The Importance of Big Data for improving oral health of vulnerable populations through increased involvement of the patient care, research, and payer community

Objectives:

- To understand the current definitions and characteristics of “Big Data” in the biomedical and health research domains
- To learn how Big Data is intended to be used for policy and program management within the Medicaid oral health system
- To better understand the opportunities and challenges in using existing dental data sets for research, and the need for diagnostic codes
- To become aware of mechanisms for research and program support from the NIDCR and CMS that might be applicable for Big Data research.

Who is using Big Data for healthcare?

Northrop Grumman, UMBC team to study health data for populations

NIH Big Data to Knowledge (BD2K)

Forbes HEALTHCARE SUMMIT 2014

Smart Data Transforming Lives

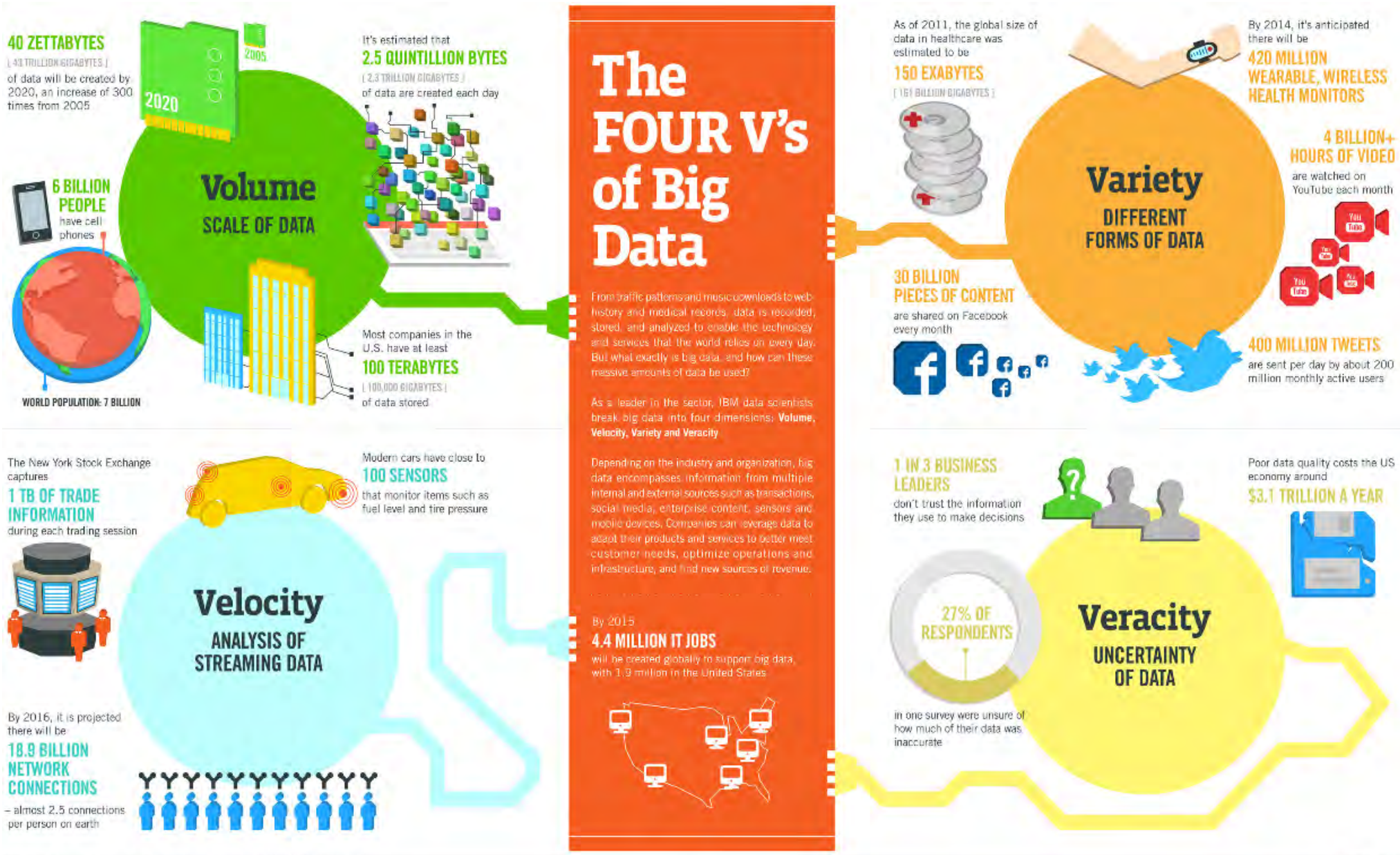
December 3-4, 2014 NYC

What is Big Data?

Any attribute of a data set that challenges a system's capabilities or business need.

Examples…

- Data too large to send via email
- Data too large or too diverse if structure to analyze …



Source: http://datasciencedegree.wisconsin.edu/wp-content/uploads/2015/05/4-Vs-of-big-data.jpg

Within Health care

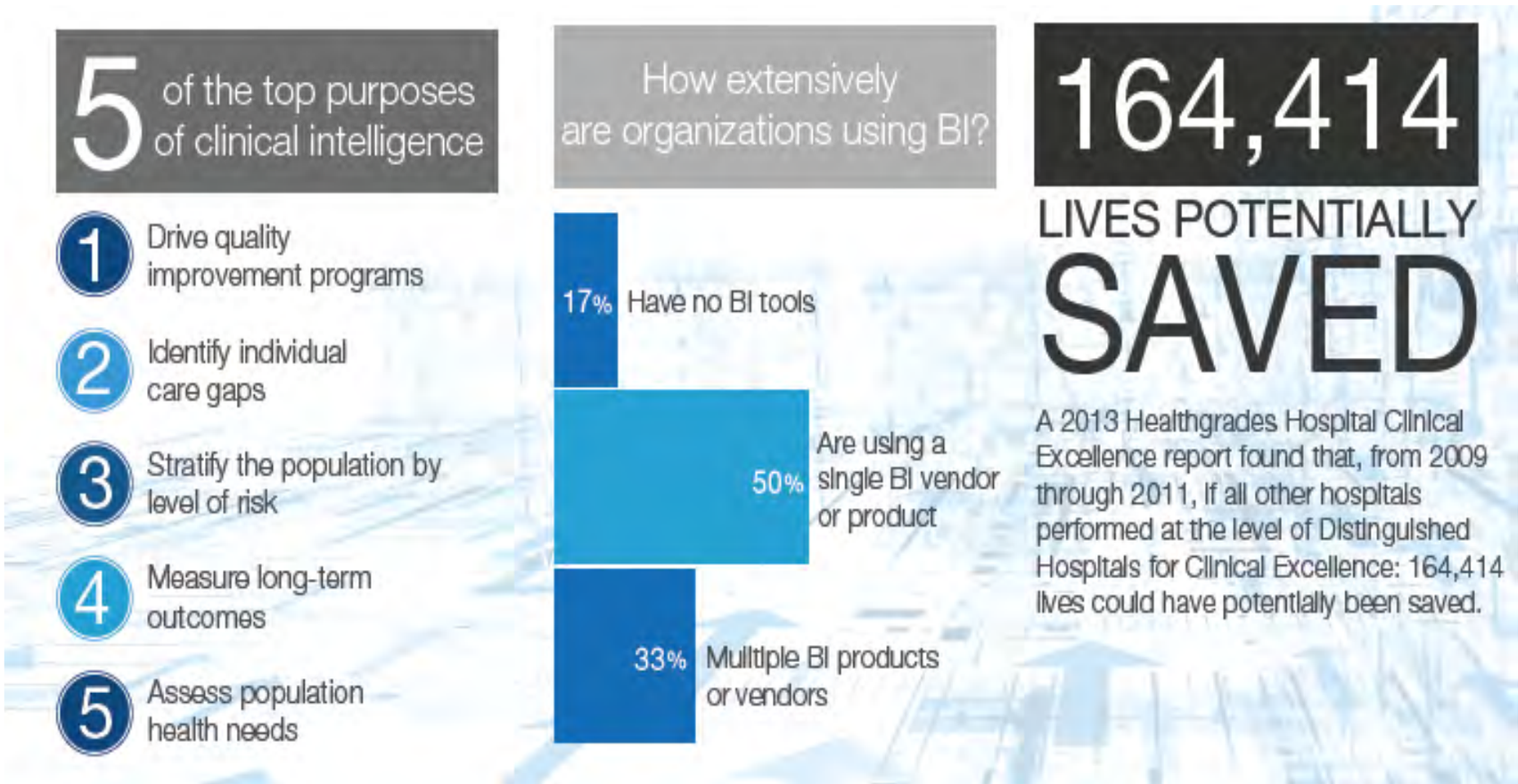


Image source: http://ihealthtran.com/images/HealthIT-Infographic-Analytics-in-health-care-infographic.pdf?__hstc=137095016.7739e9cb4a1571781ce6b98bf17b2ba3.1365889184961.1369330699033.1369334760894.72&__hssc=137095016.2.1369766698997

Our leaders on the journey…

- T. Bruce Dye Dental, Epidemiology Officer -- NIDCR

Wrestling with Big Data: Exploring Opportunities Using NHANES-Linked Datasets.

- Lynn D. Mouden, Chief Dental Officer – CMS

CMS Data Challenges: Uses, Requirements, and Opportunities.

- Peter Damiano, Director, Public Policy Center – U. Iowa

Using Big Data as Part of a Mixed Methods Approach to Evaluating Medicaid.

- Mary E. Foley Executive Officer- Medicaid, Medicare, CHIP Services Dental Association

State need for Big Data for policy and administrative purposes.