Transforming Health System Performance with Big Data and Advanced Analytics 2019

ZENYSIS

Overview



PROBLEM STATEMENT

- Data-driven decision-making is an essential pillar of effective healthcare systems.
- Around the world, the rate at which health systems are generating fragmented data is increasing exponentially faster than national capacity to analyze that data.
- Managing this expanding and fragmenting data landscape is now one of the most significant barriers that decision-makers face in delivering efficient, equitable and cost-effective healthcare to their citizens.

Overview cont.



SOLUTION

- The Zenysis platform rapidly integrates any type of structured data from health information systems into a single analytical workspace.
- This provides decision-makers and analysts with an integrated, system-wide view of the health sector.
- They can use the platform's powerful, intuitive tools to combine their previously siloed data sets for advanced analysis for the first time, quickly uncovering insights that can be used to transform health system performance.

Harness Your Entire Data Ecosystem to Improve Health System Performance



ADVANCED ANALYTICS



Enhanced Decision Making with Big Data and Al

ංරීං	Data Integration & Interoperability	The Zenysis platform quickly integrates data from all siloed information systems into a single analytical view, giving decision-makers an integrated, system-wide view of the health sector for the first time.
	Advanced Analytics	Our platform analyzes millions of data points at sub-second speed. It enables users to combine their fragmented data sets for advanced analysis and quickly uncover insights they can use to transform health system performance.
品	Artificial Intelligence	Our software uses Artificial Intelligence to generate facility-level forecasts with single-digit accuracy, uncover relationships between interventions and outcomes, and scan millions of data points in seconds for data quality issues.
Fø	Reporting and analysis on- demand	Zenysis works with decision-makers to automate their most important analytics to ensure they always have to up-to-date information and analysis on-demand.
R=	Alerts	Zenysis users can create customized alerts that notify decision-makers of potential infectious disease outbreaks, shortages of essential health commodities and other critical risks in near-real time.
	Data Quality	Users can perform triangulated and outlier analyses that target the most significant data quality issues in a country's HIS. The Data Quality Lab, mapped to WHO standards, can evaluate timeliness, accuracy and completeness of data for every indicator and health facility in the country.

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Examples of Impact

Ethiopia

The Ethiopian Federal Ministry of Health used Zenysis to optimize the country's nationwide measles immunization campaign, developing a highlytargeted and datadriven strategy that resulted in estimated savings of US\$30 million. The Government of Liberia used Zenysis to identify districts with the highest rates of maternal mortality that also experienced stockouts of oxytocin, and used this information to identify the facilities that should be the first to receive incoming shipments of oxytocin.

Liberia

Zenysis worked with the M&E, HIV, NDC, and Malaria divisions in Rwanda to build dashboards that help decision makers evaluate the effectiveness of key policies in a wide range of program areas and establish regular reporting on critical health system key performance indicators.

Rwanda



NACOSA is the primary NGO responsible for the national response to AIDS in South Africa. NACOSA used Zenysis identify gaps in the continuum -ofcare provided to HIV positive South Africans, improving the overall performance of the country's HIV programs.

The National Malaria **Control Program in Togo used Zenysis** to compare ACT distribution data with the number of confirmed malaria cases in each district for the first time. This helped the NMCP identify districts where more medicines were distributed than needed and vice versa.

Togo

Partnerships and Presence

"By combining and analysing centrally tens of millions of items of data collected in different formats across a dozen systems, Zenysis is applying the latest Silicon Valley techniques to tackle illness in some of the remotest districts of Ethiopia.

The San Francisco-based start-up is one of a growing number that are exploiting not only digital technology and smartphones but also artificial intelligence to help governments use scarce resources to reach "last mile" inhabitants in the most isolated areas. That is contributing to a greater impact from programmes designed to reduce the burden of conditions such as malaria and measles."

- The Financial Times, Sept 2018



Zenysis CEO Jonathan Stambolis with Gavi CEO Dr. Seth Berkley announcing a landmark \$9MM joint strategic partnership at the Gavi Mid Term Review in Abu Dhabi, Dec 2018.

User Testimonials

"Zenysis has been a large highlight for us. We are now able to **analyze the data in detail** for the first time ever."

"The graphics that the data is presented in Zenysis are user-friendly and accessible. This has supported our team to take the data to the peer educators to support them in understanding the national level reach context and their contribution to programming."

"Through the Zenysis platform, we are now able to **better analyze the plethora of data** that is collected in the program."

"The partnership with Zenysis is providing very rich information that can assist us to **better understand our programs, inform our planning and improve its quality.**" "We have been privileged to work with Zenysis for analyses on our program data. For the first time, as a result of the Zenysis analytics platform, we are **able to analyze whether the programme is in fact following a specific cohort** in the country."

"Zenysis can bring together any subset of data, including from across government agencies. As a result, we have seen coordination across agencies improve, data sharing increase, and data use for decision-making improve significantly. Any time I ask my team about Zenysis, everyone has said this has been an extraordinary intervention." - Director General of Health, Liberia

"Zenysis has also allowed for the analysis of data at ward level which is a first as it was not possible in Excel. Now, sub-recipients are able to identify concerning trends in particular wards and address problems much sooner."

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