

# Contribution of (new) technologies in epidemiology

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New technologies play an integral, growing, and evolving role in supporting field epidemiology and research activities at Epicentre and the COVID-19 pandemic has only accelerated their use. This presentation will introduce three examples of projects using new technologies. The added value of the technologies as well as their limitations, challenges and lessons learned during their implementation will be discussed. More details will then be provided in the parallel sessions.

The first example is SMS Afia Yetu (“Our health”) a Smartphone application developed to support people affected by HIV/AIDS by allowing discussions and continuous monitoring by MSF medical teams. This patient-centered application is currently piloted in Goma, DRC, with the aim of becoming a routine operational tool for MSF.

Second, recent applications of satellite image processing in humanitarian contexts will be presented. In particular, machine learning algorithms trained to identify specific objects on satellite images are a promising alternative to classical field surveys for estimating population size and mortality rates in hard-to-reach populations.

Finally, a discussion on how Epicentre’s Data Science team has opened new opportunities for more efficient workflows during field investigations. These include online interactive dashboards, which are transforming the way field teams approach data collection, management and sharing in the response to an outbreak.