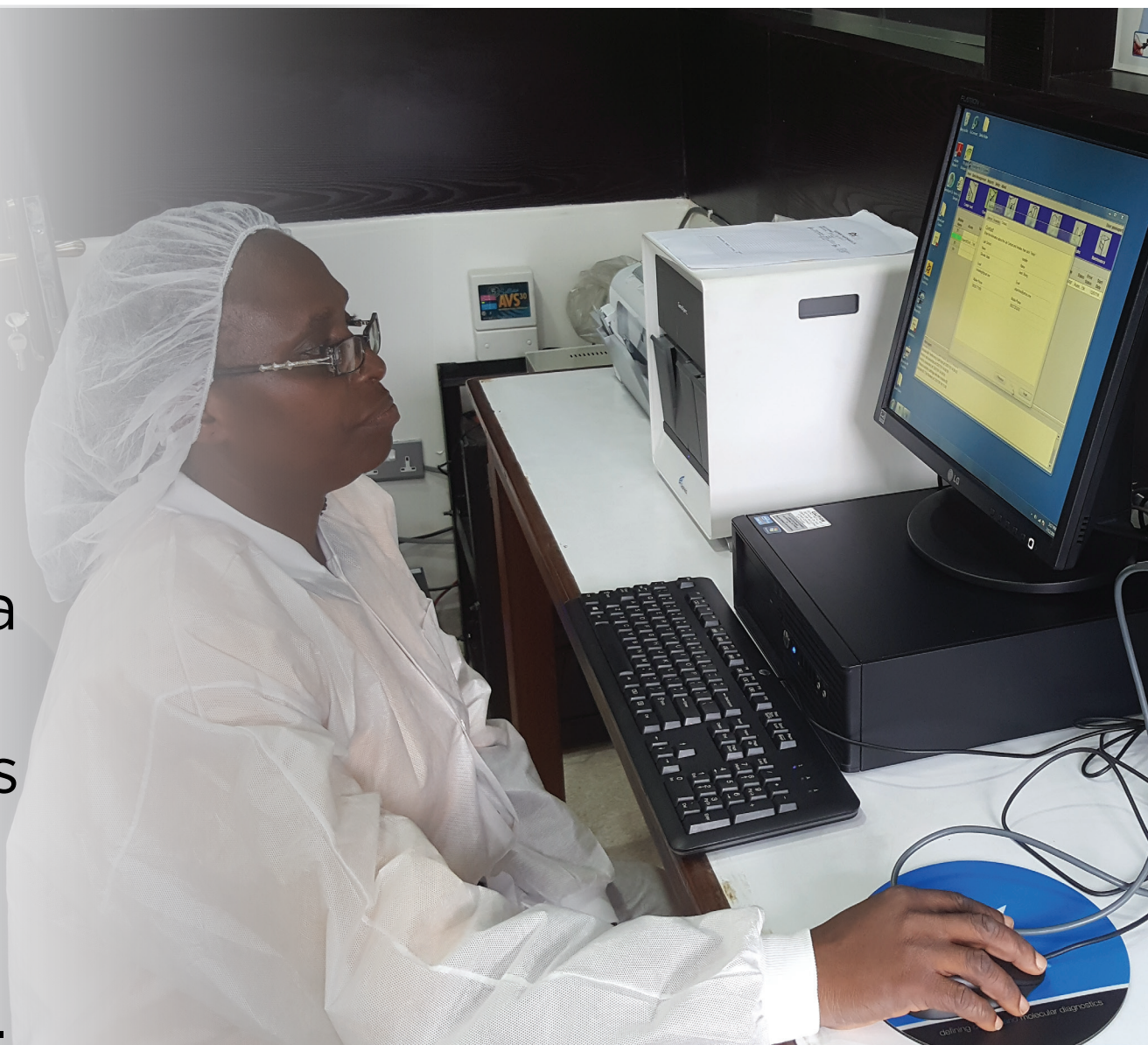


Cost-Effective Technology (GxAlert) Improves Drug Resistance TB Response in Nigeria

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Problem

The WHO ranks Nigeria 11th among the 27 high DR-TB burden countries in the world. The country had a TB prevalence of 330 per 100,000 populations in 2014. The country relies on **GeneXpert** MTB/RIF machines to diagnosis DR-TB at multiple clinical locations. However, reporting TB testing results is a lengthy process due to a continued reliance on paper records and slow data transit systems. Quality of results data is often poor and subsequent program management decisions are not always timely or focused on priority needs.



Intervention

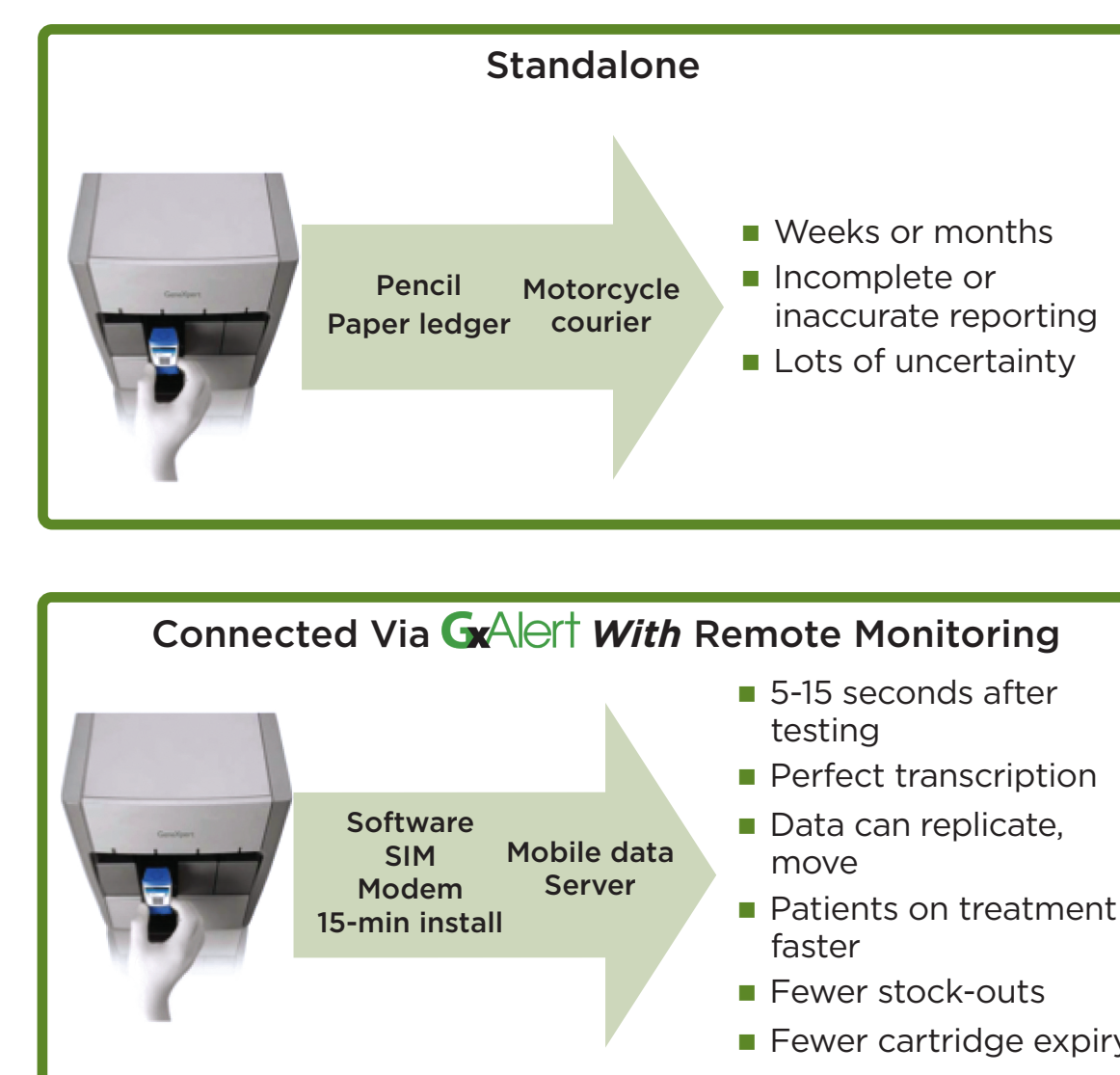
In pursuit of cost-effective technologies to improve healthcare responses to DR-TB by the Nigerian Tuberculosis and Leprosy Control Program (NTBLCP), Abt Associates and SystemOne developed an innovative mobile-based solution that sends **GeneXpert** diagnostic results to key TB program managers (TB Local Government supervisor, State program manager and National Program DR-TB enrollment officer) instantly to enable quick enrollment of newly diagnosed patients in treatment. **GxAlert** is configured on **GeneXpert** systems by installing a modem from a local telecom that sends encrypted data to the secure web-based **GxAlert** database in real time. The system then sends the results in an SMS alert to program decision makers at the state and national TB program, shortening the new-case reporting period from months to seconds.



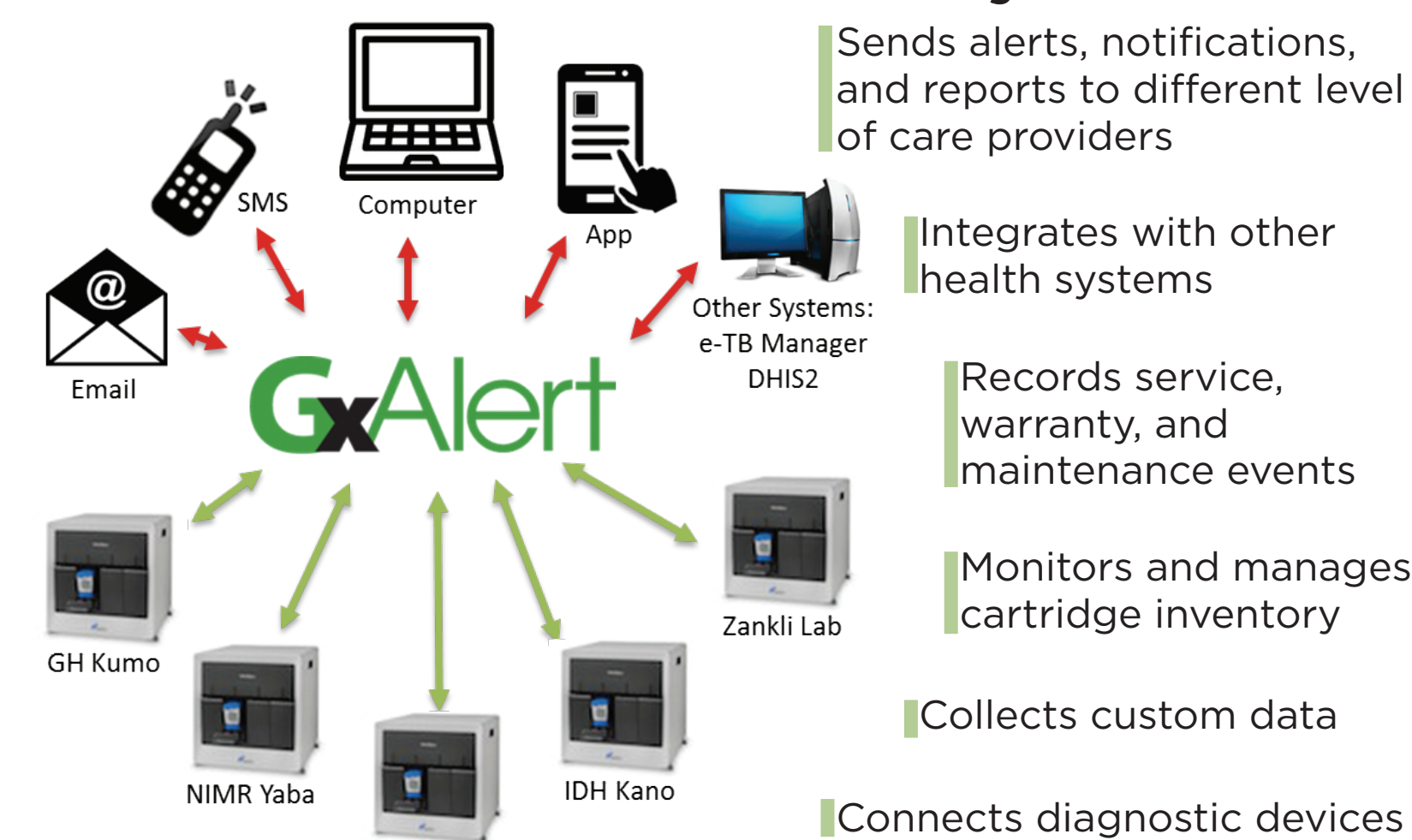
Results to Date

The proportion of DR-TB patients enrolled for treatment based on **GxAlert** messages received from 35 **GeneXpert** facilities jumped to **85%** in March 2015 from only **50%** in April 2014. Weekly reports of all new TB+ cases are both emailed and sent by SMS to local health officials to ensure better connection between diagnosis, enrollment, and treatment. Faster, better quality data on MDR-TB portion of total TB indicators are now reported with minimal error and effort.

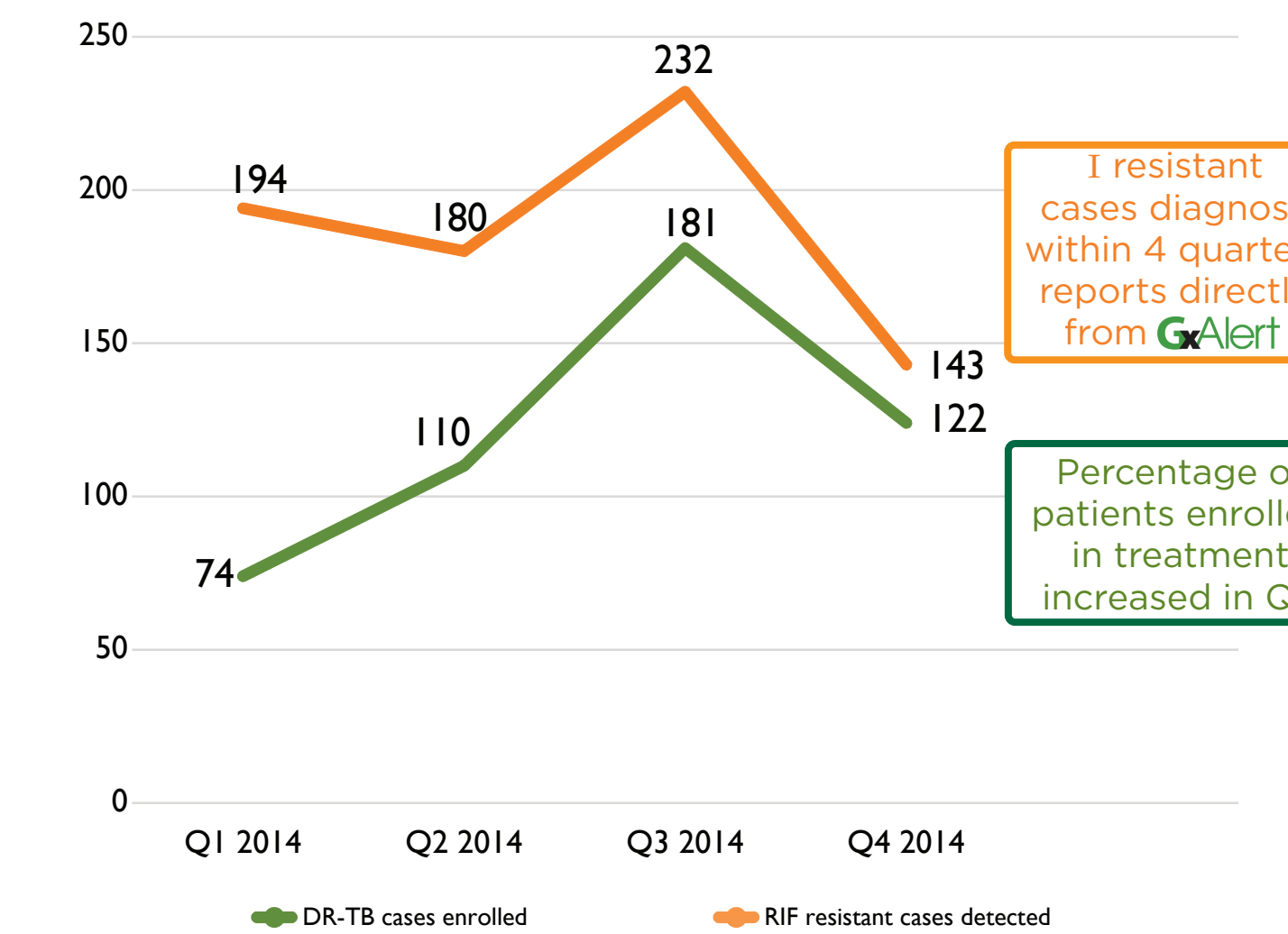
Why Connect GeneXperts?



GxAlert Allows Data to Flow Across the Health System



Trend of DR-TB Cases Enrolled Q1 2014 to Q4 2014



Conclusions and Key Recommendations

The use of **GxAlert** SMS notification of **GeneXpert** testing suggests a scalable model for sustainability: it is cost effective. Installation is done once and in-country. Technology is kept simple as local telecom modems are readily available and affordable for **GxAlert** connectivity. **GxAlert** has the potential to strengthen surveillance of DR-TB, TB in children and the HIV infected, speeding response and improving programmatic decision making for faster enrollment of patients in treatment programs. Based on these results, **GxAlert** was formally launched by Nigeria Ministry of Health on World TB Day 2015 as well as a national rollout to all **GeneXpert** facilities. **GxAlert** is scaled up to all **GeneXpert** facilities with USAID Funding by Health Finance and Governance Project.