

# HARNESSING MOBILE PHONE DATA FOR COVID-19 PANDEMIC RESPONSE



## An Online Webinar Series

17-28 August 2020

The COVID-19 pandemic presents decision-makers all over the world with challenges in grasping the rapidly changing new reality, and trying to predict its future impact. A major impediment to understanding the current emergency and building efficient pathways to recovery is the lag-time in access to actionable information.

National Statistical Offices (NSOs) have not been exempt from the massive disruptions caused by COVID-19. One of the main challenges NSOs in Africa are facing is the high demand for data and supporting activities.

UN Global Pulse invites NSOs in Africa to participate in a webinar series on how to use mobile data, one of the largest treasure-troves of information, to fill in critical gaps in decision-making. Throughout the course of ten sessions, experts from private sector, academia, and the UN will discuss applications of mobile data with practical implications for NSOs.

The sessions will be interactive to allow knowledge and experience exchange to feed into the current and future responses to pandemics. They will encourage adoption and responsible use of mobile phone data with examples of past and current projects and lessons learned from them. Issues of data privacy and ethics will be covered throughout the sessions as well as options for data sharing frameworks.

## Agenda

### Module 1: Introduction to concepts of mobile data, current context and generation of indicators

#### Monday 17 August

**Artificial Intelligence and big data analytics techniques and tools.**  
**Introduction to mobile phone data.**

**Ciira Maina, PhD**, Senior Lecturer,  
Dedan Kimathi University of Science and Technology  
**William Senfuma**, Head of Analytics and Pricing, MTN Uganda

Tuesday 18 August	
Interactive session to build the context of the COVID-19 response and derive information gaps.	<p><b>Elaine O. Nsoesie, PhD</b>, Assistant Professor, Global Health, Boston University</p> <p><b>Joyce Nabende, PhD</b>, Senior Lecturer, IT, Makerere University</p>
Wednesday 19 August	
Understanding possibilities from mobile phone data. Statistical indicators.	<p><b>Christofer Johansson</b>, Business Process Automation Specialist</p> <p><b>Silas Labedo</b>, Senior Data Engineer, UN Global Pulse</p>
Thursday 20 August	
Mobile phone data processing pipeline; data extraction, data exploration and processing including cleaning, anonymization, harmonization and possible aggregation.	<p><b>Wilson Abigaba</b>, Technical Advisor, Software Engineer, UN Global Pulse</p> <p><b>William Senfuma</b>, Head of Analytics and Pricing, MTN Uganda</p>
Module 2: Filling the information gaps in the health response to COVID-19 with mobile phone data and additional data sources	
Friday 21 August	
Data privacy and ethical risks, and impact of non-use associated working with mobile phone data.	<p><b>Mila Romanoff</b>, Privacy Specialist Data Policy and Governance Lead, UN Global Pulse</p> <p><b>Miguel Luengo-Oroz, PhD</b>, Chief Data Scientist, UN Global Pulse</p>
Monday 24 August	
Monitoring social and economic impact during COVID19; during recovery from COVID19; and understanding coping mechanisms from mobile phone data.	<p><b>Paula Hidalgo-Sanchis, PhD</b>, Innovation Advisor, UN Global Pulse</p> <p><b>Wilson Abigaba</b>, Technical Advisor, Software Engineer, UN Global Pulse</p>

## Tuesday 25 August

**Visualizing results from mobile phone data.**

**Elaine O. Nsoesie, PhD**, Assistant Professor, Global Health, Boston University

**Martin Gordon Mubangizi**, Data Scientist, UN Global Pulse

## Module 3: Data privacy and ethical risks. Biases inherent in mobile phone data. Hadoop.

## Wednesday 26 August

**Introduction Hadoop ecosystem with demos.**

**Wilson Abigaba**, Technical Advisor, Software Engineer, UN Global Pulse

**William Senfuma**, Head of Analytics and Pricing, MTN Uganda

## Thursday 27 August

**Determining the extent of compliance to the containment measures. Effect of lifting restrictions on mixing and social distancing measures.**

**Ciira Maina , PhD**, Senior Lecturer, Dedan Kimathi University of Science and Technology

**Martin Gordon Mubangizi**, Data Scientist, UN Global Pulse

## Friday 28 August

**Biases and limitations of mobile phone data to support COVID-19 response. Use of smartphone data and satellite imagery to complement the use of mobile phone data for COVID-19 response.**

**Ernest Mwebaze, PhD**, Research Scientist, Google AI Ghana

**John Quinn, PhD**, Research Scientist, Google AI Ghana