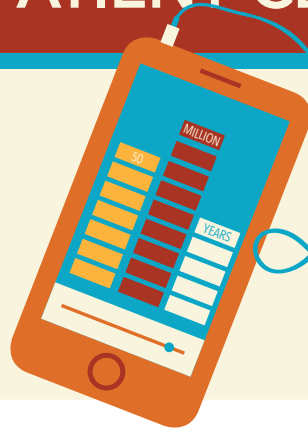


LEVERAGING BIG DATA FOR PATIENT-CENTRIC HEALTHCARE

Experts estimate that **by 2020**, the universe of health data will expand to **25,000 petabytes**

50x more than existed in 2012



That's equivalent to **50 million years** of streaming music.

Gaining actionable insights requires aggregating data from disparate sources

Some of this data is **structured**



Electronic health records



Medical claims data



Data from wearable devices

But almost **80% is unstructured**



Physicians' notes



Lab and medical image data



Patient reported outcomes (e.g., survey data)

Big data analytics tools are helping healthcare organizations make quality of care improvements for both common and chronic conditions



Reducing Unnecessary Use of Antibiotics

Analysis of population data helped doctors recognize unnecessary antibiotics usage to treat common colds, cut costs, and limit resistance



Arkansas Payment Improvement Initiative (APII)

Arkansas was the first U.S. state to implement health payments reform to incentivize cost-effective care



Evidence-Based Medicine at the Department of Veterans Affairs

The VA is turning to big data analytics to implement a "performance-based accountability framework" for improving veterans' care

The future of U.S. healthcare will rest on the ability to derive insights from big data to improve the quality of care



Capture data from any source in any format using low cost, scalable storage and processing framework



Correlate disparate data sources and organize them for analysis



Analyze trends using data mining, visualization, & pattern analysis to develop predictive models



Empower patients & providers at point of care to make informed choices from personalized treatment options

Government Business Council

ABOUT GBC

Government Business Council (GBC), the research arm of Government Executive Media Group, is dedicated to advancing the business of government through analysis and insight. GBC partners with industry to share best practices with top government decision-makers, understanding the deep value inherent in industry's experience engaging and supporting federal agencies.

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General Dynamics Information Technology helps our clients improve care quality for their stakeholders by enabling better ways to connect. Applying extensive health and health IT expertise for today's healthcare challenges, we provide innovative solutions that help you analyze big health data, enable payment reform, manage population health, modernize IT infrastructure and systems, exchange health information (HIE), fight healthcare fraud, waste, and abuse. Learn more about our work at www.gdit.com/health.

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