	..	0.9	4.8	1.1	4.5	4.2	3.6	1.5	4.5	1.9
Colombia[j]	2015/2016 D	0.020	4.8	2,335	40.6[c]	..	0.7	3.9	0.8	3.7	3.5	3.3[c]	1.4[c]	4.0[c]	1.2
Congo[d]	2005 D	0.258	53.8	1,947	48.0	26.5	10.3	10.4	15.5	52.6	52.8	38.7	45.7	42.6	44.4
Congo	2014/2015 M	0.114	24.7	1,200	45.9	12.5	3.1	9.6[c]	3.9	24.0	23.4	15.1	20.5	19.7	14.0
Congo (Democratic Republic of the)	2007 D	0.439	77.6	45,363	56.6	49.4	14.4	21.7	41.5	77.3	66.4	62.6	73.2	70.9	59.3
Congo (Democratic Republic of the)[g,k]	2013/2014 D	0.388	73.7[c]	54,383	52.6	48.9[c]	11.8[c]	18.4[c]	24.5	73.5[c]	61.8[c]	59.9[c]	70.7[c]	68.8[c]	52.2
Côte d'Ivoire	2011/2012 D	0.310	58.9	12,687	52.7	30.5	11.2	37.4	32.9	56.8	54.0	27.0	37.7	30.7	16.1
Côte d'Ivoire	2016 M	0.236	46.1	10,975	51.2	20.6	7.1	31.7	25.4	43.4	40.2	23.0[c]	29.0	24.1	10.0
Dominican Republic[j]	2007 D	0.032	7.8	731	41.1	..	1.6	5.7	2.4	3.7	4.3	2.8	1.7	7.2	4.4
Dominican Republic[j]	2014 M	0.015	3.9	395	38.9	..	1.3[c]	2.5	0.7	2.0	2.1	1.0	1.1	1.8	1.6
Egypt[l]	2008 D	0.032	8.0	6,375	40.1	5.8	1.0	4.4	5.3	..	1.6	0.5	0.2	2.8	1.8
Egypt[l]	2014 D	0.018	4.9	4,412	37.6	3.5	0.8[c]	2.8	3.1	..	0.7	0.3[c]	0.0	0.7	0.2
Eswatini (Kingdom of)	2010 M	0.130	29.3	312	44.3	18.2	5.4	8.9	4.6	27.5	18.8	19.8	27.0	15.2	13.8
Eswatini (Kingdom of)	2014 M	0.081	19.2	210	42.3	11.4	2.9	6.0	2.7	17.8	13.1	12.9	15.6	8.8	9.1
Ethiopia	2011 D	0.545	88.4	79,640	61.6	59.7	7.3	57.3	40.1	87.9	82.8	72.4	79.2	87.8	76.9
Ethiopia[g]	2016 D	0.489	83.5	86,523	58.5	52.2	5.6	52.5	33.9	82.7	80.4	60.6	74.4	83.0	66.2
Gabon	2000 D	0.145	30.9	379	47.0	15.3	6.2	12.8	6.8	24.5	29.2	21.4	19.5	18.9	24.3
Gabon	2012 D	0.069	15.5	271	44.7	9.8	3.7	5.8	3.2	9.6	14.5	10.0	7.4	9.2	6.7
Gambia[e]	2005/2006 M	0.387	68.0	1,083	56.9	35.3	40.7	34.3	38.2	67.6	34.7	28.8	60.1	44.3	15.6
Gambia[d,e,k]	2013 D	0.281	54.7	1,073	51.4	16.9	29.3	21.2	37.3[c]	54.4	39.2	18.1	45.5	26.6	7.2
Ghana	2011 M	0.149	31.1	7,904	47.9	13.5	4.9	16.8	8.7	30.8	29.7	19.0	23.3	20.7	12.8
Ghana[d]	2014 D	0.116	26.2	7,125	44.3	6.3	3.2	14.6	10.6[c]	25.7	25.0	13.4	14.9	15.6	9.9
Guinea[d]	2012 D	0.421	71.3	7,590	59.1	34.3	13.8	50.6	47.0	71.2	63.0	41.8	64.7	50.9	29.7
Guinea[k]	2016 M	0.334	61.6	7,229	54.2	28.2	8.6	39.7	38.3	61.4	50.8	35.6	53.0	33.4	22.7
Guyana[d]	2009 D	0.023	5.5	41	42.2	3.6	0.7	1.6	1.2	3.2	2.6	2.4	4.6	3.6	3.8
Guyana	2014 M	0.014	3.3	25	41.9[c]	2.0	0.6[c]	0.6	0.9[c]	2.1[c]	1.8[c]	1.6[c]	2.7[c]	2.2[c]	1.8
Haiti	2012 D	0.237	48.4	4,963	48.9	19.3	4.8	32.6	6.2	48.0	43.1	36.2	42.5	34.5	33.3
Haiti[g]	2016/2017 D	0.192	39.9	4,382	48.1[c]	15.5	3.8	22.8	6.5[c]	39.7	35.1	28.6	35.7	29.0	31.4[c]
Honduras[m]	2005/2006 D	0.192	37.9	2,890	50.6	17.1	2.0	18.7	25.0	34.9	26.4	13.5	..	33.6	22.2
Honduras[m]	2011/2012 D	0.093	20.0	1,727	46.5	9.9	1.0	10.2	7.9	19.2	14.6	7.0	..	18.5	7.9
India	2005/2006 D	0.283	55.1	642,484	51.3	44.3	4.5	24.0	19.8	52.9	50.4	16.6	29.1	44.9	37.6
India[g]	2015/2016 D	0.123	27.9	369,643	43.9	21.2	2.2	11.7	5.5	26.2	24.6	6.2	8.6	23.6	9.5
Indonesia[j]	2012 D	0.028	6.9	17,076	40.3	..	2.0	2.9	2.1	5.6	5.1	4.1	1.8	3.0	3.6
Indonesia[j]	2017 D	0.014	3.6	9,514	38.7	..	1.5	1.5	0.7	2.4	2.2	1.3	0.8	1.3	1.7

TABLE 2

	Multidimensional Poverty Index (MPI_t)[a]		Population in multidimensional poverty			People who are multidimensionally poor and deprived in each indicator									
			Headcount		Intensity of deprivation	Nutrition	Child mortality	Years of schooling	School attendance	Cooking fuel	Sanitation	Drinking water	Electricity	Housing	Assets
	Year and survey[b]	Value	(%)	(thousands) In survey year	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Iraq	2011 M	0.057	14.4	4,427	39.6	9.9	2.6	6.9	11.1	0.9	1.9	2.1	0.7	5.0	0.5
Iraq	2018 M	0.036	9.3	3,591	38.1	5.4	1.5	5.8	7.4	0.2	1.5[c]	0.4	0.1	1.4	0.2
Jamaica[f]	2010 N	0.021	5.3	149	40.4	3.2	..	0.6	1.3	2.4	3.7	2.7	1.7	2.4	1.1
Jamaica[f]	2014 N	0.018[c]	4.7[c]	135	38.7[c]	2.3[c]	..	0.7[c]	1.2[c]	2.5[c]	3.4[c]	1.8[c]	1.6[c]	2.9[c]	1.1[c]
Jordan	2012 D	0.002	0.5	42	33.8	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Jordan	2017/2018 D	0.002[c]	0.4[c]	43	35.3	0.2[c]	0.2[c]	0.2[c]	0.2[c]	0.0[c]	0.0	0.1[c]	0.0[c]	0.1[c]	0.0[c]
Kazakhstan[e]	2010/2011 M	0.003	0.9	147	36.2	0.6	0.7	0.0	0.1	0.4	0.0	0.4	0.0	0.5	0.1
Kazakhstan[e]	2015 M	0.002	0.5	81	35.5[c]	0.5[c]	0.4[c]	0.0[c]	0.0[c]	0.0	0.0[c]	0.1	0.0[c]	0.1	0.0
Kenya	2008/2009 D	0.247	52.2	21,370	47.3	33.5	5.5	12.0	8.5	51.7	46.0	37.6	50.1	52.0	28.9
Kenya	2014 D	0.179	38.9	18,157	46.0	23.0	3.8	10.4[c]	5.3	38.0	34.1	27.5	36.0	38.8	20.3
Kyrgyzstan[e]	2005/2006 M	0.035	9.3	477	37.8	4.3	6.0	0.0	1.8	8.1	1.9	4.4	0.2	7.9	4.5
Kyrgyzstan[e,k]	2014 M	0.013	3.4	198	37.2[c]	2.5	1.9	0.2[c]	0.6	2.2	0.0	2.0	0.1[c]	2.9	0.1
Lao People's Democratic Republic	2011/2012 M	0.211	40.4	2,603	52.2	21.3	5.4	31.1	16.8	40.4	31.8	19.2	21.8	26.7	15.7
Lao People's Democratic Republic	2017 M	0.108	23.1	1,603	46.8	11.6	1.9	16.6	9.2	22.9	17.2	11.2	6.0	12.0	7.1
Lesotho	2009 D	0.229	49.8	991	46.1	27.6	4.2	15.7	11.8	45.2	42.8	28.2	48.3	37.5	32.7
Lesotho[k]	2014 D	0.158	35.9	733	44.1	19.2	3.4[c]	12.8	5.8	33.2	23.0	19.4	34.9	28.2	22.5
Liberia	2007 D	0.464	81.6	2,827	56.9	41.4	10.8	35.9	56.8	81.5	77.2	34.9	80.8	61.7	64.6
Liberia	2013 D	0.328	63.9	2,715	51.3	32.4	8.4	30.7	23.6	63.8	59.9	32.2[c]	61.8	48.7	38.1
Madagascar[d]	2008/2009 D	0.433	75.8	15,593	57.2	33.3	6.2	59.2	26.4	75.8	75.4	56.1	72.6	69.0	56.0
Madagascar	2018 M	0.372	67.4	17,697	55.1	25.5	5.2	49.3	26.6[c]	67.2	66.6	52.1[c]	54.3	60.4	48.5
Malawi	2010 D	0.339	68.1	9,908	49.8	33.7	8.2	32.8	15.6	68.1	64.3	40.7	65.9	60.9	40.1
Malawi	2015/2016 D	0.252	54.2	9,333	46.5	28.6	4.7	26.4	7.5	54.2	29.6	31.3	53.2	49.6	34.8
Mali[d]	2006 D	0.501	83.7	11,057	59.9	43.0	19.4	68.7	54.0	83.5	45.0	44.8	77.0	71.2	26.1
Mali[k]	2015 M	0.417	73.0	12,733	57.2	43.8[c]	17.0	39.3	56.8[c]	72.7	55.4	33.9	52.2	60.9	5.7
Mauritania	2011 M	0.357	63.0	2,268	56.7	28.9	8.1	43.8	42.0	50.5	53.2	44.6	51.5	51.6	22.9
Mauritania	2015 M	0.260	50.5	2,045	51.5	26.7	4.9	21.9	29.9	43.2	41.8	31.2	43.2	43.3	16.0
Mexico[f]	2012 N	0.030	7.5	8,787	40.7	5.6	..	1.7	1.1	3.3	3.2	1.5	0.5	2.4	1.8
Mexico[f,k]	2016 N	0.025	6.4[c]	7,953	38.9	5.2[c]	..	1.2	0.8[c]	2.4	2.1	0.8	0.1	1.3	1.1
Moldova (Republic of)[d]	2005 D	0.006	1.5	63	36.6	0.3	0.1	0.9	0.4	1.2	0.9	0.5	0.1	0.7	1.3
Moldova (Republic of)	2012 M	0.003	0.9	35	37.6[c]	0.2[c]	0.0	0.6[c]	0.2[c]	0.6	0.7[c]	0.5[c]	0.0[c]	0.5[c]	0.5
Mongolia[e,n]	2010 M	0.083	20.2	549	41.3	6.3	9.5	4.5	1.6	19.2	20.0	13.6	9.8	17.7	3.9
Mongolia[e,k,n]	2013 M	0.056	13.5	388	41.8[c]	3.8	6.3	4.4[c]	1.0	12.9	13.3	8.5	7.6	11.3	1.2
Mozambique	2003 D	0.516	84.3	16,305	61.2	41.8	12.8	65.6	41.5	84.0	84.0	68.1	81.5	68.7	58.0
Mozambique	2011 D	0.401	71.2	17,216	56.3	36.9	7.6	50.2	29.7	70.8	63.2	54.8	66.7	49.6	42.9
Namibia	2006/2007 D	0.205	43.0	862	47.7	27.2	4.6	11.6	11.8	40.6	40.0	20.0	39.4	37.7	25.3
Namibia	2013 D	0.159	35.4	791	45.0	23.7	3.7[c]	7.4	7.8	33.3	32.6	18.9[c]	31.9	27.7	14.9
Nepal	2011 D	0.207	43.3	11,699	47.8	28.1	2.4	28.0	7.6	42.6	37.4	9.7	20.2	41.4	22.2
Nepal	2016 D	0.130	29.9	8,140	43.4	19.7	1.9[c]	18.7	4.8	28.5	18.4	3.6	6.9	27.9	12.6
Nicaragua	2001 D	0.221	41.7	2,148	52.9	16.3	2.8	26.8	21.1	40.7	36.7	27.9	26.4	34.2	30.6
Nicaragua	2011/2012 D	0.074	16.5	985	45.3	4.5	0.6	12.5	3.7	16.2	6.2	13.6	11.5	13.5	9.1
Niger	2006 D	0.668	92.9	13,141	71.9	64.6	26.1	81.8	65.7	92.8	90.2	67.4	87.9	85.2	64.9
Niger	2012 D	0.594	89.9	15,992	66.1	57.9	18.8	74.3	57.7	89.3	84.0	59.9	82.5	80.9	46.0
Nigeria	2013 D	0.287	51.3	88,186	55.9	34.9	12.0	26.2	26.7	50.2	36.7	34.2	37.1	41.5	17.8
Nigeria	2018 D	0.254	46.4	90,919	54.8[c]	33.8[c]	13.4	19.5	23.6	45.5	36.0[c]	25.3	32.0	32.8	15.5
North Macedonia[f]	2005/2006 M	0.031	7.6	157	40.7	5.8	..	2.0	2.0	4.2	1.9	0.8	0.2	1.6	0.7
North Macedonia[f]	2011 M	0.008	2.0	42	37.5	1.3	..	0.5	0.5	1.3	0.8	0.1	0.0[c]	0.8[c]	0.2
Pakistan	2012/2013 D	0.233	44.5	85,065	52.3	32.3	8.7	25.7	27.5	38.2	29.4	9.1	6.3	35.9	17.3
Pakistan[g]	2017/2018 D	0.198	38.3	81,352	51.7[c]	27.0	5.9	24.8[c]	24.3[c]	31.2	21.7	7.9[c]	7.1[c]	30.6	12.2
Palestine, State of	2010 M	0.005	1.3	53	38.0	1.0	0.5	0.2	0.7	0.2	0.3	0.6	0.3	0.1	0.3
Palestine, State of	2014 M	0.004[c]	1.0[c]	42	37.8[c]	0.7[c]	0.5[c]	0.1[c]	0.6[c]	0.1[c]	0.1	0.5[c]	0.0	0.0[c]	0.2[c]
Peru	2012 D	0.053	12.7	3,736	41.6	5.9	0.5	5.6	1.9	11.5	11.2	6.0	6.0	12.5	6.0
Peru	2018 N	0.029	7.4	2,360	39.6	2.4	0.4	3.3	2.2[c]	6.1	6.2	3.1	2.3	7.1	3.2
Philippines[i,o]	2013 D	0.037	7.1	7,042	52.0	..	2.2	4.4	..	6.6	4.4	2.4	3.7	5.1	4.4
Philippines[i,o]	2017 D	0.028	5.6	5,852	49.8	..	1.5	3.7[c]	..	4.8	3.1	1.7	2.2	3.8	3.1
Rwanda	2010 D	0.357	70.2	7,050	50.8	41.3	6.7	43.7	11.6	70.0	30.6	48.7	68.5	66.3	47.9
Rwanda	2014/2015 D	0.259	54.4	6,184	47.5	17.7	3.4	36.7	10.6[c]	54.3	28.3	38.8	50.0	51.5	37.2
Sao Tome and Principe[d]	2008/2009 D	0.185	40.7	72	45.4	17.4	4.4	27.8	12.1	36.3	35.1	16.8	29.3	1.3	28.4
Sao Tome and Principe	2014 M	0.092	22.1	43	41.7	8.7	1.7	15.4	5.5	15.0	19.6	8.8	15.1	0.3	13.0
Senegal[d]	2005 D	0.382	64.3	7,129	59.4	30.2	19.0	52.2	47.4	52.8	32.4	34.9	49.2	33.8	37.5
Senegal	2017 D	0.284	52.5	8,102	54.0	29.0[c]	9.0	32.6	44.5[c]	49.2[c]	31.8[c]	20.2	33.2	21.0	10.5
Serbia[e]	2010 M	0.001	0.2	17	42.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1
Serbia[e]	2014 M	0.001[c]	0.4[c]	31	41.3[c]	0.1[c]	0.0[c]	0.3[c]	0.1[c]	0.3[c]	0.2[c]	0.0[c]	0.1[c]	0.2[c]	0.1[c]

TABLE **2**

	Multidimensional Poverty Index (MPI_T)[a]		Population in multidimensional poverty			People who are multidimensionally poor and deprived in each indicator									
			Headcount		Intensity of deprivation	Nutrition	Child mortality	Years of schooling	School attendance	Cooking fuel	Sanitation	Drinking water	Electricity	Housing	Assets
	Year and survey[b]	Value	(%)	(thousands) In survey year	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Sierra Leone[d]	2013 D	0.409	74.1	5,084	55.3	39.0	15.9	37.4	32.1	74.0	69.7	45.8	71.2	57.7	45.0
Sierra Leone	2017 M	0.300	58.3	4,364	51.5	25.4	7.9	33.0	20.0	58.0	54.4	34.0	54.5	43.1	37.1
Sudan	2010 M	0.317	57.0	19,691	55.5	28.8	7.4	31.3	29.3	50.0	50.9	40.7	48.4	56.9	32.5
Sudan	2014 M	0.280	52.4	19,889	53.4	29.7 [c]	5.6	27.0	21.9	43.9	46.1	35.9	42.6	51.9	30.3 [c]
Suriname[f]	2006 M	0.059	12.8	65	46.3	7.3	..	7.0	2.2	6.0	7.6	5.4	4.3	5.2	6.6
Suriname[f,k]	2010 M	0.037	8.4	44	43.9 [c]	4.5	..	4.8	1.3	3.9	5.2	2.7	2.4	3.2	3.3
Tajikistan	2012 D	0.049	12.2	960	40.4	10.5	2.8	0.4	6.3	7.9	1.3	7.5	0.5	10.3	1.7
Tajikistan	2017 D	0.029	7.4	658	39.0 [c]	6.2	2.1 [c]	0.1 [c]	4.5	3.4	0.3	3.5	0.1 [c]	5.6	0.3
Tanzania (United Republic of)	2010 D	0.342	67.8	30,047	50.5	40.9	7.6	14.7	25.3	67.5	64.0	55.4	65.9	61.3	36.6
Tanzania (United Republic of)	2015/2016 D	0.285	57.1	30,302	49.8 [c]	32.5	5.9	12.3	25.7 [c]	56.9	53.7	43.4	55.2	47.4	26.5
Thailand[e]	2012 M	0.005	1.4	954	37.3	0.8	0.5	1.0	0.2	0.8	0.2	0.4	0.1	0.3	0.3
Thailand[e]	2015/2016 M	0.003 [c]	0.9	596	40.0 [c]	0.5 [c]	0.3 [c]	0.7 [c]	0.3 [c]	0.3	0.2 [c]	0.1	0.1 [c]	0.2 [c]	0.1
Timor-Leste	2009/2010 D	0.362	69.6	761	52.0	49.7	5.7	21.5	30.1	69.3	49.3	40.8	54.8	61.4	54.4
Timor-Leste	2016 D	0.215	46.9	572	45.9	33.2	3.6	15.9	14.8	45.6	31.7	18.6	19.2	40.7	29.1
Togo[d,e]	2010 M	0.316	57.5	3,693	54.9	22.5	29.4	32.6	15.0	57.4	55.8	39.8	51.9	37.4	27.4
Togo[e,k]	2013/2014 D	0.301 [c]	55.3 [c]	3,949	54.5 [c]	25.1 [c]	29.7 [c]	26.7	15.8 [c]	55.1 [c]	53.6 [c]	36.8 [c]	46.7	37.6 [c]	20.5
Turkmenistan[e]	2006 M	0.013	3.4	162	38.0	2.1	2.7	0.0	1.3	0.1	0.4	1.9	0.0	1.2	0.9
Turkmenistan[e]	2015/2016 M	0.004	1.0	59	34.8	0.9	1.0	0.0 [c]	0.1	0.0 [c]	0.1 [c]	0.2	0.0 [c]	0.1	0.0
Uganda	2011 D	0.349	67.7	22,672	51.5	42.2	9.7	29.3	15.2	67.3	60.3	51.4	66.4	61.9	31.9
Uganda	2016 D	0.281	57.2	22,672	49.2	35.1	5.3	22.6	13.8 [c]	56.9	50.4	41.9	50.2	49.7	26.4
Ukraine[j]	2007 D	0.001	0.4	165	36.4	..	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1
Ukraine[j]	2012 M	0.001 [c]	0.2 [c]	107	34.5	..	0.2 [c]	0.1 [c]	0.1 [c]	0.1 [c]	0.0 [c]	0.0 [c]	0.0 [c]	0.0 [c]	0.0 [c]
Zambia	2007 D	0.349	65.9	8,234	53.0	38.8	9.4	18.6	30.9	64.7	58.8	51.8	63.7	56.0	40.0
Zambia[k]	2013/2014 D	0.270	54.6	8,410	49.4	34.1	6.4	13.6	21.9	54.2	45.9	36.0	51.6	44.9	25.3
Zimbabwe	2010/2011 D	0.176	40.1	5,173	43.8	25.2	4.3	4.4	8.3	39.2	32.1	25.4	37.7	29.0	26.6
Zimbabwe[k]	2015 D	0.147	34.0	4,691	43.3 [c]	22.0	3.8 [c]	4.0 [c]	6.0	33.4	26.7	24.0 [c]	33.0	22.7	17.4

NOTES

Suggested citation: Alkire, S., F. Kovesdi, C. Mitchell, M. Pinilla-Roncancio and S. Scharlin-Pettee. 2020. "Changes over Time in the Global Multidimensional Poverty Index." OPHI MPI Methodological Note 50. University of Oxford, Oxford Poverty and Human Development Initiative, Oxford, UK. This paper has a section on each country detailing the harmonization decisions on each dataset. More extensive data tables, including disaggregated information, are available at www.ophi.org.uk.

a Not all indicators were available for all countries, so caution should be used in cross-country comparisons. When an indicator is missing, weights of available indicators are adjusted to total 100 percent. See *Technical note 5* at http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf and *OPHI MPI Methodological Note 50* at https://ophi.org.uk/publications/mpi-methodological-notes/ for details.

b *D* indicates data from Demographic and Health Surveys, *M* indicates data from Multiple Indicator Cluster Surveys and N indicates data from national surveys.

c The difference between the harmonized estimates for the two periods is not statistically significant at 95 percent.

d Data on adult nutrition are dropped from one year because the other survey collected data on child nutrition only. Typically, Demographic and Health Surveys collect data on child and adult nutrition while Multiple Indicator Cluster Surveys collect data on child nutrition only.

e Considers child deaths that occurred at any time because the survey at one or both points in time did not collect data on the date of child deaths.

f Missing indicator on child mortality.

g The number of poor people differs from previously published estimates due to updated population data.

h Based on the version of data accessed on 7 June 2016.

i Missing indicator on housing.

j Missing indicator on nutrition.

k The most recent survey from the 2020 global Multidimensional Poverty Index (MPI) is not yet included. Where feasible, these will be updated in the future.

l Missing indicator on cooking fuel.

m Missing indicator on electricity.

n Indicator on sanitation follows the national classification in which pit latrine with slab is considered unimproved.

o Missing indicator on school attendance.

DEFINITIONS

Multidimensional Poverty Index: Percentage of the population that is multidimensionally poor adjusted by the intensity of the deprivations. See *Technical note 5* at http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf and *OPHI MPI Methodological Note 50* at https://ophi.org.uk/publications/mpi-methodological-notes/ for details on how the Multidimensional Poverty Index is calculated.

Multidimensional poverty headcount: Population with a deprivation score of at least 33 percent. It is expressed as a share of the population in the survey year and the number of poor people in the survey year.

Intensity of deprivation of multidimensional poverty: Average deprivation score experienced by people in multidimensional poverty.

People who are multidimensionally poor and deprived in each indicator: Percentage of the population that is multidimensionally poor and deprived in the given indicator.

MAIN DATA SOURCES

Column 1: Refers to the year and the survey whose data were used to calculate the country's MPI value and its components.

Columns 2–15: Data and methodology are described in Alkire, Kovesdi, Mitchell, Pinilla-Roncancio and Scharlin-Pettee (2020). Column 4 also uses population data from United Nations Department of Economic and Social Affairs. 2019. *World Population Prospects: The 2019 Revision.* New York. https://esa.un.org/unpd/wpp/. Accessed 30 April 2020.

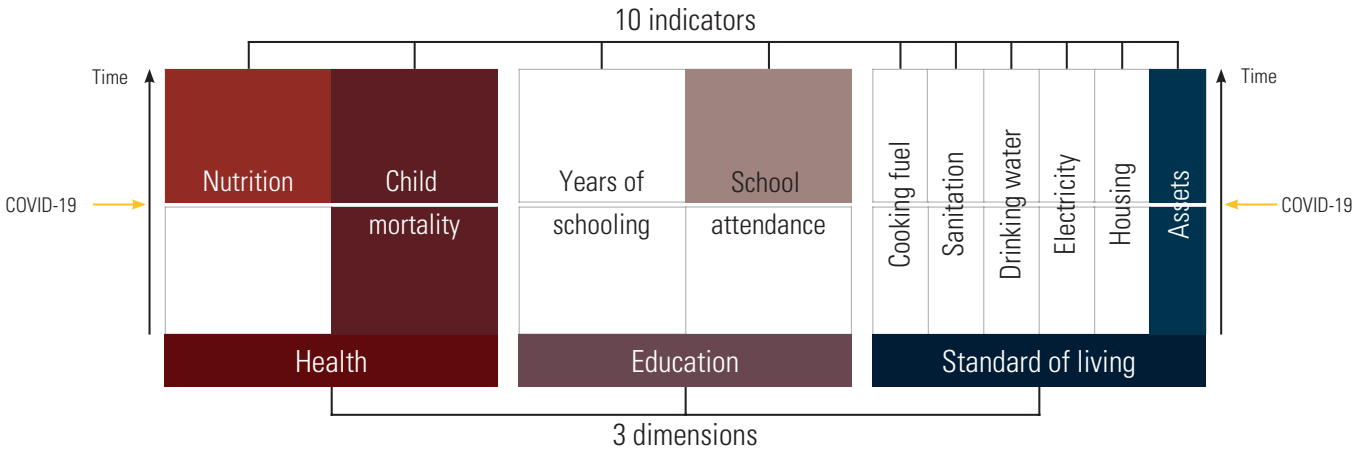
How the global Multidimensional Poverty Index is calculated

The global Multidimensional Poverty Index (MPI) is calculated using a flexible method developed by Alkire and Foster (2011) that can be used with different dimensions, indicators, weights and cutoffs, as well as with individual- or household-level data, to create measures tailored to different situations. The MPI is the product of the incidence of multidimensional poverty (the percentage of people who are multidimensionally poor—also referred to as the headcount ratio or the multidimensional poverty rate, *H*) and the intensity of multidimensional poverty (the average share of indicators in which poor people are deprived, *A*): MPI = $H \times A$. To be multidimensionally poor, a person must be deprived in at least a third of the weighted indicators. A person who is deprived in 50 percent or more of the weighted indicators is considered severely multidimensionally poor.

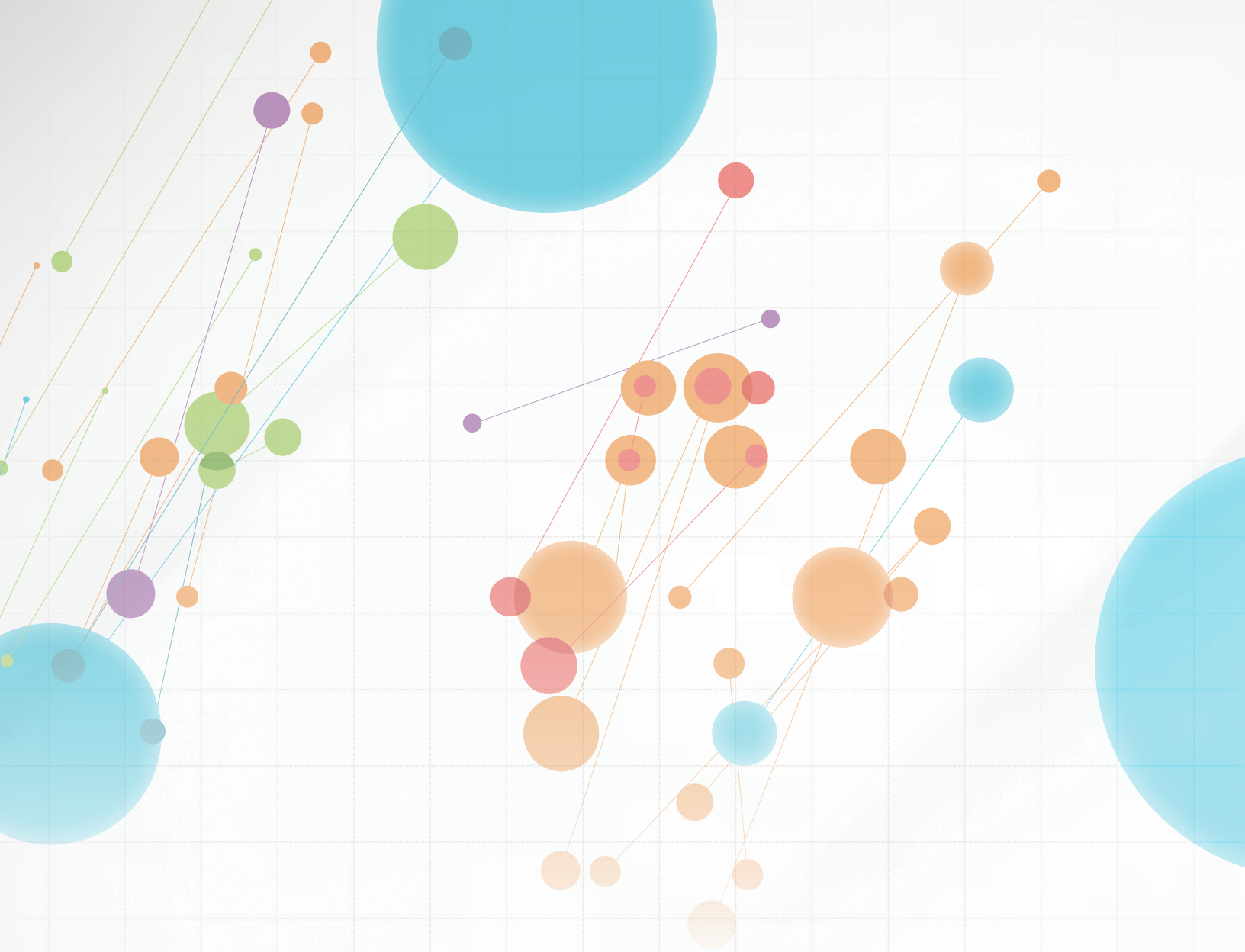
Maria, a 45-year-old single mother from Ecuador who completed primary education, lives with her two children, one age 4 and one age 9. Maria had a third pregnancy, but sadly her last child died during birth because she did not receive proper medical care. Maria and her children live in a small apartment with finished materials (floor, roof and wall), electricity, improved sanitation and drinking water; she also cooks with gas and has a refrigerator. But she does not own a television, radio, bicycle, motorcycle, car, telephone, computer or animal cart.

Maria has been working daily in a nail salon for the past eight years and relies on customer tips for income. With the money she earns, she can afford nutritious food for herself and her children and can pay the bills on time. Her older child had just started grade 3 before the COVID-19 pandemic emerged and schools closed. At the same time, the nail salon closed, and her resources immediately shrank. Because she does not own a computer or tablet, her older child could not continue her education and will likely lose the school year. Her younger child has become undernourished because food is now scarce. Before the COVID-19 crisis, Maria was not considered multidimensionally poor, but she and her family were vulnerable to multidimensional poverty; they were deprived in 22.2 percent of the weighted indicators (see figure). They are now considered multidimensionally poor because the additional deprivations mean that they are deprived in 55.6 percent of the weighted indicators.

The global Multidimensional Poverty Index builds on each person's deprivation profile



Source: Oxford Poverty and Human Development Initiative 2018.



Find out more...

The global MPI 2020 is accessible online at http://hdr.undp.org/en/content/2020-MPI and https://ophi.org.uk/multidimensional-poverty-index/, including the following resources:

- HDRO's interactive databank and MPI HTML table page (http://hdr.undp.org/en/composite/MPI).
- HDR Technical Note 5 (http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf).
- MPI Frequently Asked Questions (http://hdr.undp.org/en/mpi-2020-faq).
- MPI statistical programs (http://hdr.undp.org/en/content/mpi-statistical-programmes) are available in Stata and R. These programs allow users to replicate the MPI estimates and can be customized to fit country-specific needs.
- OPHI's global MPI databank (https://ophi.org.uk/multidimensional-poverty-index/databank/) provides visualizations of the 2020 global MPI and enables users to study the multidimensional poverty of 107 developing countries, disaggregated by rural-urban area and subnational region. Interactive data visualizations allow users to explore which indicators people are deprived in and to see how MPI values compare with complementary data, such as $1.90 a day poverty rates.
- Country briefing files (https://ophi.org.uk/multidimensional-poverty-index/mpi-country-briefings/) that explain MPI values and contain graphs and maps are available for countries included in the global MPI 2020 and for countries covered in the Changes over Time research on trends in multidimensional poverty.
- Excel data tables and do-files (https://ophi.org.uk/multidimensional-poverty-index/data-tables-do-files/) have all the details of MPI data plus population values, standard errors and sample sizes.
- Methodological notes (https://ophi.org.uk/mpi-methodological-notes/) provide the particularities of each country's survey data treatment and the specific harmonization decisions for calculating changes in poverty over time.