

Ethiopia Moves Forward with Mass Measles Vaccination Campaign during COVID-19 Pandemic Protecting 14.5 Million Children

Mitigation measures minimize the risk of COVID-19 spread

When a large-scale measles vaccination campaign began in Ethiopia earlier this summer, it looked quite a bit different than in years past.

Instead of hundreds of children and caregivers gathering closely together at campaign sites while waiting to be vaccinated, health workers in facemasks screened families as they arrived, and individuals were **spaced out to ensure appropriate physical distance**.

The campaign, which ran from June 30 to July 24, was the result of a tough choice made by the government of Ethiopia to go forward to protect children ages 9–59 months from measles and limit, to every extent possible, the risk of the spread of COVID-19. With the help of global partners, including U.S. CDC, the measles campaign during the COVID era was extended several days to allow for **more sessions and smaller crowd sizes**. Additionally, vaccination posts were held outdoors or in **large, well-ventilated buildings, and handwashing stations and hand sanitizer were readily available**.

CDC's Center for Global Health (CGH) played a critical role in this effort, providing technical and financial assistance, as well as the data that underpinned the decision to move forward with the campaign.


CDC Activates: Innovative approaches help prevent measles outbreaks

Even prior to COVID-19, measles cases surged worldwide in 2018 and 2019 and claimed hundreds of thousands of lives, all of which were preventable.

As of Sept 10th, more than 158 million people in 36 countries – mostly children and babies – are currently at risk for missing measles vaccinations due to delayed or suspended campaigns caused by the pandemic.

Sixteen of the 36 countries facing continued vaccination campaign delays have ongoing measles outbreaks. Disruptions in essential immunization services coupled with paused campaigns could reverse hard-earned progress throughout the globe, and ultimately have a devastating impact on child health and mortality.

Earlier this year, **CGH activated the Measles Incident Management System (MIMS) to accelerate the ability to provide outbreak response and risk mitigation support to countries and global immunization partners**. Although COVID-19 has negatively impacted CDC's ability to deploy to priority countries for boots-on-the-ground response, the agency has found innovative ways to continue to provide remote assistance. Among these efforts are the development of comprehensive **"measles immunity profiles"** and in-depth risk assessments intended to help priority countries and partners determine areas at risk and guide immunization planning.



Ethiopia was the first large country to conduct a mass measles vaccination campaign in 2020 during the unprecedented COVID-19 pandemic – and lessons learned there will help shape what is done elsewhere.



Using business intelligence and data visualization technologies, CDC MIMS responders review and analyze measles vaccination and surveillance data, as well as the impact of COVID-19, and generate sophisticated projections of age-specific immunity for multiple scenarios. This includes the potential impact on vaccination campaigns implemented at different points in time. In Ethiopia, for example, **the CDC profile revealed a large immunity gap among children between one and 5 years of age.** Additional modeling estimated the impact that further postponement of vaccination (e.g. waiting until 2021) might have on Ethiopia's population. In response to these findings, **CDC worked closely with Ethiopia's Ministry of Health and the CDC-Ethiopia Country Office to implement a nationwide measles immunization campaign to close immunity gaps and protect children from measles, while also minimizing the risk of COVID-19 exposure.**



[Photo courtesy of Oromia Regional Health Bureau, Ethiopia]

CDC and Partners Share Lessons Learned: Ensuring best practices are applied as other countries plan to move forward with immunization campaigns

Specifically, CDC provided technical and financial support to ensure that:



- **More than 6,300 additional health workers were mobilized to minimize crowding and increase physical distancing at vaccination posts;**
- **The campaign was extended for three additional days to decrease crowd size; and**
- **Masks and hand sanitizer were provided to all campaign support staff.**

As a result, over 14.5 million children in Ethiopia were vaccinated who otherwise would have continued to remain at risk for measles infection. Overall, vaccine demand was high, with campaign coverage exceeding the 95% threshold considered best practice for preventing outbreaks.

Ethiopia's campaign will serve as a litmus test for other countries - especially the more than 40 that paused their planned 2020 measles campaigns due to COVID-19 - looking to safely resume vaccination activities. **An evaluation is now underway, including the potential impact on COVID-19 cases, and results will be shared with the international immunization community to guide future activities.**

CDC has now completed measles "immunity profiles" for all 194 WHO Member States and is developing full risk assessments in five countries (Chad, Kenya, Guinea, South Sudan, and Angola). International partners and governments have found that CDC's innovative country profiles are powerful tools for helping to illustrate current risk for measles outbreaks in countries, as well as to predict the adverse impact of COVID-19 and the positive impact of possible interventions in the future.

Despite the challenges of COVID-19 and travel restrictions, CDC and partners are finding unique and creative solutions to continue to provide measles outbreak response and risk mitigation support - even remotely and virtually. **The work done to resume measles vaccination in Ethiopia will help guide future efforts and ensure best practices are implemented as other countries conduct immunization activities during an era of COVID-19.**

