

Finding the Balance: Public health and social measures in Sudan

This report describes findings from a telephone survey with 1,371 people conducted in September 2021, alongside local epidemiological and secondary data. The survey was approved by the Federal Ministry of Health National Research Ethics Review Committee to examine experiences and responses to public health and social measures (PHSMs) to prevent COVID-19 transmission. This is the fourth PERC report since the pandemic began (see the [first](#), [second](#) and [third](#) reports).

What are the highlights from this report?

Situational Awareness

Against a backdrop of overlapping political and economic crises, limited COVID-19 testing makes Sudan's transmission dynamics difficult to analyze. However, a high case-fatality rate (7.5%) and reports of [undercounted](#) cases suggest a deeper crisis than has been officially reported.

PHSM Support and Self-Reported Adherence

Support for and self-reported adherence to nearly all PHSMs has fallen in each successive survey through September 2021 — likely driven by a combination of low risk perception and greater attention to other concerns facing respondents.

Information and Risk Perception

Just one in six respondents listed COVID-19 as a top concern — among the lowest proportions in all African Union Member States surveyed; access to food, employment and armed conflict were more frequently cited priorities. Respondents from Sudan also reported the lowest levels of satisfaction with their government's response to COVID-19 among all surveyed Member States.

Vaccine Beliefs and Uptake

Three in four respondents reported either being vaccinated or planning to get the COVID-19 vaccine. With only 3% vaccine coverage to date, survey findings suggest there is likely unmet demand for the vaccine. However, supply constraints continue to undermine vaccine access. Misinformation dominated reasons for hesitancy, suggesting an urgent need for strong information campaigns.

Secondary Burdens

Eight in 10 respondents listed high food prices as a barrier to food access — reflective of years of soaring inflation that has been further exacerbated by the pandemic and recent unrest. Three in four reported losing income since the start of the pandemic, mostly unchanged from February 2021.

National COVID-19 Data Snapshot as of 3 October 2021

Vaccination rate	3%
Percentage of population with at least one dose of a COVID-19 vaccine	
Number of doses in country	3,334,100
Cumulative incidence per 100,000 people	87
Total reported cases	38,283
Total confirmed COVID-19 deaths	2,899

Data source: Africa Centres for Disease Control and Prevention

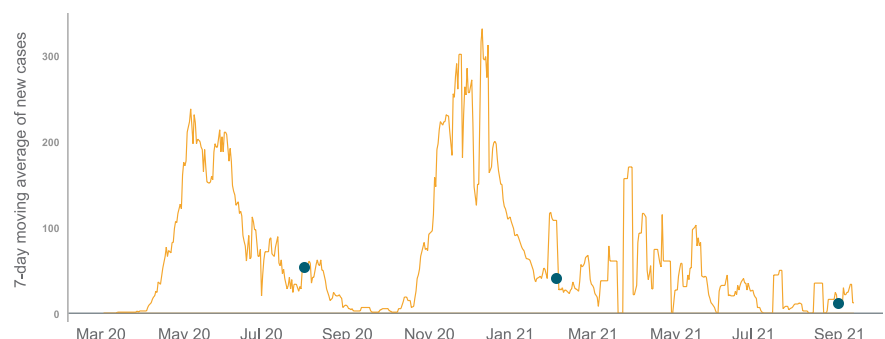
What are the key trends from this survey?

Since August 2020, support for COVID-19 response measures and satisfaction with the government's pandemic response have declined, while risk perception remained low. Income loss continued to be widespread.

	Aug 2020	Feb 2021	Sept 2021
Support for staying home	83%	↓ 76%	↓ 58%
Personal risk perception	22%	→ 24%	→ 26%
Satisfaction with government response	66%	↓ 54%	↓ 46%
Vaccinated/likely to get vaccinated	*	78%	→ 75%
Income loss since pandemic start	38%	↑ 74%	→ 75%

* Vaccines were unavailable at the time of the survey

Changes in percentage of +/- 5% are indicated with an ↑ up or ↓ down arrow



Situational Awareness

What is the situational context influencing COVID-19 response?

Note: This survey was fielded weeks prior to the military [coup](#), which likely influenced responses and complicates interpretation of the findings. In addition, a large share of respondents reported a high level of education (42% reported completing at least some university), while 34% of respondents reported income in the highest income category (compared to 25% in February 2021), with only 6% in the lowest income category (compared to 16%). 21% did not answer the question about household income. These survey sample demographics may influence results and trend comparisons.

After two discrete waves of new infections in Sudan in early and late 2020, reported new COVID-19 cases have been more irregular through most of 2021. The Delta variant, [first detected](#) on 27 Apr 2021, likely drove elevated case counts from May 2021 onwards. However, reporting and [testing challenges](#) may [obscure](#) true case counts, including a more defined wave of cases like those seen in neighboring Member States; in addition, Sudan has a higher-than-average [case-fatality rate \(7.5%\)](#), another indicator that reporting of cases and deaths are likely incomplete.

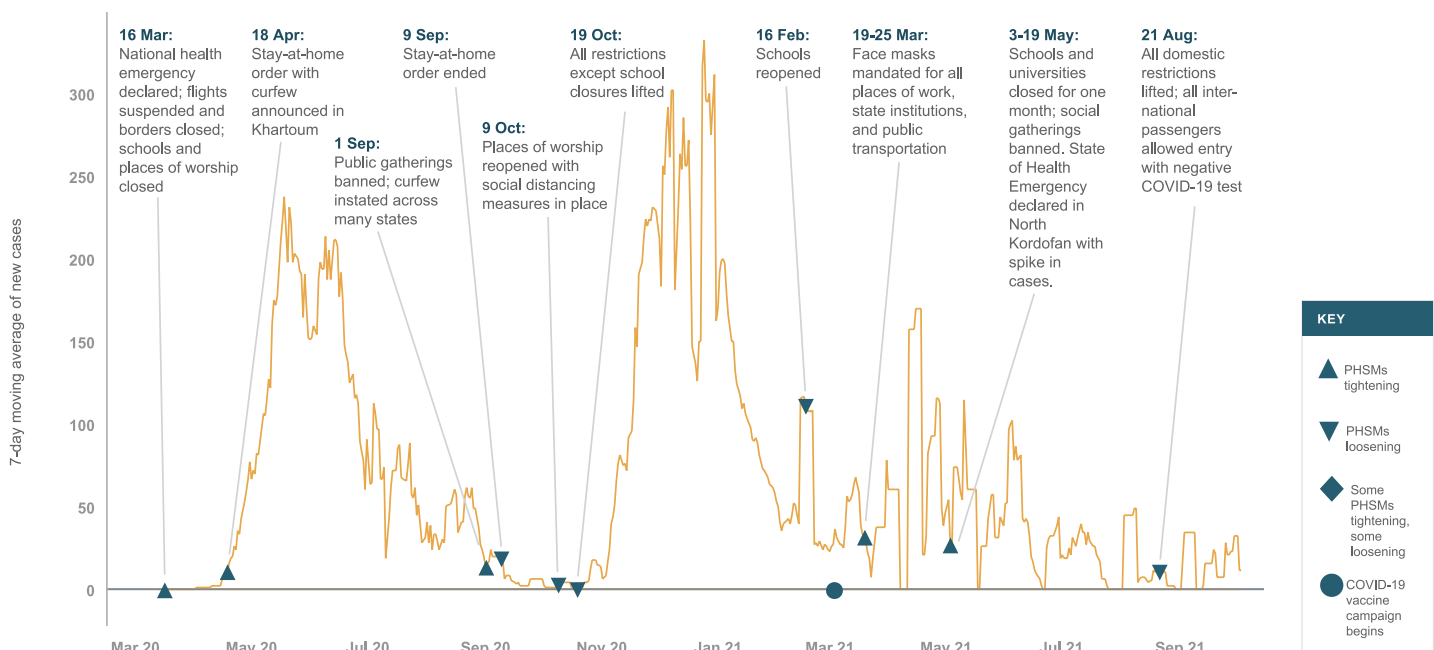
Beginning in March 2021, the government enacted a nationwide mask mandate for workplaces and public institutions. In May, restrictions were further tightened in North Kordofan, where a health emergency was declared after cases spiked. However, by the time of the survey fielding, it appears that [no domestic restrictions were in place](#).

Sudan's vaccination campaign began in March 2021 with the first arrival of vaccines from the COVAX facility, but limited supply and logistical support have led to a slow rollout. The Ministry of Health announced that [vaccines were available in all states](#) as of 1 Sep; as of mid-October, [all adults over 18](#) are eligible for vaccination. Sudan is [using](#) AstraZeneca, Johnson & Johnson, Sinopharm and Pfizer/BioNTech. As of 3 Oct, 3% of the population had received at least one dose.

Beyond COVID-19, Sudan is in the midst of overlapping political and economic crises, which combined with [other outbreaks](#), [natural disasters](#) and conflict (both [along the Ethiopian border](#) and in [Darfur](#)), have undermined health system capacity. In April 2021, [oxygen shortages](#) forced many hospitals to move COVID-19 patients between states in search of medical oxygen. [Shortages of basic commodities](#) (such as food, fuel and medicine) have been rampant since 2019, when the country ousted former President Omar al-Bashir and installed a transitional government, and have been [exacerbated by recent political unrest](#). Inflation has also been a significant challenge. Inflation, which peaked at 422% in July 2021 (and subsequently slowed somewhat) has also added to the economic hardship experienced during the pandemic. The [price of fuel has doubled](#) since the removal of fuel subsidies in June. The United Nations Food and Agriculture Organization estimates that [2.7 million people are experiencing critical acute food insecurity](#) during the current lean season.

The [recent ousting of civilian political rule on 25 Oct 2021 by the military](#) is causing additional social unrest across the nation, with ongoing [protests](#) against military control. As of 1 Nov 2021, which group will retain political control remains uncertain.

Limited testing has made the scale and timing of new infections difficult to discern in 2021. PHSMs were tightened in March and again in May before being reduced in August.



PHSM Support and Self-Reported Adherence

Do people support and follow measures?

What the data say

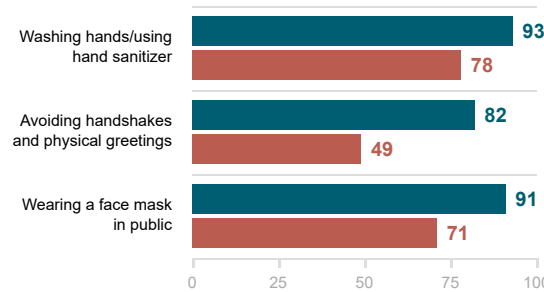
Support for and self-reported adherence to most PHSMs was lower in September 2021 than in February, and low by regional standards. Compared to other Member States in the Eastern region, respondents in Sudan reported the lowest levels of support for individual measures, such as hand-washing and mask-wearing, as well as avoiding public gatherings and trips to the market.

- Low levels of self-reported adherence to individual PHSMs likely go beyond questions of PHSMs to more basic considerations of access; for example, only three quarters of survey respondents reported owning a face mask, 20 percentage points lower than the average for all surveyed Member States, and [access to clean water is limited](#).
- Low levels of self-reported adherence to measures restricting social gatherings and movement can likely be attributed to the lack of PHSMs in place and ongoing political and economic crises. Access to food and income eclipsed COVID-19 as a top concern among survey respondents.
- In addition, low risk perception and low satisfaction with the government's response to COVID-19 were associated with lower self-reported adherence to all PHSMs.

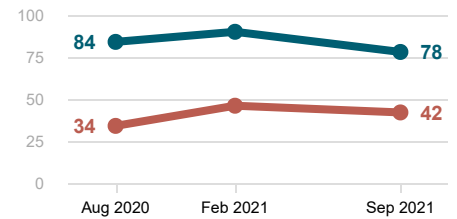
Individual measures

Support for and self-reported adherence to avoiding handshakes and physical greetings remained low from February 2021; self-reported adherence for this measure was the lowest among all surveyed Member States, indicative of the importance such greetings play in Sudan.

Support for and adherence to each individual measure in Sep 2021



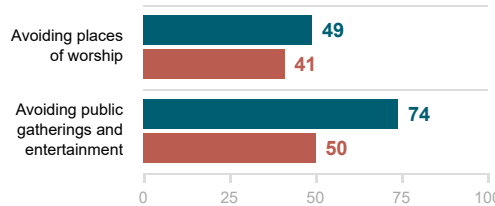
Trend in support for and adherence to all individual measures (composite score)



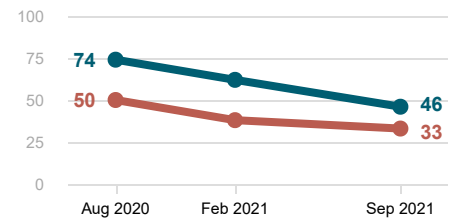
Measures restricting social gatherings

Support for avoiding places of worship was 17 percentage points lower than in February 2021. Support for avoiding public gatherings was down 12 percentage points.

Support for and adherence to each social measure in Sep 2021



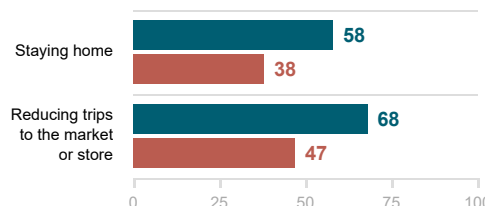
Trend in support for and adherence to all social measures (composite score)



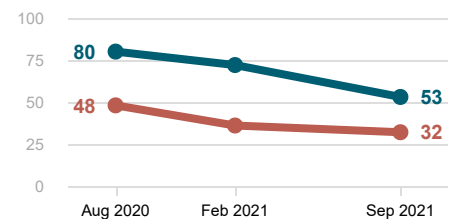
Measures restricting movement

Fewer than one in three respondents reported both staying home and reducing trips to the market; support for each measure was 18 percentage points lower than in February 2021.

Support for and adherence to each movement measure in Sep 2021



Trend in support for and adherence to all movement measures (composite score)



Information and Risk Perception

How do people understand risk?

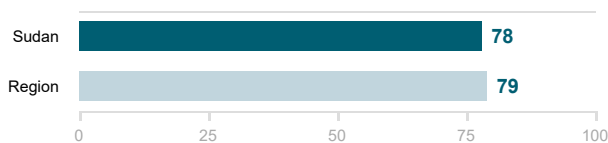
What the data say

About one in four respondents from Sudan reported believing their own personal risk of being infected with COVID-19 was high, while three in four reported believing COVID-19 would affect many people in their country – both in line with the Eastern region. However, only one in six listed COVID-19 as a top concern, the smallest share among all surveyed Member States and 28 percentage points below the Eastern regional average. Taken together, these results suggest that while respondents were as concerned about the risks of COVID-19 as their peers in neighboring Member States, they were even more concerned by the confluence of other crises gripping the nation.

- Low personal risk perception was associated with both low levels of support for PHSMs as well as lower reported likelihood of getting a vaccine. One in four respondents with low personal risk perception reported that they were not likely to receive the vaccine, compared to just one in six reporting high risk perception.
- Respondents' top concerns were access to food, access to income/work and conflict/security, followed by education (18%), the COVID-19 pandemic (17%) and other health concerns (15%). There were no major sociodemographic differences.

How do people understand the risk of COVID-19?

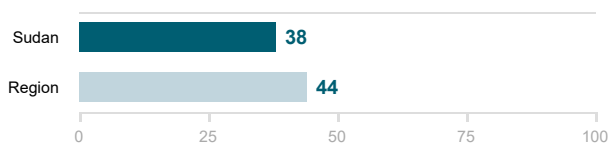
78% believe that COVID-19 will affect many people in their country



26% believe that their personal risk of being infected with COVID-19 is high

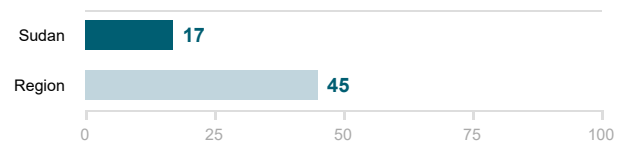


38% believe that their health would be seriously affected by COVID-19

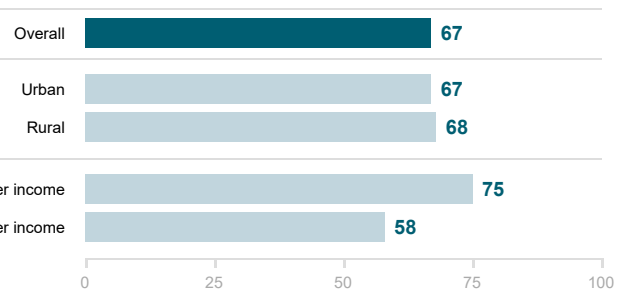


How concerned are people about COVID-19?

17% report COVID-19 as being a top concern



67% are anxious about resuming normal activities



Note: <100 respondents reported being in the higher income category; results should be interpreted with caution.

The issues most concerning to people

Percentage of people reporting concern about a particular issue

Access to food	33%
Access to income/work/unemployment	25%
Conflict/security/war	21%

Information and Risk Perception

Whom do people trust?

What the data say

Less than half of respondents reported being satisfied with the government's response to the pandemic in Sudan, the lowest among all surveyed Member States, and eight percentage points lower than in February.

- Trust was higher for international institutions' handling of the pandemic (such as UNICEF and WHO (90% and 89%) than for domestic institutions' such as the Ministry of Health (75%). Trust in the president was especially low at six in 10; however, this should be interpreted with caution given the complicated power-sharing arrangement between civilian and military rule at the time of the survey.
- Those reporting trust in the Ministry of Health's handling of the pandemic were more likely to report adherence to all types of PHSMs. Notably, this group also reported higher rates of face mask adherence in public (74% vs. 63%).

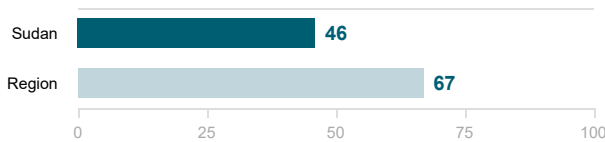
Unlike most other Member States, local media sources — such as television or radio — were not among the most trusted sources of COVID-19 information; respondents in Sudan seem to be more trusting of health centers, international television and their friends and family. However, local television was the most commonly used source for COVID-19 information (37%). Policymakers may therefore wish to continue utilizing local media, as well as leveraging non-traditional but trusted sources, to help dispel myths, promote accurate health information and advocate for vaccine uptake.

- Respondents in Sudan reported considerable trust in local religious leaders for information about the COVID-19 pandemic (61%); however, far fewer respondents actually consulted this group for information about the pandemic (2%), suggesting a potentially untapped resource for future risk communication and community engagement activities.
- Facebook was among the least trusted sources of COVID-19 information (40%), but among the top five most commonly used, presenting an opportunity to leverage this platform more actively.

What do people think about their country's institutions?

Satisfaction with the government's pandemic response was more than 20 percentage points lower than the Eastern regional average, following a similar trend as in February, when it was also the lowest in the region. Those who had lost all of their income since the start of the pandemic also reported less satisfaction than those who had lost either some or none of their income (33% vs. 48%).

46% are satisfied with the government's pandemic response



Top three most trusted institutions and individuals

Percentage of people reporting trust in each person's or institution's approach to the pandemic

UNICEF	90%
World Health Organization (WHO)	89%
Hospitals/health centers	75%

Do people believe accurate information?

Respondents demonstrated high levels of understanding of some of the key transmission dynamics of COVID-19, especially asymptomatic transmission. While over three-quarters of respondents reported trusting health workers for COVID-19 information, nearly six in seven said they should be avoided due to increased transmission risk — the highest among all surveyed Member States. Additionally, the belief that COVID-19 could be cured with herbal remedies was much more prevalent than the Eastern regional average (65% vs. 46%).

Most trusted sources of information

Percentage of people reporting trust in information sources about COVID-19

Health center/health workers	77%
International television channel	70%
Friends and family	69%

90% understand that infected people may never show symptoms but could still infect others.

87% understand that infected people may not show symptoms for five to 14 days.

65% believe that COVID-19 can be cured with herbal remedies.

84% think they should avoid health care workers because they could get COVID-19 from them.

Vaccine Beliefs and Uptake

Do people want to get the COVID-19 vaccine?

These survey questions aim to describe the available market for COVID-19 vaccine uptake and target populations for information campaigns. We therefore show those reporting being vaccinated or likely to get vaccinated, and those unlikely to get vaccinated. The survey does not seek to validate COVID-19 vaccine coverage.

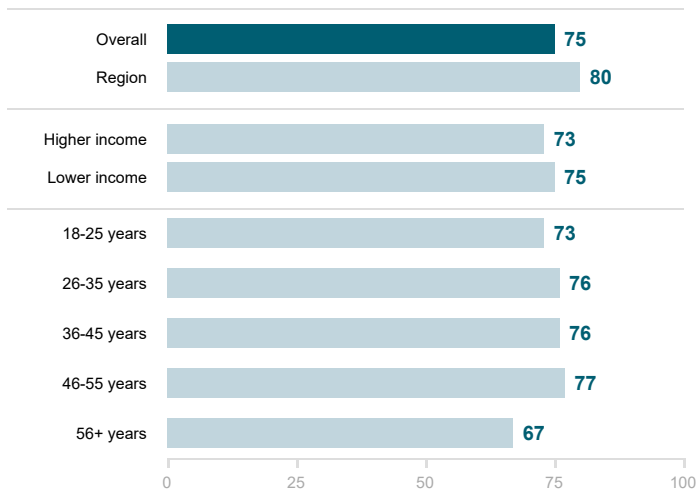
What the data say

Three in four respondents from Sudan reported that they were either vaccinated or likely to get the COVID-19 vaccine, while nearly one in four reported that they were unlikely to get vaccinated. With [eligibility expanding to all adults](#) and only 3% of the population presently vaccinated, survey results suggest both considerable unmet demand. However, Sudan only currently has enough [vaccine supply](#) to reach an additional 4% of the population, limiting the potential for mass vaccination campaigns.

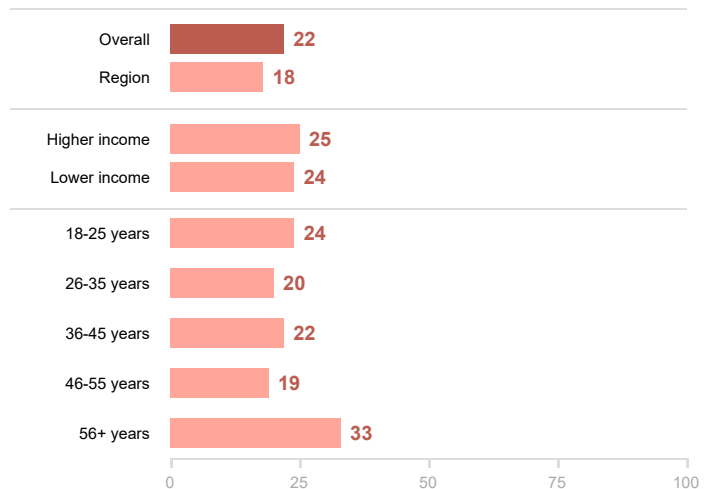
- Respondents reported wanting more information on vaccine safety, side effects and information on the different types of vaccines available in Sudan (presently there are four, each with different schedules and levels of availability).
- Among those unlikely to get vaccinated, the most common reasons cited were forms of misinformation — that the virus does not exist and that the vaccine can give you COVID-19. Lack of trust in the vaccine and health institutions promoting it was also commonly cited, and with additional survey results that show low trust in government institutions, efforts to dispel these myths may be complicated. Still, information campaigns should continue to be deployed, run through trusted and commonly consulted sources.

How many people reported getting or planning to get the COVID-19 vaccine?

Fewer than 5% of respondents reported being unsure about COVID-19 vaccine uptake and are therefore not shown. Percentages reported are among the entire sample.

75% are vaccinated or are likely to get vaccinated


Note: <100 respondents reported being in the lower income category, and N<50 respondents reported being 56+ years old; results should be interpreted with caution.

22% are unlikely to get vaccinated


Note: <100 respondents reported being in the lower income category, and N<50 respondents reported being 56+ years old; results should be interpreted with caution.

What do people think about COVID-19 vaccines?
Top information wanted about vaccines

Percentage of people reporting each type of information

How safe is the vaccine?	30%
What are the main side effects and are they painful/serious?	27%
What types of vaccines are there, what are they made of and how do they work?	18%

Top reasons people would not get the vaccine

Among people who were not planning to get vaccinated, their reasons were:

I do not believe that the virus exists	15%
The vaccine can give you COVID-19	14%
Lack of trust (i.e. in vaccine, government)	13%

Secondary Burdens

Are people skipping or delaying health care?

What the data say

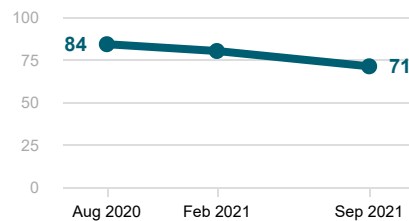
Despite improvements from previous survey rounds, nearly half of respondents needing health care in Sudan reported skipping or delaying a health visit in the past six months, 15 percentage points above the Eastern regional average. Additionally, seven in 10 reported difficulty accessing needed medication, the most among all surveyed Member States. These results reflect [widespread disruption](#) of health services across Sudan since the start of the pandemic.

- Among those reporting skipping or delaying a health visit, the leading barrier was cost, reflective of both escalating inflation and lost income. A higher share of those reporting lost income reported missing a visit compared to those experiencing no lost income since the start of the pandemic (48% vs. 32%).
- Preventive care such as diagnostics and routine check-ups were among the most commonly cited types of missed visits. Further, one in four respondents who reported missing a visit said it was for noncommunicable diseases; 15% reported missing a visit for malaria care.

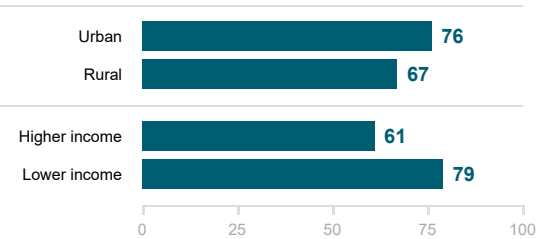
Difficulty getting medicines

Urban respondents were more likely to report difficulty accessing medications, highlighting the persistence of supply chain issues across the nation.

Trend in percentage of households having difficulty getting medicines in the past three months



Percentage having difficulty getting medicines by category

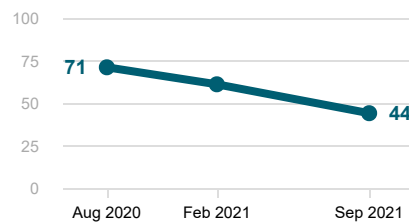


Note: <100 respondents reported being in the lower income category.

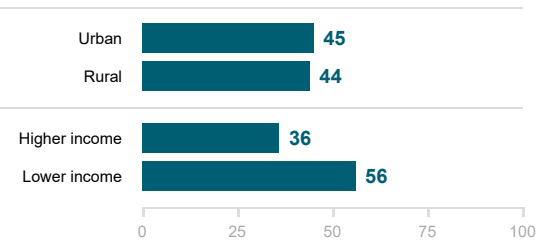
Skipping or delaying health visits

Improvements in skipped or delayed health visits were notable. Some change may be attributable to a higher-income skew of the survey population; it may also represent some improvement in health care access after the high levels of disruption experienced earlier in the pandemic.

Trend in percentage of households skipping or delaying health care visits in the past six months



Percentage skipping or delaying health care visits by category



Note: <100 respondents reported being in the lower income category.

Reasons for skipping or delaying visits

People could choose multiple responses

Cost/affordability	35%
Health facility disruption	26%
Mobility restrictions/transport challenges	20%
Worried about catching COVID-19	14%
Self-isolating with suspected COVID-19	2%

Interpret proportions cautiously due to small sample size (N<100)

Types of health visits that were skipped or delayed

People could choose multiple responses

Diagnostic services/symptoms	28%
Noncommunicable diseases	26%
General/routine check-up	24%
Communicable diseases	16%
Reproductive, maternal, newborn, child health	11%

Interpret proportions cautiously due to small sample size (N<100)

Secondary Burdens

Are people experiencing income loss or food insecurity?

What the data say

Respondents in Sudan continue to report alarming levels of income loss and barriers to food access. Three in four reported losing income since the start of the pandemic, while more than half reported having to reduce or miss a meal in the past week.

- Eight in 10 reported high food prices as a barrier to food access. Between February 2020 and July 2021, [food prices rose 17%](#). Combined with loss of income (reported as a food access barrier by seven in 10), survey results highlight considerable difficulty affording food for people living in Sudan.
- In addition to the [2.7 million people](#) estimated to be in emergency levels of acute food insecurity (IPC Phase 4) during the most recent lean season (June to September), 7.3 million more people are facing some level of acute food insecurity, with the highest estimates coming from the states of North Darfur, West Darfur, North Kordofan, South Kordofan and Gedarif, according to [recent IPC projections](#).
- Despite the launch of a new World Bank-funded [basic income program](#) in February, only 9% of respondents reported receiving any benefits from the government beyond what they got before COVID-19. The program, called Thamarat (fruits) or the Sudan Family Support Programme, aims to provide US\$5 monthly transfers to up to 80% of Sudan's population, and [may be extended](#) beyond the initial six-month pilot period, depending on funding availability.

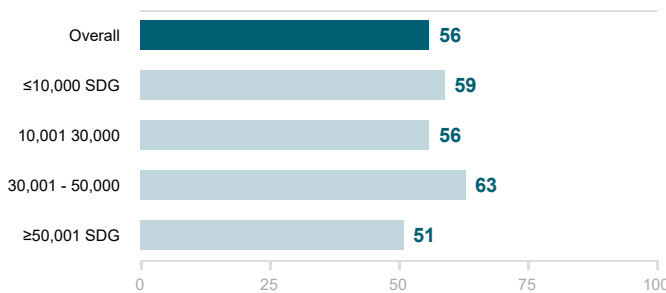
Reported barriers to food access

Percentage of people reporting each barrier

Less income	71%
Higher food prices	81%
Food markets closed	40%
Mobility restrictions	33%
Food market supply shortages	48%

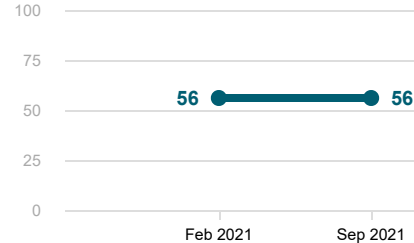
Missing meals

Percentage of households *missing meals* by category



Note: <100 respondents reported being in the lowest income category; results should be interpreted with caution.

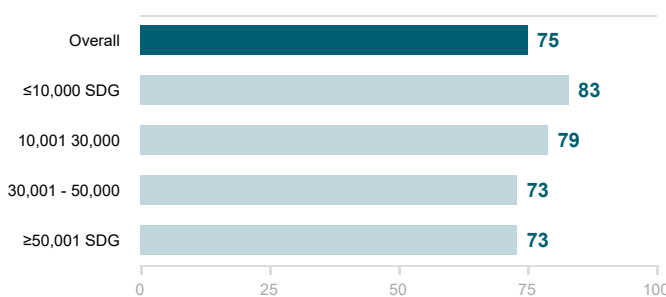
Percentage of households *missing meals* over time



Note: Data on missing meals were not collected in Aug 2020.

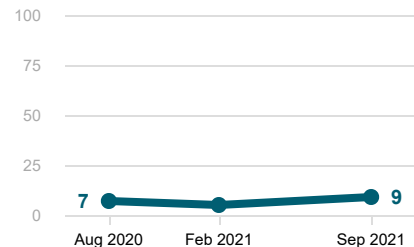
Income loss and receiving government assistance

Percentage of households experiencing *income loss* by category



Note: <100 respondents reported being in the lowest income category; results should be interpreted with caution.

Percentage of households receiving *government assistance* over time



Appendix

Endnotes

Report notes

Regional comparisons were conducted as per the following categories: Eastern Africa (Ethiopia, Kenya, Uganda, Sudan); Western Africa (Ghana, Nigeria, Liberia, Guinea Conakry, Senegal, Côte d'Ivoire); Northern Africa (Tunisia, Morocco, Egypt); Central Africa (Cameroon, Democratic Republic of Congo); and Southern Africa (Mozambique, South Africa, Zambia, Zimbabwe).

The epidemiology curves on pages one and two of the report shows the 7-day rolling average of new cases from March 2020 to October 2021. Where epidemiology or mobility data are missing, the data are unavailable.

Full survey results are available here and on the PERC online [dashboard](#). For full details on data sources, methods and limitations, see preventepidemics.org/perc.

- Ipsos conducted a telephone *survey* of a nationally representative sample of households with access to a landline or cell phone. Results should be interpreted with caution as populations without access to a phone are not represented in the findings. The percentages reported in Ipsos charts may be different from percentages reported in other PERC products and communication of these data. Differences may be reconciled by investigating the denominator and/or weights used.
- Africa Centres for Disease Control and Prevention (Africa CDC) provides *epidemiological* data daily for African Union (AU) Member States. Africa CDC receives case, death and testing data from each AU Member State. Because not all AU Member States report daily, numbers could be delayed, especially for testing data which are more commonly reported late, or in periodic batches (e.g., weekly).
- Other data are drawn from publicly available sources.

Findings reflect the latest available information from listed sources at the time of analysis, and may not reflect more recent developments or data from other sources. Data vary in completeness, representativeness, and timeliness.

Country notes

The survey sampled from Sudan consisted of 1,371 adults (629 urban, 742 rural), collected between 22 Sep and 4 Oct 2021.

Income classifications were based on existing data on local income distributions, which were used to create four income bands, defined as:

- Low income: Monthly household income 10,000 SDG and below
- Low middle income: Monthly household income 10,001 SDG - 30,000 SDG
- High middle income: Monthly household income 30,001 SDG - 50,000 SDG
- High income: Monthly household income 50,001 SDG and above