



# Healthcare Data and Analytics

In March 23, 2010, the Affordable Care Act began forcing healthcare providers to offer better care at a lower cost by shifting the system from “quantity” to “quality” in a new patient-centered approach. The resulting transformation in the healthcare delivery and payment system—for example, bundled payments, pay for performance, and capitation models—requires improved health information technology (IT) infrastructure. It also highlights the need for advanced data and analytics to monitor the impacts of new methods and strategies on performance measures and health outcomes, and more generally, to support informed decision making in revising initiatives and formulating better ones. Healthcare providers need to adapt to the new rules and laws to manage revenue and lower costs effectively.

## **KPMG and healthcare transformation**

KPMG LLP (KPMG) professionals help businesses by providing a wide range of healthcare data analytic services, including:

- Survey design, sampling, and implementation
- Quantitative and qualitative data collection and database management
- Analysis of large sets of survey, program, and administrative data using SAS, Stata, and SPSS
- Technical assistance support to grantees to implement programs or demonstration projects
- Claims-based monitoring and performance measurement of healthcare programs and initiatives
- Benchmarking of rates, costs, and outcomes
- Predictive modeling to improve quality of care and reduce costs (e.g., due to readmissions)
- Effectiveness studies to improve clinical outcomes
- Cost benefit analyses to quantify net impact of programs
- Visualization tools and dashboards to monitor health measures and indicators.

## Highlighted experience

### CMS Medicare Healthcare Disparities

#### The challenge

The Centers for Medicare & Medicaid Services (CMS) Office of Minority Health (OMH) is tasked with developing and implementing programs that reduce, and eventually eliminate, disparities in healthcare quality, access, and outcomes that disproportionately affect minority populations.

#### KPMG's response

CMS OMH contracted with NORC at the University of Chicago and KPMG, as NORC's subcontractor, to investigate disparities among different racial and ethnic groups for various chronic conditions. Key activities include:

- **Measure development:** Develop measures on health outcomes and quality of care across different populations defined by gender, age groups, dual eligibility status, racial and ethnic groups, and geography. These measures include prevalence rates,

total costs of care, hospitalization and emergency room visit rates, prevention quality indicators, 30-day all-cause mortality rates, and 30-day unplanned readmission rates.

- **Allow interactive visualization:** Develop a tool that will allow the CMS to easily understand the disparities.

#### The result

KPMG created a heat map of the United States that offers users a customizable query for a specific chronic condition and measure by state/county, gender, age, dual eligibility status, and racial and ethnic group. It provides built-in calculations that allow users to analyze disparities between any two racial and ethnic groups within a geography and between geographies for a specific racial and ethnic group. It also provides comparisons with county, state, or national benchmarks.

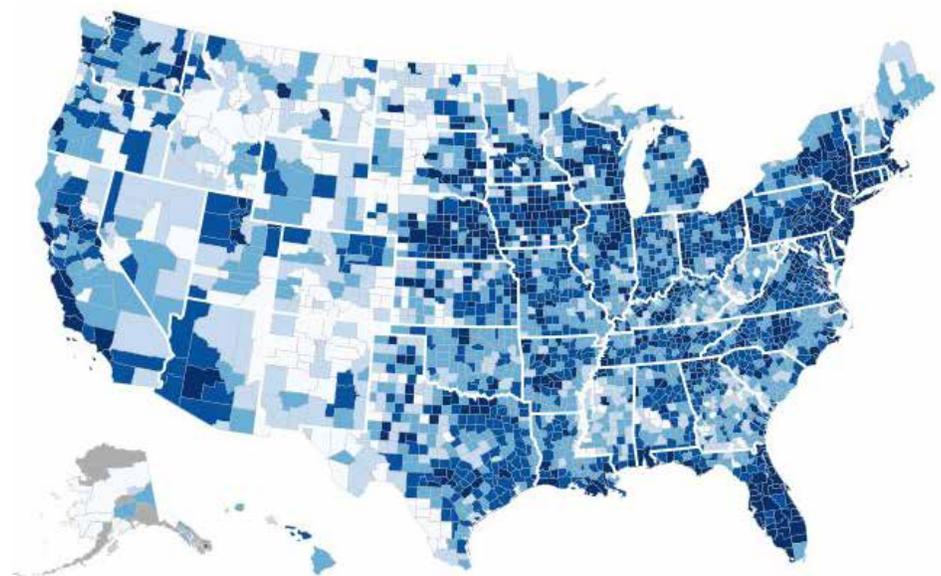
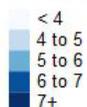
## Mapping Medicare disparities

Year	2012
Geography	County
Measure	Prevalence
Adjustment	Actual
Analysis	Base Measure
Condition	Acute Myocardial In
Sex	All
Age	All
Dual Eligible	Dual & Non-Dual
Race and Ethnicity	All
Comparison Race and Ethnicity	All

Download

To zoom in on a region, move your cursor over the region of interest and scroll your mouse wheel (scroll-up). To zoom back out, scroll-down. Chrome is recommended.

#### Prevalence (% per year)



The tool is available at: <https://data.cms.gov/mapping-medicare-disparities>

## Why KPMG



**KPMG is one of the largest providers of professional services to health care and life sciences organizations.**

Specifically, we serve:

- 18 of the top 25 health insurers
- Approximately half of the top 200 healthcare systems
- 20 state governments for Health Benefit Exchange, Integrated Eligibility, and Medicaid transformation
- All of the top 25 global life sciences companies.



**2,000-plus professionals dedicated to Healthcare and Analytics.**

- Data scientists, economists, statisticians, actuaries, software engineers, implementation specialists, designers, physicians, nurses, coders, etc.
- 100-plus data and analytics team in India and rapidly growing.



**Global Center of Excellence for Health provides clients with exceptional business insights from around the world.**

Our mobile force of specialists from KPMG International's network of member firms with deep experience in diverse aspects of healthcare support clients with some of the best minds from around the world.



**National healthcare claims database**

- CMS Medicare Fee-for-Service claims data for about 40 million unique beneficiaries annually over three years
- Commercial healthcare claims data for 100 million unique individuals nationwide over five years.

As of November 2015



## Contact us

With years of practical experience in healthcare delivery and payment systems, KPMG offers evidence-based analyses and perspective necessary to make informed decisions in today's complex business environment. For more information about our healthcare data and analytics services, contact your KPMG adviser or one of the following KPMG professionals:

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