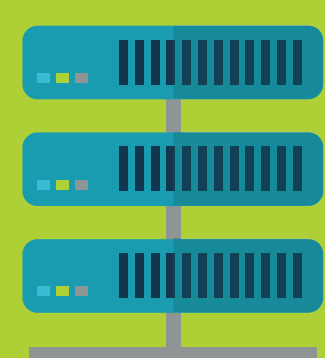


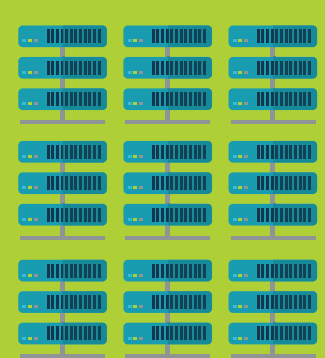
# HOW BIG DATA IS TRANSFORMING HEALTHCARE

## WORLDWIDE DIGITAL HEALTHCARE DATA

IN 2012, WORLDWIDE DIGITAL HEALTHCARE DATA WAS ESTIMATED TO BE EQUAL TO



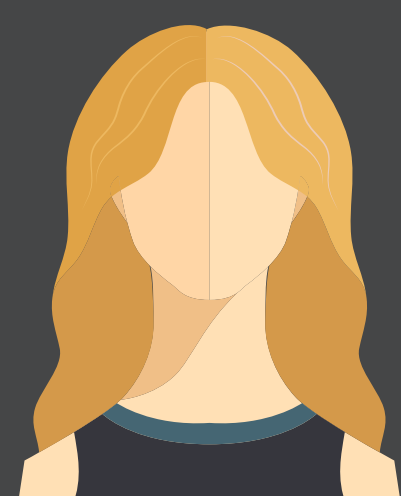
**500**  
PETABYTES



**25,000**  
PETABYTES IN 2020

AND IS EXPECTED TO REACH

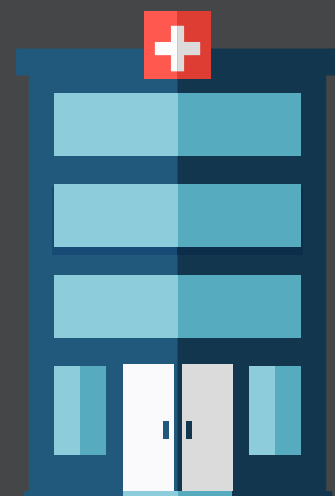
ANALYZING STREAMING PATIENT DATA HAS BEEN FOUND TO DRIVE A



**20%**

DECREASE IN  
PATIENT MORTALITY

THE YEARLY AMOUNT SPENT ON UNNECESSARY HOSPITAL ADMISSIONS IS



**\$30**

BILLION



**10 YEARS**

THE AMOUNT OF TIME  
IT TOOK TO DECODE  
THE HUMAN GENOME



**1 WEEK**

THE AMOUNT OF TIME  
IT NOW TAKES



**\$0.10**

HOW MUCH IT COULD COST  
TO SEQUENCE GENOMES  
AS SOON AS 2020

## THE FUTURE FOUR: FOUR WAYS THAT BIG DATA WILL TRANSFORM HEALTHCARE

OVER THE NEXT THREE YEARS, WE WILL EXPERIENCE A DRAMATIC SHIFT TOWARD DATA-DRIVEN DECISION MAKING, AS THE HEALTHCARE INDUSTRY EMBRACES TECHNOLOGIES THAT ENABLE DEEP INSIGHTS.

### 1. POPULATION HEALTH

The future of patient care depends on improving prevention, treatment, and outcomes via the analysis of a steady stream of data from accountable care organizations (ACOs), research institutions, insurance companies, hospital electronic medical records (EMRs) and personal health data devices, including wearable and implantable devices. On an individual level, a steady stream of patient data will allow physicians to make accurate and personalized recommendations. On a grander level, physicians will be able to analyze trends and therefore improve overall population health. Studies have shown that a greater amount of health data leads to a decrease in patient mortality.

### 2. THE PATIENT EXPERIENCE

Patients are consumers first. They expect an efficient user experience that allows them quick and easy access to important information. Tapping into big data to personalize the patient experience allows organizations to deliver world-class care that anticipates member and patient needs.

### 3. CLINICAL CARE

As clinical care moves more and more toward value- and team-based models, data analysis becomes a key element in understanding the various factors at play in a patient's treatment and recovery. Evidence-based medicine becomes more prevalent as big data systems comb through the huge amount of health information available to payers and providers.

### 4. ADMINISTRATION

Operational and financial management decisions will rely on real data in real time. These data points come from disparate sources of both structured and unstructured data, making the right infrastructure a necessity to deliver the right insights quickly and accurately.

#### SOURCES

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