

Retrospective Analysis of Electronic Vs. Manual Health Data and Disease Surveillance Records for Implications of Outbreak Management in LMICs, using Nigeria as a Case Study

LESSONS LEARNED REPORT

Overview

InStrat Global Health Solutions is pleased to submit a Lessons Learned Report as part of the final deliverables under the Innovations Award for the Retrospective Analysis of Electronic Vs. Manual Health Data and Disease Surveillance Records for Implications of Outbreak Management in LMICs, using Nigeria as a Case Study. This Lessons Learned Report address major risks and challenges that InStrat encountered during the research project and the steps taken to mitigate them. This report also includes answers to the Output Indicator Questions as required by the Guidelines for Final Reports and Lessons Learned. This report is included in the main project report as an Appendix.

Risks/Mitigation

The major risk that InStrat encountered in the conduct of this project is the outbreak of the Corona Virus Pandemic and the attendant business closures and social distancing requirements.

Fortunately, we were required to present a Contingency Plan prior to the initiation of this project. The plan contained actions that we met the Project’s deliverables without violating local or international COVID-19 Management Guidelines or endangering the health and wellbeing of any of our staff, partners, or stakeholders. To mitigate the risks posed by the COVID 19 Pandemic, we meticulously followed the plan and instituted human resources measures to ensure staff compliance. The key elements of the risks and mitigation steps taken are presented in the tablet below:

Function	Platform	Actions
Communications	Telephone	This was the predominant mode of communication allowing us to coordinate amongst our team, set up research interviews and coordinate field data gathering activities.
	Telephone conference Lines	We made extensive use our ‘Free Conference’ facility to hold voice calls that involved multiple people in areas where there was poor internet connectivity. This was heavily used in field data canvassing in Ondo State.
	Email	Official communication between InStrat team as well as with external parties that supported the various research efforts for the project.
	WhatsApp	Coordination and alignment communication requiring rapid response and feedback.
	Zoom/Skype	This was extensively used for meetings that required real time screen sharing.

Retrospective Analysis of Electronic Vs. Manual Health Data and Disease Surveillance Records for Implications of Outbreak Management in LMICs, using Nigeria as a Case Study

Desk Research	Internet	The desk research was conducted online using the internet to access google, State Government websites and resources, Local libraries, and research websites.
Analytics and collaboration	Google Shared Platforms	Project analytics and collaboration to write the final report were conducted using Google Shared platforms including Google Sheets and Google Docs.
Database	AWS	All data acquired for this purpose was stored on secure cloud servers with access provided to analysts.

Our diligent use of the above platforms facilitated effective collaboration within the InStrat team internally, and with research counterparts externally allowing us to perform all functions in a virtual environment and delivering the project on time without compromising the quality of the research project.

Responses to Output Indicator Questions:

1. Have there been any final results or outcomes in which data or methods have allowed data to be produced: faster; more cheaply; at a higher resolution or granularity, or where there was no data before? If yes, please describe.

As a research project this project did not directly produce any data that can be used faster; more cheaply; at a higher resolution or granularity, or where there was no data before. However, this research identified policy imperatives and options for adopting Information and Communications Technologies (ICT) to accomplish identified goal though data that is produced faster, more cheaply, more completely, and more accurate and better linked to outcomes.

2. Has the project contributed to the production and/or use of data disaggregated by a) sex b) disability c) age, d) geography (or other)? If yes, please summarize the of types of disaggregation and the context.

As a research project this project did not produce any data that can directly contribute to the production and/or use of data disaggregated by a) sex b) disability c) age, d) geography (or other). However, the research identified policy options for ICT adoption that will lead to the production of such data.

3. Has the project contributed to the use and/or production of gender statistics? If yes, please describe.

As a research project this project has not contributed directly to the use and/or production of gender statistics. However, the ICT platforms recommended for adoption will allow the use and/or production of gender statistics.

Retrospective Analysis of Electronic Vs. Manual Health Data and Disease Surveillance Records for Implications of Outbreak Management in LMICs, using Nigeria as a Case Study

Lessons Learned

- Technical
 - The requirement to produce a Corona Virus contingent plan provided InStrat a roadmap for navigating the project during the pandemic. We recommend that all projects be required to develop risk mitigation plans.
 - Clearly defined project planning including project objectives, timelines and research frameworks and especially, constraints on uses of the funding helped InStrat to execute the project within the guidelines specified.

- Organizational
 - The project had a clear and effective governance framework with project roles, communications channels, and protocols between the World Bank team and InStrat team.
 - InStrat's selection of Project collaborators that had deep expertise in their selected roles and a track record of performance allowed effective adherence to sub deliverables, the Corona Virus restrictions notwithstanding.

- Potential for Replicability and Scalability
 - This research project did not develop any specific technologies or prototypes that could be replicable or scalable. However, the technologies identified for possible adoption to address opportunities identified in the research are all replicable across all areas of Public health in LMICs and highly scalable within individual countries.

Conclusions

All research conducted including the Quantitative, Qualitative, Completeness and Accuracy Analyses yielded conclusions that electronic health data management was a superior system of data collection and management for disease surveillance and response and health policy more generally. Electronic data regimes will provide frameworks through which Governments can improve Integrated Disease Surveillance and Response core indicators using electronic surveillance. As such adopting ICT technologies and platforms including Electronic Medical Records Systems, Disease Surveillance and Response systems, electronic Health Worker Training and Telemedicine/Telehealth platform will help governments to adopt a more proactive footing as it relates to disease surveillance and response management. ICT will support efforts to strengthen health systems, prevent vector borne and other infectious diseases, improve health outcomes and save lives. These platforms and strategies will help LMICs that adopt them to better comply with the SDG 3: Good Health and Wellbeing.