



COVID-19 Response in Zambia

- MOH, Collaborates with partners including CDC and D4H, to implement RMS for COVID-19 pandemic, as part of a large mortality surveillance program,
 - currently starting in Lusaka and Copperbelt provinces (the D4H implementation areas) and soon expanding to other districts).
 - 1,632 cases as of 1st July 2020 with >50,000 tests performed and 30 deaths (<1.0% CFR)
- Introduced RMS to monitor impact of COVID19 on all cause Mortality
- RMS covers both facility and community deaths
 - All facility deaths (including COVID-19-related deaths) are reported to the COVID-19 task-force.
 - Community deaths are captured through BIDs at the hospital-mortuaries



Rapid Mortality Surveillance in Zambia

- Two approaches to monitor mortality during the COVID-19 epidemic in Zambia
 1. Deaths from all causes (“all-cause mortality”)
 - Compared to historical trends to estimate ‘excess mortality’ for a given time period
 2. Deaths among persons with probable or confirmed COVID-19 (ICD-10 coded).
- Approaches complement each other
 - Excess mortality is more sensitive
 - Confirmed COVID-19 deaths is more specific



Data Sources for All-Cause Mortality in Zambia

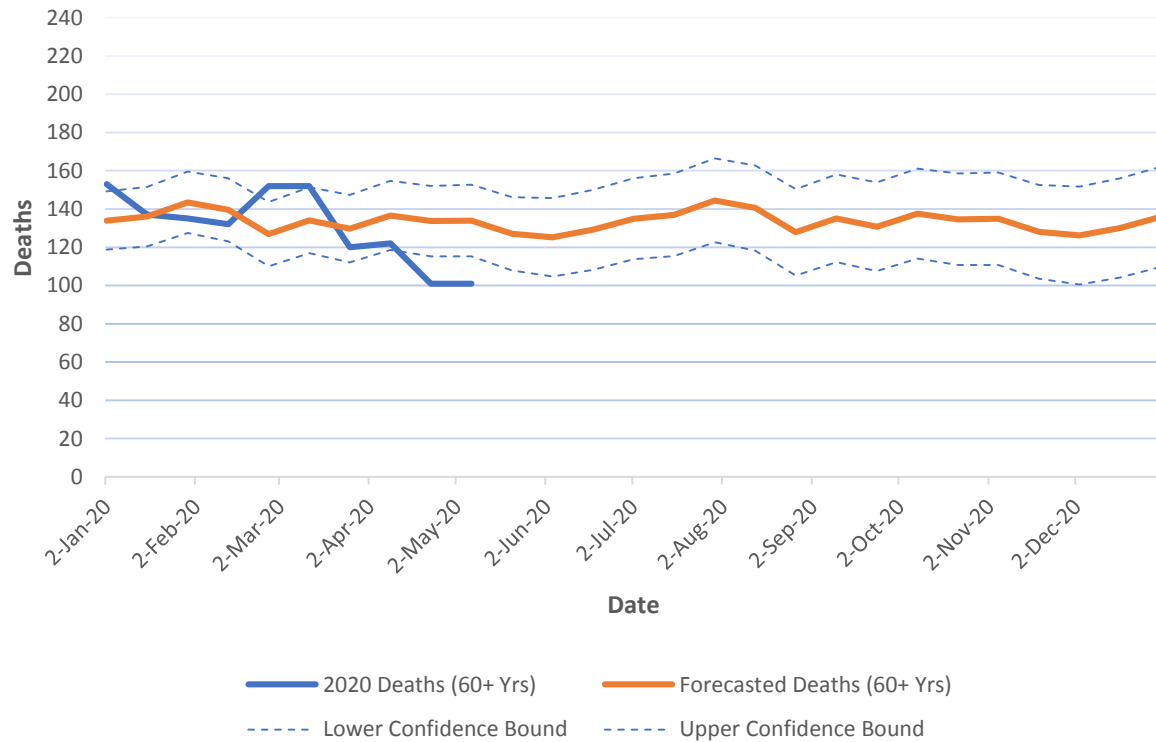
- **All-cause mortality data routinely captured via two separate data streams:**
 - Health Management Information System (HMIS)
 - Civil Registration & Vital Statistics (CRVS) system:
- **HMIS**
 - Maintained by the Ministry of Health Monitoring & Evaluation directorate
 - Captures monthly aggregate in-patient deaths and community deaths brought to facility mortuaries
- **CRVS**
 - Data collected by the Department of National Registration, Passports & Citizenship (DNRPC) from the council burial offices, analyzed and disseminated through the Zambia Statistical Agency
 - National completeness rate is very low (~22%), however, much higher in some areas like Lusaka and Copperbelt:
 - Lusaka district death registration completeness ~90%
 - Kitwe and Ndola (on the Copperbelt) ~80%
 - CRVS data is used as baselines data for excess mortality calculation and monitoring for these areas



RMS Results: Excess Deaths for Lusaka District

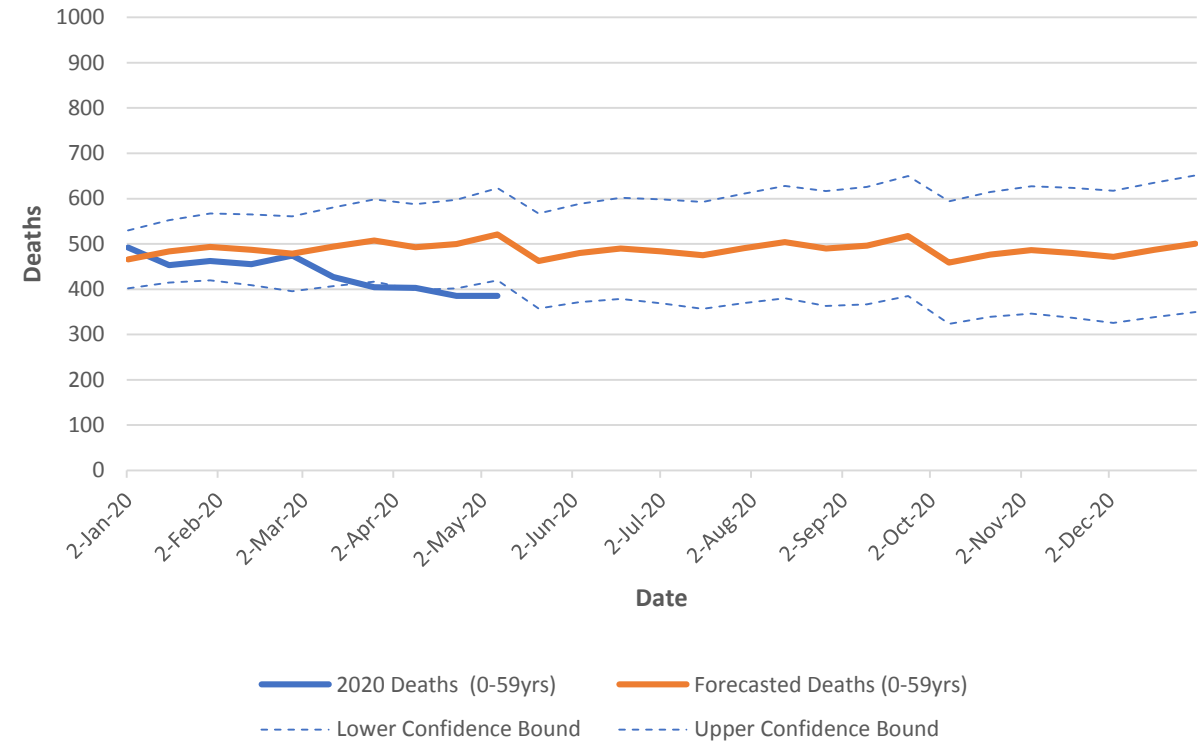
Lusaka District 2020 Weekly Deaths 60+ Yrs Compared to the Forecasted Deaths with 95% CI

(Provisionary Numbers for recent weeks may be low due to lag-time in registration)



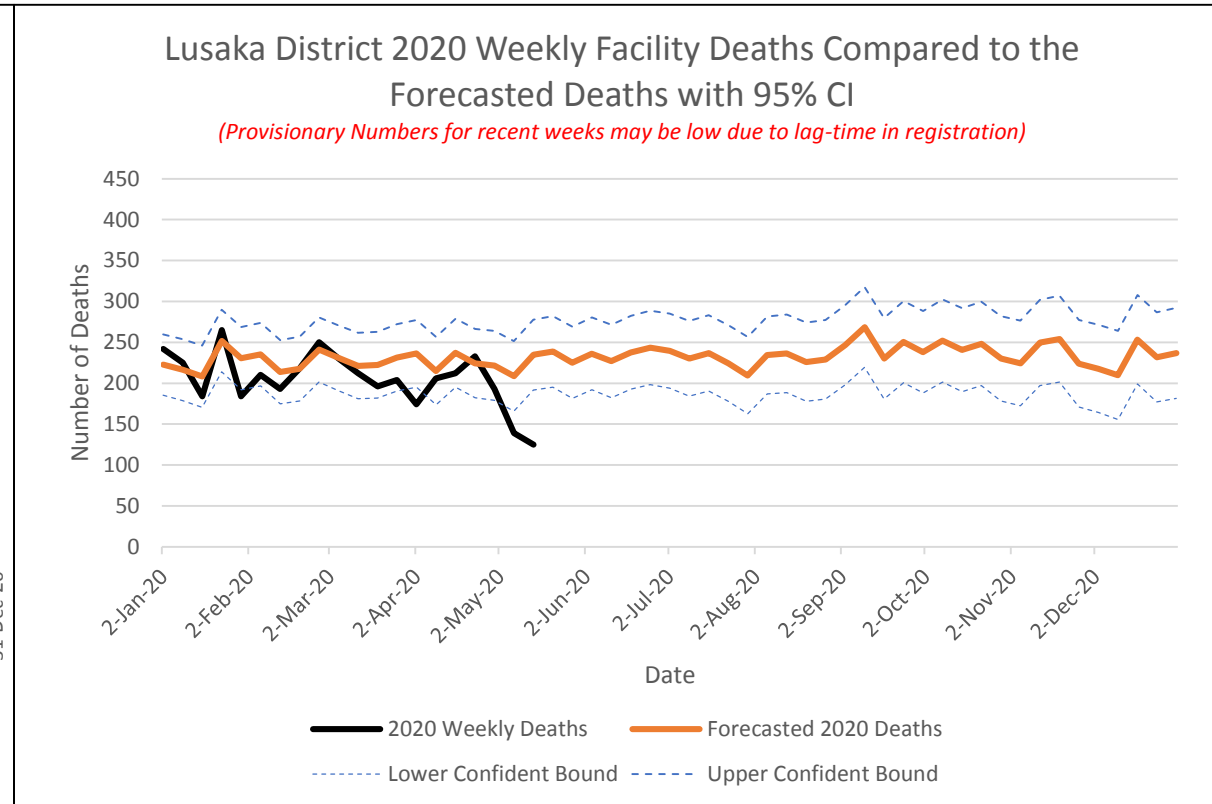
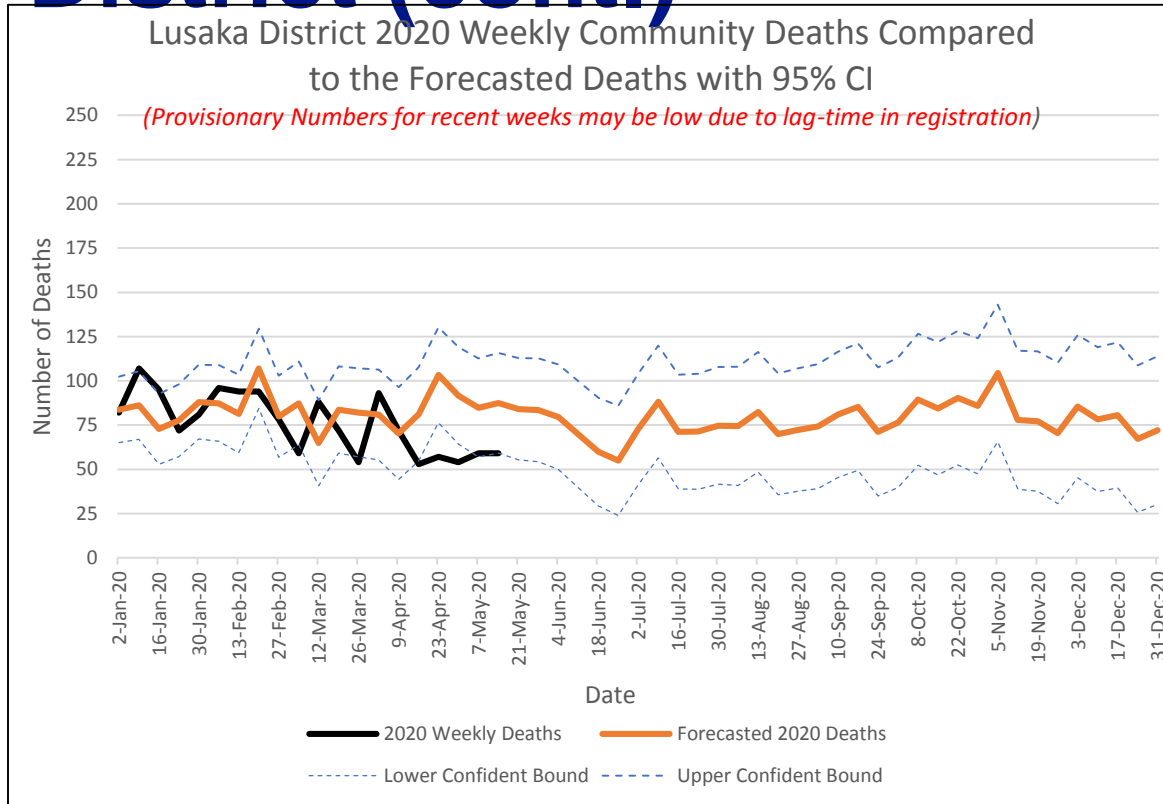
Lusaka District 2020 Weekly Deaths 0-59 Yrs Compared to the Forecasted Deaths with 95% CI

(Provisionary Numbers for recent weeks may be low due to lag-time in registration)





RMs results: Excess Deaths for Lusaka District (cont.)





Challenges/Considerations for Rapid Mortality Surveillance in Zambia

- Neither the HMIS nor the CRVS system have good completeness of all-cause mortality data (at national level) to inform the COVID-19 response
- Lack of timely for CRVS death data: Long lag time of civil registration data
- To address the gaps in timeliness and coverage, MoH plans to implement the RMS system by:
 - Rapid reporting of fact and manner of death (from death certification forms) for Facility-deaths
 - Mortuary surveillance for community deaths
 - Individual-level weekly data (age/sex)
 - Assessing the feasibility of improving the completeness of mortality data in HMIS/CRVS and their reporting to the RMS system
 - Initial plans to expand RMS to 21 districts and then coverage extended to all districts