PERC

USING DATA TO FIND A BALANCE

SPECIAL REPORT SERIES:

Disruption to essential health services in Africa during COVID-19

The COVID-19 pandemic and its associated response have created a significant downstream effect on access to essential health services in Africa, and placed millions of people at increased risk of morbidity and mortality from causes other than the virus itself. This challenge is not unique to Africa: across the globe, people are missing or delaying health visits for essential health services, from routine health check-ups to management of chronic health conditions to emergency care. However, in Africa, both the immediate and long-term effects of foregoing these services may be more severe than in other regions of the world, threatening the decades of progress that have been achieved to increase life expectancy by expanding access to health care.

This brief builds on the September 2020 "Responding to COVID-19 in Africa: Using Data to Find a Balance" report from the Partnership for Evidence-Based Response to COVID-19 (PERC). It delves deeper into findings from PERC's 24,000-person survey conducted in 18 African Union (AU) Member States between 4 and 17 August 2020 to assess the extent of self-reported disruptions to essential health services brought on by COVID-19, to analyze who is most at risk, and to identify the common barriers reported by respondents when attempting to access care. As Africa enters its second wave of the pandemic, with cases increasing in the last few weeks, this analysis is ever more important in helping governments ensure that when strict PHSMs are reinstated, health access does not falter.

KEY FINDINGS FROM SELF-REPORTED HEALTH CARE DISRUPTIONS IN 18 AU MEMBER STATES:

1. **The indirect effects of COVID-19 on essential health services in Africa have been severe.** In the 18 AU Member States surveyed, 22% of all respondents reported they or a member of their household skipped or delayed health services since the start of the pandemic and 38% experienced difficulty accessing medication. Among the smaller group reporting that they needed health care or medication (which excludes those that reported they did not need health care services or medication since the start of the pandemic), the results were even more stark: close to half (44%) of the households had disruptions in health care visits and 47% reported difficulty accessing medication.

2. **The level of health care disruptions may relate more to existing health system issues and household-level situations than to the size of a country's epidemic.** There was no clear correlation between the size of the epidemic and the stringency of government measures to contain its spread, and the extent of reported health care disruptions. However, respondents who were most directly affected by COVID-19 (either they or a family member reported a COVID-19 diagnosis) were more likely to skip or delay services than those without a COVID-19 diagnosis.

3. **Health care disruptions were highest among those with health problems and living in urban areas.** Half of respondents with long-standing illnesses (e.g., diabetes, HIV) reported disruptions to accessing health care. Compared to the general population, people with long-standing illness are more likely to require frequent health visits, and the consequences of a missed visit may be severe for them. Increased reports of missed health services among urban respondents may be due to higher per capita outbreaks in cities, and consequently, more restrictive public health and social measures (PHSMs).

For in-depth, country-level data and analysis for the 18 AU Member States included in the PERC survey, visit https://preventepidemics.org/covid19/perc/

4. **Fear of contracting COVID-19 and cost were the most commonly reported reasons for missed or delayed health services.** Reported barriers were due both to issues at the health facility, such as overwhelmed facilities and shortages of health care workers, and issues reducing community demand, such as fear of contracting the disease, lockdowns and financial barriers. This survey highlights that the inequalities that existed before the pandemic have deepened during the crisis.
5. **COVID-19 could slow the steady progress made in improving health outcomes across Africa for an array of diseases and conditions, but particularly so for communicable diseases and maternal and child mortality.** Reports of missed services for malaria, antenatal care, care for children under age five and vaccinations were alarmingly high. Missed services for diabetes and cardiovascular issues were also common, particularly in Northern AU Member States.

KEY RECOMMENDATIONS:

1. **Make the safety of health care workers a priority.** Health care workers should receive special protections, adequate PPE and prioritized access to testing, COVID-19 therapeutics and a vaccine (when available). Health care workers also need fair compensation for their work and proper benefits, including paid sick leave and free mental health care. If hospital staff are safe, then patients will be as well.
2. **Monitor, analyze and adapt policies based on subnational data.** While PERC's survey sounds the alarm on severe health care disruptions at the national-level, analysis of DHIS2 data will be critical in understanding actual service utilization trends at a more local level, to tailor interventions to areas (and health facilities) with highest disruptions.
3. **Target government service delivery programs and demand generation strategies to services most at risk.** At this stage in the pandemic, most countries have already identified and prioritized country-specific essential health services. However, in some countries, certain services are being missed more than others. With subnational data on health care use trends, governments can design effective interventions.
4. **Empower people with information to lessen their anxiety and fear.** The findings from the survey underscore the need for people to be better informed about how they can protect themselves from the virus when leaving their home, by adhering to the "3 W's": wear a mask, wash your hands and watch your distance. As society continues to open up, these cost effective measures are increasingly necessary.
5. **Foster demand for health services through community engagement.** Engage trusted community and religious leaders to encourage people to seek care for health services unrelated to COVID-19, such as immunizations, provision of lifesaving medications, emergency care, reproductive, maternal and child health care, and mental health care. Clear guidance should be provided on how to access health facilities, as well as the measures taken to ensure that they, and their families, will be safe when they do so.

To what extent have health services been disrupted during COVID-19?

Across the 18 AU Member States surveyed, the extent of reported missed health services varied significantly. The degree of reported health care disruptions in a country was not necessarily related to the size of the COVID-19 epidemic there. Obstacles to accessing health care that existed prior to COVID-19 likely played a major role in variance between countries.

Almost one-fourth of all respondents surveyed reported that they or someone in their household missed or delayed health care services since the start of the pandemic, and more than one-third reported difficulty accessing medication. Excluding respondents that reported they or their household did not need health care or medication, almost half (44%) of surveyed households reported delaying or skipping health visits and 47% reported difficulty obtaining medication (Figure 1).

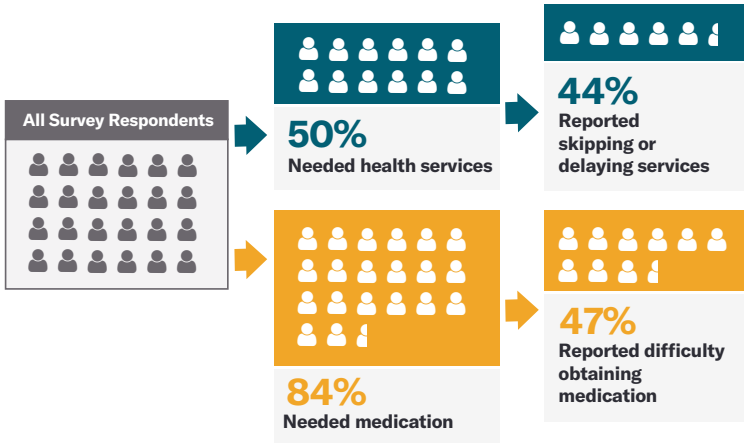
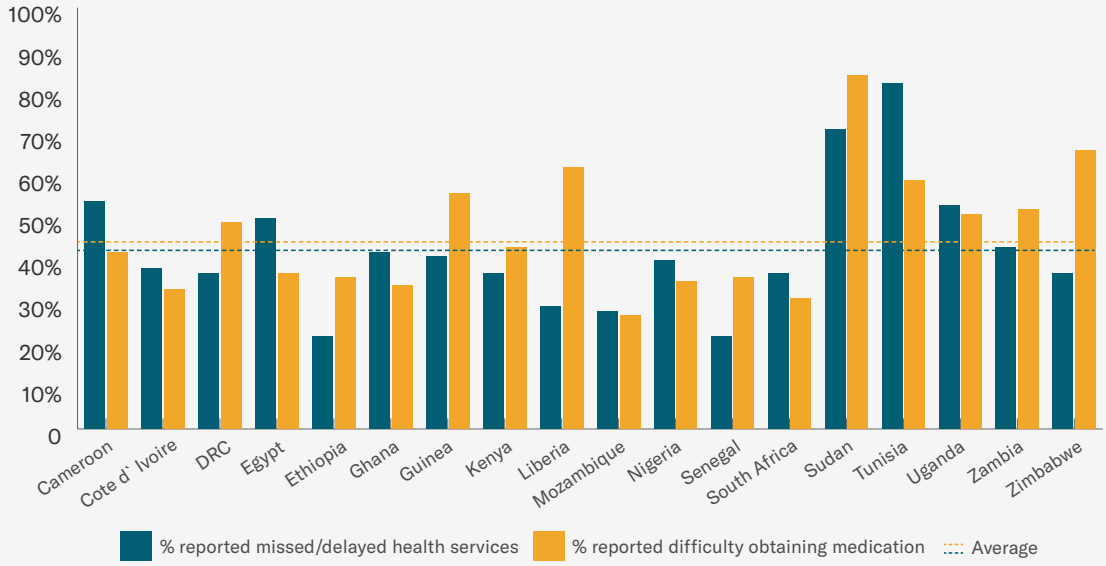


FIGURE 1. Percentage of respondents who reported they or someone in their houshold missed/delayed health services and experienced difficulty obtaining medication since the start of the pandemic.

Levels varied from a high of 81% in Tunisia to only 22% of respondents in Ethiopia and Senegal (Figure 2).[1] Similarly, 47% of surveyed households in need of medication had difficulty obtaining it, ranging from 84% in Sudan to 27% in Mozambique.

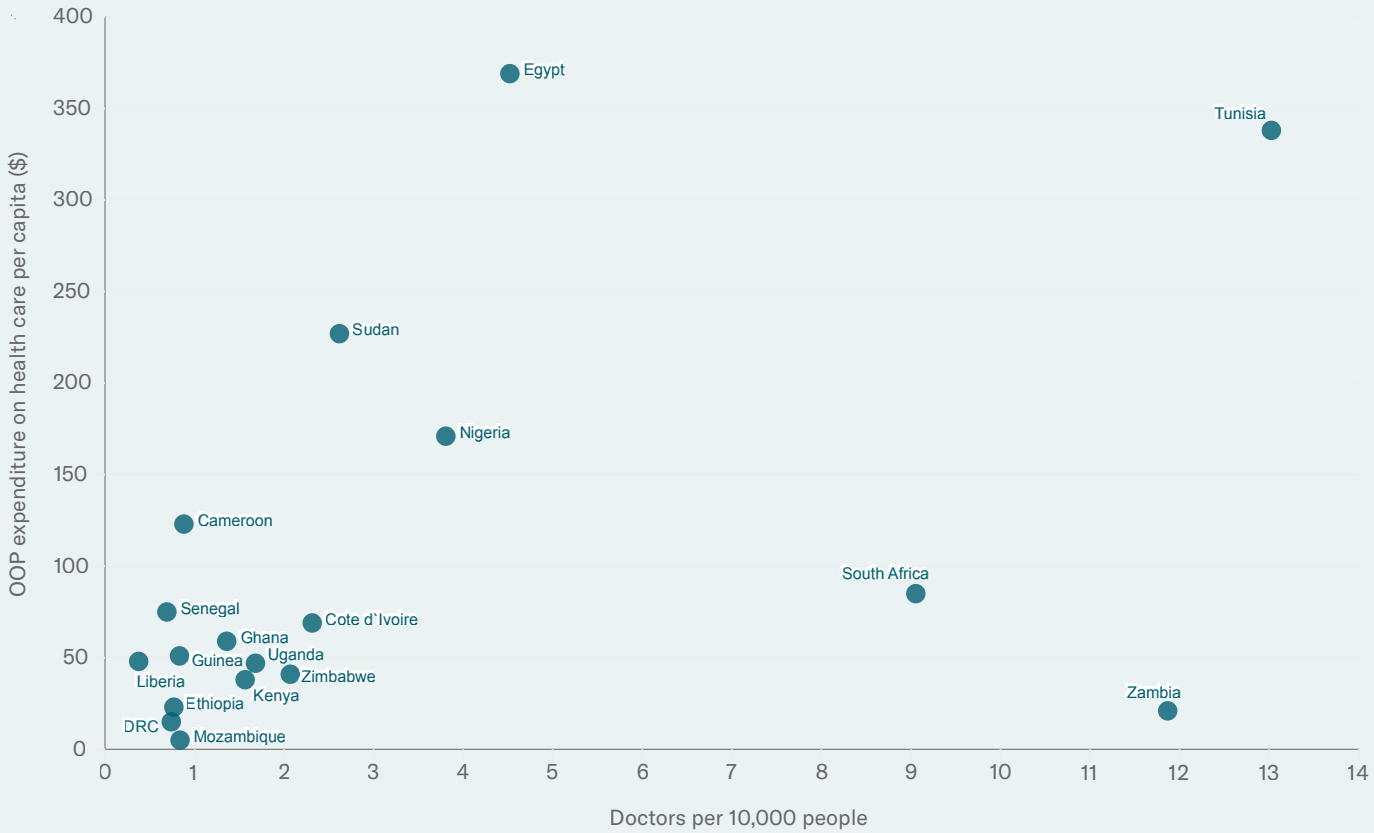
FIGURE 2. Percentage of respondents that reported they or someone in their household in need of care missed/delayed health services or had difficulty obtaining medication.



1 These calculations exclude respondents who reported they or their household did not need medical care.

A limitation to interpreting PERC's survey results is the lack of a pre-COVID-19 baseline for comparison (shown by doctors per capita and out-of-pocket cost of health care services in Figure 3). Health system capacity and affordability of care differed significantly among AU Member States prior to COVID-19. These factors can influence people's health seeking behavior and amplify access issues brought on by COVID-19 in different ways. In particular, trained health care workers equipped with the appropriate personal protective equipment is critical for not only treating patients during COVID-19 surges, but also ensuring essential health services, in effect, do not falter. Importantly, having the appropriate health care work force will enable staff to stay home if they have been exposed to COVID-19 in their community or are experiencing symptoms.

FIGURE 3. Doctors per 10,000 people (World Health Organization, 2011-2018) and % of respondents that attributed health care disruptions to health facilities being closed and/or to health care worker shortages.



Disease burden also differs between AU Member States, with deaths due to communicable diseases much higher in the Central, Eastern, Southern and Western regions than in Northern Africa. Comparatively, deaths due to non-communicable diseases are higher in Northern and parts of Southern Africa (Figures 4-5). In the survey itself, the percentage of respondents reporting longstanding illnesses varied significantly between the countries surveyed (Figure 6). In countries with a higher proportion of the population suffering from longstanding illnesses or health problems, the need for more frequent health visits may be higher, meaning there are more opportunities for disruptions brought on by COVID-19.

FIGURE 4. Burden of communicable, maternal, neonatal, and nutritional diseases.

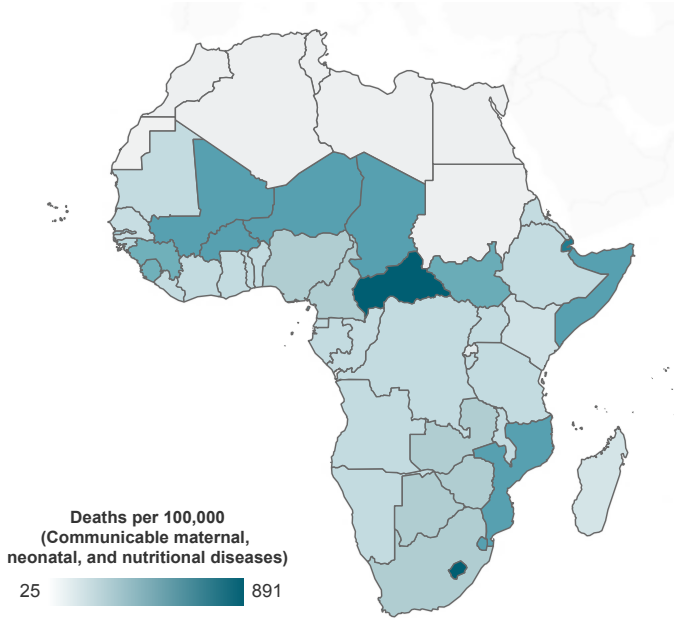
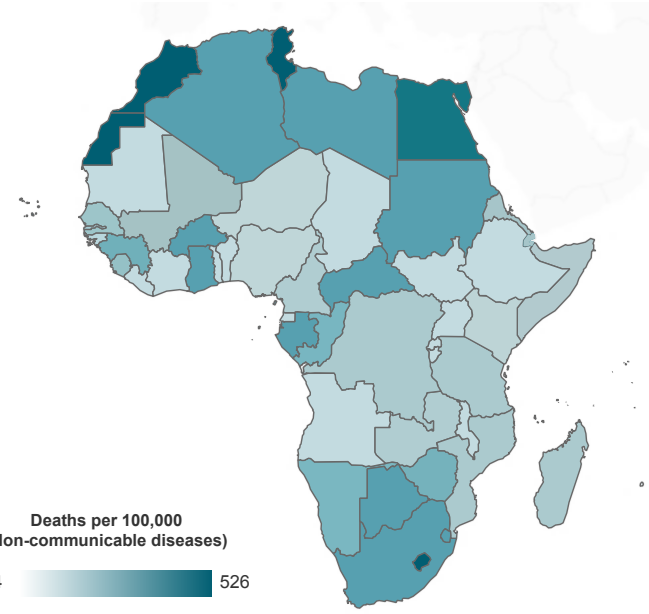


FIGURE 5. Burden of non-communcable diseases.



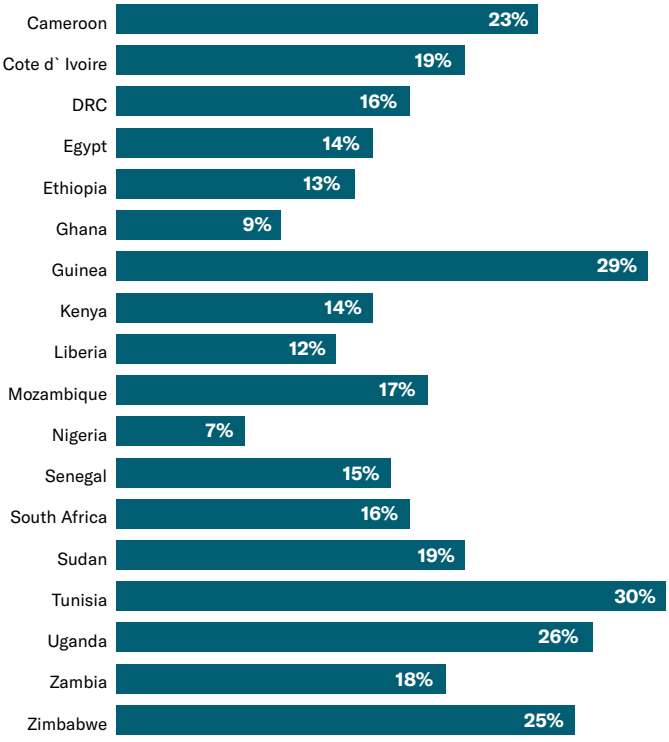
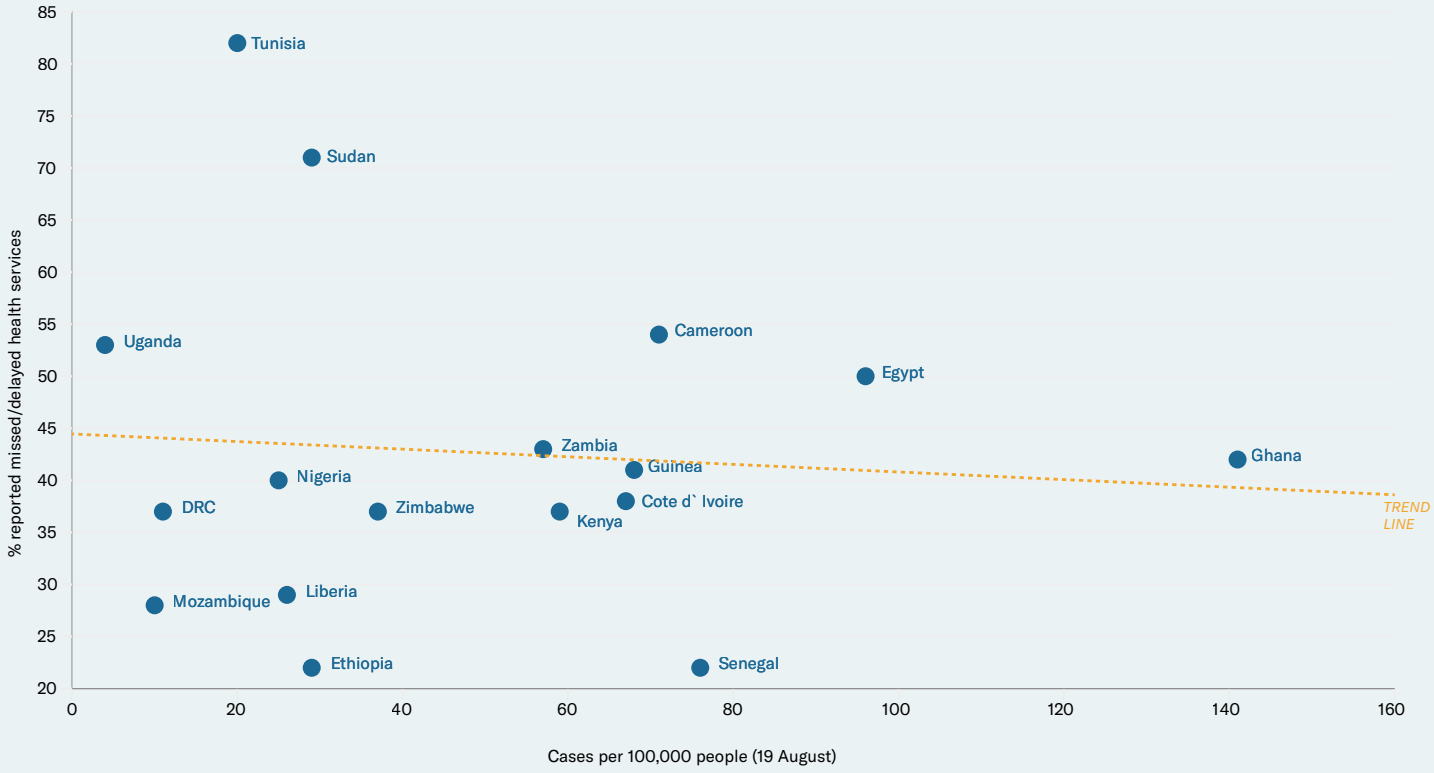


FIGURE 6. Percentage of respondents that reported having a longstanding illness or health problem.

Countries that had higher COVID-19 cases per capita at the time of the survey or more stringent PHSMs in place did not necessarily report the most disruptions to health care service delivery (Figures 7-8). As seen in Figure 7, the relationship between COVID-19 cases reported at the national level and self-reported disruptions to health services found in the PERC survey, is not clear. While Sudan, Tunisia and Uganda, sustained some of the most severe health care disruptions (71%, 82% and 53% of households in need of services missed care, respectively), they had smaller epidemics, on average, than other AU Member States at the time of the survey (29, 20 and 4 cases per 100,000 people, respectively).

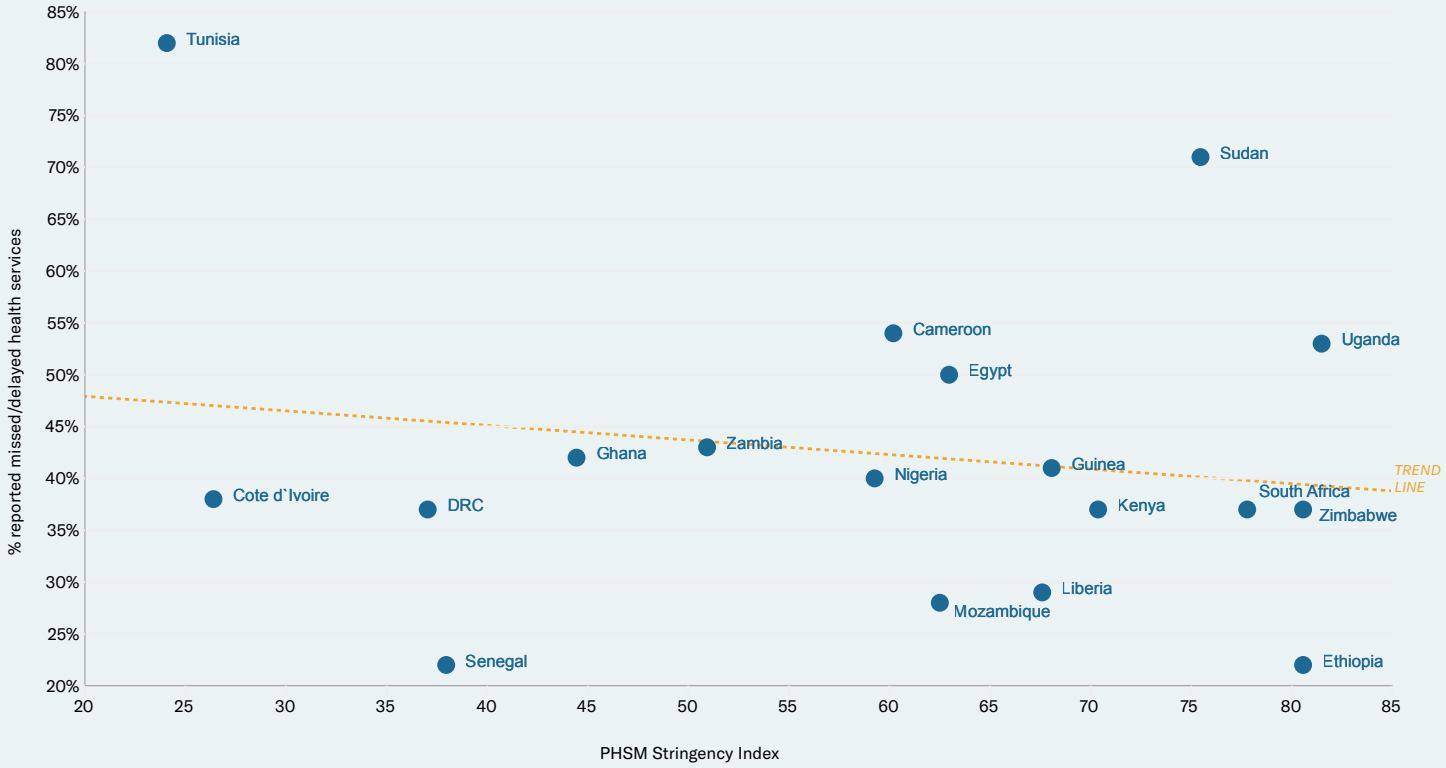
Respondents in South Africa (excluded from Figure 7 for scale), which experienced the continent's largest epidemic (1,011 cases per 100,000), reported fewer disruptions to care (27%) than respondents in other countries surveyed. Ethiopia, which reported a low rate of health care disruptions (only 22% of households missed services), had a PHSM Stringency Index[2] (81 out of 100) at the time of the survey; the reverse was true in Tunisia: high rate of health care disruptions (82%) and a relatively low PHSM Stringency Index (24 out of 100). The takeaway: subnational data is needed to help determine more local disruptions to health care access in areas with high case burden and strict PHSMs.

FIGURE 7. Reported cases per capita (as of 19 August) and percentage of respondents who reported they or someone in their houshold missed/delayed health services. The graph exclude South Africa for scale.



2 The Oxford Stringency Index is a composite measure based on nine indicators which include school and workplace closures, as well as lockdowns, travel bans and curfews. The index is restricted to a value from 0 to 100, with 100 being the strictest.

FIGURE 8. Stringency of PHSMs (as of 19 August) and percentage of respondents who reported they or someone in their houshold missed/delayed health services. The Oxford Stringency Index is a composite measures (from 0 to 100, with 100 being most stringent) based on nine indicators, which include school closures, workplace closures, and travel bans, among others.



Who has been most affected by health care disruptions?

Respondents were more likely to report missed or delayed health care visits if they had longstanding illnesses, lived in cities or had higher incomes.

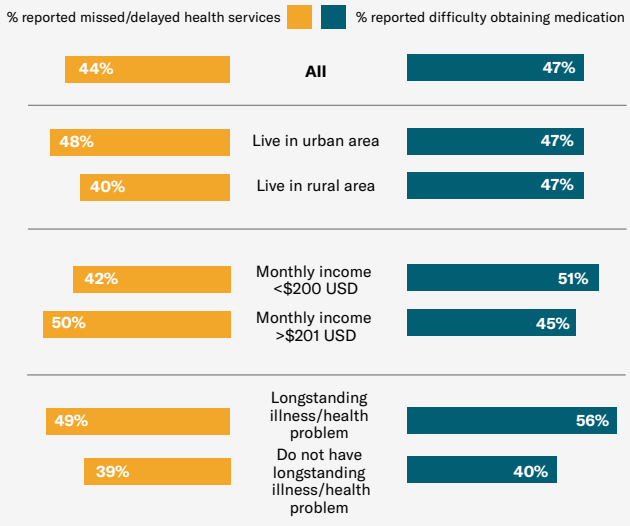
The survey found that, among those who needed health care, respondents with longstanding illnesses were 26% more likely to report missed or delayed health services compared to people without longstanding illnesses (Figure 9). Although the survey did not ask respondents to identify the specific disease or condition they suffered from, people with longstanding illnesses reported higher levels of missed services for diabetes, respiratory problems/asthma and HIV treatment, indicating these services may be most at risk.

People living in urban areas or making over $201 USD per month were both 20% more likely to report disruptions to health services, compared to those living in rural areas or making less than $200 USD per month (Figure 9). In most countries and contexts, higher income groups and people who live in cities fare better in terms of health care access. However, in the case of COVID-19, these groups may live in areas most affected by the pandemic, which can lead to health care worker shortages, impact people's ability to travel to health facilities due to transportation closures, and keep people from seeking treatment due to worry of catching the virus at health facilities.

In terms of medication access, there were no significant differences between urban and rural respondents. However, people with both longstanding illnesses or incomes under $200 USD per month were more likely to report difficulty accessing medication. The survey did not ask respondents why they had issues obtaining their medication, but it could be possible that people with lower incomes had more issues affording medicines due to loss in income.

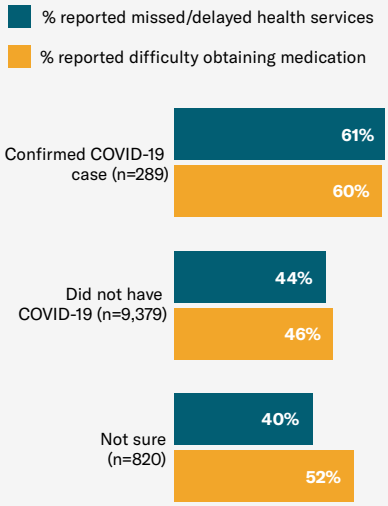
Respondents who reported they or a family member had COVID-19 were 40% more likely to report missed or delayed health care services than those without COVID-19 (Figure 10). Respondents that reported they or a household member contracted COVID-19 were significantly more likely to live in a city, have a higher income and education level, and also have a longstanding illness. A limitation of interpreting these data is that the sample size for those that could confirm they had COVID-19 was small (289 people, or less than 3% of all respondents).

FIGURE 9. Percentage of respondents who reported that they or someone in their household in need of care missed/ delayed health services and experienced.



**Differences between urban and rural respondents, month income, and longstanding illness/health problems were are statistcially significant at a 95% confidence level.*

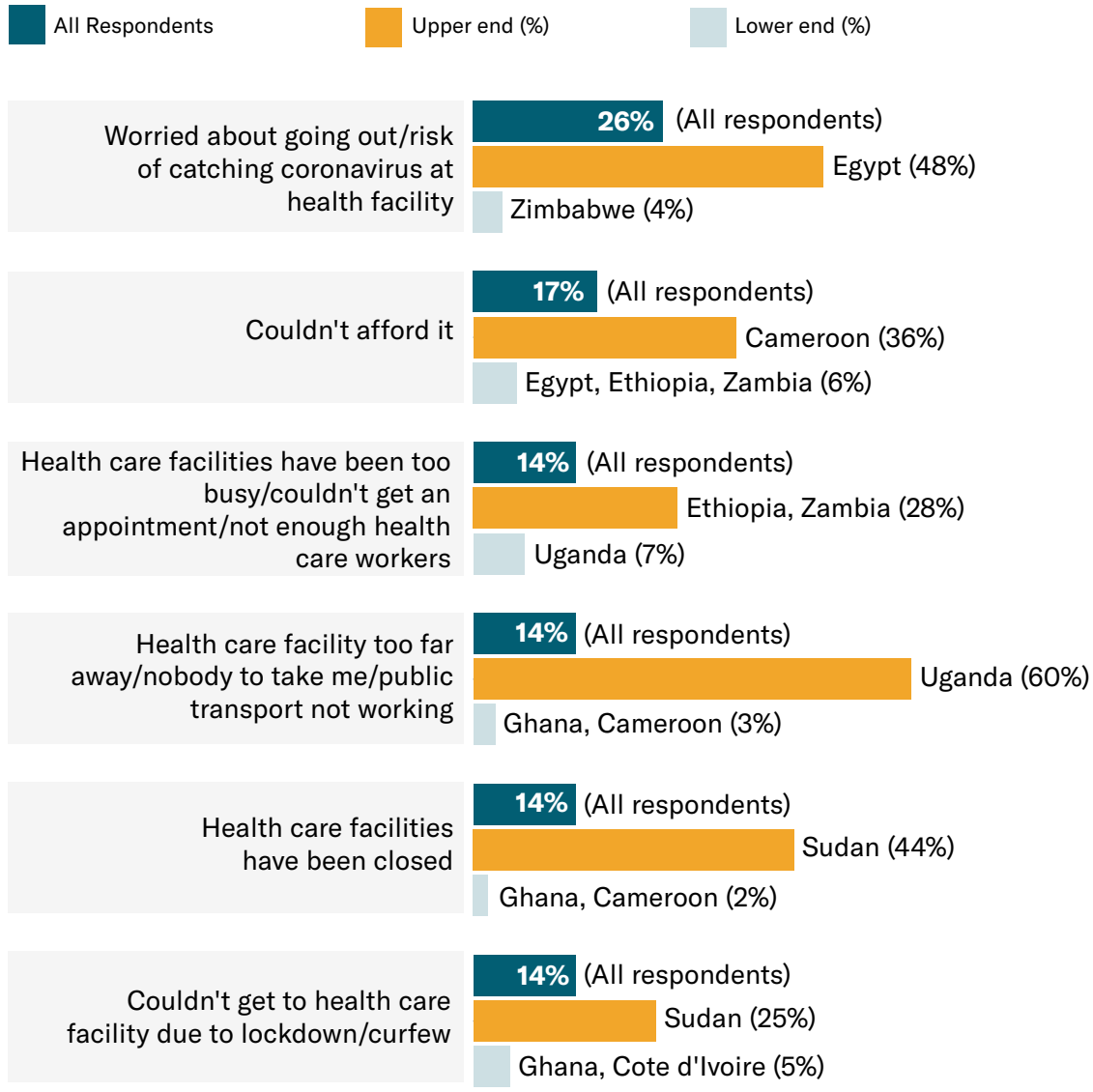
FIGURE 10. Percentage of respondents who reported that they or someone in their houshold in need of care missed/ delayed health services and exerienced difficulty obtaining medication, by known COVID-19 status.



What were the most common barriers reported for missing or delaying health care?

Safety concerns and affordability of care were key barriers to access, however, more than half of respondents reported that mobility restrictions, coupled with health facility disruptions, contributed to their missing or delaying services. Notably, many of these barriers to health access existed prior to COVID-19 and have only been exacerbated by the virus.

FIGURE 11. Reported barriers to seeking care.



Safety concerns

"Worried about going out/risk of catching COVID-19 at a health care facility" was the most common barrier reported to seeking care, cited by over a quarter of households (Figure 11). This barrier was more common among higher income groups as well as those living in urban areas, and could potentially explain why these groups reported experiencing higher rates of missed or delayed services (Figures 12-13). Nearly half of respondents reported this barrier in Egypt (48%) and Cameroon (47%)—two countries that experienced higher than average cases per capita among the AU Member States surveyed. In Uganda, which had the lowest COVID-19 cases per capita at the time of the survey (5 per 100,000), only 5% of people reported safety concerns. The findings indicate that people may be worried about exposure to the virus at health facilities—particularly in the highest burden areas. As of 1 November, there were more than 60,000 reported health care worker COVID-19 cases in Africa, leading to more than 600 deaths[3]. This indicates that more needs to be done to protect health care workers, and reassure people that they will be safe if they seek health care.

FIGURE 12. Reported barriers by urbanity.

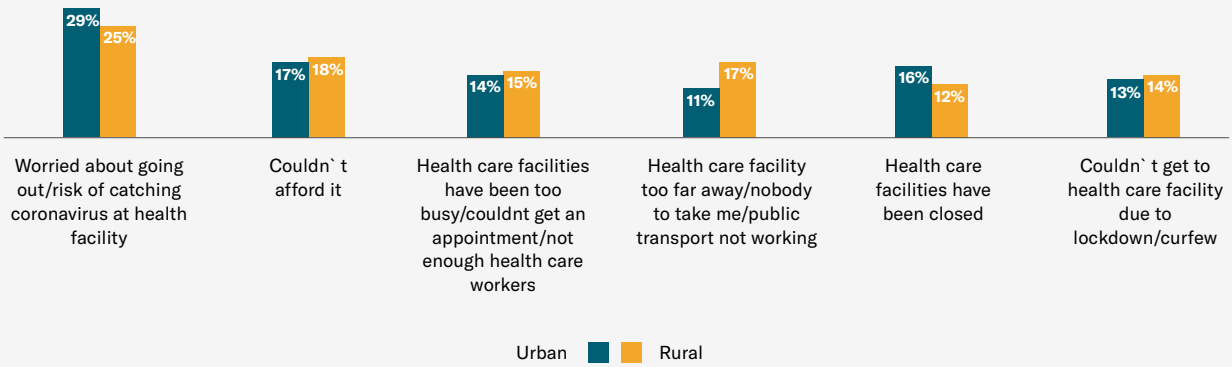
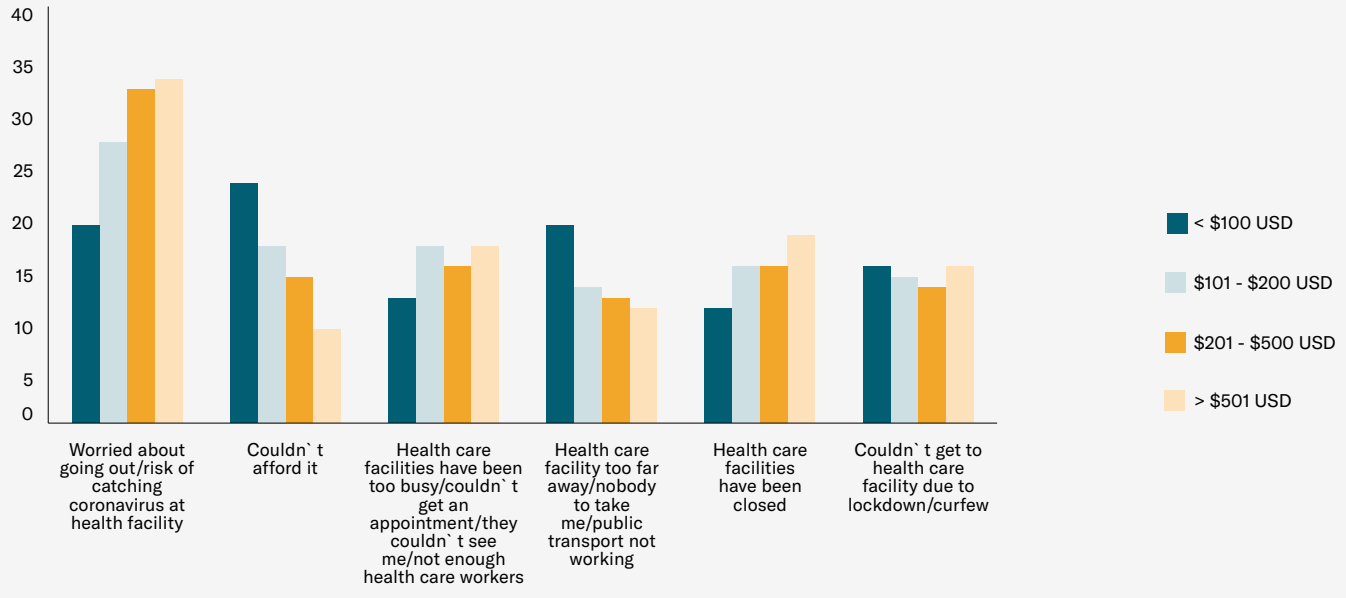


FIGURE 13. Reported barriers by monthly income level (USD).



3 http://covid-19-africa.sen.ovh/index.php?hitmap=ok&soignant=ok&isnc=1

Affordability of care

17% of respondents reported that they "couldn't afford health care services". Respondents making less than $200 USD per month were 70% more likely to report this as a barrier compared to those making more than $201 USD per month. In Cameroon, Cote d'Ivoire and Kenya, about two-thirds of respondents reported cost as a key barrier. In Cameroon, out-of-pocket costs for health care services were high prior to COVID-19 (Figure 3). As people's annual incomes fall due to the economic impact of the virus, people have less disposable income to pay for health services, making affordability of care an even greater challenge. Where cost is a major issue, the WHO recommends that countries consider suspending fees for services and provide compensation for the loss of fee incomes to health facilities.

Mobility restrictions

Respondents also attributed missed or delayed services to PHSMs, with 14% citing that they "couldn't get to a health facility due to lockdown or curfew". Similarly, 14% reported "health care facility too far away/ nobody to take me/public transport not working". These barriers varied by AU Member Nations, with Uganda data indicating the most severe lockdown impact, where six in 10 respondents citing mobility restrictions as a barrier. At the time of the survey, media reported that Uganda's mobility limitations and public transportation shutdowns were often harshly enforced. Across all AU Member States (including Uganda), PHSMs have gradually relaxed overtime. As a result, it is likely that health care disruptions due to mobility restrictions are less common now, as they were at the start of the pandemic, when the strictest PHSMs were in place. In fact, a recent WHO report concludes just that: the worst disruption to health care in Africa occurred between May-July.

Health facility disruption

Supply side disruptions were also common, with respondents reporting that "health care facilities were too busy/not enough health care workers" (14%) and "health care facilities have been closed" (14%). Reports of health care facilities being closed were highest among respondents living in cities, which may be due to higher COVID-19 caseloads and health systems being stretched to respond to the virus. Reports of health facilities being closed were highest in Sudan (44%), South Africa (24%) and Tunisia (23%).

In Sudan, the United Nations reports that more than half of health facilities have been closed since the start of the pandemic in Khartoum state, alone, due to shortages of trained health care workers, a lack of available personal protective equipment (PPE) and major disruptions in the medicine supply chain. The situation in Sudan is complexified by the current humanitarian crisis due to ongoing conflict and climatic shock.

Which diseases did respondents most commonly forgo services for?

General/routine check-ups were the most frequently reported service missed; however, the proportion of respondents that reported missing health visits for potentially life-threatening conditions was concerningly high.

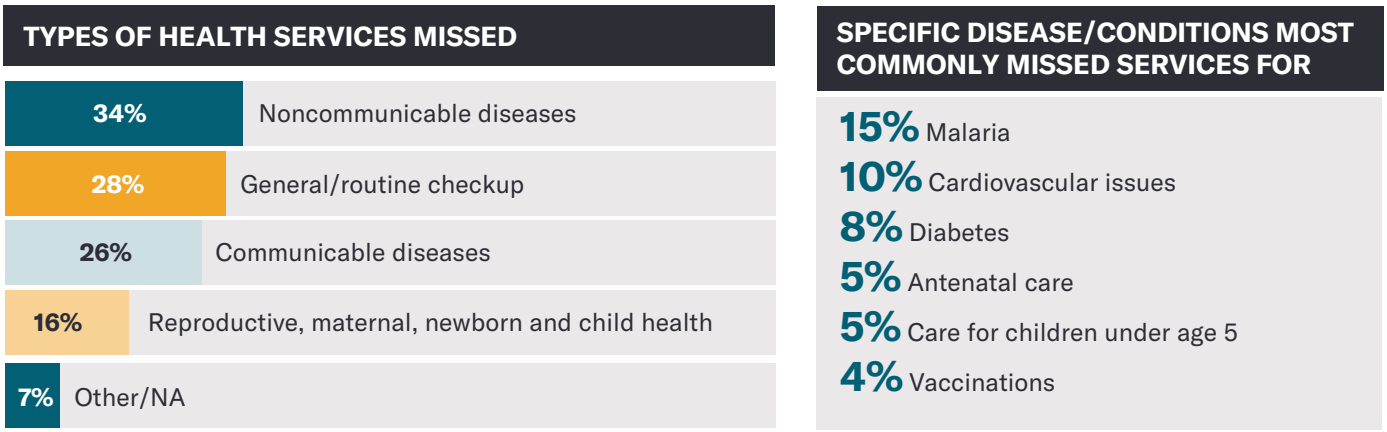


FIGURE 14. Types of health services missed and specific disease/conditions most commonly missed for.

There have been numerous modelling studies showing how more people could die in Africa due to delayed or skipped health services for non-COVID-19 care, than from the virus itself. The decrease in access to disease prevention and treatment services could reverse the hardwon progress made to control HIV, malaria and tuberculosis (TB) and improve maternal and child survival. A study from the Imperial College of London found that the pandemic could increase deaths due to HIV, tuberculosis and malaria by 10%, 20% and 36%, respectively, over a five year period. PERC's survey supports these troubling concerns, with respondents reporting missing or delaying services for chronic and life-threatening diseases.

The survey found that the types of services missed often align with the burden of disease in a given country (e.g. diabetes in Tunisia and Sudan; malaria in Uganda and Nigeria). It is unsurprising that general/routine checkups were most commonly missed or delayed as there were recommendations early on in the pandemic to suspend non-essential health services until more was understood about the transmission of the disease. Many people likely chose to wait until circumstances improved to seek non-emergency care. However, these general visits are critical for screening and treatment for both communicable and noncommunicable diseases, as well as referrals for family planning and antenatal care.

SPECIFIC DISEASE/CONDITIONS MISSED FOR BY COUNTRY	
Malaria	Nigeria (37%), Uganda (35%), Liberia (33%)
Cardiovascular issues	Tunisia (22%), Zimbabwe (15%) and Sudan (11%)
Diabetes	Sudan (18%), Tunisia (22%), South Africa (11%)
Antenatal care	Uganda (13%), Senegal (10%), Mozambique and Ghana (8%)
Care for children under age five	Zambia (14%), Zimbabwe (9%), and Kenya, Egypt and Mozambique (7%)
Vaccinations	Côte d'Ivoire (19%), Senegal and South Africa (8%)

FIGURE 15. Countries with the most disruptions to specific disease/conditions

Overall, about 15% of respondents that reported disruptions to health care said the services they missed were for malaria, including more than 30% in Nigeria, Liberia and Uganda (Figure 16). This, coupled with reports of disruptions to insecticide-treated net campaigns, could lead to major increases in deaths attributed to malaria, as WHO warned in April 2020. Zimbabwe, which has fewer deaths related to malaria than other countries in Africa, reported a surge in malaria cases since January 2020, with health officials noting that increased cases are likely compounded by factors brought on by COVID-19 (i.e., the governments focus on COVID-19, movement restrictions preventing delivery of malaria treatments, and lack of access to safe water).

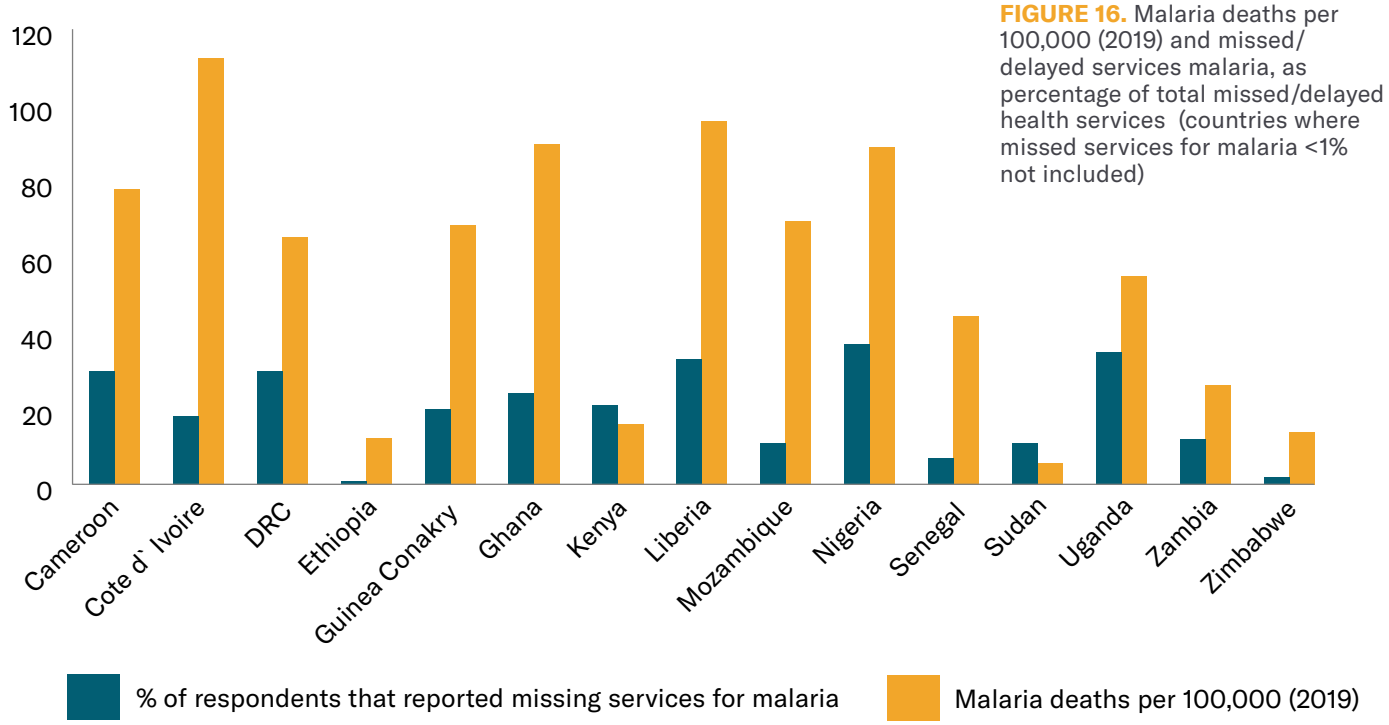
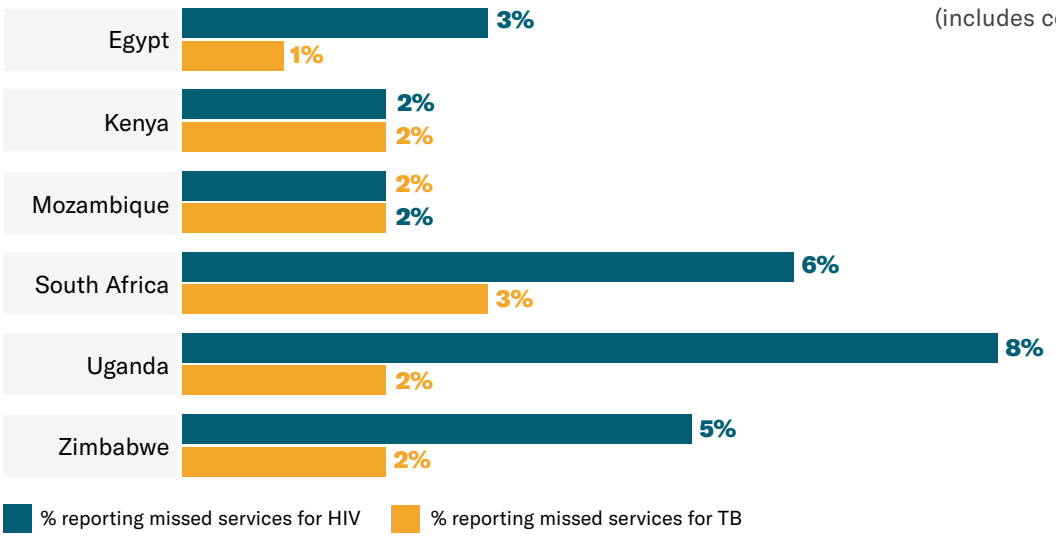


FIGURE 16. Malaria deaths per 100,000 (2019) and missed/ delayed services malaria, as percentage of total missed/delayed health services (countries where missed services for malaria <1% not included)

Although skipped services for both HIV and TB were not as commonly reported, any delay in seeking care for either conditions is a major cause for concern. In countries with a high burden of HIV, delays in treatment for TB are particularly concerning, as TB is the leading cause of death among people with HIV. According to WHO's Global TB report, the number of people diagnosed with TB decreased from January to June 2020, indicating that people are not seeking care for TB-like symptoms. Figure 17 displays AU Member States with a large percentage of respondents reporting missed services for HIV and TB. In Uganda, 1.5 million people are currently living with HIV and there were 53,000 new infections reported in 2019.

About 4% of respondents reporting disruptions said they or someone in their household missed or delayed vaccinations. In May, Gavi, WHO and UNICEF warned that at least 80 million children under one were at risk for diphtheria, measles and polio due to COVID-19 disruptions. An alarming 19% of respondents in Cote d'Ivoire reported missed or delaying vaccinations. Reports of missed vaccinations were slightly higher in rural than urban households (5% v. 3%). In an early November 2020 brief, the WHO concluded that an estimated 1.37 million children across Africa missed vaccinations to protect them against TB, and about 1.3 children under age one missed a measles vaccine. The Africa Centres for Disease Control and Prevention, reports that, since the beginning of 2020, there have been a total of 137,927 suspected measles cases and 420 polio cases in Africa. The DRC, Central African Republic and Ethiopia accounted for nearly 90% of all suspected cases. Measles have been increasing globally since 2010 and disruptions to routine vaccine campaigns during COVID-19 will likely exacerbate the current crisis.

FIGURE 17. Missed/delayed services for tuberculosis (TB) and HIV, as percentage of total missed/delayed health services (includes countries where missed TB >1%)



16% of respondents reported missed or delayed reproductive, maternal, newborn or child health (RMNCH) services, with disruptions more common in countries with high birth rates (such as Uganda, Nigeria and Ethiopia). Already, Africa has some of the highest rates of maternal and child deaths in the world. The top five countries in the world where a woman is most likely to die in pregnancy are in Africa: Sierra Leone, Central African Republic, Chad, Nigeria and South Sudan (WHO, 2015). Among survey respondents, problems with pregnancy accounted for 7% of all missed or delayed health care services in Ethiopia, Uganda and Cote d'Ivoire. These findings are concerning as these countries already have high rates of maternal and child mortality. In fact, Ethiopia has one of the highest rates of maternal death in the world (11,000 women died from pregnancy-related complications in 2015 alone). In Uganda, antenatal care visits accounted for 13% of all missed or delayed services and, in Zambia, care for children under age 5 made up 14% of missed or delayed services.

Over one-third (34%) of respondents reported they missed or delayed visits for noncommunicable disease-related issues, with disruptions to care sought for cardiovascular disease, diabetes and respiratory/asthma reported most common. This is particularly concerning as people with these conditions are at greater risk of dying from COVID-19. And, about 2% of respondents reported missing services for suspected COVID-19 symptoms.

How has COVID-19 affected people's mental health?

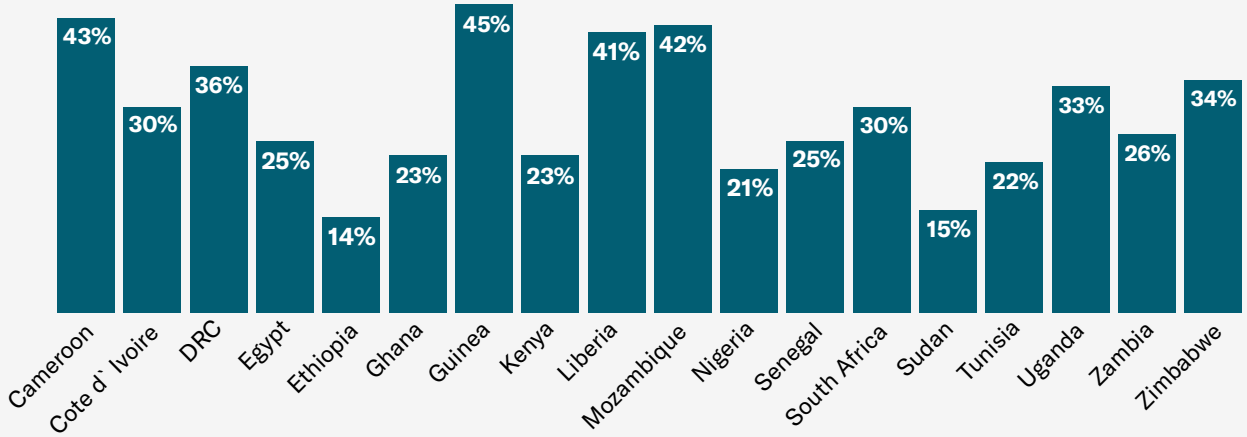
Almost one-third of respondents report that COVID-19 is contributing to mental health issues, such as increased stress or anxiety. People with mental health issues were also more likely to report missing or delaying health services.

The direct and indirect impacts of COVID-19 are contributing to increased mental health issues, with almost one-third of respondents reporting feeling one or more symptoms of stress and anxiety as a result of the pandemic in the previous two weeks.[4] Nearly half (48%) of respondents that reported mental health issues delayed or missed health care services, which is 17% higher than those who did not experience mental health issues. Reports of mental health issues were highest among those with longstanding illnesses and those that said they or a family member had a COVID-19 diagnosis (although sample size < 3% of confirmed COVID-19 diagnosis). Additionally, seven of ten respondents reported that resuming normal activities after lockdown made them feel very anxious.

Studies from across the globe show that the virus is taking a toll on societal mental health in a number of ways, whether from anxiety about becoming infected, to social isolation due to PHSMs, to fear of unemployment and stress due to financial instability. As the virus has exposed poor political leadership, underfunding of health systems, and vast inequities, it has also shown that mental health care is lacking in most countries.

Mental health services in Africa are particularly under-resourced, with WHO's 2014 Mental Health Atlas survey reporting only 1.4 mental health workers per 100,000 (versus the global average of 9 per 100,000) and lower levels of service for in-patient and out-patient care.[5] Prior to COVID-19, countries in Africa were spending less than 2% of their national health budgets on mental health. An August WHO survey of 28 African countries found that about 70% reported that their COVID-19 mental health response plans were only partially funded, with some reporting no funding at all.

FIGURE 18. Percentage of respondents that experienced one or more poor mental health symptoms related to COVID-19 in the previous two weeks.



4 Symptoms included trouble sleeping because they were thinking about COVID-19; feeling dizzy/lightheaded, paralyzed, nauseous or lost interest when listening to or reading news about the virus.

5 Sankoh, Osman, Stephen Sevalie, and Mark Weston. "Mental health in Africa." The Lancet Global Health 6.9 (2018): e954-e955. (accessed Oct 23, 2020 at https://www.thelancet.com/action/showPdf?pii=S2214-109X%2818%2930303-6

Conclusion

The findings from PERC's survey support that despite government efforts to maintain essential health services during COVID-19, both supply and demand-side barriers have led to disruptions in Africa. Overwhelmed health facilities, mobility lockdowns, and diverted health resources threaten the progress that has been made in reducing morbidity and mortality from both communicable and non-communicable diseases in Africa. People's fear of catching COVID-19—either at the health facility or by simply leaving their home—have negatively affected their willingness to seek care.

The pandemic is far from over and these findings underscore that governments must take immediate action to ensure that access to and demand for health services increases immediately. Although PHSMs have been relaxed across Africa since strict measures were implemented at the start of the pandemic and reported COVID-19 cases remain low compared to other regions of the world, Africa is currently experiencing its second wave of cases. Already, PHSMs have started to be reinstated again, and access to essential health services must be safeguarded. Mobility restrictions could once again limit access to care. And, if the economy continues to deteriorate, affordability of health care may be more of a burden.

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For in-depth, country-level data and analysis for the 18 AU Member States included in the PERC survey, visit https://preventepidemics.org/covid19/perc/