Massachusetts Shows Progress In Reducing The Number Of Antibiotic Prescriptions Filled

Overuse seen as a leading contributor to antibiotic resistance

BOSTON, Aug. 24, 2017 /PRNewswire-USNewswire/ -- A new *The Health of America*® report from the Blue Cross Blue Shield Association shows that Massachusetts and the nation have made significant progress in reducing the number of outpatient antibiotic prescriptions filled. Reducing inappropriate use and overuse of antibiotics is critical to stemming the increase in antibiotic resistance, which the CDC calls one of the world's most pressing public health issues.

MASSACHUSETTS

Massachusetts fared better than the national average in two key measures. Prescription fill rates for antibiotics in general are down 11% in Massachusetts, compared to a 9% decrease nationally. Fill rates for broad-spectrum antibiotics, used to treat a wide range of bacteria and most likely to trigger the development of antibiotic-resistant strains, were down 15% in Massachusetts, compared to a 13% drop across the country.

The study also found a significant reduction within the pediatric population, where rates of antibiotic use are typically high. Antibiotic prescriptions filled for children decreased by 13% in Massachusetts and 16% nationally. The steepest decline was among infants, with a national decrease of 22%.

The report, "Antibiotic Prescription Fill Rates Declining in the U.S," represents a comprehensive study of outpatient medical claims from commercially insured Blue Cross Blue Shield members who filled antibiotic prescriptions between 2010 and 2016. Other notable findings:

- Despite the overall improvement, there is still work to be done. In more than 20% of cases, physicians prescribed antibiotics for common, non-bacterial conditions for which antibiotics are generally not an effective treatment. These conditions include flu, viral bronchitis, allergies and viral upper respiratory infections.
- The fill rate for reserved antibiotics increased by 30%. These antibiotics, often referred to as "last resort" drugs, are more powerful and should only be used for bacteria that have developed resistance to other antibiotics. Conditions that typically require reserved antibiotics include resistant skin infections caused by methicillin-resistant staphylococcus aureus (MRSA).
- There is a wide regional variation in the antibiotic prescription fill rates –Mississippi and Alabama have the highest fill rates, nearly three times greater than those in the lowest states of Hawaii, Oregon and Montana.

"This report is encouraging, since it shows that efforts to increase awareness of the risk of excessive use of antibiotics may be reducing the inappropriate use of these medications," said Bruce Nash, MD, Chief Physician Executive, Blue Cross Blue Shield of Massachusetts (BCBSMA). "At BCBSMA, our value-based payment model, which reimburses providers for the quality of care they provide - including the appropriate use of antibiotics - is having an impact. For example, 97 percent of our pediatric members were treated appropriately for viral upper respiratory infections and did not receive an antibiotic. More work needs to be done, however, to understand the reasons for variation across regions and to ensure antibiotics are only used when clinically indicated."

While Massachusetts does outperform the national average, there is regional variation within our state. On Cape Cod, there was a slight increase in overall antibiotic prescription fill rates (up 2%), while the fill rate for broad-spectrum antibiotics decreased 13%. Below is a chart showing antibiotic fill rates for four Metropolitan Statistical Areas (MSA) in Massachusetts.

MSA	Percent change of antibiotic prescriptions filled 2010 - 2016	Percent change of broad-spectrum antibiotic prescriptions filled 2010 - 2016	Percent change of pediatric antibiotics prescriptions filled 2010 - 2016
Barnstable/Yarmouth	+2%	-13%	0%
Boston/Worcester/ Lowell/Brockton	-11%	-15%	-13%
Pittsfield	-7%	-13%	-15%
Springfield	-5%	-12%	-8%

This is the fifteenth study of the Blue Cross Blue Shield: *The Health of America Report*® series, a collaboration between Blue Cross Blue Shield Association and Blue Health Intelligence, which uses a market-leading claims database to uncover key trends and insights into health care affordability and access to care. Past reports are available on the Association's Health of America website. Analysis for the report on antibiotics was performed by and also includes medical claims data from HealthCore, a wholly owned and independently operated subsidiary of Anthem, Inc.

About Blue Cross Blue Shield of Massachusetts
Blue Cross Blue Shield of Massachusetts (bluecrossma.com) is a community-focused, tax-paying, not–for–profit health plan headquartered in Boston. We're the trusted health plan for more than 25,000Massachusetts employers and are committed to working with others in a spirit of shared responsibility to make quality health care affordable. Consistent with our corporate promise to always put our 2.8 million members first, we're rated among the nation's best health plans for member satisfaction and quality. Connect with us on Facebook, Twitter, YouTube, and LinkedIn.

About Blue Cross Blue Shield Association
The Blue Cross and Blue Shield Association is a national federation of 36 independent, community-based and locally operated Blue Cross and Blue Shield companies that collectively provide health care coverage for one in three Americans. BCBSA provides health care insights through *The Health of America Report* series and the national BCBS Health Index℠. For more information on BCBSA and its member companies, please visit BCBS.com. We also encourage you to connect with us on Facebook, check out our videos on YouTube, follow us on Twitter and check out our blog.

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HealthCore, Inc is a wholly-owned and independently operated subsidiary of Anthem, Inc., with a first of a kind large, integrated database and deep understanding of the complexities and nuances of big data. HealthCore helps clients achieve evidence-based competitive advantages through our innovative problem solving, analytics and outcomes research expertise. HealthCore doesn't sell data. Instead, we design custom data-driven research solutions and guide our clients in the optimal use and interpretation of the data by evaluating the impact of disease, treatment and medical care on outcomes. HealthCore is headquartered in Wilmington, DE with additional offices in Andover, MA and Alexandria, VA. Our team includes scientists, biostatisticians, epidemiologists, pharmacists, and physicians. We are organized into three separate divisions, based on health care sectors, with firewalled teams collaborating with clients.

About BHI
Blue Health Intelligence (BHI) is the nation's premier resource for data-driven insights about healthcare trends and best practices, promoting healthier lives and more affordable access to safe and effective care. BHI leverages a team of analytics experts and advanced technology, coupled with access to the greatest number of healthcare claims—172 million lives—gathered over 10 years in a safe, HIPAA-compliant, secure database. The resulting conformed, reliable data set has the broadest, deepest pool of integrated medical and pharmacy claims, reflecting medical utilization in every ZIP code. Blue Health Intelligence (BHI) is an Independent Licensee of the Blue Cross Blue Shield Association. BHI is a trade name of Health Intelligence Company, LLC. www.bluehealthintelligence.com.

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