



# Use of Call Detail Records in the Covid-19 Response

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GWG Big Data Conference

by

Ghana Statistical Service



# Project Background

- The **Ghana Statistical Service** (GSS) has been working with Call Details Records (CDRs) in partnership with **Flowminder Foundation** and **Vodafone Ghana** since 2018.
- In line with Ghana's Data Roadmap priorities, the project harnesses this non-traditional data source to create use cases for the public good. It is funded by **Vodafone Foundation** and the **Hewlett Foundation**.
- To date, the project has developed a use case with **National Disaster Management Organisation**; created **legal** and **technical infrastructure** for CDR data flows and trained six GSS staff members as **data science**.



# Responding to the Covid-19 Pandemic

- Mid March 2020, GSS approached Ministry of Planning and Ministry of Health and **proposed mobility analysis to support government intervention**. The analysis aimed to assess the effectiveness of travel restrictions and lockdown in responding to Covid-19.
- GSS **coordinated with project partners** during this process and liaised with decision makers. Initially Government interest focused more on contact tracing activities, meaning there was little end user input into the first report (published 3<sup>rd</sup> April).
- Through active dissemination more interest was generated in the second report, published on 15<sup>th</sup> May.





# Sourcing the Data

- Prior to the pandemic, a 13-month contracting process overseen by Ghana's **Data Protection Commission** led to establishing of a data sharing agreement between GSS, Flowminder and Vodafone Ghana lasting until January 2022.
- The **Statistical Services Act 2019** provided legal space for the use of Big Data for official statistics in the remit of the National Statistical System, coordinated by GSS, thus expanding the legal scope for using non-traditional data sources.
- A data pipeline for access had been established in 2019. By leveraging on existing **legal** and **technical** infrastructure, data could be quickly mobilised for the covid-19 analysis. At this stage only Flowminder is able to access the anonymised Data, GSS is yet to access and analyse data in-house.



# Benefits of the Mobility Analysis

- The two reports **raised the profile** of the *Data for Good* project. For the first time external data requests are being received for CDR data from within the Government and internationally.
- This was a catalyst to the inclusion of GSS in COVID-19 **policy space** as member of the National Technical Coordinating Committee (NTCC) chaired by the Minister for Health
- Whilst there's no explicit evidence of the analysis leading to policy change, many decisions makers retrospectively noted the **relevance** of the analysis to **policy formation** and operational decisions for future application.





# Using Big Data Sources post-COVID

- GSS anticipates a continued use of big data sources for the public good in Ghana. Data science features in the GSS' 2020-24 Strategic Plan and a new **Data Science and Research Directorate** is being created.
- In recent months, the **API to the Data Pipeline** has been built so GSS can access anonymised CDRs directly through FlowKit software and generate insights in-house.
- Following the increased profile of the CDR work, data requests are being received from a range of Ghanaian and International institutions. This will lead to more **user-driven outputs**.
- GSS looking to begin publishing a **quarterly infectious diseases release** in collaboration with Ghana Health Service.

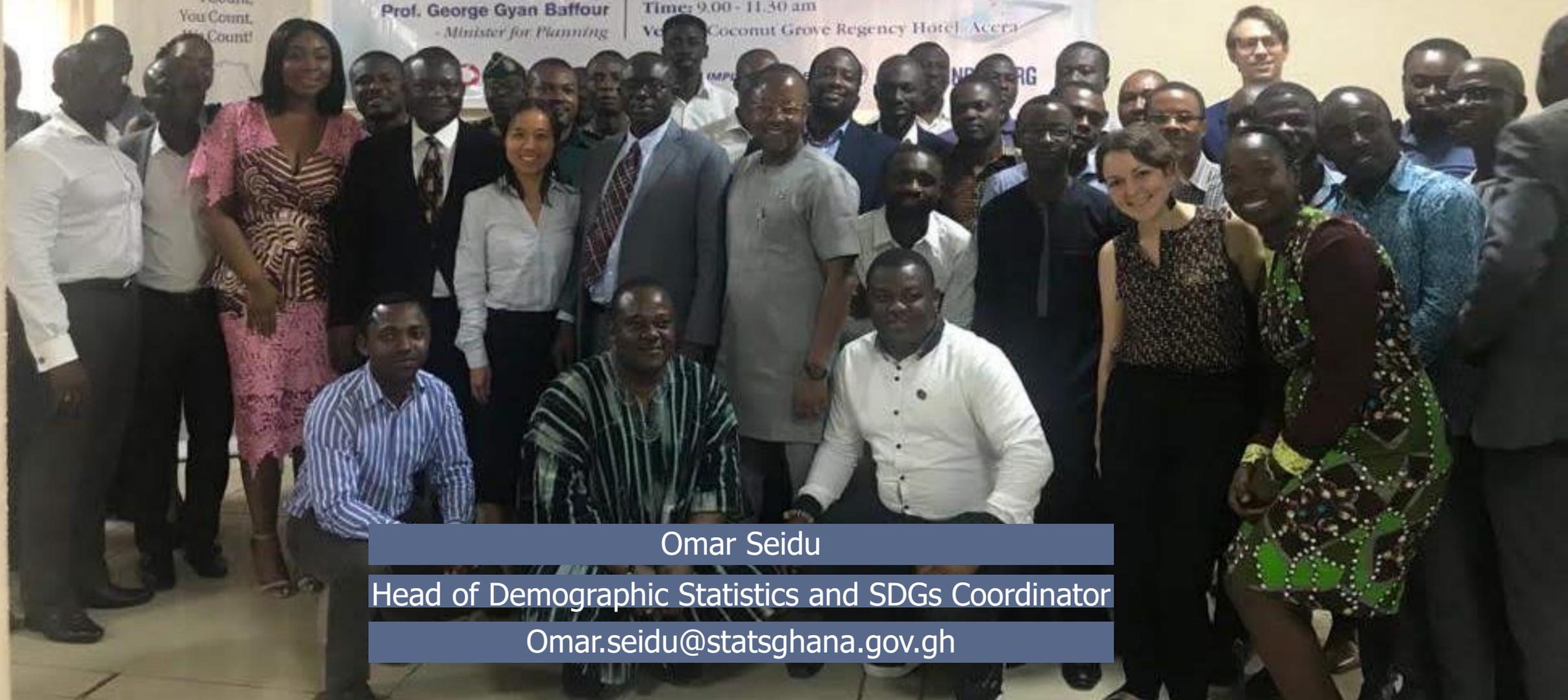
# DATA FOR GOOD SHOWCASE: USING TELECOMMUNICATIONS DATA TO ENHANCE STATISTICS

*Theme* Technology and Innovation for the Production of Official Statistics

► *Keynote Speaker*  
**Prof. George Gyan Baffour**  
- Minister for Planning

Date: Thursday, 12th December, 2019  
Time: 9.00 - 11.30 am  
Venue: Coconut Grove Regency Hotel, Accra

I Count,  
You Count,  
We Count!



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