

## **Public Health Data and Analytics EcoSystem from intervention to prevention of epidemics**

**Arun Sundararaman**

### **Short Communication**

#### **Abstract**

The functioning of Public Health Data Repositories is poised for major transformation, emerging from post-event data collection to pre-event insight generation and dissemination i.e. from post-epidemic cure to prediction and prevention of epidemics. Public Health domain is set to scale up data capabilities, analytics capabilities, technology capabilities, process capabilities and functional capabilities to be ready for such transformation. On one side, this transformation necessitates the need for shift to the NEW world such as “from traditional data repositories to future state Data & Analytics Platforms” that encompass not merely structured data, but, vast streams and variety of unstructured data (e.g. clinical notes, physician notes, patient notes, images, patient experience pulses through audio and video forms of data). And on the other side, data infrastructure for epidemics management requires extensive collaboration between Hospitals, Pharmacies, citizen services departments (not just healthcare), Health Data Exchanges and connected health eco-systems. These complexities necessitate

next generation big data technologies led Healthcare Data Management practices to revolutionize Healthcare Information Management in addressing today’s key challenge that healthcare information is scattered in 4 different islands of data sets i.e. Health Administration, Clinical/Hospital in EHRs, individual data in PHRs and environmental data in Public domain. This paper covers specific recommendations around transformation to big data platforms for epidemic data sets, what to leverage

from existing data sets to gaps and data opportunities to tap and proposes an innovative Public Health Epidemics Big Data Infrastructure Maturity Model to chart the course of this transformation.

#### **Biography**

Arun Sundararaman, in his current role, Heads Data and Analytics Technology Practice for Health and Public Service at Accenture, India. Having secured his PhD in Information Quality Strategy from BITS, Pilani, India, he has been specializing in providing Data Management, Big Data and Analytics Solutions to leading Healthcare Payers/Providers and Public Health organizations. He has helped in Indian Government to architect, design and build large scale public health data repository enabling the Government in use of data for evidence based policy decisions in critical healthcare functions e.g. IMR/MMR, ambulance etc. A recipient of the prestigious Ballou-Pazer Information Quality Dissertation Award from MIT-IQ Program for contribution to Information Quality research, he has many International publications to his credit and serves on Editorial and Review Board of several international technology publications.

Note:- This work is partly presented at joint event on Medical Sociology & Public Health & Public health and Epidemic diseases (September 21-22, 2018 | Dallas, USA)