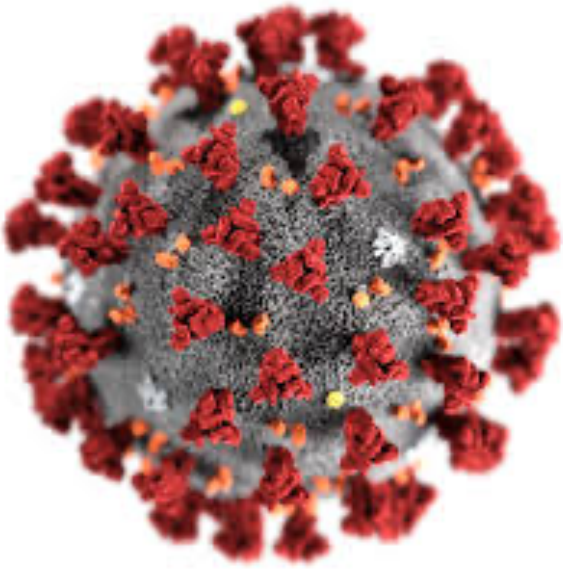
Socio-economic impact of COVID-19: a perspective from the five regions of Uganda

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Report



This report was prepared by Makerere University School of Public Health - ResilientAfrica Network (RAN).

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ACRONYMS AND ABBREVIATIONS

ABEK	Alternative Basic Education for Karamoja
ANC	Antenatal Care
COVID-19	Corona Virus Disease - 2019
FAO	Food And Agricultural Organization
FGD	Focus Group Discussion
GDP	Gross Domestic Product
HEIs	Higher Education Institutions
HMIS	Health Management Information System
ICHD	Integrated Child Health Days
ICT	Information and Communication Technology
IMF	International Monetary Fund
KIIs	Key Informant Interviews
LC	Local Council
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance Planning and Economic Development
MoH	Ministry of Health
MSME	Micro, Small and Medium Enterprises
NGOs	Non-Governmental Organizations
NMS	National Medical Stores
OPD	Out Patient Department
PHC-NWR	Primary Health Care – Non Wage Recurrent Grant
PPE	Personal Protective Equipment
RAN	ResilientAfrica Network
RDC	Resident District Commissioner
SGBV/VAC	Sexual and Gender Based Violence/ Violence Against Children
SME	Small and Medium Enterprises
SMS	Short Message Services
SOPs	Standard Operating Procedures
UBOS	Uganda Bureau of Statistics
UNDP	United Nations Development Programme
UNFPA	United Nations Family Planning Association
USAID	United States Agency for International Development
WFP	World Food Program

EXECUTIVE SUMMARY

Uganda registered the first COVID-19 patient on March 21, 2020 and since then over 8,000 cases, 80 deaths and 5,000 recoveries of COVID-19 have been registered as of early October 2020. Following the first case of COVID-19, the Ministry of Health (MoH) instituted a number of restrictive measures to curb the spread of COVID-19. Whereas these measures have significantly contributed to the slowing down of the community transmission of COVID-19, they have had far reaching social and economic impacts across all sectors in Uganda. The objective of this rapid assessment was to collect and synthesize regional and community COVID-19 related data to support decisions at the Uganda USAID Mission.

Data was collected from July through August 2020, from five regions and 20 districts using desk review, telephone and zoom interviews with key informants and focus group discussion participants. Key informants mainly included district technical officials while FGDs were attended by the members of the Regional Steering Committees of the USAID/Uganda Mission's Regional Coordination Initiative. Verbal consent was sought from all respondents and all information was kept confidential. The interviews were audio recorded, transcribed verbatim and content was analyzed using ATLAS.ti Version 7.

Findings

Impact of COVID-19 on Health

Across all the study regions, respondents reported that the COVID-19 lockdown negatively impacted access and utilization of most health care services including antenatal care, immunization, outpatient department attendance, and treatment for chronic diseases. The impact on health services was related to: 1) restrictions on transport affecting movement of health workers and patients, 2) inadequate Personal Protective Equipment (PPE) for infection control, 3) inadequate space to quarantine and treat the COVID-19 cases, suspects and their contacts, 3) delayed capacity building on management of COVID-19 cases, 4) insufficient funding for COVID-19 activities, and 5) stigma and discrimination of COVID-19 cases, suspects and their contacts. Remarkably, family planning services and handwashing practices increased during the lockdown, probably because women could have foreseen the risk of unwanted pregnancies since men were spending more time at home and due to the enforcement of the COVID-19 Standard Operating Procedures (SOPs) respectively.

It is also important to note that across all regions, the lockdown increased cases of sexual gender-based violence and violence against children (SGBV/VAC) and this manifested as either mental, physical, economic, or sexual violence. This was mainly attributed to the loss of employment and household income. Furthermore, the closure of schools was associated with an increase in violence against children as young girls engaged in transactional sex for basic necessities, others were reportedly defiled strangers and relatives, and some were forcefully married off for financial benefits.

Lastly, the district officials reported that the lockdown disrupted the school health program across all the five study regions. This further affected access to health services by children especially immunization, deworming, vitamin A supplementation, and health education.

Impact of COVID-19 on Education

Due to the lockdown, more than 73,000 institutions of learning including primary, secondary schools and tertiary institutions, were closed. This left over 15 million learners that were enrolled in the education system and an additional 600,000 children that were attending schools in the refugee settlements out of school. Further, about 548,000 teachers were affected.

Following the closure of all institutions of learning, the Ministry of Education and Sports (MoES) designed a preparedness and response plan to COVID-19 with a focus on continuity of primary and secondary level learning through the following ways: 1) printing and distribution of self-study learning materials, 2) delivery of radio and television broadcasted lessons, and 3) upload of online learning materials. However, most of the districts reported challenges with this program. For instance, inadequate copies of learning materials, lack of facilitation to support the districts to distribute the materials to the learners, lessons delivered on radios and televisions were not inclusive, not class/grade specific and were highly unstructured.

Furthermore, district officials reported that many parents are illiterate and therefore could not adequately support learning of their children. Majority of the learners were not comfortable with their parents as instructors and the home environment did not favor learning. There was lack of coordination, clear learning objectives and assessment of the home study program.

It was noted that learning in higher education institutions was not given priority by the government during the lockdown. For example, approval of learning approaches such as distance or online learning was hindered by the bureaucratic approvals by the National Council for Higher Education.

Remuneration of teachers in private schools was halted while teachers from public schools continued to be paid by the government. To cope with this, some teachers were reported to have started small businesses and there is a concern that these teachers may not return to their teaching jobs. Some private schools continued to support learning through sending homework and conducting lessons via online platforms such as Zoom and WhatsApp. However, the online instruction increased out-of-pocket expenses on items such as computers, internet, and electricity, a cost many households were unable to sustain.

Impact of COVID-19 on Agriculture and Production

Agriculture contributes 24% of Uganda's GDP and employs 70% of the population and agricultural services were excluded from most of the COVID-19 restriction. For example, grocery stores, veterinary drug shops, and agriculture input stores continued to operate when many other businesses were forced to close. As a result, this sector was reported to have had an influx of new entrants across all regions. This was further driven by the rainy season which coincided with the start of the lockdown.

It is important to note that the restrictions in movements affected access to extension services and agricultural inputs such as seeds, pesticides and pest control, treatment of crop and animal diseases, harvest and post-harvest support services. To counter restrictions on gatherings, some districts reported that extension workers used ICT such as social media and SMS to reach their farmers.

Districts also reported that closure of mobile markets, education institutions, tourism services, hotels and restaurants which provide a large domestic market for agricultural products, affected demand and prices. Closure of the mobile markets affected household incomes and district revenue. Noteworthy, prices for dry rations such as maize, rice and beans increased due to their high demand by government and donors who massively procured and distributed these items as food relief to the vulnerable households. There was also an increase in demand of dry rations by households who stocked these items owing to their long shelf life and the uncertainty of the duration of the lockdown.

Impact of COVID-19 on businesses

The COVID-19 restrictions had far reaching impacts on most businesses as many were left closed and peoples' livelihoods were consequently affected. Businesses in the services sector such as tours and travel, hotels, restaurants, bars, saloons, and public transport, were the most affected. Even as restrictions are lifted, businesses continue to experience low demand of products and services because of the reduced disposable incomes. Across all regions, participants reported that some of the challenges that most business are faced with as they reopen include accumulated rent, loan repayments, and high operational costs related to observation of the COVID-19 SOPs.

Noteworthy, a few businesses such as food markets, hardware stores, mechanic shops, and industries, were allowed to operate during the total lockdown with strict observation of COVID-19 SOPs, on-site accommodation, limitation on the number of workers and feeding. However, businesses found it challenging to stay operational due to the related costs of implementing these SOPs while keeping afloat.

Recommendations

Health

- Central and local governments should improve planning and budgeting for future health emergencies by leveraging on the Primary Heath Care-Non-Wage Recurrent (PHC-NWR) grant to include a budget line for health emergencies. Additional support from donors and other partners should be centrally managed through the PHC-NWR grant.
- The government and partners should increase access to PPE by strengthening the existing health supply chain for essential medicines and health supplies through the National Medical Stores (NMS).
- Ministry of Health, District Health Office and partners should strengthen the capacity of health workers to manage highly infectious diseases through on job trainings, mentorship, and sensitization on current, emerging and re-emerging outbreaks.
- The Ministry of Health, districts and partners should mainstream communication messages related to COVID-19 pandemic into all community engagements and sensitization activities and programs. This will contribute to the reduction of issues related to fear, stigma and discrimination, and help to drive demand for health services.
- Districts through the child, family and protection units and other partnerships should promote human rights of women and children by focusing on transforming indigenous knowledge, social and cultural norms to balance power relations between women and men and other aspects of subordination.

Education.

- The Ministry of Education and Sports working with partners should enhance the learning materials to broaden the content, the number of subjects and classes/grades covered. Additionally, distribution of materials should be improved by working through the district educational structures and facilitate the distribution process to ensure materials reach the targeted learners.
- The government and partners should strengthen the home study program through leveraging collaborations with radio and television broadcasters especially those at the grassroots level to increase access to the live lessons. This program should be streamlined through clear scheduling of lessons for learners at different levels.
- The Ministry of Education and partners should support the development of inclusive ICT based pedagogical approaches to ease virtual learning. Through enhanced e-learning systems, teachers at different levels (including tertiary institutions) can share learning materials with learners including readers, e-books, videos and others to make learning more effective.
- Given the impact that COVID-19 has had on the private learning institutions, government and partners should support interventions to facilitate re-opening and running of these institutions. This could be through financial stimuli and secondment of teachers to private institutions.

Agriculture

- Government and partners should support approaches for improved post-harvest handling, more especially targeting value addition and storage. Local processing of agricultural products should be strengthened through partnerships with agro-processors to reduce post-harvest losses that were reported to have been incurred by farmers.

Tourism

- Government, districts, and partners should promote local tourism through incentives that attract nationals to indulge in tourism. These incentives might include subsidized permits, affordable and diversified accommodation, meals, and other amenities. Additionally, there is need to profile and publicize local tourism trails that are available in each region.

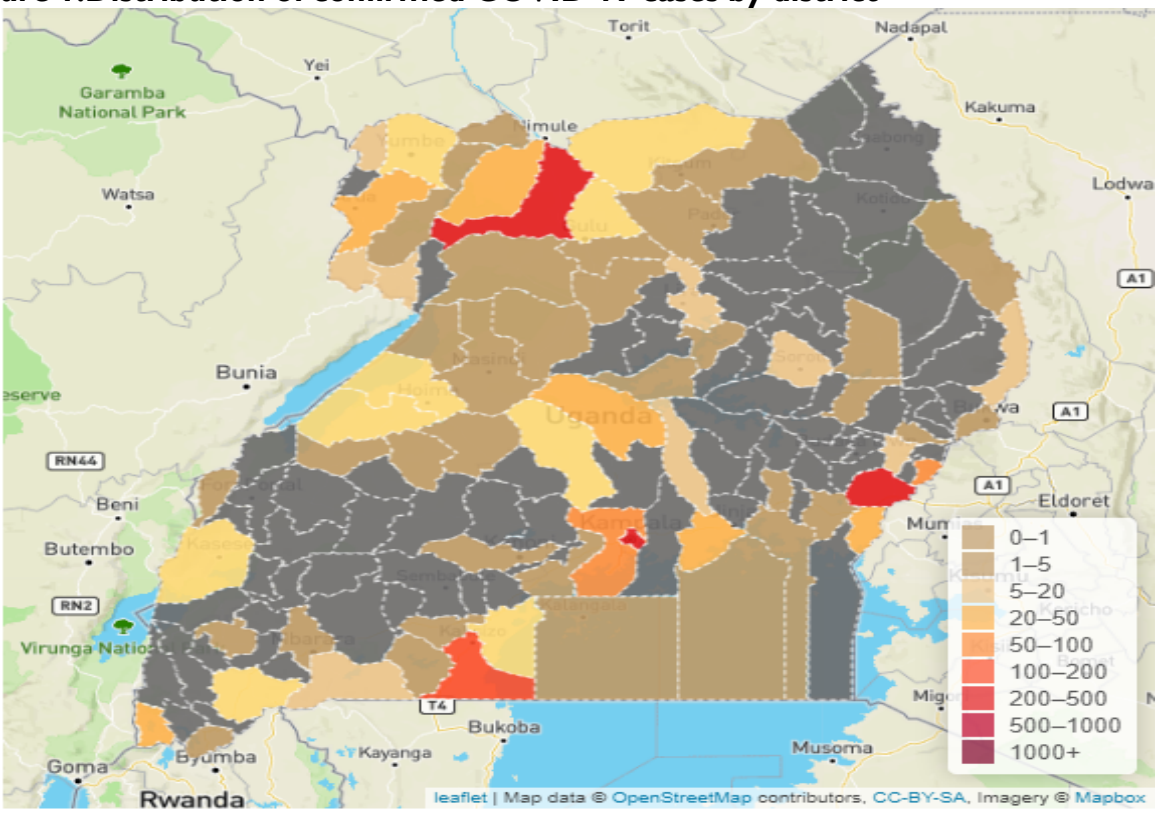
Small and medium enterprises (SMEs)

- Government should establish mechanisms to support the economic recovery of SMEs. These could include COVID-19 recovery funds, stimulus grants, tax and tariff waivers.

1.0 BACKGROUND

The coronavirus disease (COVID-19) pandemic was first declared a public health emergency of international concern on January 31, 2020, by the World Health Organization (Sohrabi et al., 2020). The disease was first reported in December 2019 among patients with viral pneumonia symptoms in Wuhan, Hubei province of the People's Republic of China. Uganda registered the first COVID-19 patient on March 21, 2020 and since then over 8,000 cases, 80 deaths and 5,000 recoveries of COVID-19 have been registered as of early October 2020. These cases have been largely concentrated in four districts; Kampala, the capital city and three border districts, Amuru, Kyotera and Busia, Figure 1.

Figure 1:Distribution of confirmed COVID-19 cases by district



Source: Ministry of Health COVID-19 dashboard

Following the first case of COVID-19, Uganda's Ministry of Health (MoH) instituted the following measures to curb the spread of COVID-19: 1) tracing and testing of all contacts, 2) testing all persons under quarantine, 3) supporting decentralization of surveillance and case management to all regional and district levels, 4) enhancing risk communication to regional, district and community levels, 5) screening and testing all incoming cargo drivers from East African countries, and 6) identifying, mapping and testing all returnees. In addition to the lockdown, these measures significantly contributed to the slowing down of community transmission of COVID-19.

The first Presidential national address of March 18, 2020 restricted the use of public transport, public gatherings of more than five people including places of worship, pubs, communal weddings,

parties, music shows, political rallies, and cultural meetings. Thereafter, additional measures and restrictions were passed by the President in his subsequent national addresses and included: ban of movement in and out of the country, air transport, and private transport. There was also closure of shopping malls, arcades, hardware shops, hotels, lodges, saloons, non-food stores, non-food markets and garages. Movements of any form were prohibited from 19:00Hrs and 06:30Hrs except for cargo transport. Government issued special COVID-19 car stickers to allow movement of essential workers and service providers in the sectors of health, security, telecommunication, banking, and media. All other movements required authorization by the Office of the Resident District Commissioner (RDC).

These restrictions have had detrimental socioeconomic impact across all sectors. The objective of this rapid assessment was to collect and synthesize regional and community COVID-19 related data to support decisions at the Uganda USAID Mission. We specifically explored the impact of COVID-19 on the key development sectors and communities in the selected districts in Uganda. We also described the response, coping and adaptation measures to the impacts of COVID-19 employed by the selected districts in Uganda.

2.0 METHODOLOGY

ResilientAfrica Network (RAN) coordinated the process of data collection in 5 regions of Uganda through regional universities. These regions include: Karamoja, Northern, Central, Southwestern and Eastern Uganda. A total of 20 districts were purposively selected from these regions in consultation with the QED Group. The districts included in the study were Kampala, Masaka, Mubende, Nakasongola, Kyotera, Iganga, Mbale, Soroti, Tororo, Adjumani, Gulu, Amuru, Lira, Kaabong, Moroto, Kabarole, Kasese, Isingiro, Kanungu and Mbarara. This rapid assessment employed qualitative methods (document review, key informant interviews and focus group discussions) and review of secondary data.

The research team purposively selected the key informants, focus group discussion participants and documents for the desk review. The study targeted sector heads of the selected district local governments, members of USAID's Regional Steering Committees, and Civil Society Organizations. Interviews with these stakeholders were conducted from July through August 2020. A total of 44 KIIs and 2 FGDs were conducted. Details of the methodology are presented in appendix I.

Region	# KII	# FGDs
Karamoja	9	1 (5 participants)
Southwestern Uganda	9	1 (9 participants)
Central Uganda	7	
Northern Uganda	*10*	
Eastern Uganda	9	
Total participants	44	14

3.0 FINDINGS

3.1 Impact of COVID-19 on Health

The COVID-19 lockdown negatively impacted access and utilization of health care especially services for maternal, child health and chronic diseases. These conditions require routine follow-up and are often associated with medical emergencies. The impact on health services was related to disruption of transport, inadequate infection control supplies, inadequate space to accommodate COVID-19 cases and their contacts, delayed capacity building on management of COVID-19, insufficient funding for COVID-19 prevention activities, stigma and discrimination. Remarkably, family planning services and handwashing practices drastically increased during the complete and partial lockdown.

Initially, there were no funds within the districts to respond to the COVID-19 outbreak. Districts reported that by the time of the outbreak, they had utilized the funds for the third quarter (January-March 2020) and there were no contingency plans and budgets to support the implementation of the COVID-19 activities. The first COVID-19 supplementary budget amounting to Uganda Shillings 284 billion was approved by the Parliament on April 7th, 2020, of which 109.1 billion was allocated to the Health Sector and 36.1 billion to the Local Government (Parliament of Uganda, 2020). However, districts were able to prepare and submit supplementary budgets which were honored in May 2020. This was further supplemented by donations and support from partners and donors.

> *"They had to look for money around and even I don't think we have seen the first-quarter release, but we have not seen releases for COVID-19. We are not sure how we are handling; we have already run into debts this one month. We are looking after cases of COVID-19 and we are doing surveillance, but we have not yet got the resources."*
> ***KII, Amuru district***

3.1.1 Disruption of transport

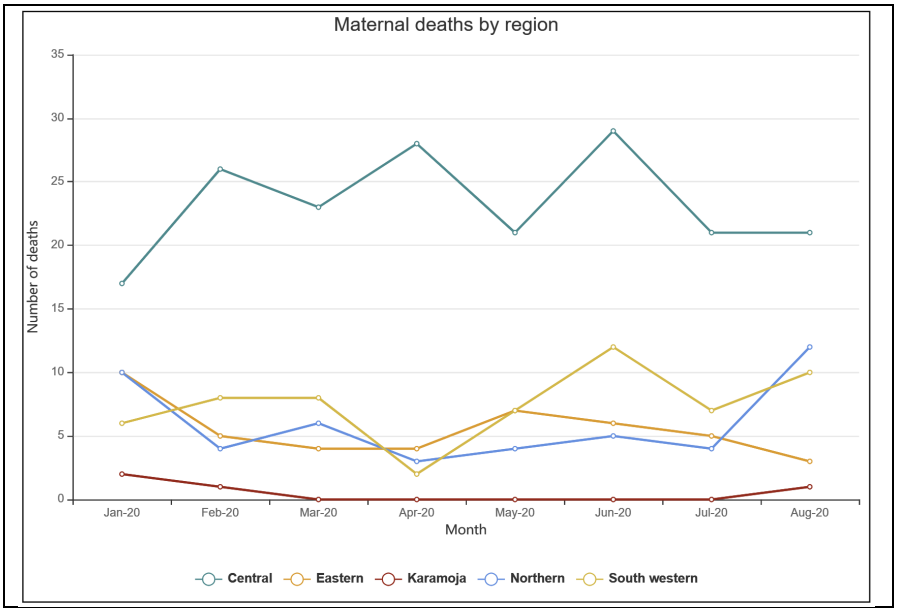
Disruption of transport affected both the patients seeking health care as well as the health workers. Although government had a good plan to support movement of essential workers by providing travel permits and car stickers, being an essential worker was not without challenges. Across all regions, the total lockdown affected movement of health workers and patients from their places of residence to the health facilities. Most health workers and patients rely on public transport and yet this was banned from operating. Districts did not have the capacity to transport all health workers nor did they have onsite accommodation for them as directed by government. Respondents reported that during the total lockdown, travel restrictions coupled with limited access to the special COVID-19 car stickers disrupted static healthcare service delivery and outreaches were halted.

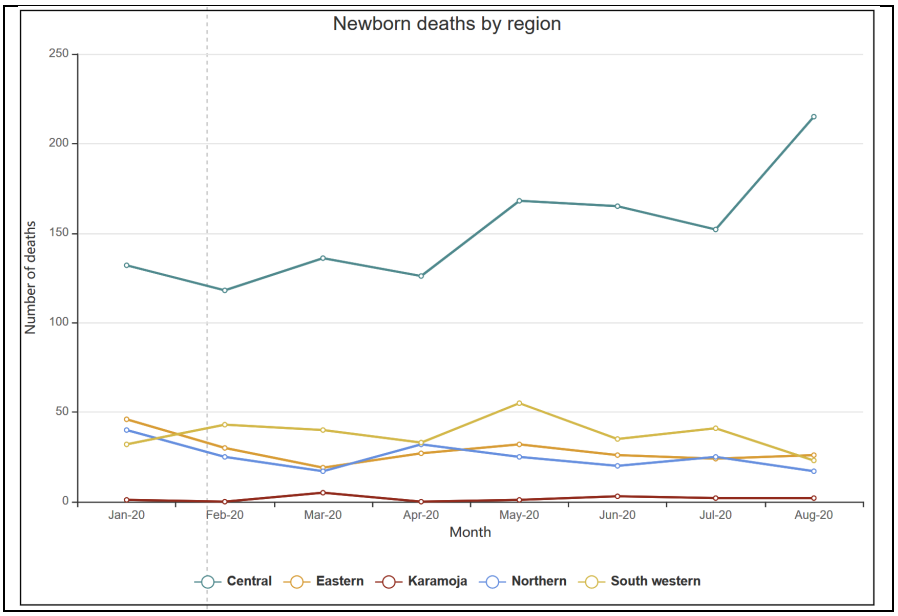
"Boda bodas were not there to transport people to the nearest immunization centers. Some people could not walk, and some health centers are too far and not every parish has a health center. [sic] It was not easy; i) in terms of movement and, ii) in terms of these health workers accessing the facilities because the vehicles were only used to referral cases to distant places." **KII, Kanungu district**	*"… and even those that had vehicles they could not move because you know that they were supposed to have travel permits or car stickers. We got the directives to transport the staff to their places of work which was very challenging."* **KII, Iganga district**

"To address the issue of transport, districts reported to have made local arrangements with the Office of the Resident District Commissioner (RDC) and the COVID-19 Task Force to have health workers with cars access travel permits within the respective districts. However, this arrangement left out several health workers who do not have cars hence creating a gap in service delivery." ***KII, Masaka district***	*"The district faced an extended lockdown, and this affected the means of how people get to the health facilities and go back. There are those who had to come several times, for example the pregnant women who needed to come for antenatal care. There are also those with chronic diseases like HIV and hypertension who needed to come a number of times for health care."* ***KII, Lira district.***

Noteworthy, these transport constraints among the health workers possibly increased the rates of absenteeism and delays to report on duty. This could have led to negative eventual outcomes such as deterioration of patients' conditions, complications, and death. This was observed in the increase of maternal and neonatal mortality across all regions during the total lockdown months of April through May 2020 as indicated in Figure 2.

Figure 2: Newborn and maternal mortality by region





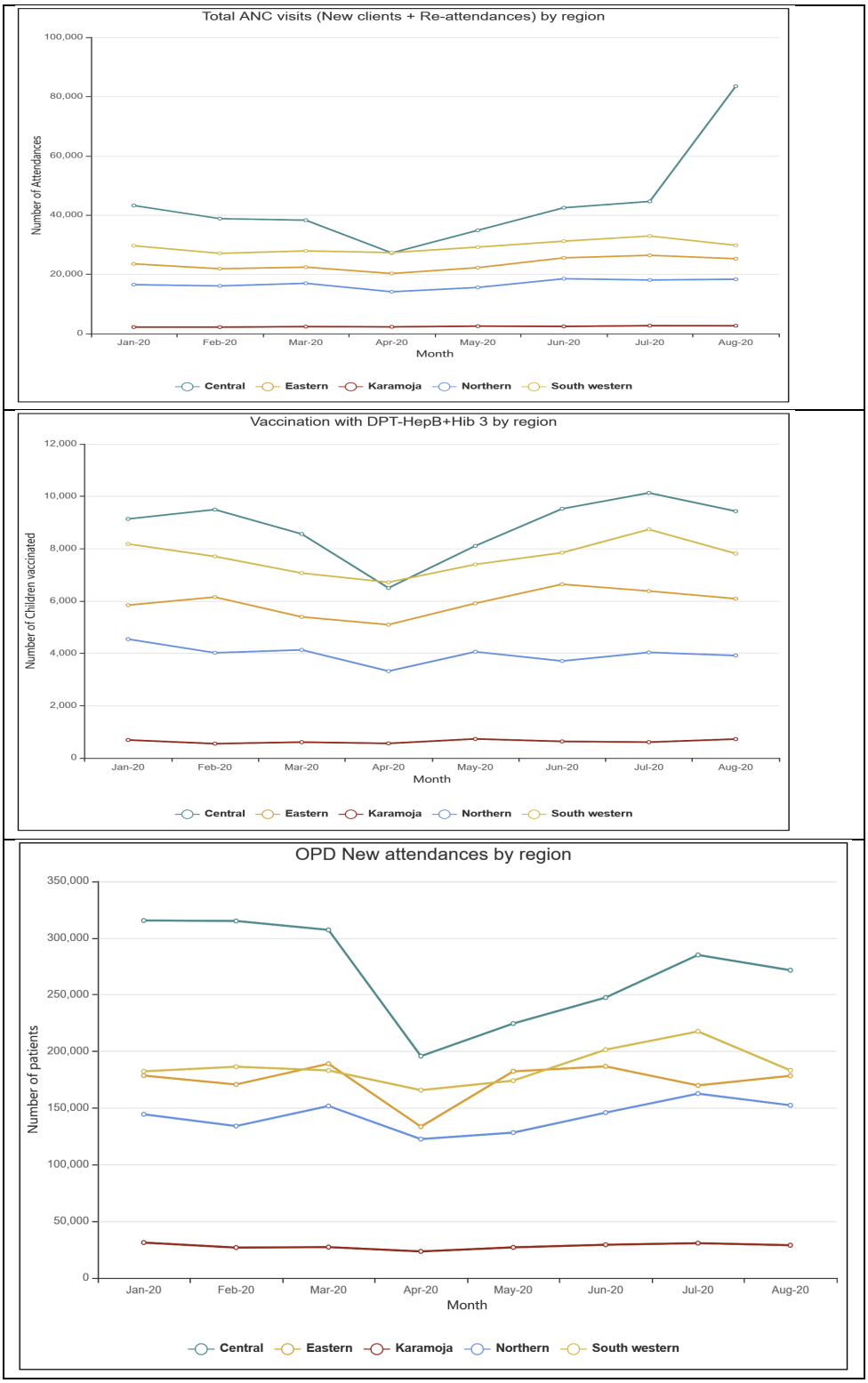
Source: Ministry of Health, HMIS

In all regions, the disruption of public transport moderately affected attendance of services like antenatal care, immunization, and outpatient department (OPD) during the initial enforcement of the total lockdown between March and April 2020 as indicated in Figure 3. This is probably because in mid-April 2020, travel restrictions were lifted for pregnant women and children accessing health services without seeking permission from the Resident District Commissioner (RDC). This followed complaints about mistreatment of people seeking healthcare by law enforcers.

"Those were somehow halted. I remember I had my two daughters who were pregnant and were not attending antenatal. One was supposed to take a child for immunization which was not possible. All the health centers were disserted by the way. The nurses at first were also fearing because hearing of the new disease, and not having enough protective gears etc. there feared. We also feared and everyone was feared."

KII, Mbale district

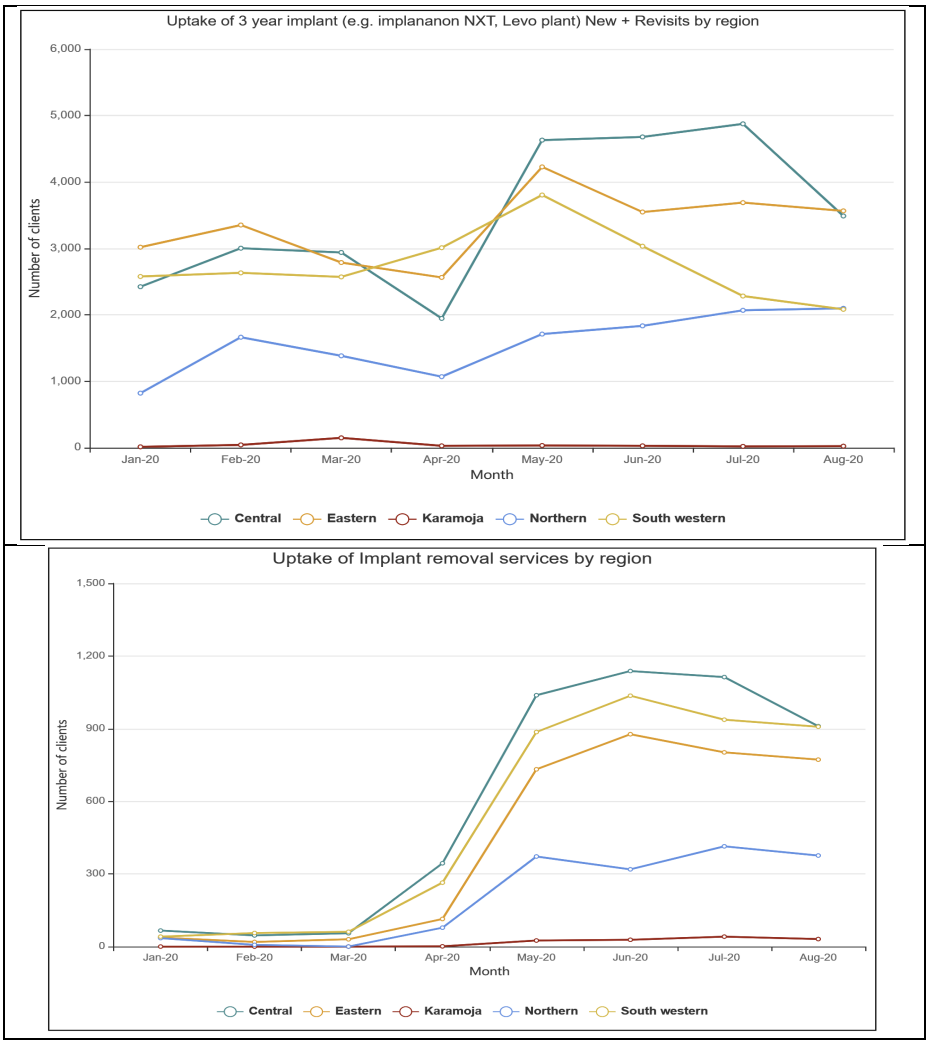
Figure 3: ANC, Immunization & OPD attendances by region



Source: Ministry of Health, HMIS

On the other hand, access to some of the health services such as family planning drastically increased during the complete and partial lockdown. This is possibly because there was an increase in the demand of family planning services since men were locked at home with their spouses, Figure 4.

Figure 4: Family planning uptake by region



Source: Ministry of Health, HMIS

3.1.2 WASH

Access to handwashing facilities and hand hygiene practices improved in the Karamoja, central, southwestern, northern Uganda. Participants reported that handwashing, a known best practice for preventing diseases, was strengthened during the COVID-19 pandemic through installment and scaled use of handwashing points at homes, health facilities and all public spaces. The directive to have handwashing facilities consequently improved personal hygiene across all regions.

"Some of our people were not used to washing hands so to some extend it has helped with hygiene and sanitation. Moroto particularly has been affected by cholera outbreaks but our observations show a lot of positive effects around that." **KII, Moroto district**	*"The other best practice is health-related where people are trying to install handwashing facilities and are providing sanitizers in homes to ensure hygiene."* **KII, Kanungu district**	*"One positive aspect I have seen is improvement in sanitation generally. Personal hygiene and environmental sanitation. We have seen increased personal hygiene, particularly the issue of hand washing and sanitizing as people enter the community and latrines in every home"* **KII, Adjumani district**

3.1.3 Availability of Personal Protective Equipment (PPE)

COVID-19 exerted a lot of pressure to an already inadequate stock of essential medical supplies. Districts reported that PPE supplies such as gloves, facemasks, face shields, aprons, and sanitizers that were received from the National Medical Stores (NMS) for infection control were inadequate. Health workers across all regions reported inadequate supply of PPE at the beginning of the outbreak and this could have led to some workers contracting COVID-19. This has further stretched an already larger health worker to patient ratio as the sick health workers go into mandatory isolation. Due to their close contact, the sick health workers present a risk of transmitting the COVID-19 virus to their patients and families. The low scale testing has exacerbated the spread of COVID-19 as many patients including infected health workers remain asymptomatic.

"Initially the infection control supplies like PPEs, Masks were not sufficient because the Ministry of Heath wasn't prepared for COVID-19 outbreak. But of course, as we went on, the situation kept on improving." **KII, Masaka district**	*"Most times, health workers would say that they had run out of sanitizer and they needed to restock."* **KII, Soroti district**

3.1.4 Quarantine and treatment of COVID-19 cases, suspects, and contacts

It was reported that each district set up quarantine and isolation sites for COVID-19 suspected cases and contacts. Available public infrastructure such as health facilities and schools were converted into quarantine sites. At the start, the sites were ill equipped and unprepared to manage the COVID-19 suspected cases. This was caused by delays in distribution of supplies by the government. These conditions at the quarantine and isolation sites may have been a deterrence for individuals in the community who might have otherwise shown COVID-19 symptoms from seeking out care due to the trauma associated with these isolation sites.

"At the beginning when we had just started the quarantine centre, it was a bit challenging. We lacked some essential things, mattresses, blankets bed sheets, beds, food, basic utensils and other supplies but later things improved." **KII, Amuru district**

A few districts were gazetted to accommodate, treat and manage confirmed COVID-19 cases and their contacts. These certified districts were only those that host a regional referral hospital. This could be due to the fact that referral hospitals have specialized health services that are deemed to be sufficient for the management of COVID-19 cases. However, the hospitals did not have enough space and intensive care facilities to manage the increasing numbers of COVID-19 cases in addition to providing the routine health services.

> *"Our hospital capacity to accommodate the cases was overwhelmed. We had to start making extension where we could accommodate these patients. At one moment we went up to more than 30 patients here."*
> **KII, Masaka district**

The issue of limited space was mainly reported in the Central and Northern regions. These are the regions which are hotspots for truck drivers, a high-risk group for COVID-19 transmission. Districts also reported that at the beginning of the COVID-19 outbreak, there were no treatment guidelines and standard operating procedures from MoH despite having recorded COVID-19 cases. Worse still, there were delays in the distribution of the developed guidelines.

Furthermore, there was a challenge of feeding COVID-19 patients, their contacts and other suspects that were in quarantine centers, as there were inadequate funds. All contacts and suspects had to undergo mandatory quarantine for at least 14 days.

> *"The hospitals routinely provided food to the inpatients. The COVID-19 cases are required to have a special diet high in protein and the hospitals were not prepared to provide this special diet. The hospitals instead decided to feed the cases with hospital food which is often posho and beans."*
> **KII, Masaka district**

Inadequate quarantine and treatment facilities leads to overcrowding within the gazette spaces thus increasing the risk of cross infection. COVID-19 facility admissions have also overwhelmed an already lean health infrastructure through competition for resources with other medical admissions.

3.1.5 Stigma and discrimination

Some districts reported that upon discharge of patients that had recovered from COVID-19, these recoveries were challenged with stigma and discrimination while in the communities. As a result, the discharged patients found it hard to freely reintegrate into their communities. This stigma could be attributed to lack of knowledge about how COVID-19 spreads, a need to blame someone, fears about disease and death as well as gossip that spreads rumors and myths.

> *"People actually would fear being identified as being positive because of being removed from the community and taken to the quarantine or treatment centre. They usually felt that people would reject them when they get back."*
> **KII, Amuru district**

Stigmatization and discrimination of discharged COVID-19 patients could potentially lead to reduced case detection and reporting. This can lead to increased exposure and explosion of community transmission. As part of district COVID-19 task forces, psycho-social support committees were established to provide psychological support within the communities. Given the restriction on gatherings and face to face engagements, radio, megaphones, and television were utilized to reach out to the community. Additionally, issuance of COVID-19 discharge

certificates alleviated the discrimination. It is important to note that in Uganda registered one of the highest COVID-19 recoveries and this could have attributed to the minimization of stigma as we saw an increase in the number of people seeking testing services.

> *"To mitigate against stigma and discrimination, discharge forms are issued to all cases and contacts discharged from the treatment and quarantine centers. In case the bearer finds issues in the community, the form is presented to the community indicating that they are free of COVID-19. Furthermore, districts have sensitized the community on the importance of the discharge form to foster better reintegration of the recovered persons into the community."*
> **KII, Masaka district**

While there was an increase in public awareness on COVID-19 through radios, megaphones, social media and television, the communication messages to persons under quarantine and the public was inadequate as communication protocols were not streamlined. As a result, there was increased anxiety, stigma, and discrimination of patients, suspects, and high-risk populations, which led to failure to cope with the epidemic. For instance, in Karamoja, some patients delayed seeking health care, and mothers refused to take their children for immunization at the health facilities citing fear of contracting COVID-19 from the health facilities.

In some communities, there was a belief that people, especially the health workers, who put on masks were infected with COVID-19, and the local communities feared to interact with persons wearing masks. The situation was exacerbated by the fact that some health facilities had been turned into quarantine centers, so people feared to take patients to these facilities. On the other hand, respondents also reported that some health workers abandoned patients who presented at the health facilities with COVID-like symptoms. This could be due to the fact that many health workers especially in rural areas were not oriented on COVID-19 prevention, care and case management.

> *"but initially they were saying those who are putting on masks are the ones who are sick so even us the health workers whenever we would go out there, they would run away from us because they say these people putting on masks are the ones who are sick. They are bringing us corona."*
> **KII, Moroto district**

3.1.6 Sexual gender-based violence and violence against children (SGBV/VAC)

Across all regions, there were increased cases of SGBV/VAC, manifesting as either mental, physical, or sexual. This was partly attributed to the loss of employment and household income. Most men had lost their jobs, a situation which forced them to spend more time at home. Full of frustration, some conversations at home would often spark off aggressive behaviors towards a partner. Additionally, following the closure of schools, most parents could not afford to meet the basic needs of their children at home. For instance, if a woman or man failed to provide food, violence would ensure.

"You know most of our households are dependent on the man and of course there were many challenges leading to domestic violence. These men were no longer working and they were staying at home and this created a problem." **KII, Kabarole district**	*"… why the domestic violence is rising during the lockdown, most families were not used to staying together like husband and wife. You find that the husband is used to spending long hours out, but with curfew they are forced to stay at home… and then issues came in. A small argument would result into a fight."* **KII Kaabong district**	*"Gender based violence is very high. People are not used to staying together, they have now forced them to be together for a long time. We have so many cases of gender based violence"* **KII, Iganga district**

Relatedly, across all regions, there was an increase in the violence against children within the communities. With students who were previously under the custodianship of schools going back home, the situation contributed to teenage pregnancies. Some respondents reported that during this period, young girls engaged in transactional sex for basic necessities like sanitary towels. Other girls were reportedly defiled and became pregnant, and there is a fear that many will not return to school upon reopening. There were also reports from the districts of Moroto, Adjumani, Amuru of families forcefully marrying off their teenage daughters for financial benefits.

"There is a lot of defilement and as I speak now 95 children of primary six in Adjumani district have been impregnated." **KII Adjumani district**	*"There are already cases of those who have been forced into marriage and those that have got pregnant. I got a complaint from Musupo just around Rupa where one girl who is studying in Nadunget S.S was married off and that she was pregnant. Then there is also another primary six girl who was also forcefully married off by her parents."* **KII Moroto district**

A report by the Global GLOW indicated that at least 128 school-age girls had been married off in Kyegegwa, Rakai and Luweero districts during the COVID-19 lockdown (Global Glow, 2020). The report further indicated that many girls were entering into labor activities to help meet basic needs of their families. World Vision Uganda also reported that there was an increase in teenage pregnancy within Bidibidi refugee settlement. The settlement registered 19 cases of teenage pregnancy, 6 cases of child marriages, 5 cases of defilement, 4 cases of child-to-child sex and 2 of forced marriage as of July 2020 (World vision, 2020).

"We realized that these children in the villages have been abused and our girls are getting pregnant.Those who want money engage in child labor, they work more than they can handle." **KII, Kabarole district**

These findings are in line with a June 2020 report by UNDP which indicated that violence in the homes had been on the rise since Uganda went under lockdown. The report noted over 3,000 cases of domestic violence (UNDP, 2020b). The increase in cases of domestic violence could have been due to the fact that many people, especially men, have been disempowered by loss of income caused by COVID-19 restrictions as a number of them lost jobs during the lockdown.

"we received various cases of domestic violence so we were out there educating people on how they should cope in this pandemic period. Under our sector we received various cases of domestic violence so we were out there advising the people and the population at large on how they should behave" ***KII, Kabarole south western Uganda***

The Sauti report indicated 800 cases of sexual abuse between January and May 2020, including increased cases of teenage pregnancy. In a New Vision article citing a United Nations Family Planning Association report on teenage pregnancy in Uganda during and post Covid-19 lockdown, Eastern Uganda (Busoga) had the highest reported cases with Luuka district alone reporting more than 600 teenage pregnancy cases[1]. This was followed by West Nile and Ankole sub regions. These increased cases of teenage pregnancy are likely to accelerate school dropout rates among adolescent girls, as many teenage mothers find it difficult to re-enroll into education due to childcare and other family obligations.

3.1.7 School health program

The lockdown disrupted the school health program implemented by the District Health Office. The program offers a number of health services to learners including immunization, deworming, personal hygiene, sanitation, health education, and nutrition. Further, MoH implements an Integrated Child Health Days (ICHDs) program through the districts and is delivered within schools but this was interrupted by closure of schools. The ICHDs core services include vitamin A supplementation, deworming, and immunization. There is a concern that the disruption of the school health program could lead to outbreaks of vaccine preventable and other diseases.

> *"Immunization has been affected because it is not being done the way it used to be you know immunization and deworming has been taking place also in schools but now because they don't want bigger numbers we have not seen those things…"*
> **KII, Kaboong district**

3.2 Impact of COVID-19 on Education

According to the national address by His Excellence, the President of the Republic of Uganda on March 18, 2020, more than 73,000 institutions of learning (Primary and Secondary Schools, Universities and Tertiary Institutions) were closed by mid-day March 20, 2020. This left over 15 million learners that were enrolled in the education system and an additional 600,000 children that were attending schools in the refugee settlements out of school. Further, about 548,000 teachers were affected by the closure of schools.

3.2.1 Learning materials

Following the closure of all institutions of learning, the Ministry of Education and Sports (MoES) designed a preparedness and response plan to COVID-19 with a focus on continuity of learning. MoES worked with stakeholders under the guidance of the National Curriculum Development Center to develop standardized study lesson packages in the core subjects for primary and secondary level. The guidelines proposed a mode of delivering lessons in four main ways:

- Print and self-study home package, which was adapted into large print and braille for learners with special needs
- Radio recorded lessons and live presentations placed on SD cards and memory cards for learners with special needs

[1] https://www.newvision.co.ug/news/1522582/pregnancies-escalate-covid-19-lockdown

- Televised lessons with interpreters for learners with hearing impairment
- Online learning materials that were to be uploaded on phones

Government through the MoES printed and distributed learning materials for primary and secondary learners to all districts. At the district, these materials were received and distributed by the district local government to the targeted learners. The District Education Office followed up to ascertain the benefits and challenges of the home study program.

Districts reported variations in distribution of learning materials. Some districts such as Moroto reported to have received enough materials, while the majority of the districts across all other regions reported to have received inadequate materials. This is partly because in addition to implementing the formal education, the region implements an informal education program referred to as Alternative Basic Education for Karamoja (ABEK) which takes a considerable proportion of learners. It is important to note that while there are more than 12 million learners in schools today, the learning materials were only meant to cover 4 million of these with the assumption that the rest would access the materials through internet and televised sessions[2].

"One of the biggest challenges was that the materials were very few, because imagine for both primary and secondary, we got only 400 copies yet in the whole district and the municipality, we have over 10,000 learners. For some of the primary seven materials, some of the students did not get a single copy." **KII, Masaka district**	*"I can tell you that the materials that were distributed were not for the whole year, there is a lot of redundancy and fatigue by the children. Of course, as parents we are trying to see how to keep them busy and to get them some materials to help, and some schools have also tried to help. It was not as effective as expected because I think the period that was budgeted for was much shorter."* **KII Kanungu south western Uganda**

Most of the districts reported that delivery of lessons through radios and televisions was not inclusive as several learners had no access to these. Use of television and radios seemed to favor more of the urban and peri-urban learners where there is a higher penetration for both these assets and broadcasting services. Lessons delivered on TVs and radios were not class/grade specific and were highly unstructured. Furthermore, some districts reported that learning through radio was difficult especially for mathematics and science lessons as these often require demonstration. This led to a drop in the number of learners that were able to access the lessons.

"We still have some learners that are following on television and radio but not very many as numbers declined. As we speak, it could be less than 40% of the learners that are following. In the primary section, learners are almost not following or not studying at all. But for secondary, at least some are still following both the radio and TV programs, but mostly TV lessons." **KII, Masaka district**	*"Teaching is taking place through television but in this [sic] district we don't have that. Maybe only 0.01% can access TV so that is already a challenge on our part. Learning is taking place through radios. I must say in this district, [sic] if we are lucky then it is 30-40% may have radios and can sustain this kind of learning so that is already a disadvantage on our part as a district especially in education department."* **KII Amuru district**

In addition to low access to radio and TVs, it is important to note that the lessons were conducted during daytime. During that time, most learners especially in rural communities, are

[2] Printing And Delivery Of Learning Materials On Course

engaged in domestic chores. This could have hindered learning in these communities even among those with access to radios and television.

Further, there were reports of delays in the distribution of learning materials. Districts distributed the materials to the sub counties which in turn distributed the materials to the parishes and villages. During the follow up of the home study program, the District Education Offices noted with concern that some local council (LC) leaders had not distributed the learning materials due to lack of facilitation.

> *"…the learning materials were inadequate it couldn't cover all our children and all the homes. So, they were distributed to the most vulnerable. As much as the sub county authorities were mandated to distribute these materials, some of them couldn't even distribute the materials. some people at the sub county decided to keep the materials at their offices and did not distribute them."*
>
> **KII, Kaboong district**

Additionally, the learning materials to support the home study program required the parents to support the learning process of the child. Unfortunately, many parents are illiterate and therefore cannot adequately support their children. Furthermore, it was noted that many parents were accustomed to children getting support from teachers with minimal support from themselves. This made the transition and uptake of the home study program more difficult. In cases where parents tried to teach their children, it was reported that many learners were not comfortable with their parents as instructors and the home environment did not favor learning. This could have been exacerbated by the high illiteracy rates among parents. Respondents also reported that there was a lack of coordination, clear learning objectives and assessment of home study program.

> *"… some of the parents did not know anything, they were illiterate in other words and could hardly interpret anything from the materials. They could not even have a chance to assist their children or even to interact with the teachers because there were no teachers at the time."*
>
> **KII, Masaka district**

Learners in tertiary institutions were mainly supported by their institutions, with barely any support from government. Overall, learning in higher education was not given priority during the lockdown. Worse still, Higher Education Institutions (HEIs) which innovated learning approaches like distance or online learning had to undergo a bureaucratic approval process by the National Council for Higher Education. Interviews with the district officials did not provide adequate information on how HEIs were affected by the lockdown due to their limited mandate on these institutions.

3.2.2 Teachers in private schools

As a result of closure of the schools, remuneration of teachers in private schools was halted while teachers from public schools continued to be paid by the government. To cope with this, some teachers were reported to have started small businesses and there is a concern from head teachers and directors of private schools that these teachers may not return to their teaching jobs. This raises concern because it could lead to further shortages in skilled and competent teachers while also increasing expenses of replacing the lost staff through recruitment and training.

"one of the school directors told me that when Covid came, she went with all her teachers to the garden. Right now they are in Amuru down there. She has her own land that she distributed to her teachers to garden. This is how they are surviving."
KII, Amuru district

Districts reported that while schools were totally closed, some private schools continued to support learning through sending homework and conducting lessons via online platforms such as Zoom and WhatsApp. The shift from classroom to online instruction increased out-of-pocket expenses on items such as computers, internet, and electricity, a cost many households were unable to sustain and this could have left out some learners that could not afford these expenses.

".... one time we were having an argument with some of the parents who were connected to such an arrangement and those that were not, so some were saying it is a dead year and the others responded it was a dead year for you and not for us because their children were continuing with studies. During our routine inspection in the community, I came across a home where I found learners in a garage with desks seated and getting online instructions from the teacher." **KII, Masaka district**	*"For higher learning like tertiary, I have heard my friends talking of e-learning. Like they are studying through online. But at the lower levels, it is only the government aided reading materials that were given to schools…"* **KII, Kaabong district**

3.3 Impact of COVID-19 on Agriculture and Production

Agriculture was identified as a critical sector and continued to operate during the lockdown. Agriculture contributes 24% of Uganda's GDP and employs 70% of the population(Martin Fowler, 2020). Agricultural services were excluded from most of the restriction that were implemented during the lock down. Additionally, many of the restrictions favored the agricultural sector over other sectors. For example, grocery stores, veterinary drug shops, and agriculture input stores continued to operate when many other businesses were forced to close. As a result, this sector was reported to have had an influx of new entrants across all regions. This was further driven by the rainy season which coincided with the start of the lockdown.

"there is bumper harvest in the district. This was possible because most people from towns went back home and they bought hoes like nothing ready to dig and the bumper harvest is the proof of this. I think this year has seen the heaviest amount of food available for families."
Amuru district

3.3.1 Impact on agricultural extension services

While movement restrictions were not intended to affect the agricultural sector, key informants reported delays in the provision of technical services and agricultural inputs such as pest control, treatment of crop and animal diseases, harvest and post-harvest support services to the farmers. Additionally, the restrictions on movement combined with the reallocation of all government vehicles for the COVID-19 response was reported to have affected the district production offices that found it difficult to access farmers and farmer groups. In response, many districts identified critical personnel who were on alert to respond to any calls and therefore extend agricultural services. However, this was hampered by the restrictions on the number of people per gathering which made it difficult to provide these outreach services.

"First of all, we told them that if you had planned for training. Now you could only meet a single farmer. You needed to contact them on individual basis and also get request for permission for an extension of timeframe (curfew) so that our extension officers are not interrupted by the policemen. We wrote to our RDC all the number plates of our extension officers and gave it to security so that our workers could move freely to the community while protecting themselves …"
KII Lira district

To counter restrictions on gatherings, some districts reported that farmers used social media platforms such as WhatsApp to report challenges faced during farming. These issues were responded to in real time by the extension workers. Meetings in smaller groups of farmers were arranged to resolve concerns which required physical contact. However, this only favored farmers with access to social media services leaving the majority unattended.

"We decided to form a WhatsApp group where we would coordinate if there issues for us to attend to. Somebody escalates through WhatsApp and then we respond but after a month or so we started convening meeting but observing social distance. We go to a big hall like the church, the church is quite big…"
KII, Moroto district

Due to travel restrictions, farmers were also reported to have faced challenges in accessing farm inputs such as quality seeds, pesticides, and medication for animals, which are mainly found in urban centers. The limitations on access caused farmers to use pesticides for unintended purposes.

"people are using drugs which are not used in agriculture, like Akaricides, they are using it as pest control for parasites, so animals are dying, today I got a report of some one who had lost many animals"
KII, Kyotera district

3.3.2 Agricultural markets

Part of the measures adopted by the government was the closure of mobile markets to prevent large crowd gatherings. These markets are associated with mass movement of merchandise and people which presents a high risk to the spread of COVID-19 and makes it difficult for contact tracing if a case is identified.

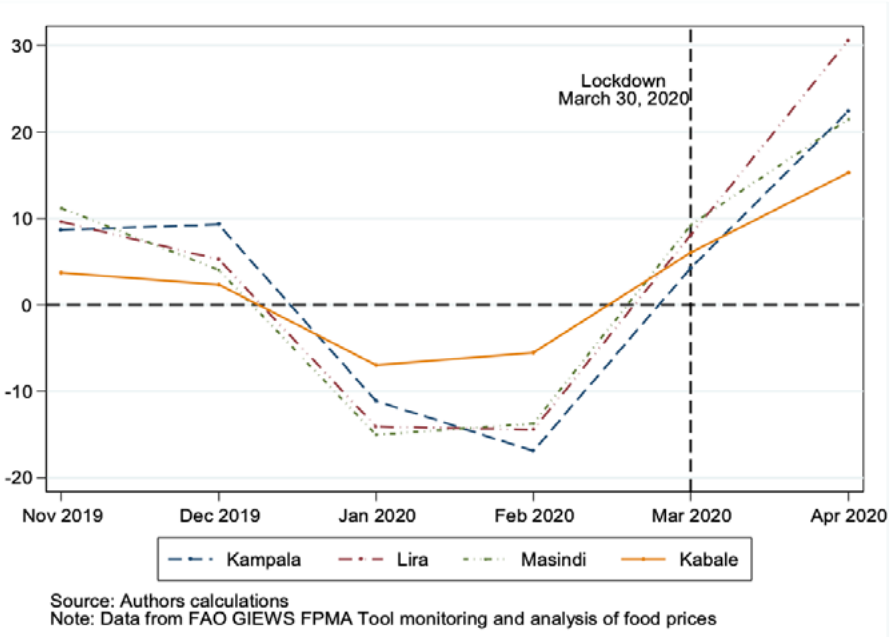
"Many people moved away from town. They went back to the villages. They took up cultivation but then a lot of these food stuff or agricultural produce were lacking market because even the markets were closed. You cannot take your produce anywhere."
KII, Gulu district

Additionally, other sectors such as education, tourism, and hospitality which provide a large domestic market for agricultural products were closed. The resultant decrease in demand coupled with the increased supply of agricultural products negatively impacted the prices of these goods.

"Markets were the biggest challenge during the lockdown. The harvest was high but at the same time, our consumers were schools which were closed. So, getting markets for products was surely very difficult. Secondly, the other consumers were not earning incomes so finding a market was a problem." **KII, Kyotera district**	*"A sack of sweet potatoes went from 50,000 to 10,000 shillings. Previously matooke was sold between 15,000 to 20,000 shillings but dropped to 1,000 shillings. There was no money and people could not move. There was no transport to sell their products. Our food goes to DRC, South Sudan and the borders we closed."* **KII, Kabarole**

However, prices for dry rations such as maize, rice and beans increased due to their high demand by government and donors who massively procured and distributed these items as food relief to the vulnerable households. Demand for dry rations was further driven by individual households who stocked these items owing to their long shelf life and the uncertainty of the duration of the lockdown. The extent to which these prices were affected differed across the regions. According to data from the Food and Agricultural Organization (FAO), the percentage change in the price of maize was more pronounced in Lira, Kampala and Masindi as compared to Kabale, (Fig 5.)

Figure 5: Percentage change in maize price per Kilogram in selected markets



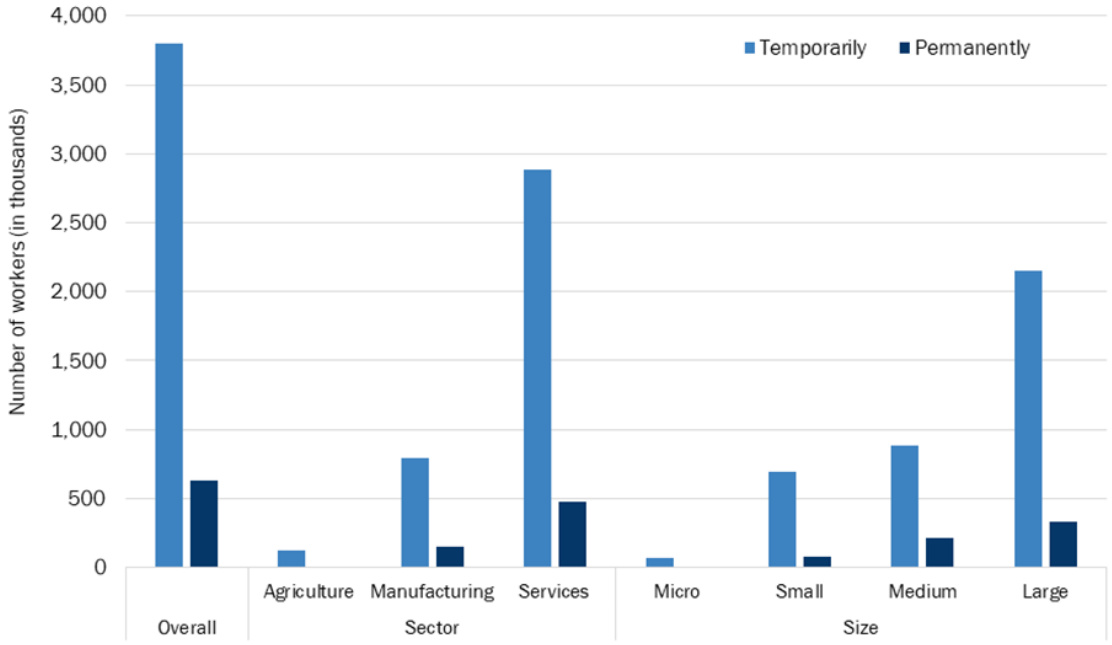
Source: Authors calculations
Note: Data from FAO GIEWS FPMA Tool monitoring and analysis of food prices

3.4 Impact of COVID-19 on businesses

There are three key sectors that make up the Ugandan economy: agriculture (24.2%), industry (25.5%), and service (50.3%). The service sector comprises of trade, telecommunications, hotel and leisure, transport and communications and the tourism sub sectors.[3] The COVID-19 measures announced by the President in March 2020 required businesses not selling food stuff to remain closed. This greatly affected both the formal and informal businesses within the industry and service sectors. Studies reported that 8 out of 10 businesses experienced a decline in demand of more than 50% of their products (Lakuma et al., 2020). This decline could also be attributed to the fact that several people had reduced disposable income during the COVID-19 lockdown, as many lost their jobs. The Business Climate Index Survey reported that the service industry was most affected compared to the other sectors, Figure 6.

[3] https://www.gou.go.ug/about-uganda/sector/economy

Figure 6: Estimates of employees laid off due to COVID-19



Source: Rapid Business Climate Index survey April 2020

Similarly, large businesses reported greater challenges in the retention of employees compared to Micro, Small and Medium Enterprises (MSMEs), Figure 6. On the other hand, when it came to ability to repay outstanding loans, large enterprises reported less impact as compared to MSMEs due to the fact that MSMEs' operations were more extensively affected by the lockdown measures compared to large businesses (Lakuma et al., 2020).

3.4.1 Service sector.

The service sector makes up the largest part of the Ugandan economy and employs a big number of people especially in the urban and peri-urban centers. To observe the COVID-19 guidelines, businesses in this sector were required to close. This caused the closure of many businesses such as saloons, bars, restaurants, tour companies, public transporters, motorcycle (boda boda) riders, in turn leading to the loss of employment and sources of livelihood across all regions.

> *"During the lockdown, most of the businesses were shut down and there was no warning at all, what remained operational were those areas dealing in essential commodities of which these account for a very small percentage of the entire business sector."*
> **KII, Kampala district**

Despite the closure of the business premises, business owners continued to incur recurring costs such as rent which has led to an accumulation of debt. It is also important to note that implementation of the COVID-19 SOPs brought in additional costs such as installation of handwashing/ sanitizer facilities, and PPEs which increased the operational costs for businesses.

> *"The other negative impact is that it has shrunk working capital for most businesses because during the four months of the lock down, sales were not up and there were fixed costs that had to be met such as electricity, rent and water.."*
> **KII, Gulu district**

These effects could be long term as businesses could struggle to recover from the losses that were incurred as a result of the lockdown. The effects on the service sector, being the largest, could imply a slowdown in the economic growth as businesses recover.

3.4.2 Tourism

The tourism and hospitality businesses have been hit hard due to the closure of the country's borders between March and September 2020. In addition to COVID-19 prevention measures announced by the president, the Uganda Wildlife Authority took several extra steps including suspension of primate tourism and research in all the protected areas, suspension of filming of primates, provision of personal protective equipment to trackers to avoid passing on infection to the primates, prohibition of motorcycles and bicycles in protected areas, establishment of an internal COVID-19 taskforce to update and guide management on the day-to-day developments and implications on wildlife conservation and tourism in protected areas (UNDP, 2020a).

In the Central, Southwestern and Karamoja regions, it was reported that many tourism operators may face long term effects even as the restrictions are eased. Reports from respondents indicated that the tourism sector closed completely with many tour companies laying off staff, travel companies stopping operations, as well as hotels closing due to the fact that they could no longer receive visitors. As one of the country's largest source of foreign exchange, the impact on tourism could negatively affect foreign exchange earnings for the foreseeable future.

"In terms of tourism which is biggest here, all the camps closed, tourists stopped coming, we have people who work in hotels, we have people who work as casual laborers, as porters and as crafts people. All these were seriously affected" **KII, Kanungu district**	*"The moment those measures were instituted, those tourism places closed. And when they closed, also their staffs were forced to go on unpaid leave since they were no longer earning. And remember those places were dependent on foreign tourism and since airports were closed, tourists could not come"* **KII, Kabarole district**

Additionally, with the enforcement of restrictions on gatherings, players in the hospitality industry were greatly affected as conferences and events are a major source of their revenue. Some respondents further reported that hotels had to lay off 90% of the staff due to loss of business.

"...and we have over three hundred tourism companies but 65% of our companies are saying that they don't see life after COVID-19" ***KII, Kampala district***

3.4.3 Leisure and hospitality

The district officials interviewed reported that the closure of hotels, restaurants, bars, and night clubs significantly affected district revenue collection. Relatedly, this impacted production capacity of some industries such as breweries where production reduced by over 50% as indicated in a report by the United Nations Development Programme. It is important to note that brewery companies directly employ over 5,000 people in Uganda and approximately 60,000 are indirectly employed through sales depots, bars and restaurants (UNDP, 2020a). Therefore, the closure of these businesses led to loss of employment and livelihoods for people employed in this sub-sector.

"Most people were unemployed and were spending less, because after closing bars, waiters, waitresses, shop attendants and boda boda riders, were left unemployed."
KII, Kanungu district

3.4.4 Small and medium Enterprises (SMEs)

Across all regions, it was reported that the COVID-19 restrictions (ban on public transport) and mitigation measures (social distancing) impacted operations of SMEs. A few businesses such as food markets, hardware stores, auto repair shops, and industries, were allowed to operate with strict observation of COVID-19 SOPs including social distance, provision of PPE and on-site accommodation. However, businesses found it challenging to maintain full operation due to the related costs of implementing these SOPs while keeping afloat. The government relaxed some of the restrictions such as on-site accommodation and employers were required to transport employees to the workplace which remained challenging, as most employees reside in different areas.

Reports from other studies have indicated that in terms of regions, businesses from the Western and Northern regions experienced the largest decline in business activity, while the Central region and Kampala experienced the least decline (Lakuma et al., 2020). Further, the business climate index survey conducted in May 2020 reported that majority of the businesses in agriculture (43%) reported having experienced a decline in the price of input during the lockdown (Lakuma et al., 2020), which could be attributed to a fall in demand for them.

3.4.5 Mining and manufacturing

The Karamoja region has over 50 different economic minerals such as gold, marble, and limestone[4], and the government has been promoting private sector investment in the mining sector in the region. The district officials in Karamoja region reported that mining activities were immensely disrupted by the COVID-19 restrictions, especially the ban on public transport and large gatherings. The closure of the mining sites disrupted the livelihoods as many people are reported to have lost jobs, this is because many people that work in these mines are temporary workers whose working model is hand to mouth. Therefore, the closure directly affected their livelihoods.

"The mining sector also had issues because the guidelines of COVID-19 did not want concentration of people, so mines were closed. Our biggest mine at Lopedo was closed by the RDC I think for two months. it was just reopened in May."
KII, Kaabong district

On the other hand, inputs of manufacturing businesses became relatively expensive largely due to disruption in the global supply chains, owing to closure of factories abroad (Lakuma et al., 2020). The manufacturing sector across all regions suffered a reduction in productivity as a result of difficulties in accessing raw material, transportation of workers and reduction in the number of people allowed into factories due to the need for social distancing. The industrial sector in Uganda is in its infancy and has been considered as a means for economic diversification. There is need to support sustained productivity in this sector to avoid potential decline of the economy.

[4] https://www.worldbank.org/en/results/2013/03/19/developing-uganda-s-mining-sector

"The manufacturing sector which is majorly made up of small scale industries in Gulu have almost closed and are operating at minimal level due to logistical problems. Inputs were not easy to access in addition to being expensive."
KII, Gulu district

3.4.6 Revenue collection

Uganda has been experiencing a shortfall in local revenue collection in the last three years and the COVID-19 outbreak has exacerbated the situation. The Uganda Revenue Authority (URA) already registered a shortfall of UGX 858.1billion in domestic revenue in the period of July to October 2019 (Development Initiatative, 2020). A further shortfall in revenue and tax collection could result from reduction in the economic activities as many people will not be able to work or pay taxes due to the effects of the outbreak. The shortfall in revenue collection has forced government to look for alternative funding through borrowing. For example, a total of UGX 4,321billion has so far been borrowed, including UGX 1,868 billion from the IMF (Development Initiatative, 2020). Across all regions, district officials reported a shortfall in revenue collection as a result of the COVID-19 restrictions.

"Revenue collection in towns was affected because people were not working for four months. How would you collect revenue? Can you charge someone when there is no business?" ***KII, Kasese district***	*"Revenue collection slumped down because of Covid 19. Businesses were affected so they could not pay. Revenue is collected through indirect means such business trading licenses, market dues and all these are based on volume of trade. Transport not being there also affected production and mobility of people to come to work. Businesses like hotels were not remitting local service tax because they were closed."* **KII Gulu district**

3.4.7 Loss of livelihoods

The COVID-19 restrictions led to the loss of employment and livelihoods for many people across all regions. Many businesses especially those in the informal sector such as boda boda riders, taxis, bus operators, salon and bar owners were left without a source of income following movement and business restrictions that were announced by the president. It was reported that the restrictions on public transport affected small retailers who could not access markets to restock their stores.

"This has not only affected the business community but even the labor force. Those who were trading were all stopped like the carpenters, the welders those even in informal employment with the government and NGOs were all stopped. Those in hotels, those in lodges, those who sell in shops, supermarkets and bars were all stopped"
KII Adjumani district

The closure of businesses led to high rates of unemployment which was reported to be more rampant in the urban and peri-urban centers, triggering migration to the rural areas. This movement was reported to be a good thing and could create new opportunities within the rural areas with an increase in the work force, but could also potentially overwhelm the services available.

"The other good lesson is that people used to think when you live in town, you should forget about having land in the village. Many people are rushing to the villages to look for pieces of land so that they can begin cultivating. Some people had no homes and were renting in town but now they have started building homes in the villages."
KII, Moroto district

4.0 CONCLUSION AND PROGRAMMATIC RECOMMENDATIONS

HEALTH

Planning and budgeting for future health emergencies

Uganda has Primary Health Care Non-wage grant PHC-NWR grant guidelines for Health Centre II, III and IV, and General Hospitals. Each year, District Local Governments are required to budget for PHC-NWR grant which is financed by government through Ministry of Finance Planning and Economic Development (MoFPED) with guidance from Ministry of Health (MoH). The funds are used for execution of health service delivery. Therefore, health facilities should leverage on the PHC-NWR grant by planning and including a budget line to support future health emergencies. Additional support from donors should also be centrally managed through the PHC-NWR grant.

Strengthening access to PPE through the existing supply chain

All health facilities plan, budget and procure PPE through National Medical Stores with guidance from the District Health Office. The government and development partners should increase financial allocations for essential medicines and health supplies to health facilities so as to meet the realities of COVID-19. The increase of PPE supplies will help to protect health workers from contracting COVID-19.

Strengthening capacity of health workers to manage highly infectious diseases

The Ministry of Health, District Health Office and partners should strengthen continuing professional development for the management of highly infectious diseases. This should include on job trainings, mentorship and sensitization on current, emerging and re-emerging outbreaks. A basic training package should be developed and delivered to community health workers to enhance community surveillance. This will address stigma and discrimination of cases at the health facilities by the health care workers.

Continuous community engagement and sensitization

The Ministry of Health, districts and partners should mainstream communication messages related to COVID-19 pandemic into all their activities and programs including those delivered at community level. The messages should be tailored to transmission, prevention, treatment, re-integration of recovered patients into communities and surveillance. This will help to address issues of fear, stigma and discrimination at community level. Furthermore, this will also help to drive demand for health services especially those that were affected by the perceived fear of health facilities and health workers.

Protecting and promoting the rights of women and children

Districts through the child, family and protection units working with communities should leverage cultural, religious and other community conflict resolution councils to protect and promote the rights of women and children. These partnerships should focus on promoting and transforming indigenous knowledge, social and cultural norms to balance power relations between women and men and other aspects of subordination. Development programs should focus to economically empower both men and women so as to have shared domestic/ household responsibilities.

Districts and partners should initiate and support programs that foster positive parenting and other measures that improve parenting so as to protect children against violence.

Education

Enhancing material

The Ministry of Education and Sports working with partners should enhance the learning materials to broaden the content, the number of subjects and classes/grades covered. Additionally, distribution of materials should be improved by working through the district educational structures and facilitate the distribution process to ensure materials reach the targeted learners.

Improvements in the home study program

The government and partners should strengthen the homes study program through leveraging collaborations with radio and television broadcasters especially those at the grassroots level to increase access to the live lessons. This program should be streamlined through clear scheduling of lessons for learners at different levels.

Promotion of innovation and use of ICT to support learning

The Ministry of Education and partners should support the development of inclusive ICT based pedagogical approaches to ease virtual learning. Through enhanced e-learning systems, teachers at different levels (including tertiary institutions) can share learning materials with learners including readers, e-books, videos and others to make learning more effective.

Strengthening public private partnerships in education

Given the impact that COVID-19 has had on the private learning institutions, government and partners should support interventions to facilitate re-opening and running of these institutions. This could be through financial stimuli and secondment of teachers to private institutions.

Agriculture

Post-harvest handling

Government and partners should support approaches for improved post-harvest handling, more especially targeting value addition and storage. Local processing of agricultural products should be strengthened through partnerships with agro-processors to reduce post-harvest losses that were reported to have been incurred by farmers.

Tourism

Promotion of local tourism

Government, districts and partners should promote local tourism through incentives that attract nationals to indulge in tourism. These incentives might include subsidized permits, affordable and diversified accommodation, meals and other amenities. Additionally, there is need to profile and publicize local tourism trails that are available in each region.

Small and medium enterprises (SMEs)

Financial support to SMEs

Government should establish mechanisms to support the economic recovery of SMEs. These could include COVID-19 recovery funds, stimulus grants, tax and tariff waivers.

APPENDICES

Appendix 1: Study Methodology

The ResilientAfrica Network has mobilized and set up a local network of universities in Uganda. These universities are further clustered into five subnetworks: 1) northern Uganda led by Gulu University; 2) Karamoja, led by Gulu University Constituent College, 3) Eastern Uganda, led by Busitema university; 4) Western Uganda, led by Mbarara University of Science and Technology; and 5) Central Uganda, led by Uganda Christian University. We conducted a rapid assessment using these regional networks. This was achieved through telephone interviews with key informants and focus group discussions. The selected districts and respective coordinating universities are listed in Table 1. The local universities mobilized and collected information from the district local government officials, civil society organizations and some members of the communities within the region.

Study design

This was cross sectional study, in which qualitative data on the socioeconomic impact of COVID 19 on the communities was collected. The purpose of this design was to get to the root of the impact of this unprecedented pandemic in each selected community.

Study site and study population

The study was conducted in five regions of Uganda as identified with USAID/Uganda Mission. These were Karamoja, northern, central, western, south-western and eastern Uganda. A total of 20 districts was purposively selected with guidance from USAID/Uganda Mission. The USAID/Uganda Mission has established a regional coordination initiative and respective regional steering committees to engage districts on matters of regional development. The study involved sector heads of the selected district local governments, members of the regional steering committees, civil society organizations and some community leaders.

Table 1. Selected Regions, Districts and lead University

Region & Lead University	**District**
Central Region: Uganda Christian University (UCU)	Kampala, Masaka, Mubende, Nakasongola and Kyotera
Eastern Region: Busitema University	Iganga, Mbale, Soroti and Tororo
Northern Region: Gulu University	Adjumani, Gulu, Amuru and Lira
Karamoja Region: Gulu University Constituent College	Kaabong and Moroto
Western & South Western Uganda Mbarara University of Science & Technology	Kabarole, Kasese, Isingiro, Kanungu, Mbarara

Sample size

Data saturation determined the number of participants for this qualitative study. However, to ensure representation from all the relevant stakeholders, below is our estimated number and categories of participants per region. We conducted four focus group discussions with members of the regional steering committees as follows; Northern Uganda Regional Steering Committee, the Karamoja Regional Steering Committee, the South-western Uganda Regional Steering Committee as well as the Western Uganda Regional Steering Committee. Each group had 7-8 members representing the region.

Table 2: Number of target respondents (KII) by category

Region	**#KII**	**#FGDs**
Karamoja	District Health Officer (2) District Education Officer (2) Community Development Officer (1) District Production Officer (1) District Agricultural Officer (1) Civil Society Organisations(2)	5 RSC Members
Southwestern Uganda	District Health Officer (1) District Education Officer (1) Community Development Officer (1) District Production Officer (1) District Agricultural Officer (1) District Commercial Officer (1) Resident District Commissioner (1) Civil Society Organisations(2)	9 RSC Members
Central Uganda	District Health Officer (1) District Education Officer (1) Community Development Officer (1) District Production Officer (1) District Agricultural Officer (1) District Commercial Officer (1) Civil Society Organisations(1)	
Northern Uganda	*District Health Officer (1)* *District Education Officer (1)* *Community Development Officer (1)* *District Production Officer (1)* *District Agricultural Officer (1)* *District Commercial Officer (2)* *Resident District Commissioner (1)* *Civil Society Organisations(2)*	
Eastern Uganda	District Health Officer (1) District Education Officer (1) Community Development Officer (1) District Production Officer (1) District Agricultural Officer (1) District Commercial Officer (1) Resident District Commissioner (1) Civil Society Organisations(2)	
Total interviews (and study participants)	44 participants	2 interviews, 14 participants

Desk Review overview

RAN undertook a preliminary desk review of data sources relevant to service delivery in the selected sectors to determine how the sectors were performing during the COVID 19 lockdown.

The desk review process included analysis of existing authoritative literature such as reports and secondary data from the Health Information Management System (HMIS) to compare the trends of the impact of COVID-19 on access to health services, local revenue data, data on GBV, among others. An abstraction guide containing key issues of interest was developed. This included the guide review of the documents that were selected. At least two RAN research experts independently reviewed the documents and abstract key findings. The reviews were then combined. The team conducted a synthesis of these key findings from each key theme identified and reviewed. Data from the desk review was summarized into concise findings and triangulated with the findings from the primary data. The findings will as much as possible be disaggregated according to district, region, services and gender among others.

Primary Data collection

The study employed key informant interviews (KIIs) and focus group discussions (FGDs). The purpose of the key informant interviews was to gain opinions from experts involved in sector specific service delivery at district level. The key informant interviews were the heads of the respective sectors and units as well as the technical staff in those sectors in the district. The Focus Group Discussions (FGDs) were held with the regional steering committee in all the selected regions. This committee was established by the USAID/Uganda Mission as a regional coordination initiative to help engage districts on matters of regional development. The purpose of the FGD was to explore the socioeconomic impact of COVID 19 on the communities in the respective regions. Data was collected through telephone and zoom interviews.

Study tools

Unstructured individual telephone and zoom interviews were conducted using unstructured interview guides. These included key informant interview guides and focus group discussion guides. The guides consisted of open-ended questions that derived the respondents' experience and knowledge of what has come out of the COVID 19 lockdown and how households and different sectors have been impacted. Particular probes for each question were identified to promote consistency in data collection across the different interviews as well as promote depth in issues discussed.

Study participants

Interview respondents were the sector heads of the selected district local governments, members of the regional steering committees, civil society organizations and some community leaders. The

study participants were adult Ugandan nationals residing and or working in the selected communities, districts and regions in Uganda.

Data collectors

Data were collected through the local network of universities in Uganda coordinated by five universities including Gulu University, Gulu University Constituent College in Moroto, Busitema University, Mbarara University of Science and Technology and Uganda Christian University. The local universities mobilized and collected information from the district local government officials, civil society organizations and some members of the communities. Each university nominated a team of graduate research assistants with experience and skill in conducting qualitative research.

Quality control

The following measures were put in place to ensure good quality of data and therefore increase the validity and reliability of the study results. We trained the data collection team (research assistants) on the study procedures and study tools. The RAN team was actively involved in the whole process to ensure quality checks at every level.

Ethics

Prior to each interview, each participant was requested to give a verbal informed consent to participate in the study. Respondents were also be requested for permission to audio record the discussions for purposes of later transcription. The respondents were informed that all information shared in the discussions was to be kept confidential and all personal identifiers such as names were removed during analysis and report writing. Data access was restricted only to those involved in the study. The study was waived for ethical review by Makerere University School of Social Sciences Research and Ethics Committee, as well as the Uganda National Council of Science and Technology (UNCST). Permission to carry out the research was sought from the respective local governments. The objectives, benefits and risks of the study were explained to the prospective study participants and informed consent sought before interviewing them as described above.

Data Management and Analysis

Data from the FGDs and KIIs was recorded using digital voice recorders, telephones and zoom recording. Thereafter, transcribed verbatim without losing meaning. The typed transcripts were analyzed using content analysis, driven by a framework analysis approach. This involved developing a coding structure based on the data in the transcript. Thereafter, all transcripts were

read. Each meaning unit in the transcripts was allocated codes based on the preset coding structure following which the meaning units were aligned under the respective codes. Following the coding, the meaning units under each main was read and re-read to identify emerging themes and sub themes, to form the basis for identifying the emerging variables from the data.

Dissemination plan

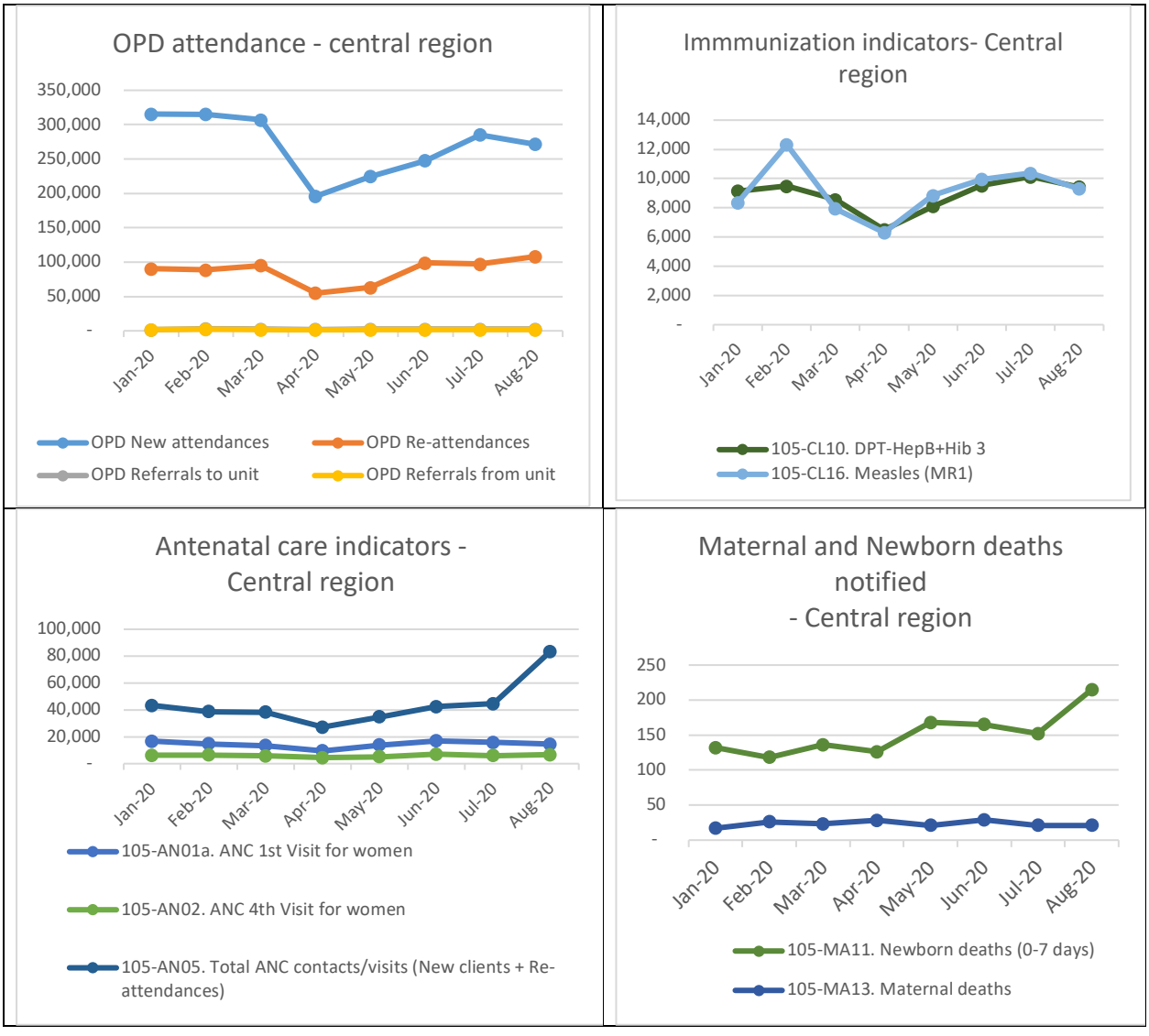
Information from this study contributed to biweekly bulletins and shared with USAID/Uganda Mission. A detailed report will also be prepared highlighting the study findings and recommendations. Study results will also be shared with the district local government teams and other stakeholders including the line ministries at an appropriate time.

Appendix II: Analysis of HMIS indicators of health service utilization (January to August, 2020)

Results

DHIS2 data for key HMIS indicators for tracer health services was analyzed between January to August, 2020. Below, we present highlights from the data showing utilization of healthcare services and selected health facility indicators. Results are presented by the broader regions, reflecting data from the sampled respective districts. Overall, healthcare service delivery and utilization were affected by the COVID-19 related restrictions. There was a decline in health service utilization across regions during the partial-lockdown due to COVID-19, with the lowest numbers registered in the month of April.

Central region

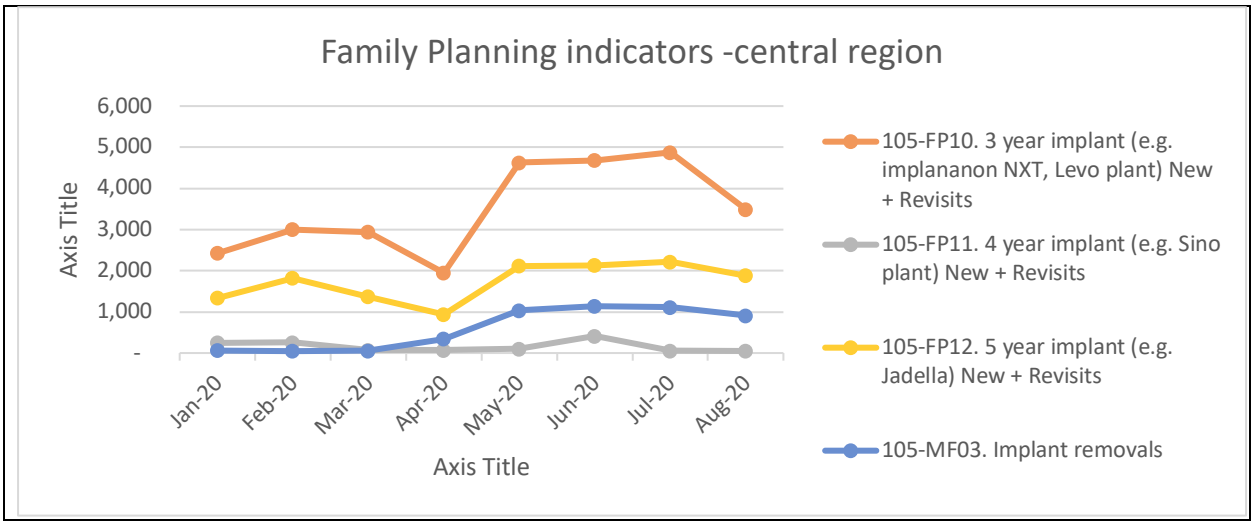


Generally, utilization of health services and health outcomes were affected by the COVID-19 related restrictions. For example, between January and April 2020, OPD new attendances

dropped by about 40%. Similarly, there was a 39% reduction in the number of OPD re-attendances. The decline could have been due to travel restrictions that were instituted as a result of COVID-19, that could also have affected patients' travel to the facilities, especially where the facilities are not in close proximity to their homes. However, following the easing of the restrictions, there has been a gradual increment in the number of new OPD attendances and re-attendances. On the other hand, OPD related referrals to and from the facilities were not substantially affected in central region over the review period.

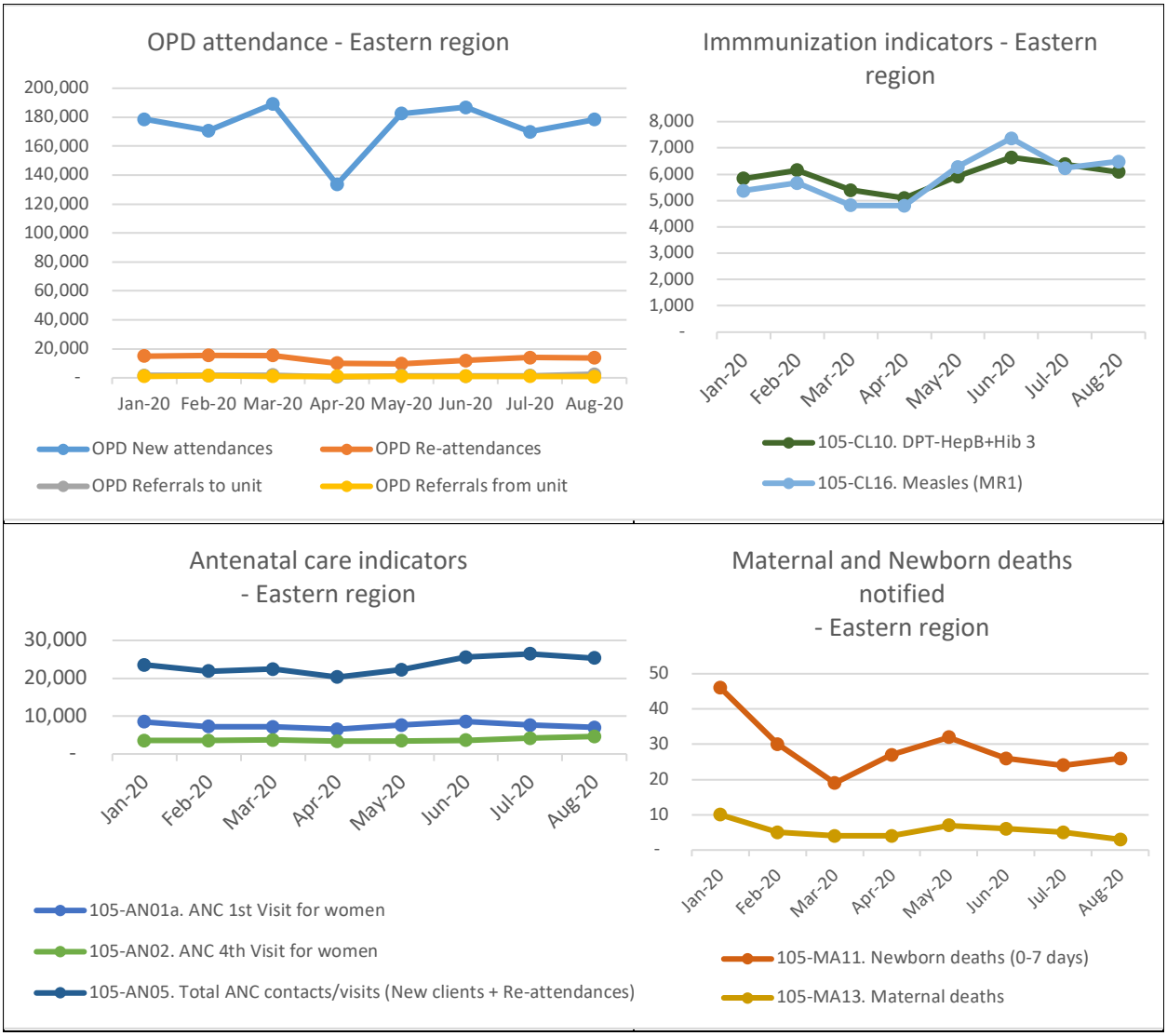
As indicated by DPT+HepB+Hib-3 and MR1, immunization completion and vaccination rates were also most affected between the months of March, April and May, 2020. After this period, the numbers from the indicators plateaued in the subsequent months of June and August. We also see a similar trend in decline of utilization for the indicator of ANC 1st visit for women, and total ANC visits (New + re-attendances). However, for the latter, there was an exponential rise in the month of August, 2020. The exponential rise in total ANC visits (New + re-attendances) between May and August could be as a result of an increment in the number of women who became pregnant.

Maternal and newborn mortality in the central region remained relatively stable between January and April, 2020. However, the subsequent months showed an increment in the newborn deaths recorded while the number of maternal deaths registered remained relatively stagnant.



Family planning services utilization in the central region registered the lowest decline in the month of April, 2020 with the exception of Implant removals, which registered a rise from 66 clients in January to 344 in April and later plateaued in May, June, July and August, 2020. Utilization of other family planning services is later seen to improve in May and the stagnates for the subsequent months.

Eastern Region

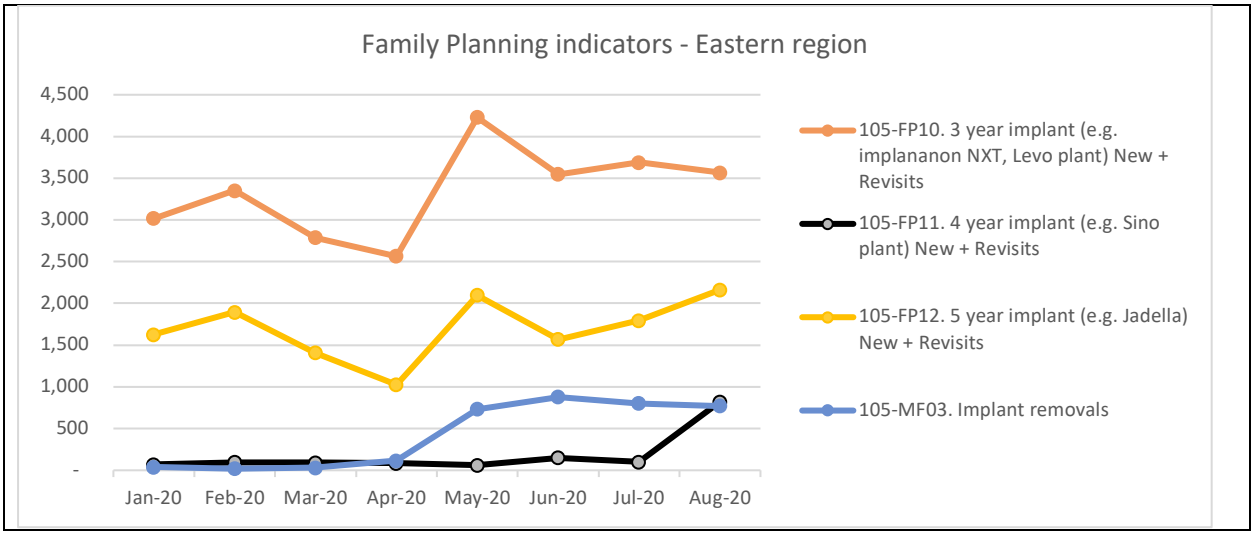


Overall, utilization of health services and health outcomes were affected by the COVID-19 related restrictions in Eastern region. For Out patience services, there was a decline in OPD service utilization in the month of April, especially OPD new attendances and re-attendances. The decline could have been due to constraints/travel-related difficulties due to restrictions that were instituted to reduce the rate of transmission of COVID-19. On the other hand, the number of patients registered between January and August remained relatively stable for the indicators of OPD referrals to and from the facility. The number of clients accessing OPD services later increased in June to level off in July and August.

Immunization completion and vaccination rates, represented by DPT+HepB+Hib-3 and measles (MR1), were also most affected between the months of March and April, 2020 which registered the largest decline. In the subsequent months there was an increment in the number of children that received DPT+HepB+Hib-3 and measles (MR1), and stabilized in the month of August.

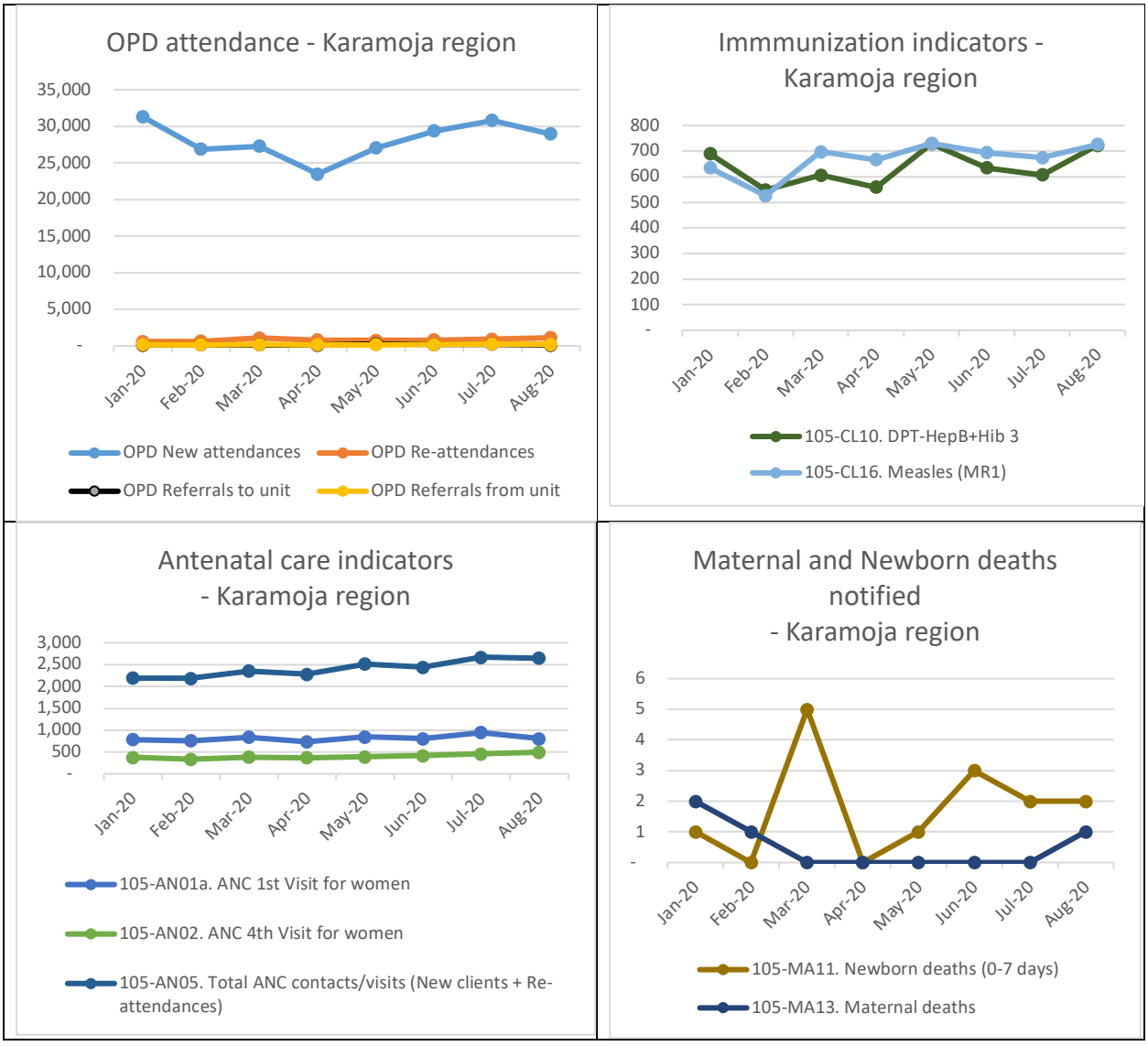
Utilization of ANC services in the eastern region also dropped during the month of April. Specifically, the total number of ANC visits (New + re-attendances) were comparable between January and March, but saw a decline in April of 9.6%, before subsequently increasing in the month of May and June and plateaued in the months of July and August, 2020. The number of ANC 1st visits for women, showed a similar trend, but experienced slight decline in the months of July and August. On the other hand, the number of women attending 4th ANC visits (between January and August, 2020) remained quite low and stagnant.

Maternal deaths between January and April, 2020 remained low, with the highest registered number of 10 maternal deaths recorded in January, 2020. Newborn mortality among sampled districts of the Eastern region, on the other hand, was highest in January (46 deaths reported), and then declined steadily in February and March (30 and 19 deaths respectively). The number of newborn deaths later increased to 27 and 32 in April and May before leveling in June, July and August, 2020.



Generally, there was increased utilization of family planning services in the sampled districts of Eastern Uganda. Family planning service utilization in the Eastern region registered the lowest decline in the month of April, 2020 with the exception of Implant removals, which registered a rise from 37 clients in January to 732 in May and later plateaued in June, July and August, 2020. The increment in the utilization of family planning services could be indicative of a rise in the demand for these services during the partial lockdown period, especially in the month of May. Despite the fact that there was a rise in the number of Implant removals, there were way much more clients that sought services for placement of Implants for 3 years (like Implanon), 4 years (like sinoplant) and 5 years (like Jadella).

Karamoja Region

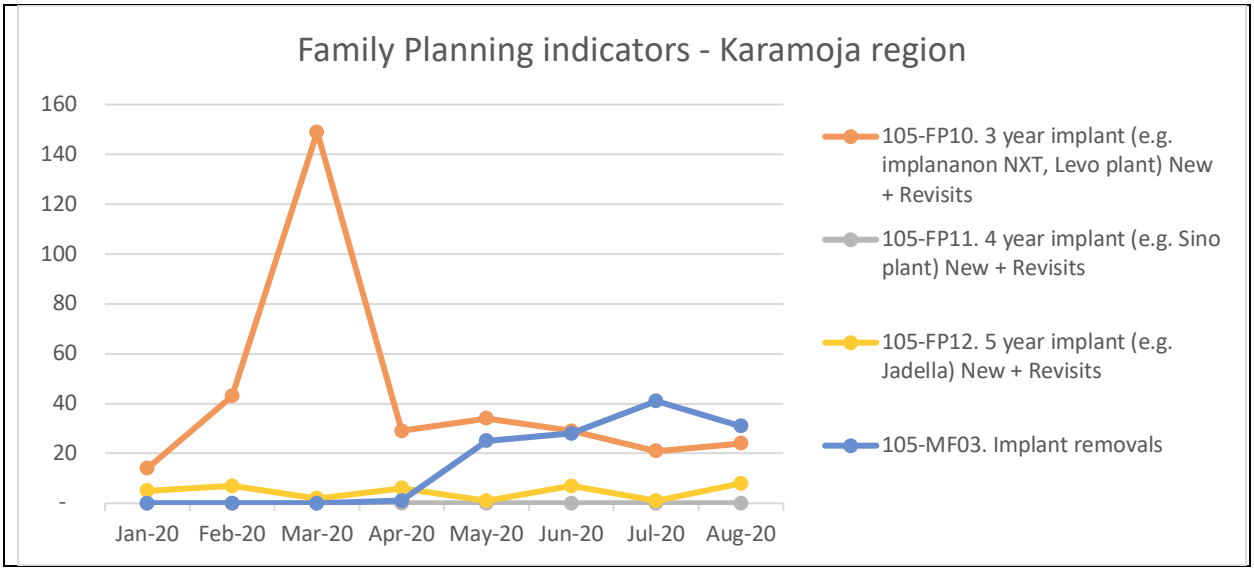


When compared to other regions, overall utilization of health services and health outcomes between January and August remained stable in Karamoja region. The number of new OPD attendances in sampled districts in Karamoja region gradually declined from January (31,293) to April (23,499). Thereafter, the new OPD attendances gradually increased in May, and June stabilizing in July and August at 30,789 and 28,967 respectively. OPD re-attendances increased between January (607) to March (1,096), an increment of 81%. However, there was a decline in OPD re-attendances in April which number later rose in June, July and peaked in August at 1,113 clients reported. However, the number of patients registered between January and August remained relatively stable for the indicators of OPD referrals to and from the facility.

The number of children completing Immunization and vaccination rates, represented by DPT+HepB+Hib-3 and measles (MR1) in Karamoja region exhibited a fluctuating pattern over

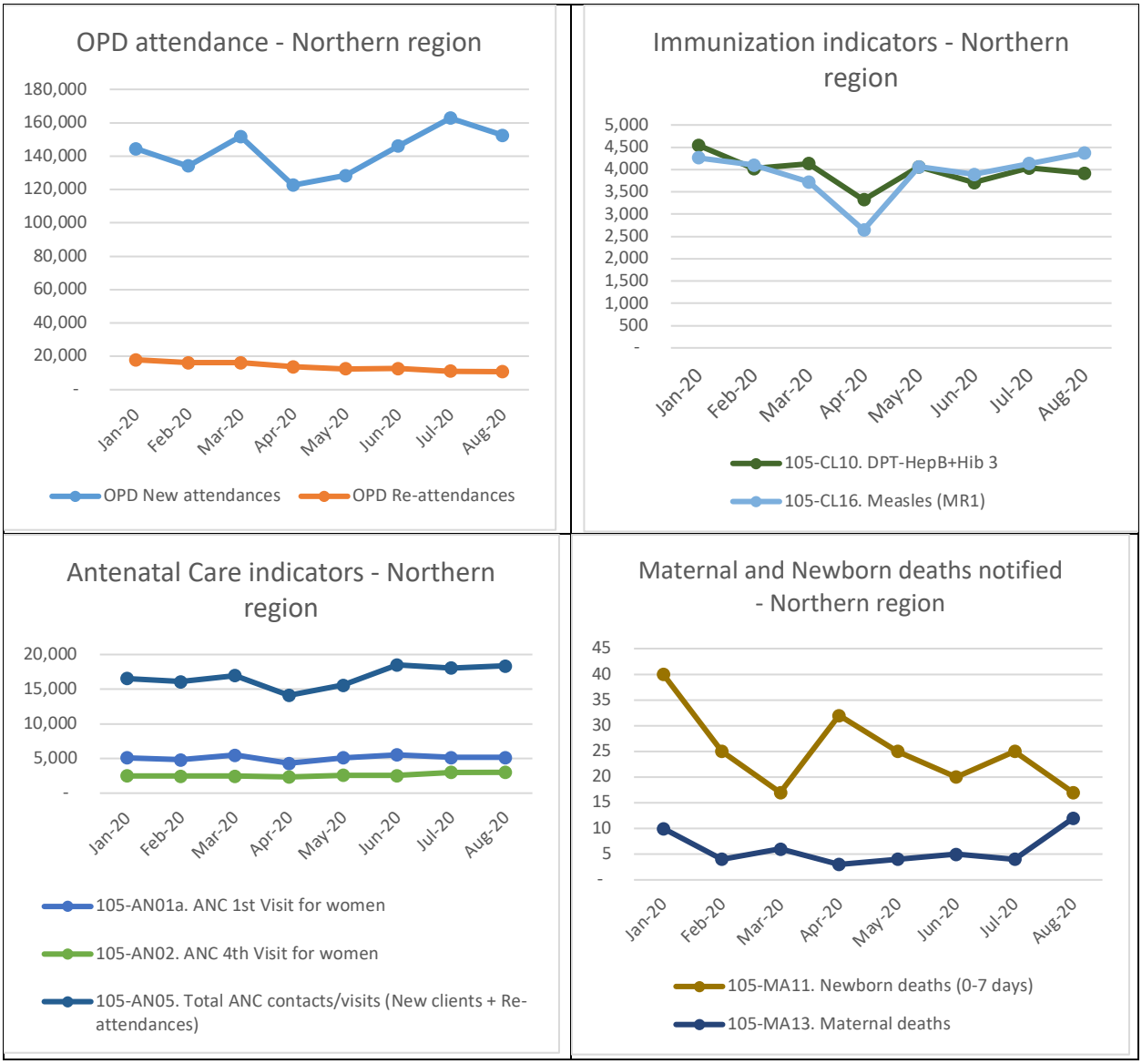
the review period. The lowest numbers for DPT+HepB+Hib-3 reported in April (559) and the highest reported in August (723).

Utilization of ANC services in Karamoja region demonstrated a gradual increment from January to August, 2020, especially for the total number of ANC visits (New + re-attendances) which increased from 2196 to 2648 respectively. The number of maternal and newborn deaths in Karamoja region remained low over the review period, compared to the other regions. Specifically, the number of maternal deaths reported dropped from two to zero between January and march. The number of newborn deaths also remained low, under 5 reported deaths per month. These reported statistics may signal better outcomes in Karamoja region as also evidenced in past national level surveys, but may conservatively be interpreted with caution due to possible under reporting and the fact that many of the cases remain in the communities and are not reported in the health facilities.



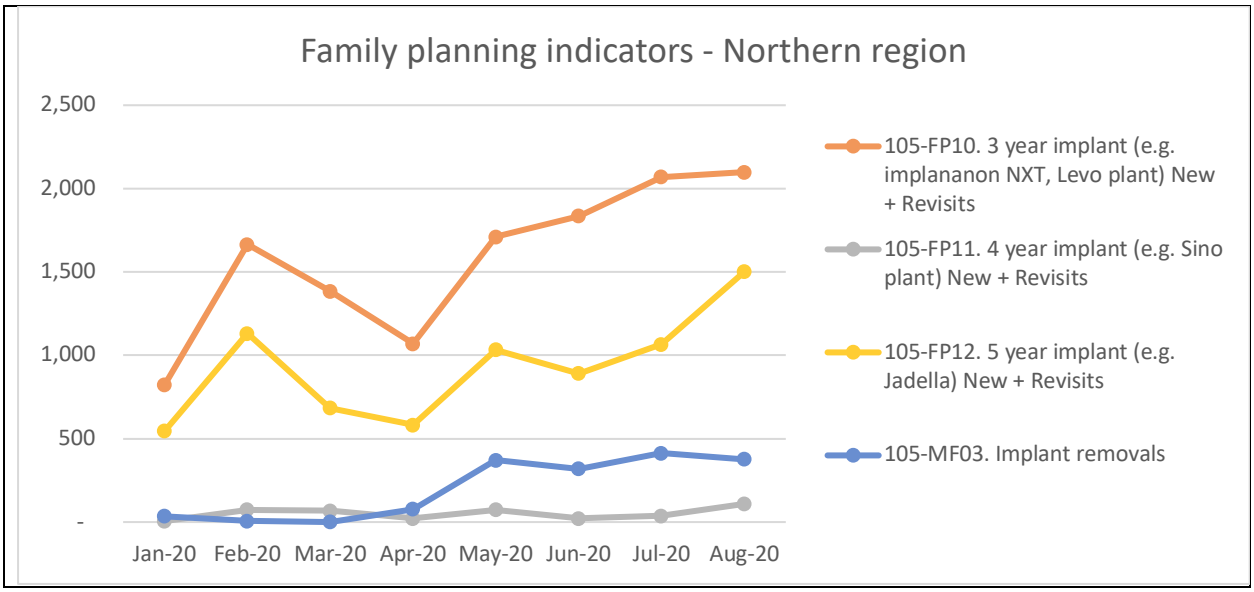
Generally, there was a plateau/stagnation in utilization of family planning services in the sampled districts of Karamoja region between April and August, with the exception of clients that sought the services for removal of implants. Services like placement of the 3 year implant (like Implanon) and implant removals registered the highest number of clients over the review period. In fact, more clients sought services for implant removals than for any other family planning service in Karamoja, for the months of July and August. Services for placement of the 3 year implant in Karamoja region were most highly sought in March (149 clients) then dropped in April (29 clients) and then levelled off in August with 24 clients. These results are suggestive of a reduction in demand and utilization of family planning methods in Karamoja region between march and august.

Northern Region

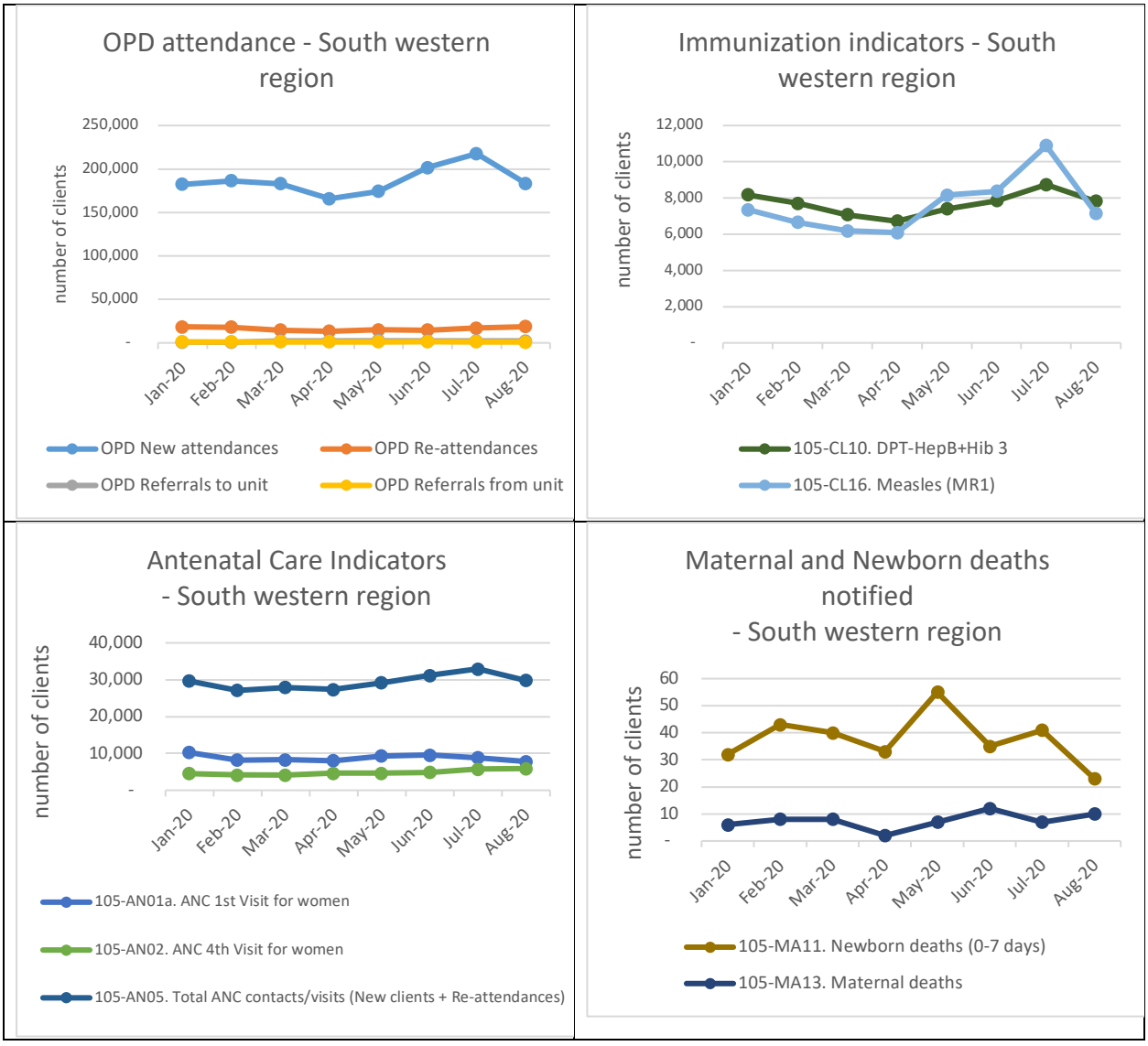


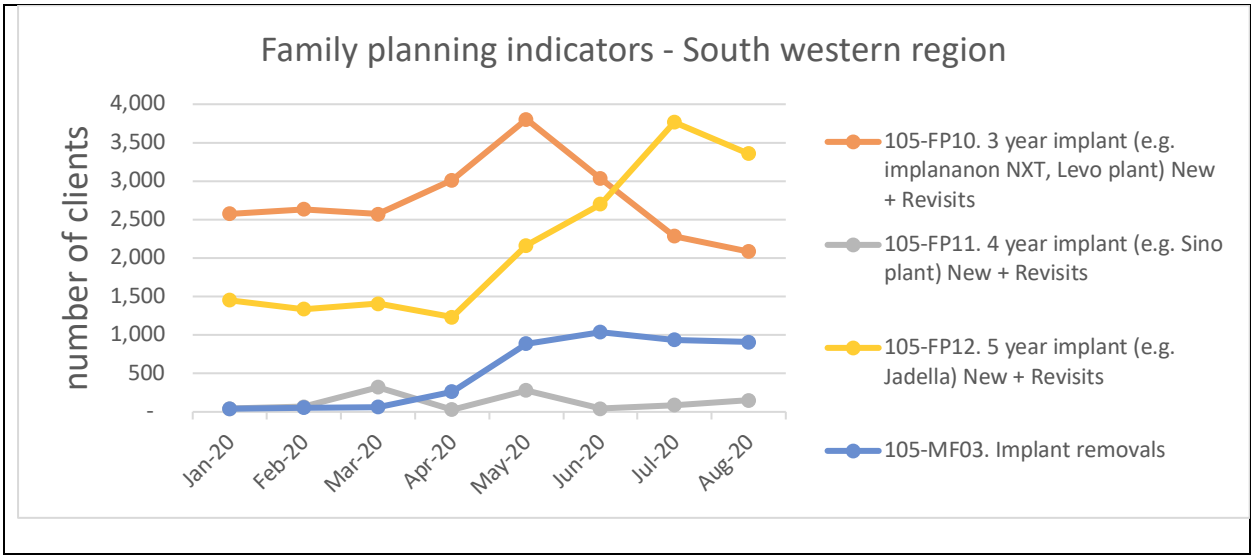
There was a decline in OPD re-attendances between January and August, 2020. The number of new OPD attendances exhibited a fluctuating downward trend between January (144,474) and April (122,581), before registering a gradual increment in the number of new attendances in May, June and July, 2020. This is suggestive of a mild regressive impact of the COVID-19 restrictions on OPD attendances in the Northern region.

Similarly, there was negative impact on utilization of Immunization services during the partial lock-down period in the month of April, 2020, having registered the lowest numbers of children vaccinated with measles (2,645) and DPT+HepB+Hib-3 (3,320).


Family planning indicators - Northern region
2,500
2,000
1,500
1,000
500
-
Jan-20
Feb-20
Mar-20
Apr-20
May-20
Jun-20
Jul-20
Aug-20
105-FP10. 3 year implant (e.g. implananon NXT, Levo plant) New + Revisits
105-FP11. 4 year implant (e.g. Sino plant) New + Revisits
105-FP12. 5 year implant (e.g. Jadella) New + Revisits
105-MF03. Implant removals

South Western Region




Family planning indicators - South western region
number of clients
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
-
Jan-20
Feb-20
Mar-20
Apr-20
May-20
Jun-20
Jul-20
Aug-20
105-FP10. 3 year implant (e.g. implananon NXT, Levo plant) New + Revisits
105-FP11. 4 year implant (e.g. Sino plant) New + Revisits
105-FP12. 5 year implant (e.g. Jadella) New + Revisits
105-MF03. Implant removals

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