

# In Data Analytics and Informatics, One is the Loneliest Number

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*Editor's Note: This article was originally published as two installments of the Journal of AHIMA blog Data Revolution. This monthly blog highlights and discusses emerging trends and challenges related to healthcare data and its ever changing life cycle. Read the blog each month on the Journal of AHIMA website at <http://journal.ahima.org/category/blogs/data-revolution/>.*

Harry Nilsson said it best when he penned these lyrics for Three Dog Night's 1969 hit song "One":

"One is the loneliest number that you'll ever do."

Healthcare organizations and providers continue to face increased challenges to reduce costs and improve outcomes. In order to drive sound decision making for maximum impact the industry is turning to data analytics and informatics. One is a lonely number in data analytics and informatics, however, since one point of data means nothing if it can't be compared to a benchmark.

Nilsson also aptly said: "Two can be as bad as one. It's the loneliest number since the number one."

Healthcare is changing at a rapid rate and projections through 2025 demonstrate that two data points may still fall short of benchmarking comparisons. In short, the more data and benchmarks the better.

Below are several lists of important health statistics and facts—numbering more than just one or two—to remember as you evaluate how data analytics and informatics projects can help improve patient care and healthcare operations at your facility in 2017. Some of these benchmarks may inspire informatics-based improvement projects of your own—it's clear there is no shortage of work to be done.

## Fraud and Abuse Facts and Stats

- During Fiscal Year (FY) 2015, the federal government won or negotiated over \$1.9 billion in healthcare fraud judgments and settlements.<sup>1</sup>
- \$487 billion dollars is estimated to be lost annually to fraud and abuse activities.<sup>2</sup>
- The Medicare Strike Force has a current conviction rate of 95 percent.<sup>3</sup>
- In FY 2015, the Department of Justice (DOJ) opened 983 new criminal healthcare fraud investigations. The Office of Inspector General (OIG) investigations resulted in 800 criminal actions and 667 civil actions against individuals or entities related to crimes against Medicare and Medicaid. In FY 2015, the return on investment for all fraud and abuse programs was \$6.10 returned for every \$1 expended.<sup>4</sup>

## General Healthcare Facts and Stats

- Obesity (defined as body mass index at or over 95th percentile) for US children is currently nine percent for two- to five-year-olds, 18 percent for six- to 11-year-olds, and 21 percent for 12- to 19-year-olds. Ten percent of average US consumers have fair or poor health. Between 2000 and 2014 the birth rate among teenagers reached a record low for the US, down to 24.2 live births per 1,000.<sup>5</sup>

- Adult ages 18 to 24 report an average of four mentally unhealthy days in the past 30 days, while adults age 75 and older reported only two. Heart disease, cancer, and stroke alone cause more than 50 percent of all deaths each year.<sup>6</sup>
- Honolulu, HI is ranked number one in overall performance by hospital region, according to the 2016 Commonwealth Fund Scorecard.
- Hattiesburg, MS is ranked 306 out of 306 in overall performance by hospital region, according to the 2016 Commonwealth Fund Scorecard.
- Infant mortality in part of Mississippi, South Carolina, and Georgia average 10 deaths per 1,000 live births (rates that are on par with Serbia and China). Adult obesity rates rose in 111 of 306 hospital regions between 2011 and 2014.<sup>7</sup>

## Health Expenditures Facts and Stats

- For 2015 to 2025, health spending is projected to grow at an average rate of 5.8 percent per year. Health spending is projected to grow faster than the gross domestic product (GDP), rising to 20.1 percent of the GDP by 2025.<sup>8</sup>
- From 2015 to 2020, as health spending increases, some large employers with low-wage employees are expected to discontinue offering health insurance to their workers and just pay the penalty mandated in the Affordable Care Act.<sup>9</sup>
- 50 percent of all bankruptcies are in part due to medical expenses.<sup>10</sup>
- Uninsured rates for working adults ranged from four percent in Massachusetts to nearly 50 percent in Harlingen and McAllen, TX.<sup>11</sup>
- By 2020, Medicare is projected to remain consistent at 20 percent of national health spending. Also by 2020, the total government healthcare expenditure is projected to be 49 percent of national health spending.<sup>12</sup>

## Health Insurance Facts and Stats

- Medicare spending is projected to grow to 7.9 percent by 2020, and projected to average a six percent growth rate from 2016 to 2025. Despite expanded insurance coverage, growth is expected in private health insurance spending on physician services by the continued expected growth of high-deductible health plans.<sup>13</sup>
- Medicare spent as much as \$8.5 billion (2.7 percent of total spending) on services deemed to have little or no clinical value in 2009, according to a 2014 *JAMA Internal Medicine* article.
- Despite a small increase in 2013, the rate of uninsured consumers in the US decreased in every age group from 2000 to 2014.<sup>14</sup>
- Between 1999 and 2006, self-insurance rates increased from 44 percent to 55 percent among all employers, and from 62 percent to 89 percent among employers at firms with 5,000 or more employees.<sup>15</sup>

## Health Literacy Facts and Stats

- Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.<sup>16</sup>
- The Office of Disease Prevention and Health Promotion estimates the annual cost of limited health literacy is \$1.6 to \$3.6 trillion.<sup>17</sup>
- Nine out of 10 adults may lack the skills needed to manage their health and prevent disease.<sup>18</sup>
- Persons with limited health literacy skills are more likely to skip important preventive measures such as mammograms, Pap smears, and flu shots.<sup>19</sup>
- A person who has limited or low literacy skills is not illiterate. Persons with limited health literacy are more likely to have chronic conditions and less able to manage them.<sup>20</sup>

## Hospital Findings Facts and Stats

- Total hospital spending is projected to accelerate from 2016 to 2025, rising an average three percent per year.<sup>21</sup>
- Pneumonia is the most common of all healthcare-associated infections, with 21.8 percent prevalence, according to a survey published in the *New England Journal of Medicine*.
- Expenditures for hospital care accounted for 37.9 percent of all personal health expenditures in 2014.<sup>22</sup>
- 96 people per 100,000 die annually from conditions considered amenable to healthcare.<sup>23</sup>

- 155 out of 306 hospital regions saw meaningful reductions in 30-day readmissions (of at least 5.3 per 1,000 beneficiaries) between 2012 and 2014.<sup>[24](#)</sup>

## Life Expectancy and Mortality Facts and Stats

- Life expectancy in the US is 78.8 years.<sup>[25](#)</sup>
- Heart disease has remained the number one cause of death since 2000. Suicide death rates in the US continued to increase from 2000 to 2014 to 13 percent. Between 2004 and 2014 the drug poisoning death rate involving heroin increased more than five times to 3.3 deaths per 100,000 resident population.<sup>[26](#)</sup>

## Out of Pocket Expenditures Facts and Stats

- Growth in out of pocket expenditures is expected to begin accelerating in 2015 to an average 5.5 percent by 2025.<sup>[27](#)</sup>
- Despite accelerated growth in out of pocket expenditures, the out of pocket share of the national health expenditures is expected to fall from 12 percent to 9.6 percent by 2020.<sup>[28](#)</sup>
- Employer sponsored health benefits for family coverage will increase to \$17,362 in 2015, a 30 percent increase from 2005. Single coverage for employer sponsored health benefits will increase to \$7,368 in 2015, a 13 percent increase from 2005. A couple retiring in 2016 at 65 years of age would need \$560,000 to supplement healthcare costs, if they lived the average lifespan.<sup>[29](#)</sup>

## Physician Findings Facts and Stats

- Growth in physician spending is expected to accelerate as more consumers acquire coverage through private health insurance plans or Medicaid.<sup>[30](#)</sup>
- Medicare growth in physician expenditures is expected to average 5.7 percent annually from 2015 to 2020.<sup>[31](#)</sup>
- Medicaid growth in physician expenditures is expected to average 5.6 percent annually from 2015 to 2020.<sup>[32](#)</sup>
- Across all specialties, approximately 21 percent of physicians are employed by a hospital.<sup>[33](#)</sup>
- 83 percent of adults and 92 percent of children had contact with a healthcare professional in 2014.<sup>[34](#)</sup>
- By 2025 the US is expected to be short 130,000 physicians.<sup>[35](#)</sup>
- Expenditures for physician and clinical services accounted for 23.5 percent of total personal healthcare expenditures in 2014.<sup>[36](#)</sup>

## Prescription Drugs Facts and Stats

- Prescription drug spending is projected to grow an average of 6.7 percent per year between 2016 and 2025.<sup>[37](#)</sup>
- Of 63,418 total prescribed antibiotics, 12.4 percent were prescribed over the phone, according to a study in *Pharmacoepidemiology and Drug Safety*.
- Expenditures for prescription drugs accounted for 11.6 percent of the total personal healthcare expenditures in 2014.<sup>[38](#)</sup>
- Medication errors cost the US over \$3.5 billion annually.<sup>[39](#)</sup>

## Notes

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**Article citation:**

Wiedemann, Lou Ann. "In Data Analytics and Informatics, One is the Loneliest Number" *Journal of AHIMA* 88, no.5 (May 2017): 44-47,68.

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