

# The effects of the COVID-19 pandemic on the continuity of essential health services delivery, access, and uptake in Uganda

*Immunization, Gender-based Violence,  
Maternal Newborn and Child Health, Nutrition, Tuberculosis*

**AUGUST 2020**



## WHAT IS THIS REPORT ABOUT?

Uganda's health system is being tested by the Covid-19 pandemic. As has been said in The Telegraph (26 August 2020), "It is not enough to say we are managing Covid-19 when people are dying from other conditions [in Uganda]. We need to give equal attention to other health emergencies."

A large range of health services are considered essential, but we have narrowed it down to the areas of **immunization, maternal natal and child health, nutrition, tuberculosis, and HIV**. In order to monitor the impact of the pandemic on the continuity of essential health services (CEHS) , we map the evolution and compare 2020 with 2019 and 2018.

The goal of this report is to combine data, sourced from DHIS2 – the national health management information system (HMIS) – and visualized by the CEHS App, with clear explanations and recommendations from a select group of experts. **We monitor and share with you how the impact of the pandemic on CEHS recovers with time, and how this recovery can be sped up by targeting the most impacted regions.**

**Thanks.** We express our sincere gratitude to the relevant Program Teams for sharing their knowledge and expertise with us.

**Questions?** Contact us at [ogwaljim@gmail.com](mailto:ogwaljim@gmail.com), [joyugi@unicef.org](mailto:joyugi@unicef.org), or [christophe.bocquet@dalberg.com](mailto:christophe.bocquet@dalberg.com)



# Executive Summary: August 2020

MNCH



**Number of first ANC visits** in August 2020 **goes up 3%** compared to August 2019 across the country



**Number of fourth ANC visits** in August 2020 **goes up 19%** compared to August 2019 across the country



**Number of facility births** in August 2020 **goes up 6%** compared to August 2019 across the country



**Number of low-weight births** in August 2020 **goes up 28%** compared to August 2019 across the country



**Number of doses of Vitamin A administered for under-5** in August 2020 **goes up 68%** compared to August 2019 across the country



**Number of SAM admissions** in August 2020 **does not change** compared to August 2019 across the country



**Number of registered TB cases** in August 2020 **goes down 65%** compared to August 2019 across the country



**Number of pregnant women newly tested positive for HIV in ANC** in August 2020 **goes down 4%** compared to August 2019 across the country



**The number of HIV-positive pregnant women initiated on ART in ANC** in August 2020 **goes up 9%** compared to August 2019 across the country

HIV

**Number of children younger than 1 receiving DPT3-dose** in August 2020 **goes down 5%** compared to August 2019 across the country



**Number of children younger than 1 receiving MR1-dose** in August 2020 **goes down 2%** compared to August 2019 across the country



**Number of outpatient attendances** in August 2020 **goes down 11%** compared to August 2019 across the country



Immunization

General

## KEY TAKE-AWAYS ACROSS INDICATORS

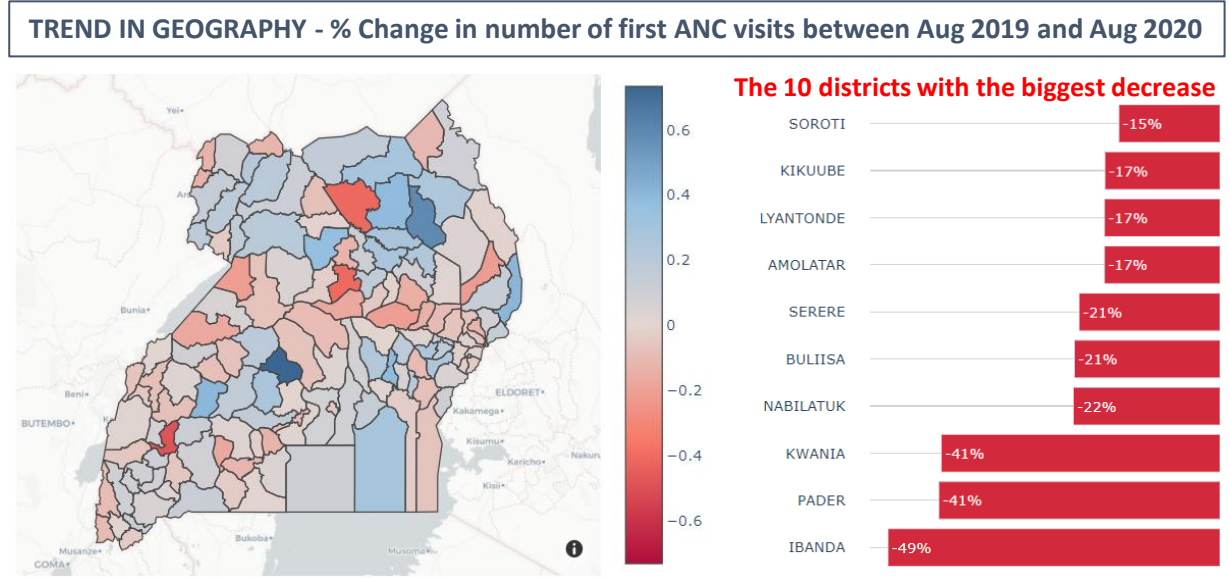
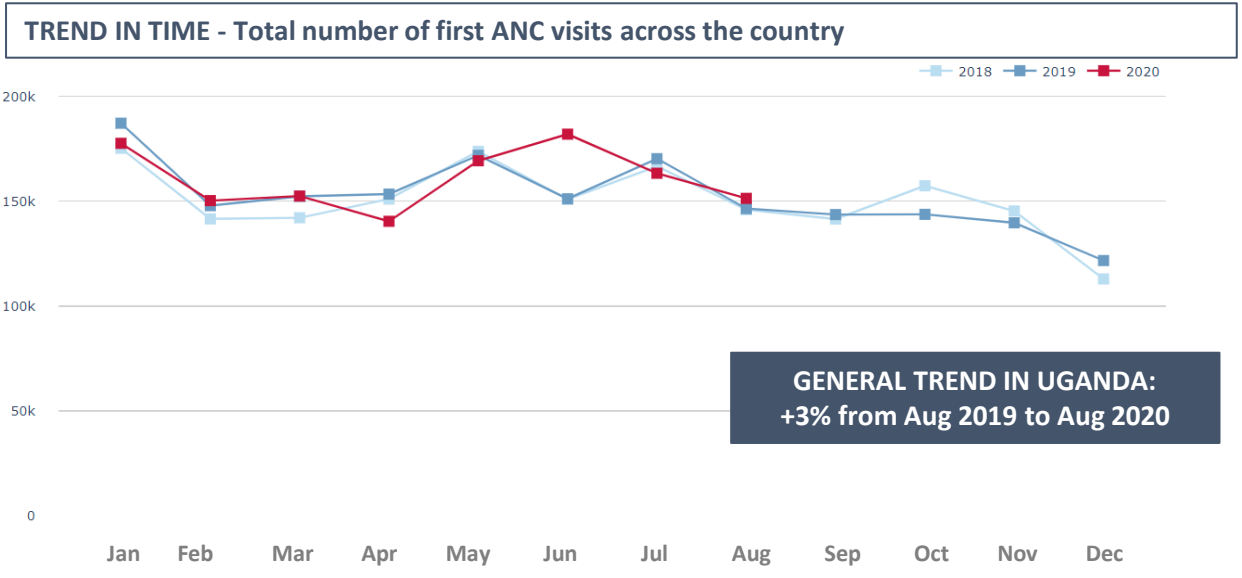
**Covid-19 impact.** Most of the indicators' numbers show a clear impact of reduced service utilization during the pandemic and its mitigation measures in March, April, and/or May 2020.

**District deep-dive.** In August 2020, Ibanda is the district with the largest change in the numbers compared to August 2019, for many indicators (linked to MNCH, Immunization and General indicators).

**Data quality.** We observe unexpected trends across all Nutrition indicators, where the numbers can double or more in just one-month time. This could be due to issues related to data entry in the HMIS. The low reporting rates (62%, 9%, 23%) are also problematic for the nutrition indicators.



# Number of women with at least one ANC visit: August 2020

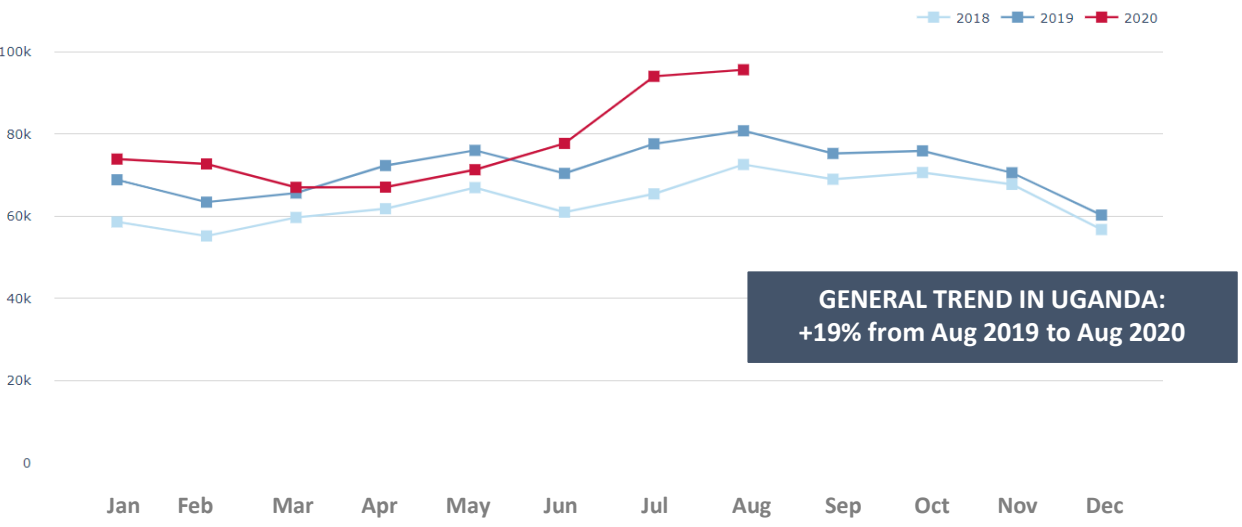


- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of first ANC visits across the country in April 2020. However, the numbers are catching up with the situation in 2019, and even has a large increase in June.
- **August 2020 vs 2019.** In August 2020, the number of first ANC visits in the whole country was 3% higher compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with a decrease of 49%.
- **Reporting numbers.** 95% health facilities have reported on their 105:1 form in the month of August 2020, but only 67% of those who reported have also communicated with a number other than zero (0) on their 1<sup>st</sup> ANC visits. It is likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Ibanda saw a reporting rate of 52% from its health facilities on this indicator, Pader 43% and Kwania 71%.

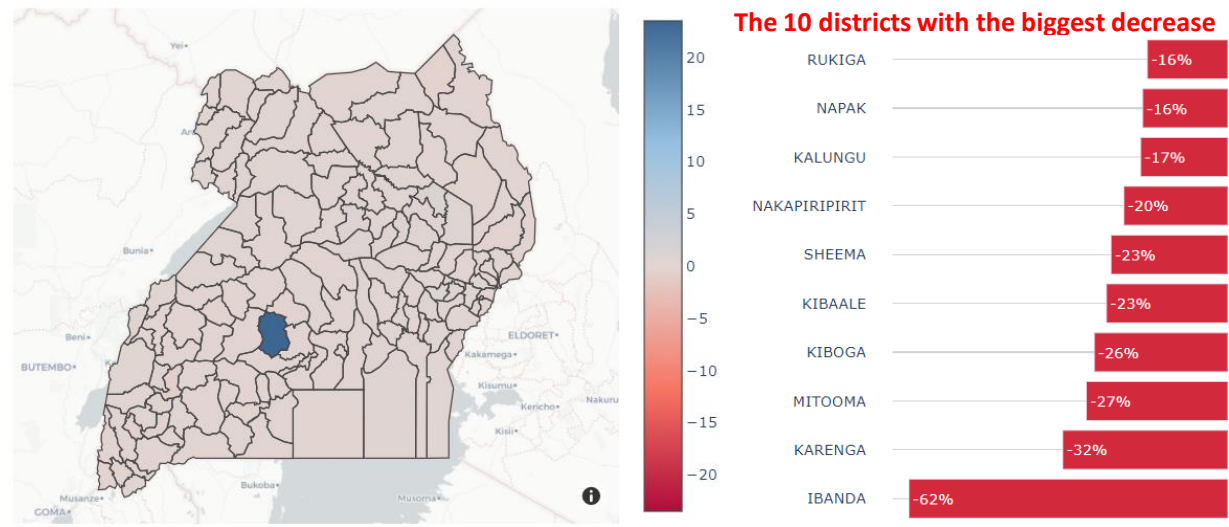


# Number of 4<sup>th</sup> ANC Visits: August 2020

TREND IN TIME - Total number of 4<sup>th</sup> ANC visits across the country



TREND IN GEOGRAPHY - % Change in number of 4<sup>th</sup> ANC visits between Aug 2019 and Aug 2020

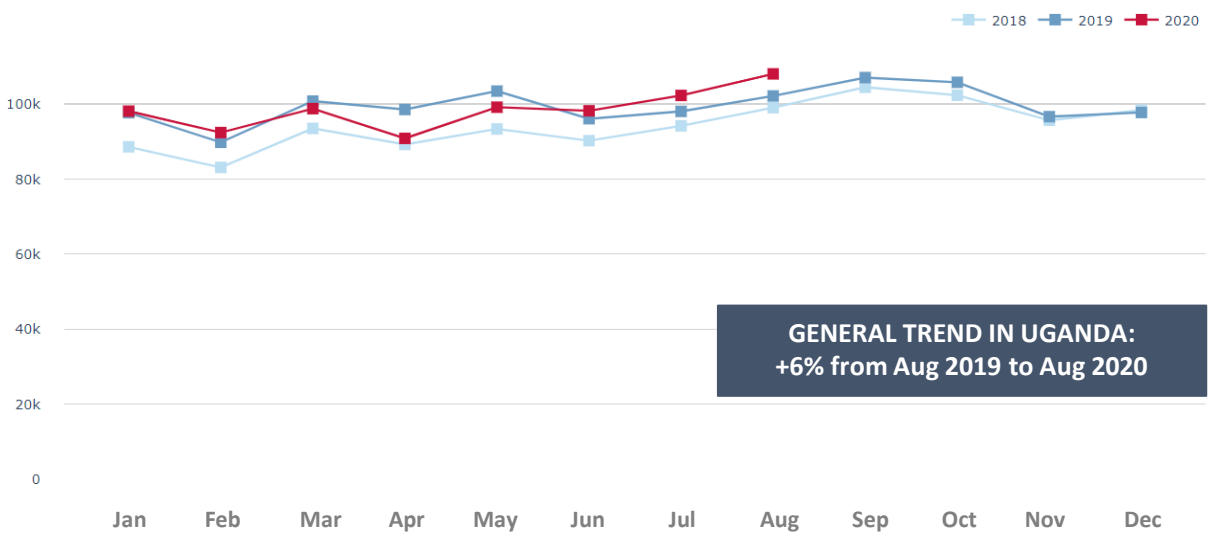


- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of fourth ANC visits across the country from February 2020 to April 2020, while in 2018 and 2019 it went up during that period. However, the numbers are catching up with the situation in 2019, and even has a large increase in June 2020.
- **August 2020 vs 2019.** In August 2020, the number of fourth ANC visits in the whole country was 19% higher compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with a decrease of 62%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 63% of those who reported have also communicated with a number other than zero (0) on their 4<sup>th</sup> ANC visits. It is likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Ibanda saw a reporting rate of 48% from its health facilities on this indicator, Karenga 89% and Mitooma 38%.



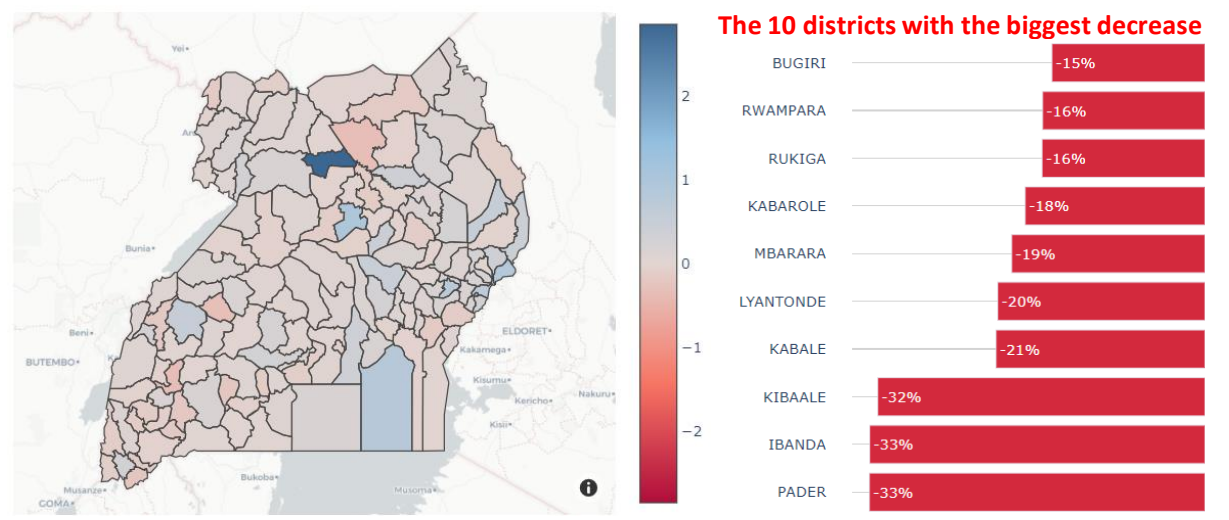
# Number of facility births: August 2020

TREND IN TIME - Total number of facility births (deliveries in unit) across the country



**GENERAL TREND IN UGANDA:  
+6% from Aug 2019 to Aug 2020**

TREND IN GEOGRAPHY - % Change in number of facility births between Aug 2019 and Aug 2020

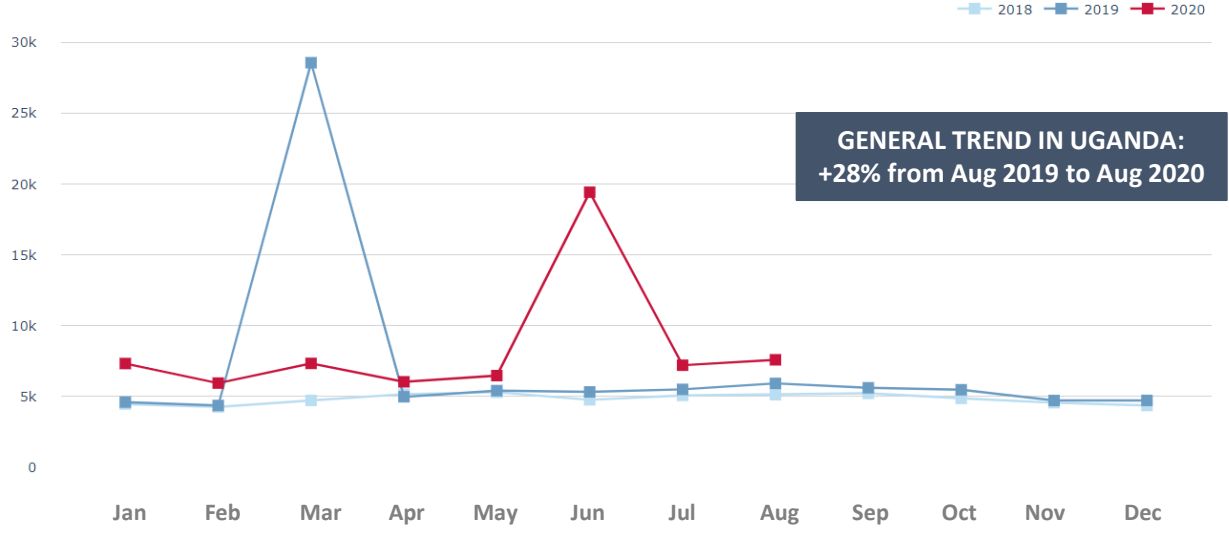


- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of facility births across the country in April 2020. However, in the past months the numbers are slowly catching up with the situation in 2019.
- **August 2020 vs 2019.** In August 2020, the number of facility births in the whole country was 6% higher compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with a decrease of 33%. The district Omoro, portrayed in dark blue on the map, saw an increase of more than 300% from August 2019 to August 2020.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 51% of those who reported have also communicated with a number other than zero (0) on their number of facility births. It is likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Pader saw a reporting rate of 45% from its health facilities on this indicator, Ibanda 47% and Kibaale 62%.

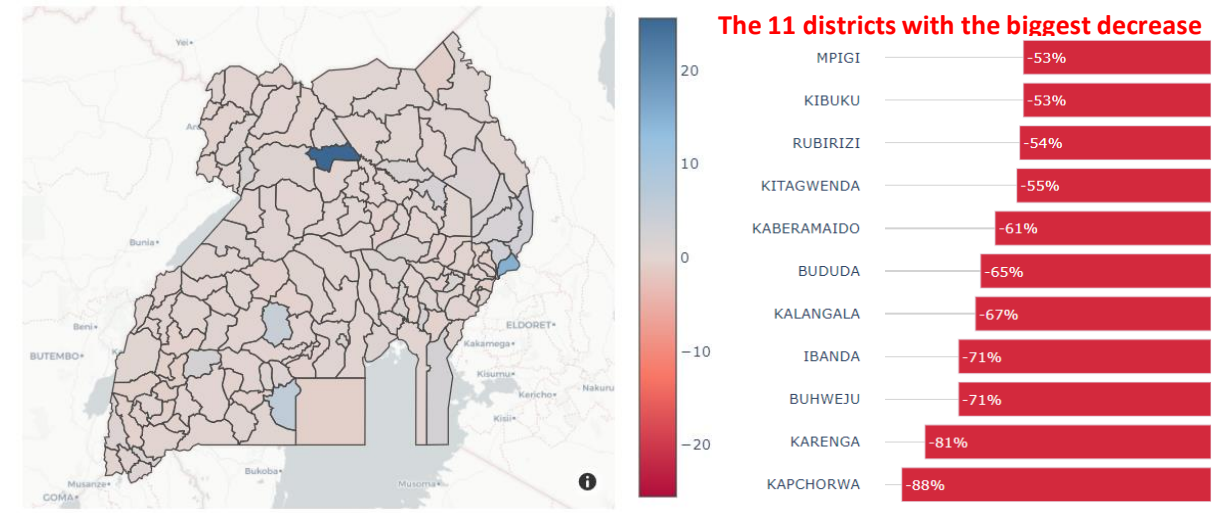


# Number of low-weight births: August 2020

TREND IN TIME - Number of low weight births across the country



TREND IN GEOGRAPHY - % Change in low-weight births between Aug 2019 and Aug 2020



- **General trend since pandemic.** We do not see a sudden large up- or downward trend around March, April or May 2020 due to the Covid-19 crisis. There is a weird trend in both March 2019 and June 2020, and we suspect that data quality issues are affecting our numbers.
- **August 2020 vs 2019.** In August 2020, the number of low-weight births in the whole country was 29% higher compared to August 2019. The district that has the largest decrease in low-weight births is Kapchorwa, with a decrease of 88%. The district Omoro, portrayed in dark blue on the map, saw an increase of more than 3500% from August 2019 to August 2020. This is most probably an error.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 22% of those who reported have also communicated with a number other than zero (0) on their low-weight births. It is very likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Kapchorwa saw a reporting rate of 6% from its health facilities on this indicator, Karenga 33% and Buhweju 5%.

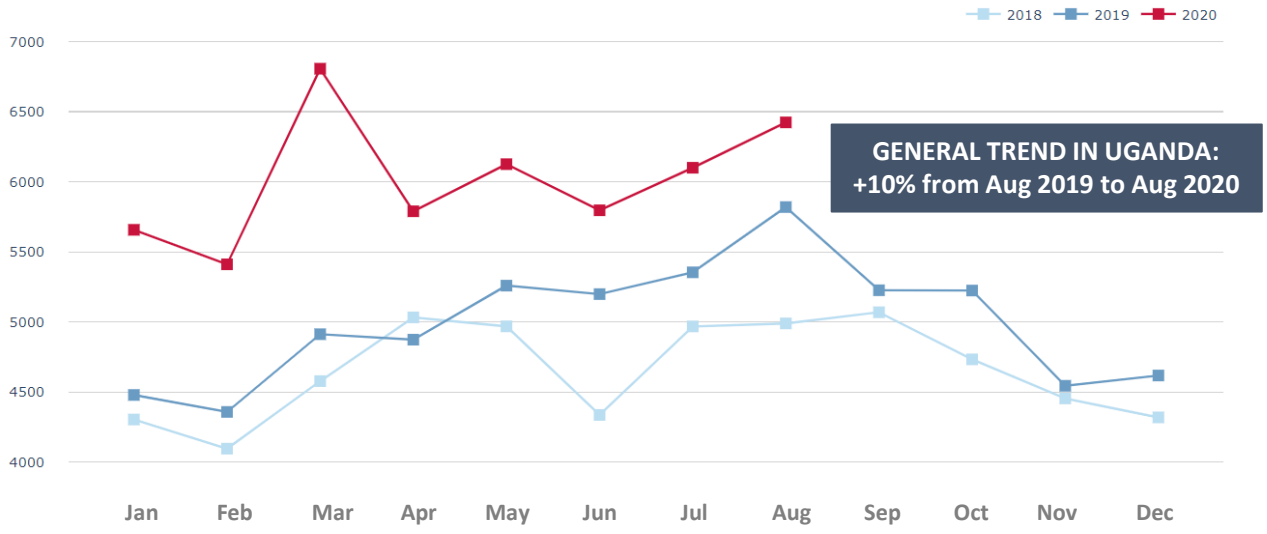


# Number of low-weight births: August 2020

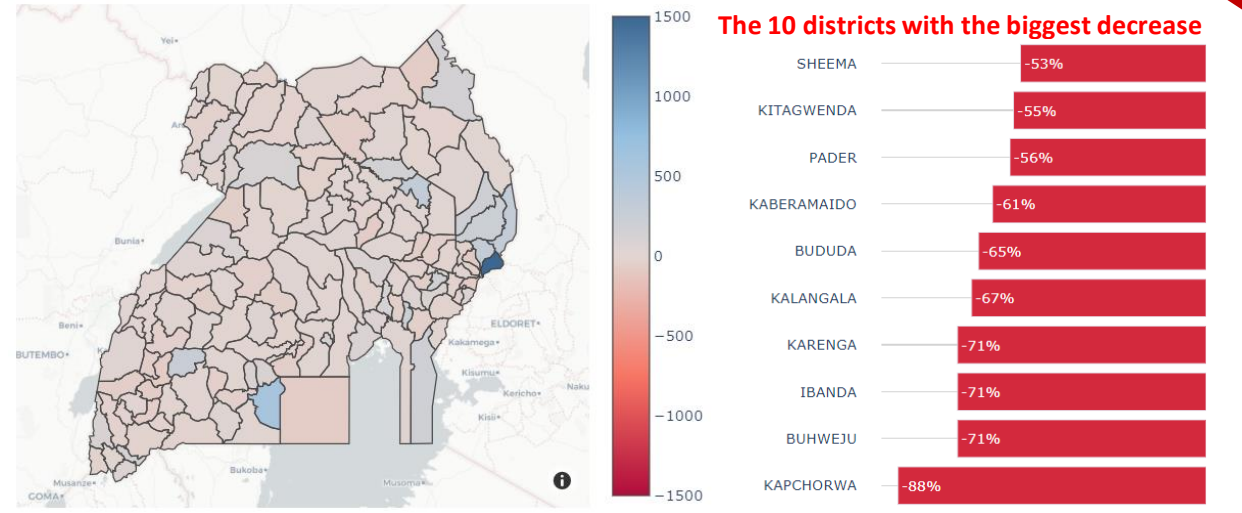
Excluding outliers using standard deviation

This indicator is the same as the previous one, except that we now excluded the data points identified as outliers. This is done by our CEHS App (see 'Methodology' at the end of the report).

### TREND IN TIME - Number of low-weight births across the country



### TREND IN GEOGRAPHY - % Change in low-weight births between Aug 2019 and Aug 2020



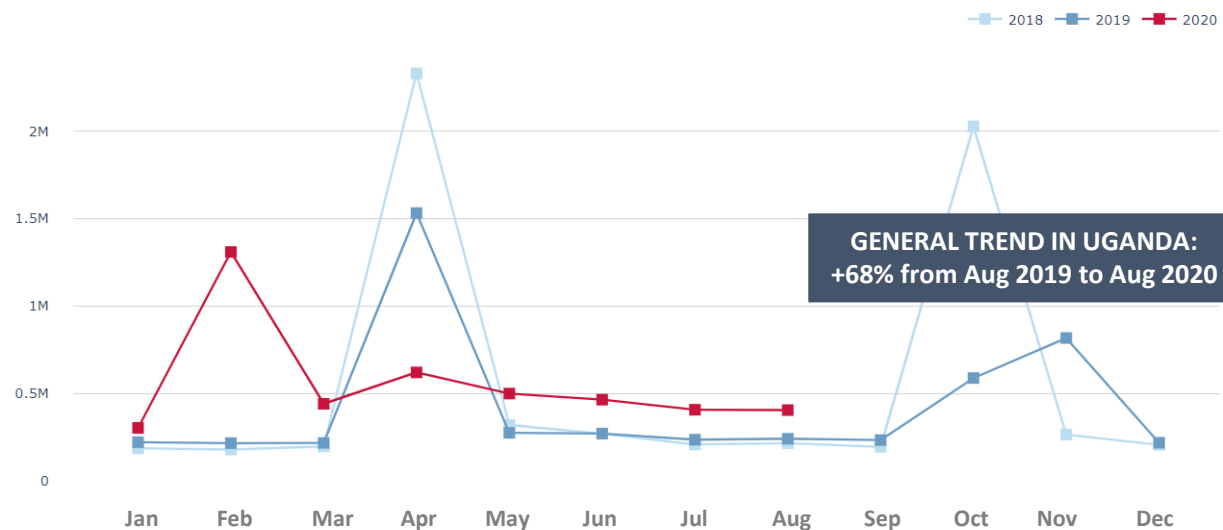
- **General trend since pandemic.** The numbers in 2020 already start of higher than 2018 and 2019 in January. However, while there is an increasing trend after February for 2018 and 2019, we see a downward trend in April 2020.
- **August 2020 vs 2019.** In August 2020, the number of low-weight births in the whole country was 10% higher compared to August 2019. The district that has the largest decrease in low-weight births is Kapchorwa, with a decrease of 88%. The district Bukwo, portrayed in dark blue on the map, saw an increase of 1500% from August 2019 to August 2020.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 22% of those who reported have also communicated with a number other than zero (0) on their low-weight births. It is very likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Kapchorwa saw a reporting rate of 6% from its health facilities on this indicator, Buhweju 5%, and Ibanda 23%.



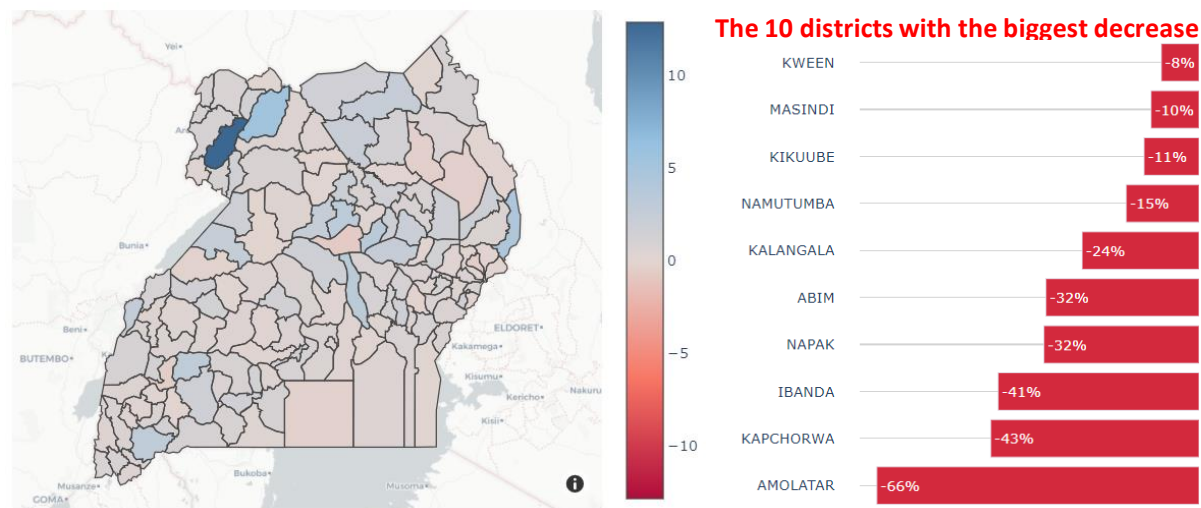


# Number of 1<sup>st</sup> and 2<sup>nd</sup> doses of Vitamin-A administered to under-5: August 2020

TREND IN TIME - Number of doses of Vitamin-A administered to under-5 across the country



TREND IN GEOGRAPHY - % Change in Vitamin-A doses between Aug 2019 and Aug 2020

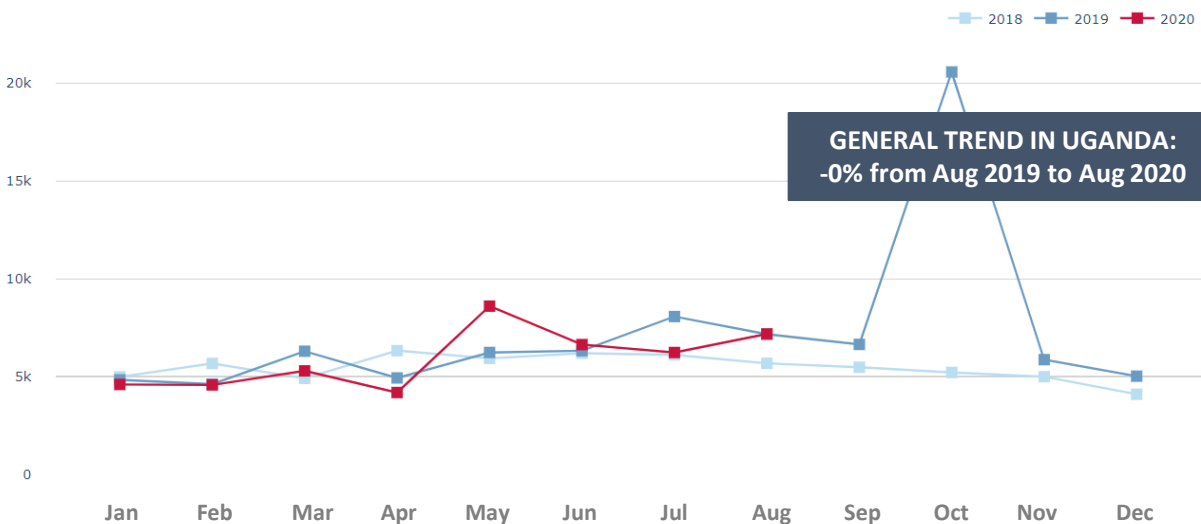


- **General trend since pandemic.** A sudden increase from less than 0.5M in March 2018 to more than 2M the next month, is quite surprising. We can see the same odd trend in October 2018 and April 2019.
- **August 2020 vs 2019.** In August 2020, the number of Vit A doses given in the whole country was 68% higher compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Amolatar, with an important decrease of 66%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 59% of those who reported have also communicated with a number other than zero (0) on their Vitamin-A doses. It is likely that these low reporting rates, along with important data entry issues, seriously impact our numbers. In August 2020, Amolatar saw a reporting rate of 69% from its health facilities on this indicator, Kapchorwa 53% and Ibanda 48%.
- **Insights from experts.** Vitamin-A campaigns are usually set up in April and October. This might explain the spike in April 2018 and 2019, and in October 2018.

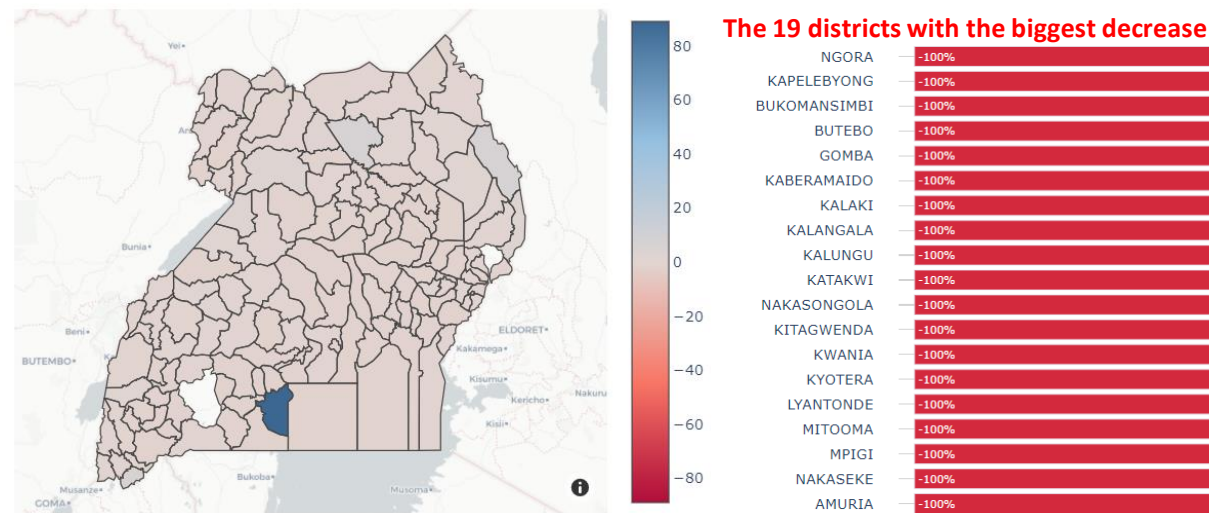


# Number of identified SAM cases: August 2020

TREND IN TIME - Number of SAM admissions across the country



TREND IN GEOGRAPHY - % Change in SAM admissions between Aug 2019 and Aug 2020



- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of SAM admissions in March and April 2020 compared to 2019. However, in the past months the numbers are slowly catching up with the situation in 2019.
- **August 2020 vs 2019.** In August 2020, the number of SAM admissions given in the whole country was the same as August 2019. There are more than 10 districts that have a decrease of 100% in August 2020 compared to August 2019. The district Masaka, portrayed in dark blue on the map, saw an increase of almost 9000% from August 2019 to August 2020. This is most probably an error.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 8% of those who reported have also communicated with a number other than zero (0) on their SAM admissions. It is very likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Amuria saw a reporting rate of 77% from its health facilities on this indicator, Nakaseke 82% and Mpigi 73%.
- **Insights from experts.** The number for October 2019 is an outlier. The data insights with outlier exclusion are shown on the next slide.

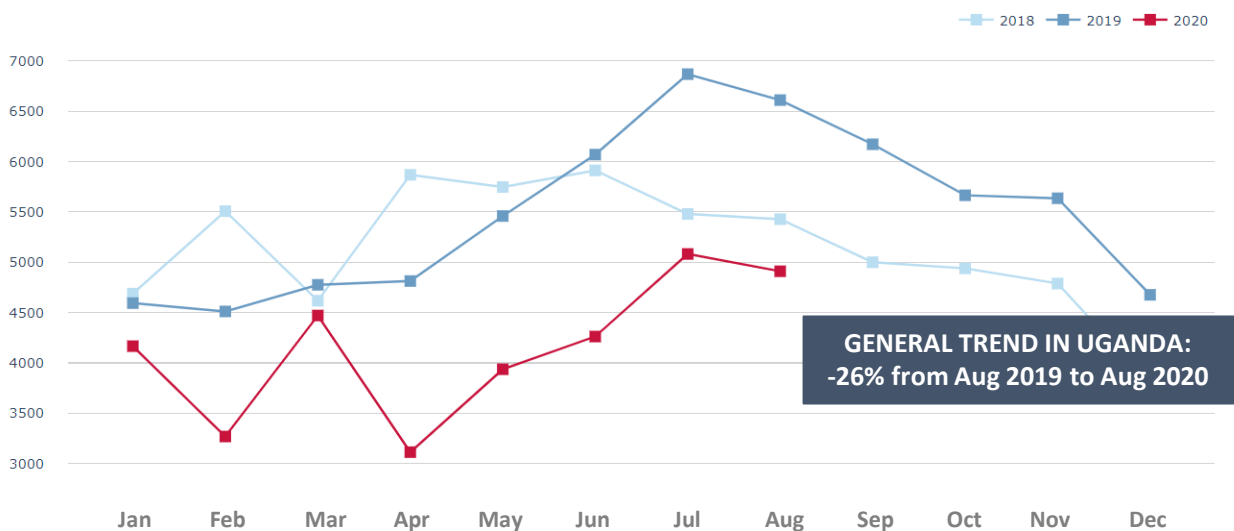


# Number of identified SAM cases: August 2020

Excluding outliers using standard deviation

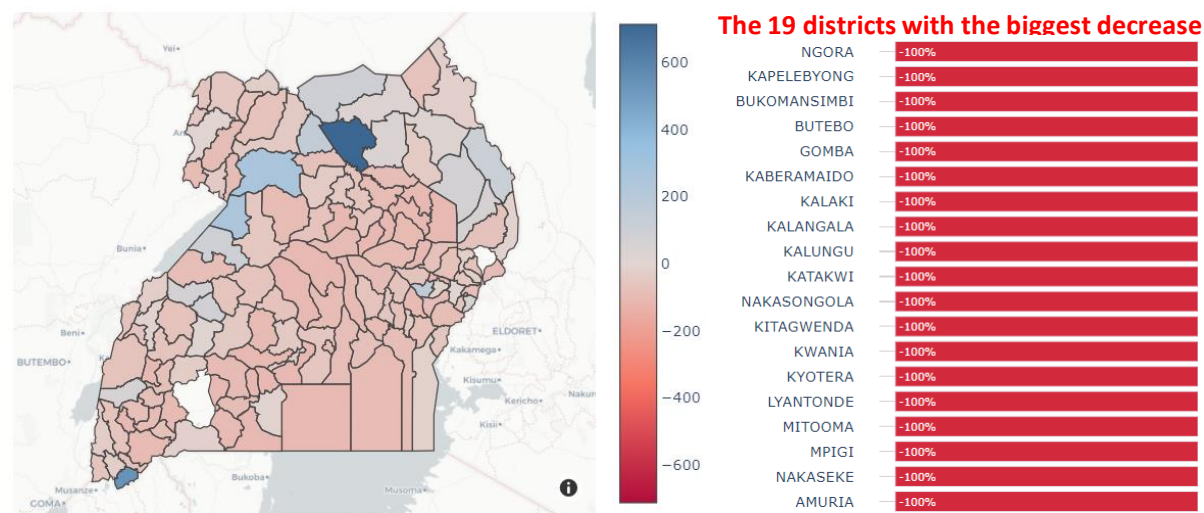
This indicator is the same as the previous one, except that we now excluded the data points identified as outliers. This is done by our CEHS App (see 'Methodology' at the end of the report).

TREND IN TIME - Number of SAM cases across the country



**GENERAL TREND IN UGANDA:**  
-26% from Aug 2019 to Aug 2020

TREND IN GEOGRAPHY - % Change in SAM cases between Aug 2019 and Aug 2020

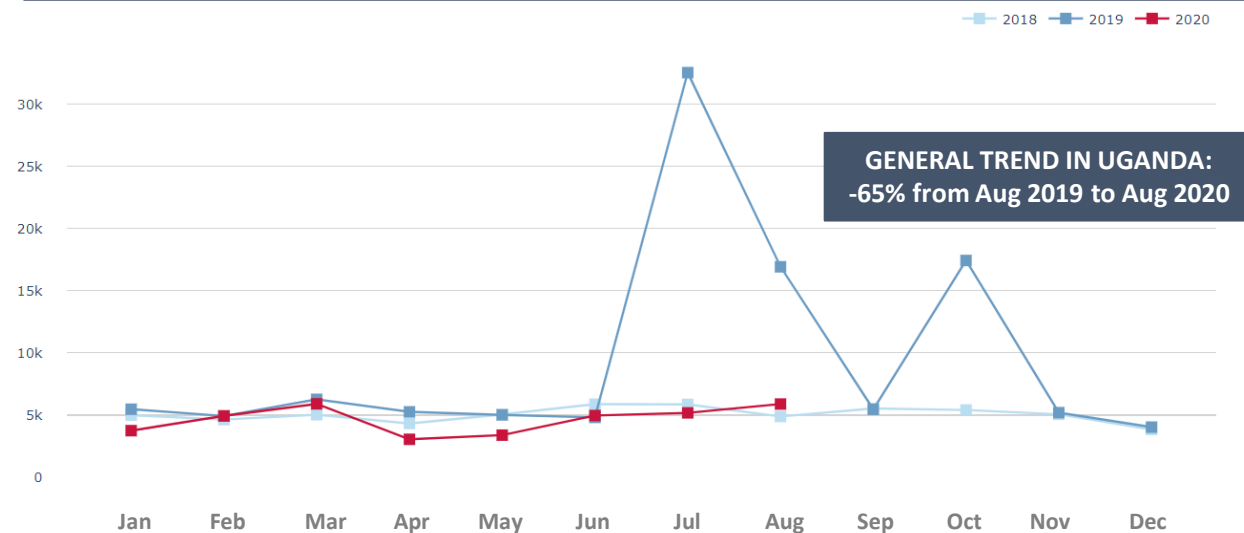


- **General trend since pandemic.** The number of SAM admissions in January 2020 was already lower than January 2018 and 2019, but dropped even further in April 2020.
- **August 2020 vs 2019.** In August 2020, the number of SAM admissions given in the whole country was 26% lower compared to August 2019. There are 19 or more districts that have a decrease of 100% in August 2020 compared to August 2019, which means that 0 cases were reported in August 2020. The district Pader, portrayed in dark blue on the map, saw an increase of more than 700% from August 2019 to August 2020. This is most probably an error.
- **Reporting numbers.** 95% health facilities have reported on their 105:1 form in the month of August, but only 8% of those who reported have also communicated with a number other than zero (0) on their SAM admissions. It is very likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Amuria saw a reporting rate of 77% from its health facilities on this indicator, Nakaseke 82% and Mpigi 73%.

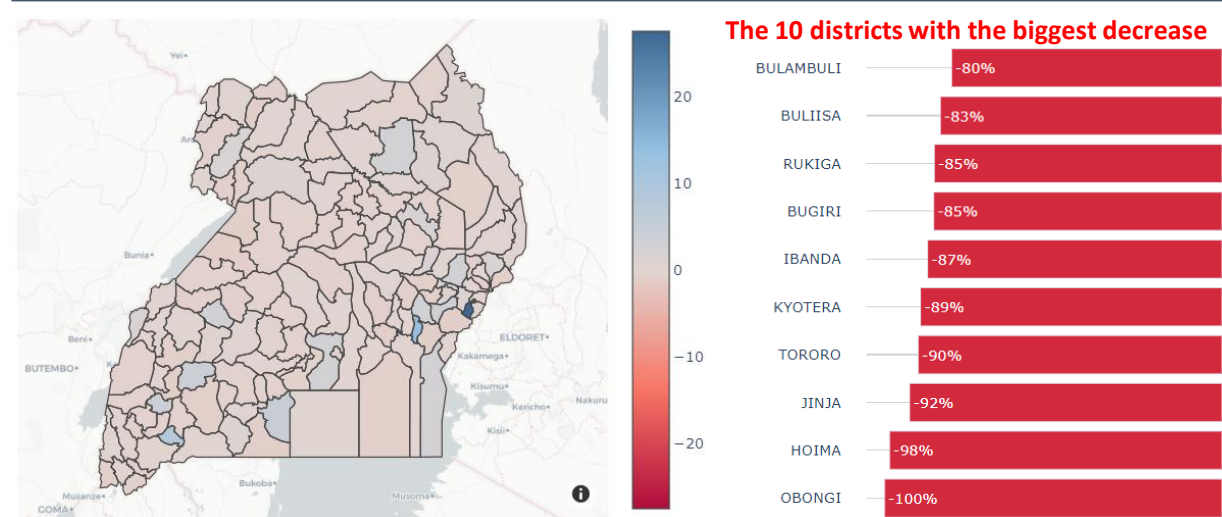


# Number of registered TB cases: August 2020

TREND IN TIME - Number of registered TB-cases across the country



TREND IN GEOGRAPHY - % Change in number of TB-cases between Aug 2019 and Aug 2020



- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of registered TB cases in April and May 2020. However, in the past months the numbers are slowly catching up with the situation in 2018. The trend in July, August, and October 2019 looks very surprising.
- **August 2020 vs 2019.** In August 2020, the number of registered TB cases was 65% lower compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Obongi, with an important decrease of 100%. The district Manafwa, portrayed in dark blue on the map, saw an increase of more than 2500% from August 2019 to August 2020. This is most probably an error.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 13% of those who reported have also communicated with a number other than zero (0) on their registered TB cases. It is likely that these low reporting rates, along with important data entry issues, affect our numbers seriously. In August 2020, Obongi saw a reporting rate of 35% from its health facilities on this indicator, Hoima 11% and Jinja 9%.

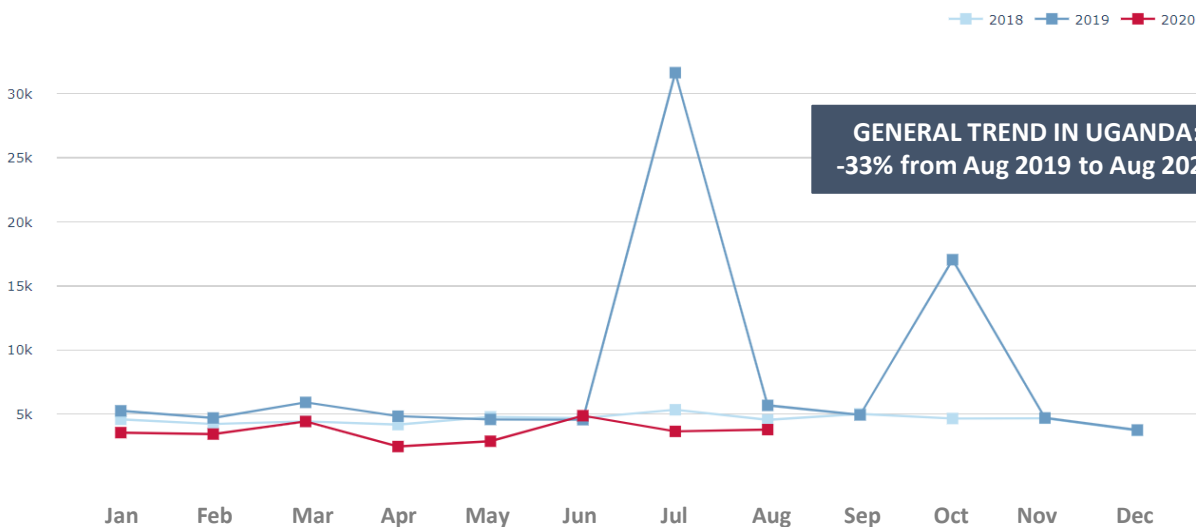


# Number of registered TB cases: August 2020

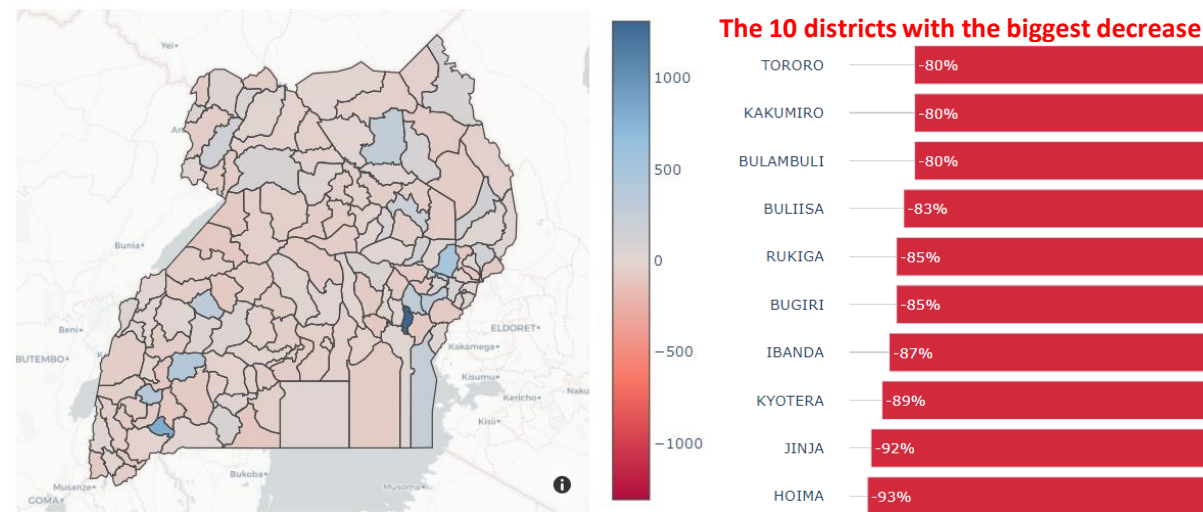
Excluding outliers  
using standard deviation

This indicator is the same as the previous one, except that we now excluded the data points identified as outliers. This is done by our CEHS App (see 'Methodology' at the end of the report).

## TREND IN TIME - Number of registered TB-cases across the country



## TREND IN GEOGRAPHY - % Change in number of TB-cases between Aug 2019 and Aug 2020

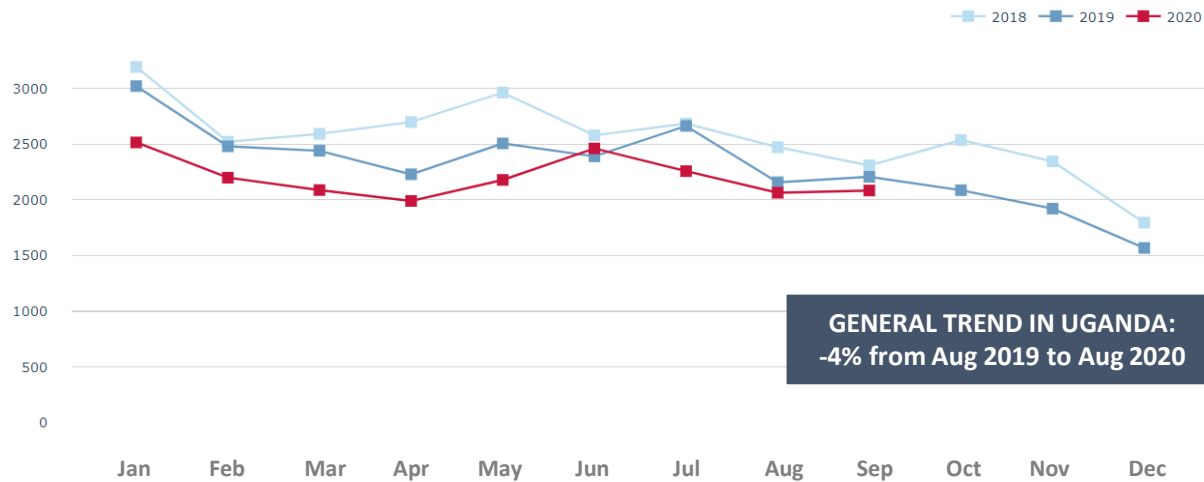


- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of registered TB cases in April and May 2020. However, in the past months the numbers are slowly catching up with the situation in 2018. The trend in July and October 2019 looks very surprising.
- **August 2020 vs 2019.** In August 2020, the number of registered TB cases was 33% lower compared to August 2019. The 12 districts with the biggest decrease are scattered around the country. The most affected district appears to be Hoima, with an important decrease of 93%. The district Bugweri, portrayed in dark blue on the map, saw an increase of more than 1300% from August 2019 to August 2020. This is most probably an error.
- **Reporting numbers.** 95% health facilities have reported on their 105:1 form in the month of August, but only 13% of those who reported have also communicated with a number other than zero (0) on their registered TB cases. It is likely that these low reporting rates, along with important data entry issues, affect our numbers seriously. In August 2020, Hoima saw a reporting rate of 11% from its health facilities on this indicator, Jinja 9% and Kyotera 14%.

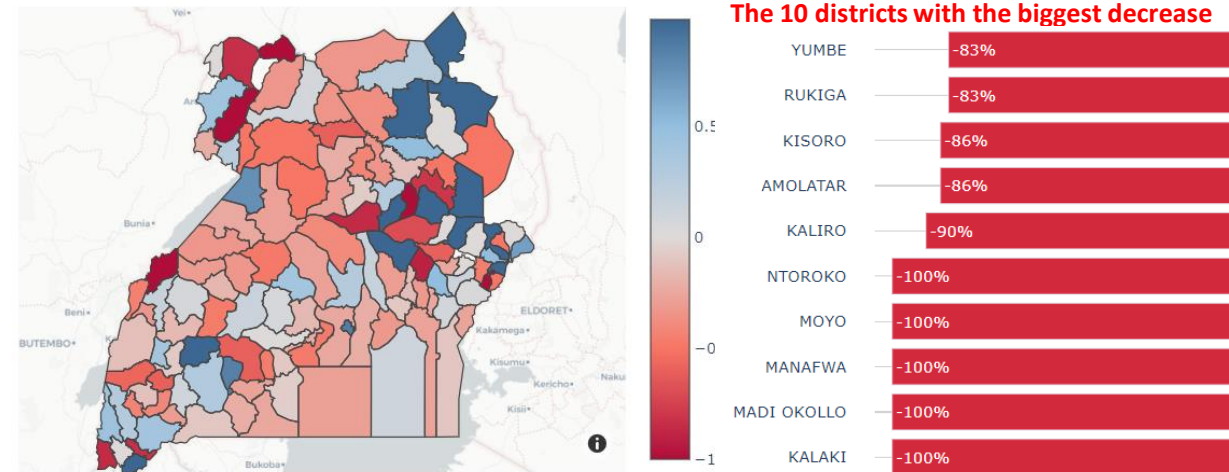


# Number of pregnant women newly tested positive for HIV in ANC: August 2020

TREND IN TIME - Number of pregnant women newly tested positive for HIV across the country



TREND IN GEOGRAPHY - % Change in number of pregnant women newly tested positive between Aug 2019 and Aug 2020

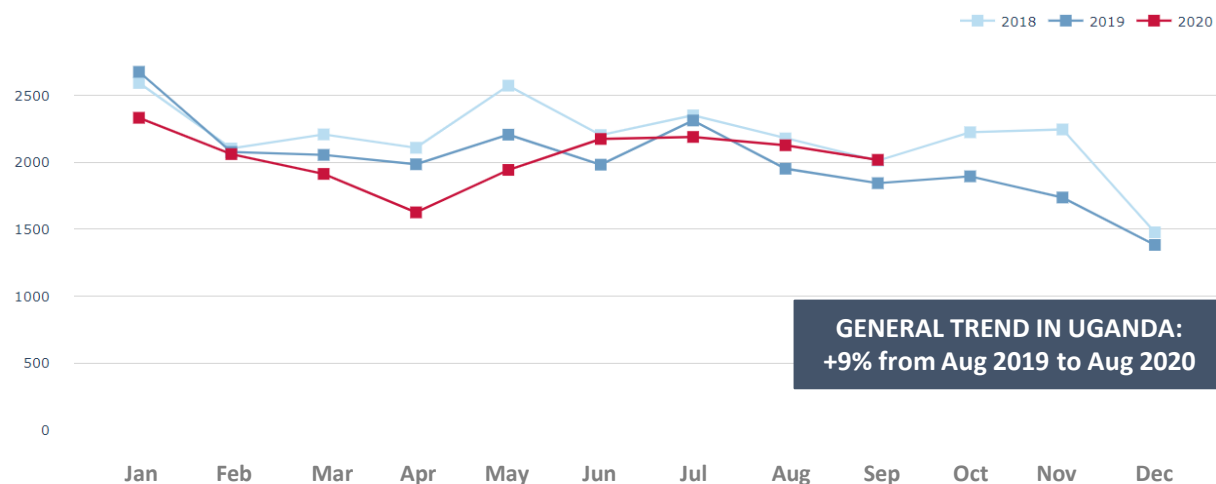


- **General trend since pandemic.** The year 2020 started with a large decrease compared to the first months of 2018 and 2019. However, in the past months the numbers are slowly catching up with the situation in 2019, except for July 2020.
- **August 2020 vs 2019.** In August 2020, the number of pregnant women newly tested positive for HIV was 4% lower compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected districts appear to be Kalaki, Madi Okollo, Manafwa, Moyo, and Ntoroko, with an important decrease of 100%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 15% of those who reported have also communicated with a number other than zero (0) on this indicator. It is likely that these low reporting rates, along with important data entry issues, affect our numbers seriously. In August 2020, 33% of Kalaki's health facilities reported a number other than zero (0) on this indicator.

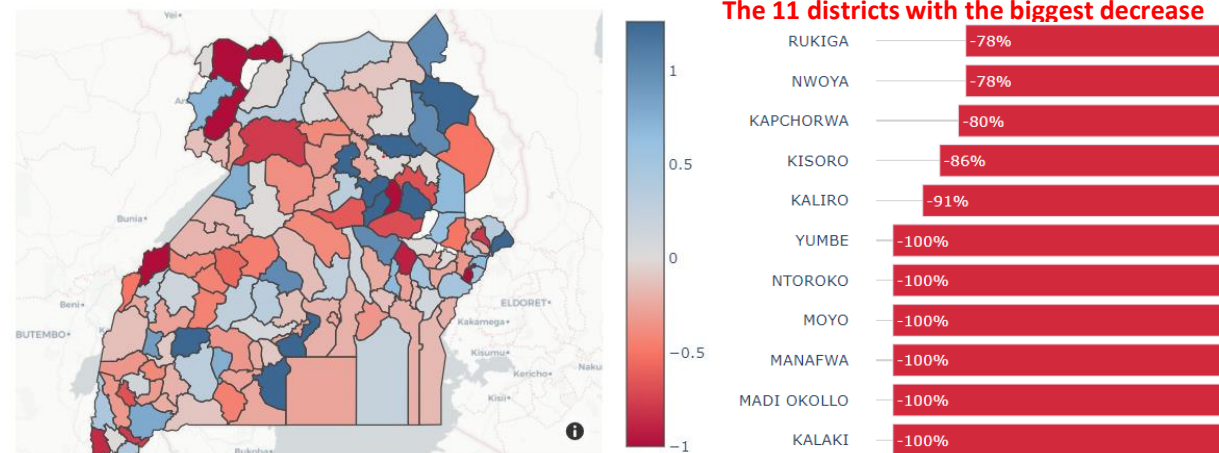


# Number of HIV-positive pregnant women initiated on ART in ANC: August 2020

TREND IN TIME - Number of HIV-positive pregnant women initiated on ART across the country



TREND IN GEOGRAPHY - % Change in number of HIV-positive pregnant women initiated on ART between Aug 2019 and Aug 2020

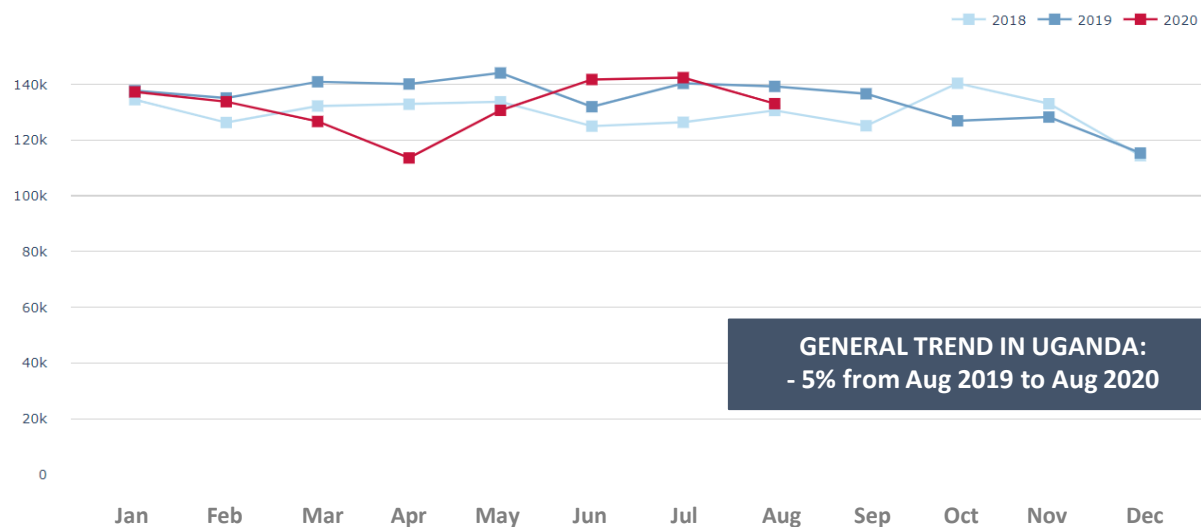


- **General trend since pandemic.** The year 2020 started with a large decrease compared to the first months of 2018 and 2019 and the numbers had an even larger drop in April 2020. However, in the past months the numbers are catching up with the situation in 2019, except for July 2020.
- **August 2020 vs 2019.** In August 2020, the number of HIV-positive pregnant women initiated on ART was 9% higher compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected districts appear to be Kalaki, Madi Okollo, Manafwa, Moyo, Ntoroko, and Yumbe with an important decrease of 100%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 14% of those who reported have also communicated with a number other than zero (0) on this indicator. It is likely that these low reporting rates, along with important data entry issues, affect our numbers seriously. In August 2020, 33% of Kalaki's health facilities reported a number other than zero (0) on this indicator.



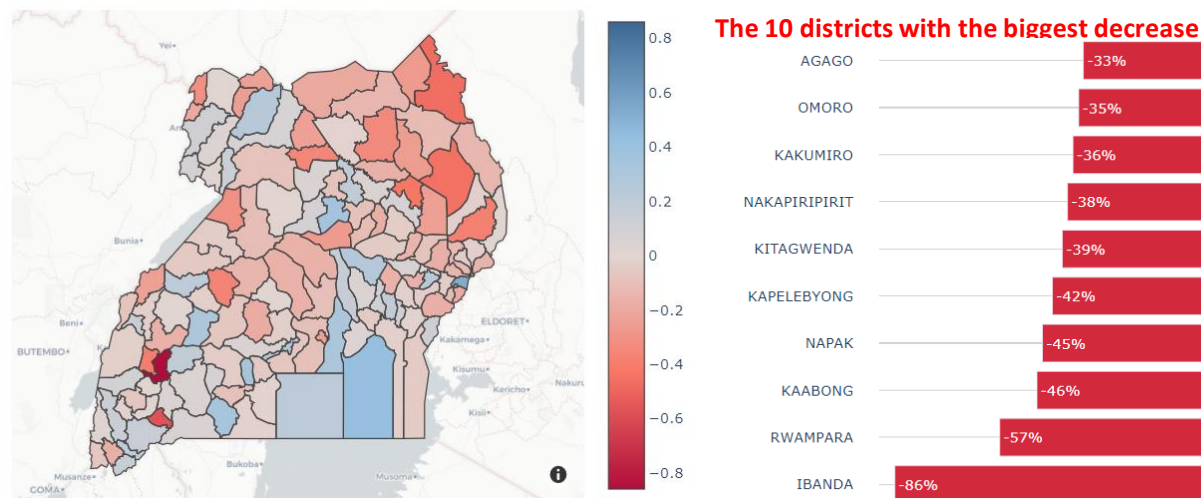
# Number of children younger than 1 receiving DPT-3 dose: August 2020

TREND IN TIME - Number of children younger than 1 receiving DPT-3 dose across the country



**GENERAL TREND IN UGANDA:**  
- 5% from Aug 2019 to Aug 2020

TREND IN GEOGRAPHY - % Change in number of DPT-3 doses between Aug 2019 and Aug 2020



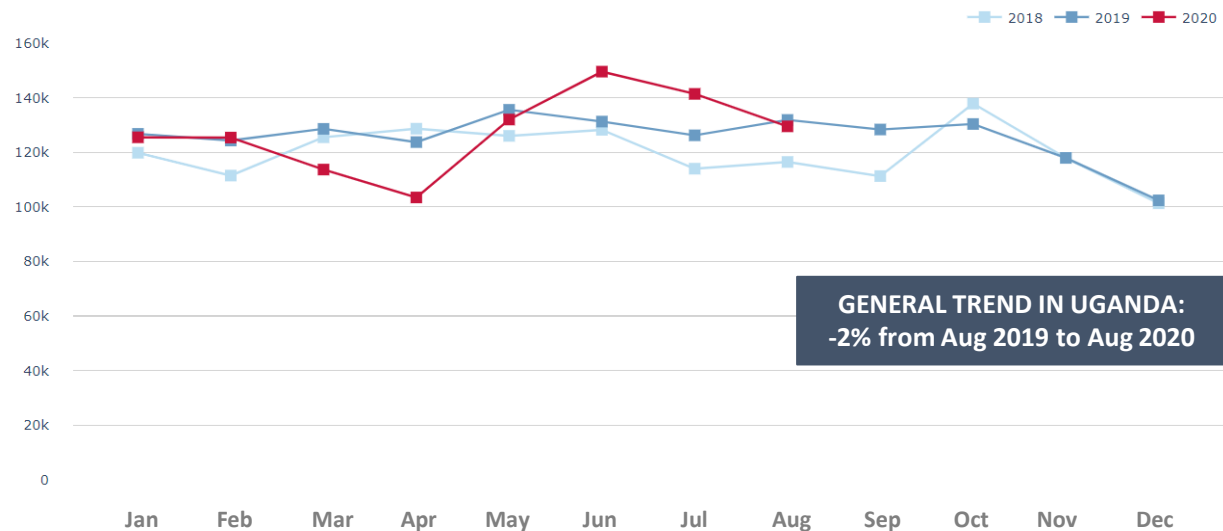
- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of children younger than 1 receiving their third dose of DPT in April 2020. Over the past months the numbers have slowly been catching up with the situation in 2019, though with a light downward trend again in August 2020. It is important that efforts will be made to mitigate that decline.
- **August 2020 vs 2019.** In August 2020, the number of DPT-3 doses given in the whole country was 5% lower compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with an important decrease of 86%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 69% of those who reported have also communicated with a number other than zero (0) on their number of DPT-3 doses. It is likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Ibanda saw a reporting rate of 76% from its health facilities on this indicator, Rwampara 85% and Kaabong 89%.
- **Insights from experts.** The sharp decline in April 2020 is due to restrictions in transport, cancellation of ICHD, and hesitancy among the caretakers due to the lockdown. In most districts that have improved, it is probably due to efforts of partners and MOH on CEHS.



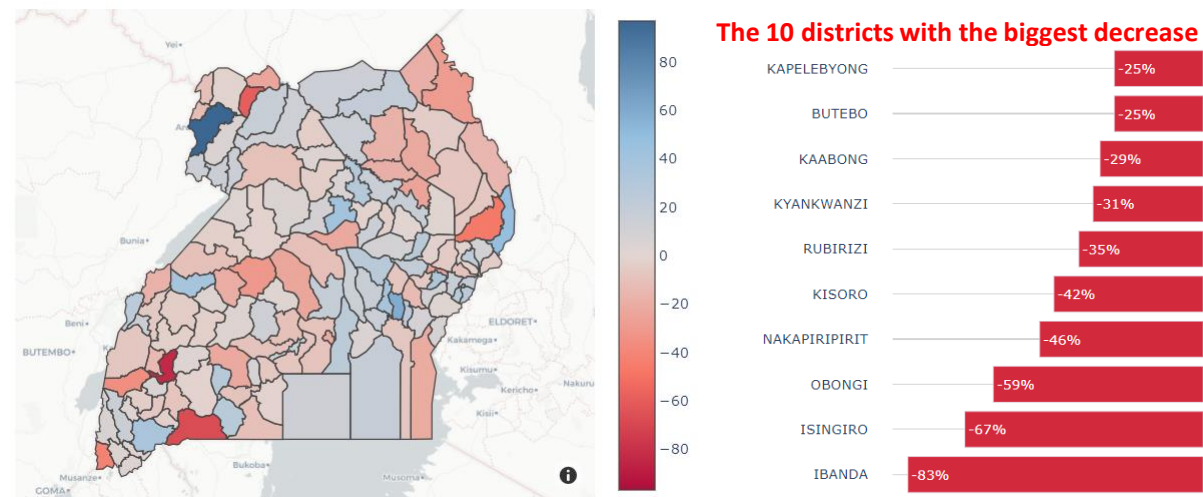


# Number of children younger than 1 receiving MR-1 dose: August 2020

TREND IN TIME - Number of children younger than 1 receiving MR-1 dose across the country



TREND IN GEOGRAPHY - % Change in number of MR-1 doses between Aug 2019 and Aug 2020

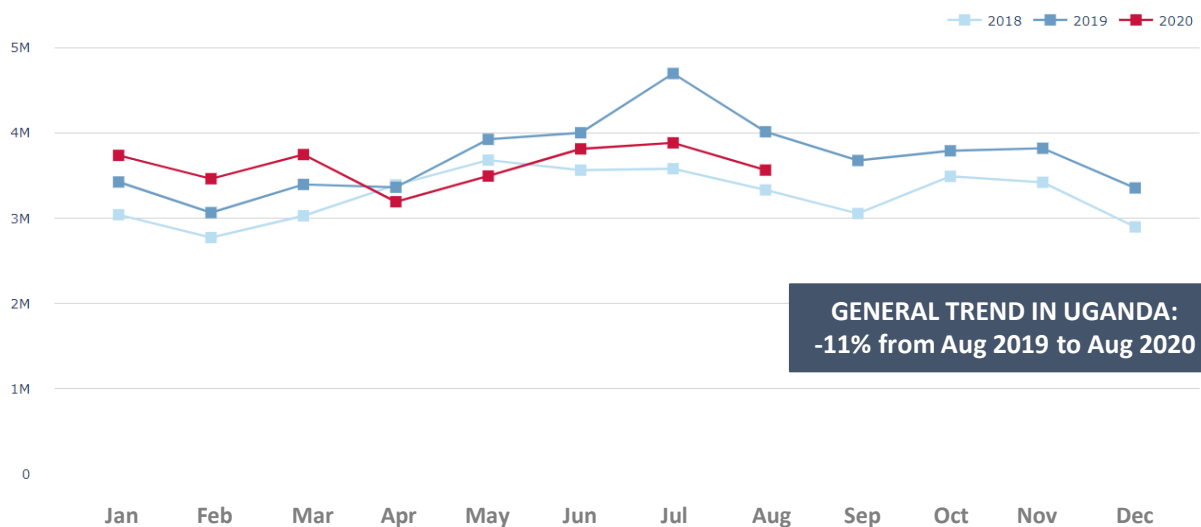


- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of children younger than 1 receiving their first dose of MR (measles-rubella) in March and April 2020. However, in the past months the numbers are slowly catching up with the situation in 2019, though with a downward trend again in July and August 2020. It is important that efforts will be made to mitigate that decline.
- **August 2020 vs 2019.** In August 2020, the number of MR-1 doses given in the whole country was only 2% lower compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with an important decrease of 83%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, but only 68% of those who reported have also communicated with a number other than zero (0) on their MR-1 doses. It is likely that these low reporting rates, along with data entry issues, affect our numbers. In August 2020, Ibanda saw a reporting rate of 73% from its health facilities on this indicator, Isingiro 84% and Obongi 94%.
- **Insights from experts.** The sharp decline in April 2020 is due to restrictions in transport, cancellation of ICHD, and hesitancy among the caretakers due to the lockdown. In most districts that have improved, it is probably due to efforts of partners and MOH on CEHS.

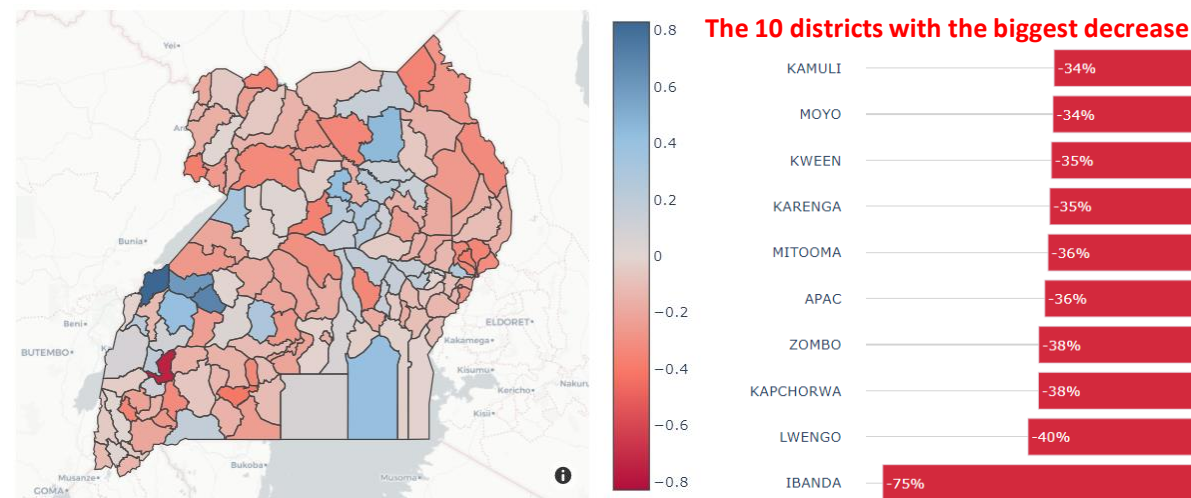


# Number of OPD attendances: August 2020

TREND IN TIME - Number of OPD attendances across the country



TREND IN GEOGRAPHY - % Change in OPD attendances between Aug 2019 and Aug 2020



- **General trend since pandemic.** The Covid-19 crisis caused a drop in the number of OPD attendances in April and May 2020. However, more recently recovery is being observed with numbers approaching the situation in 2019.
- **August 2020 vs 2019.** In August 2020, the number of OPD attendances was 11% lower compared to August 2019. The 10 districts with the biggest decrease are scattered around the country. The most affected district appears to be Ibanda, with an important decrease of 75%.
- **Reporting numbers.** 95% of health facilities have reported on their 105:1 form in the month of August, and 93% of those who reported have also communicated with a number other than zero (0) on their OPD attendances. This is a very high reporting rate, which suggests that our numbers for this indicator reflect the reality better than the numbers for other indicators. In August 2020, Ibanda saw a reporting rate of 94% from its health facilities on this indicator, Lwengo 88% and Kapchorwa 67%.



## THE MOH DHI-UNICEF-DDI-RF ENGAGEMENT

**Who we are.** The Division of Health Information of the Ugandan Ministry of Health has worked together with UNICEF, Dalberg Data Insights and Rockefeller Foundation to leverage the use of data and strengthen community health systems. The team has been developing an app that provides all the data visualizations shared with you in this report. If you are interesting in accessing the CEHS App, please contact us through the email(s) below for the credentials.

Next to building the CEHS App and writing these monthly reports, the team is also implementing the Sub-national Precision Public Health initiative. The initiative aims at sending relevant timely CEHS data insights to Ministry of Health officials at the sub-national levels via automated email.

**Questions or feedback?** Contact us at [ogwaljim@gmail.com](mailto:ogwaljim@gmail.com), [joyugi@unicef.org](mailto:joyugi@unicef.org), or [christophe.bocquet@dalberg.com](mailto:christophe.bocquet@dalberg.com)



Immunization



MNCH



Nutrition



Tuberculosis

## INDICATORS

**Selection.** A large range of services are considered essential, but for this month's report we have narrowed it down to the areas of immunization, maternal natal and child health, nutrition, tuberculosis and HIV. This selection was made based on the WHO's CEHS twenty indicators list, the ongoing development of the CEHS App as well as our interactions with the concerned program teams. The team is now prioritizing the rest of the WHO's twenty indicators, to ensure they are soon incorporated in the CEHS App as well as in next months' reports.

**Deep-dive in the indicators.** The twelve indicators we report on in this document, are part of four different programs: the Maternal, Newborn, and Child Health (MNCH) program; the Uganda National Expanded Program on Immunization (UNEPI); the nutrition (NUT) program and tuberculosis (TB) program.

**The added value of the CEHS monthly report.** Many data reports exist already concerning the pandemic or the continuity of essential health services (CEHS). However, to our knowledge this report is the first that shows the trends of several CEHS indicators in time and geography, monitoring the impact of the Covid-19 pandemic on these indicators, while being published every month.



## METHODOLOGY



**Data source.** The graphs and numbers shown in this report are generated based on data collected from DHIS2 and covering January 2018 up until August 2020.

**Data cleaning.** The raw data collected from DHIS2 comes with data quality challenges, and still requires 'cleaning' before we can do our first analyses. One of the approaches used by the DHI is to exclude outliers. In some of the visualizations we exclude outliers at facility level - for a given facility and indicator, we look at all data points available since January 2018 and replace all data points identified as outliers by the sample's median. We use a standard deviation-based approach, where all points more than three standard deviations away from the mean are considered outliers. This approach is best suited for 'cleaner', normally distributed data.

We start from the assumption that all data in DHIS2 is correct data. However, when we suspect that certain indicators contain outliers that affect the visualization, we add an extra slide visualizing the same indicator with outlier exclusion following the approach mentioned above. By doing this, we hope to highlight potential outliers and hence trigger a data correction process within the mother system itself, the DHIS2-based HMIS. This would ultimately lead to a continuous data quality improvement (further explained below).

The data and insights shown in this report currently do not account for the Ugandan population growth.

## DATA QUALITY CHALLENGES

**Data entry.** The data in the DHIS2 is collected by several individuals, who can easily make mistakes when entering it into the system.

**Low reporting rates.** Within every indicator-analysis, you will see the percentage of facilities that report on their 105:1 form and on the indicator itself. Often, the reporting rates on an indicator are low due to challenges such as unstable internet connections and low accessibility to the 105:1 form. This also affects the data quality.

This means that (1) we need to keep a critical mindset when looking at these data insights, as **the numbers might be affected by low reporting rates, late reporting, or wrong data entry** (2) in order to support better data-driven decision-making, health facilities will need additional support to improve indicator reporting on all indicators in a timely and correct way.

# NEXT STEPS?

**Next indicators.** We are scaling up our CEHS App to be able to cover all the WHO-selected CEHS indicators in this series of monthly reports. The ones we are currently working on are related to HIV, gender-based violence (GBV), malaria, non-communicable diseases (NCD) and a few more on maternal, natal and child health (MNCH).

**Date of the next report.** The next report will feature September 2020 and is expected to be published end of November.

