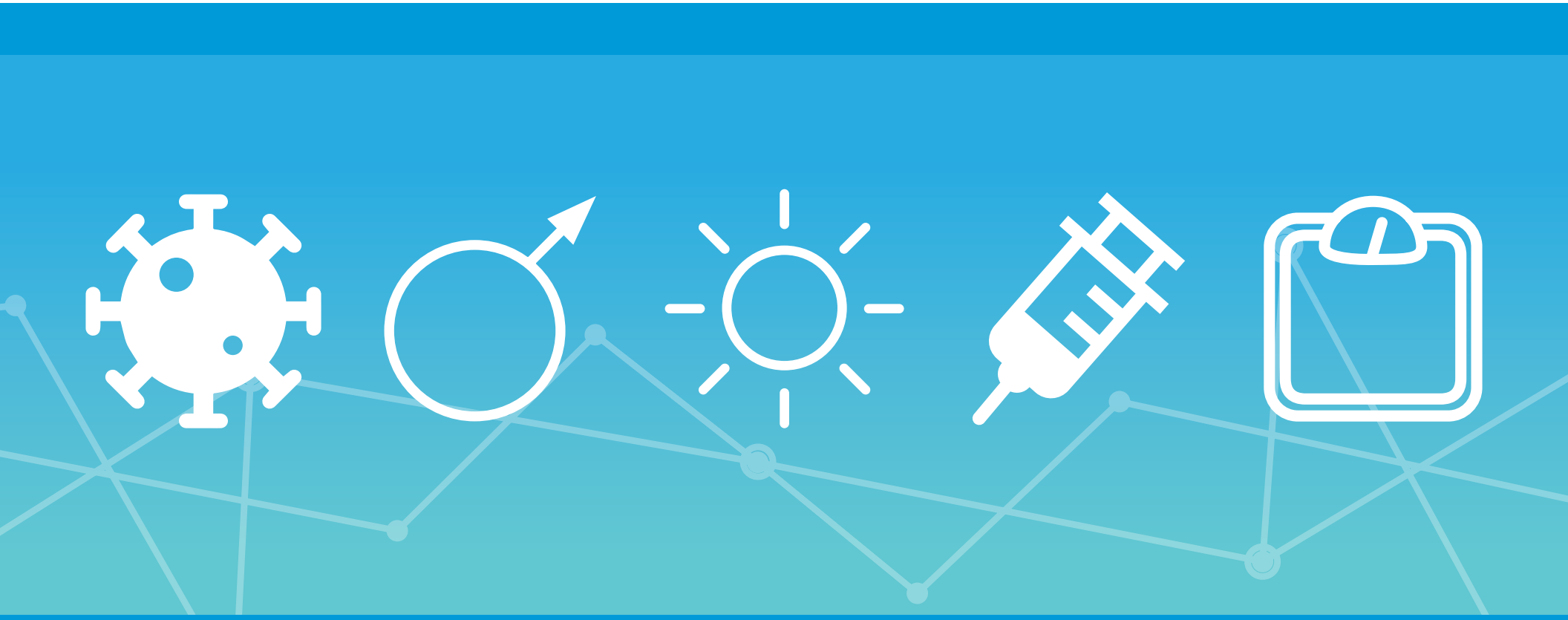
bhi Blue Health Intelligence® | hic Health Intelligence Company

BHI 2020 YEAR-END DATA DIGEST



COMPILATION OF 2020 DATA BRIEFS ON CURRENT HEALTHCARE TOPICS

COVID-19, Men's Health, UV Safety, HPV Vaccinations, and Childhood Obesity

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WHAT'S INSIDE

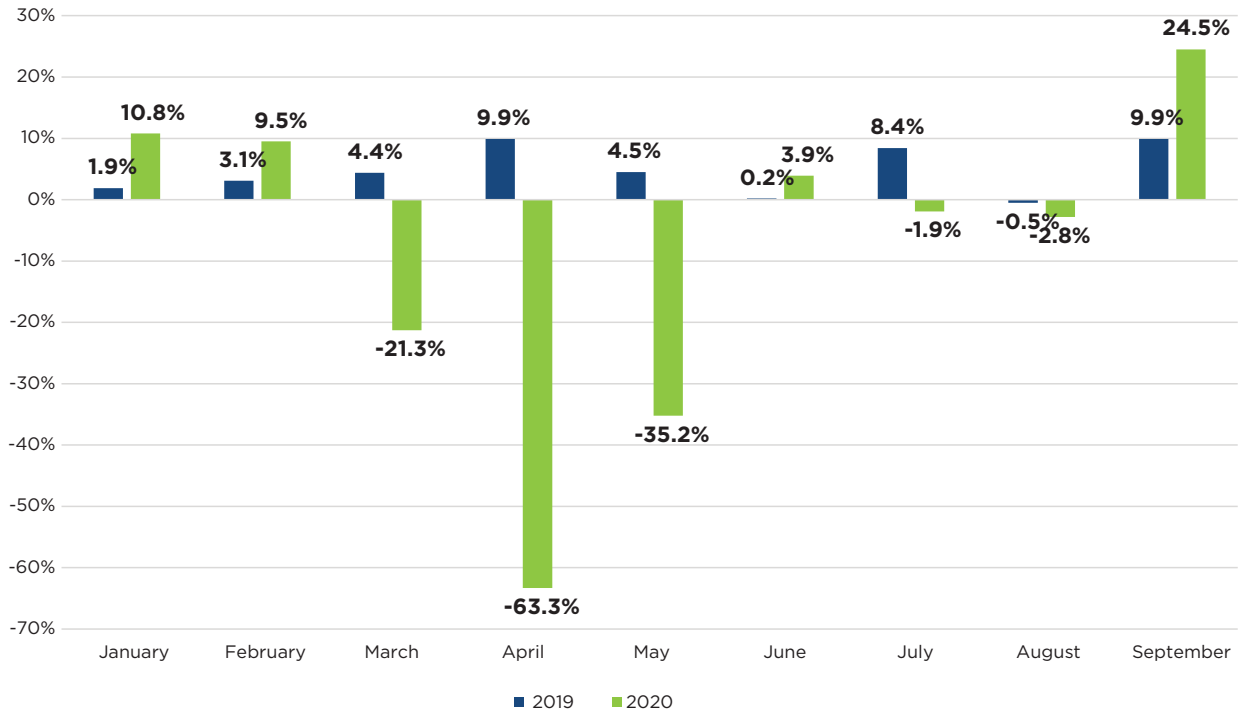
Throughout 2020, Blue Health Intelligence® (BHI®) used its access to more than 20 billion claims from over 200 million unique members to examine healthcare trends affecting the health of millions of Americans.

The latest brief, published in December 2020, looks at how COVID-19 impacted preventive services and telehealth in the first three quarters of 2020, noting the differences in utilization between 2019 and 2020 and looking at differences in usage among rural and urban healthcare members.

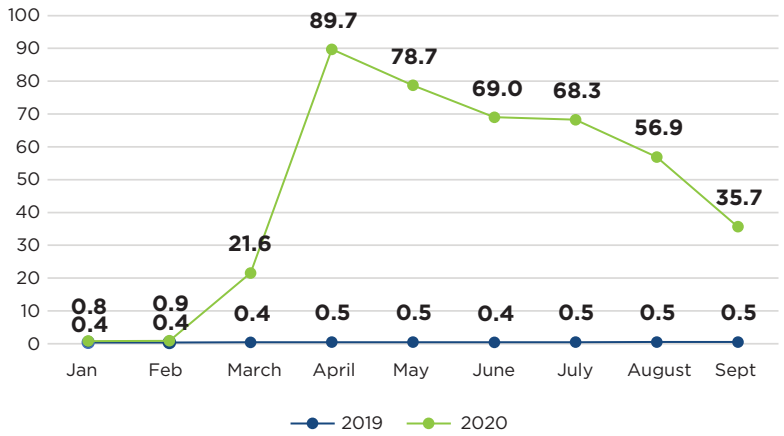
The other four data briefs uncover improvement opportunities in various segments of healthcare, commenting on data trends indicating where additional study or intervention might be beneficial to both healthcare organizations and members.

All five studies reflect BHI's continuing dedication to leveraging the power of medical and pharmacy claims data to help deliver better healthcare.

2019 AND 2020 TRENDS IN TOTAL PREVENTIVE SERVICES*



TOTAL TELEHEALTH SERVICES PER 1,000 MEMBERS*



WHAT THE DATA SAYS

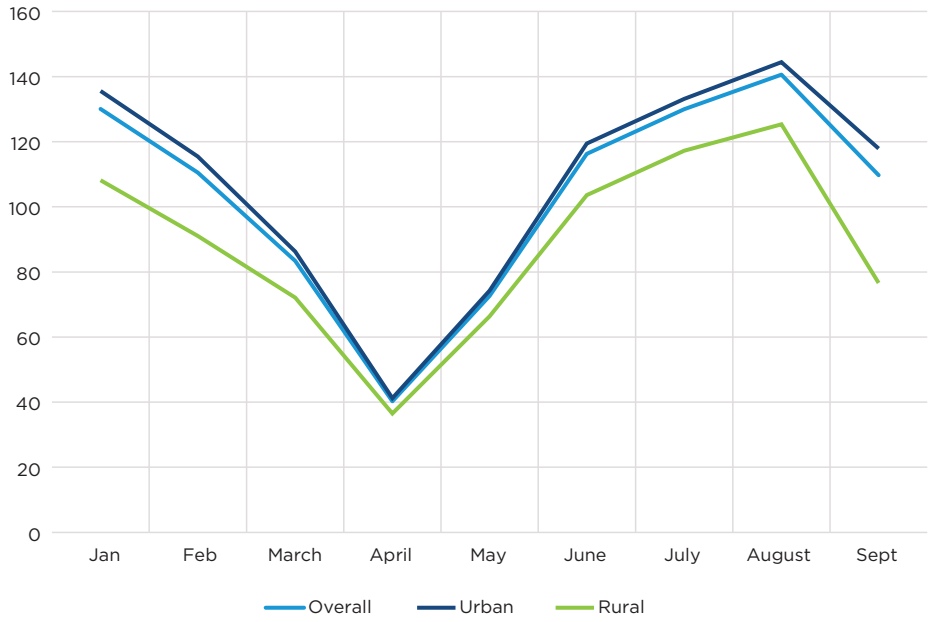
Data plays a crucial role in understanding the impacts of COVID-19 upon the nation's healthcare system. The number of COVID tests administered, transmission rates, ICU capacity levels, and death counts have dominated the headlines. Less obvious, but also important, are COVID-19's secondary effects on the health system. BHI used its access to the nation's largest, conformed health data set to assess COVID-19's impact on preventive services and telehealth utilization and reveal any rural/urban disparities.

Our descriptive studies of preventive service episodes included doctor visits and related preventive screenings such as mammograms, pap smears, and colonoscopies. In January and February of 2020, there was little difference in the utilization of preventive services among commercially insured individuals compared to 2019. In March, April, and May, given shelter-in-place orders and intensified fears of infection, use of preventive services decreased dramatically.

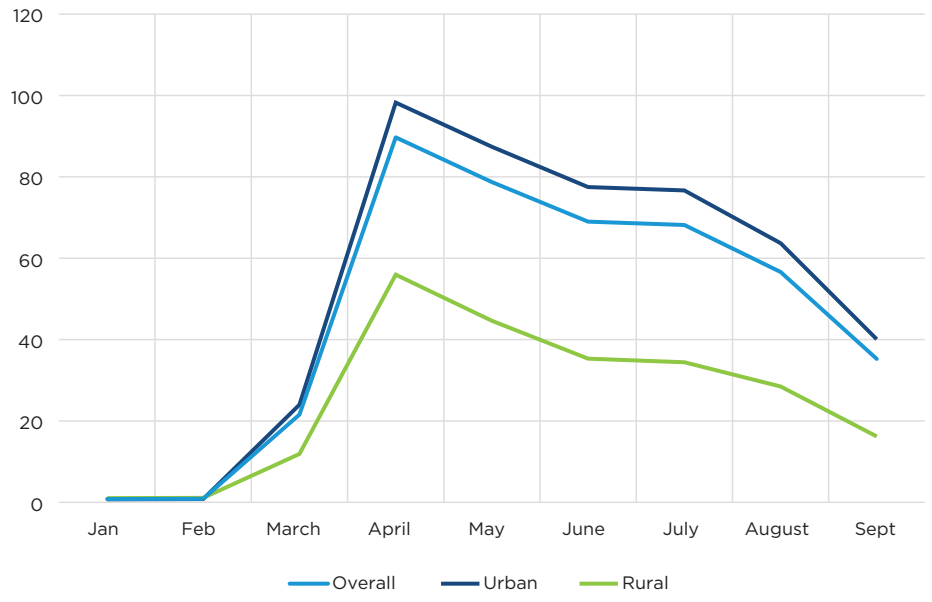
Conversely, the use of telehealth skyrocketed. BHI noted a 50-fold increase in the utilization of virtual healthcare services by commercially insured individuals from March 2019 to March 2020, and a 100-fold increase from April 2019 to April 2020. While telehealth utilization began to decline in late summer, the healthcare industry continues to prepare for a much larger reliance on virtual care options.

* January – August have a one-month runout; September has no runout.

UTILIZATION OF PREVENTIVE SERVICES PER 1,000 MEMBERS*



UTILIZATION OF TELEHEALTH SERVICES PER 1,000 MEMBERS*



GEOGRAPHIC DIFFERENCES

Given the often-noted lack of healthcare services in rural areas, BHI expected to see urban areas outpace rural areas in overall use of preventative services over the last nine months. However, we discovered that telehealth utilization among individuals living in rural communities severely lagged behind the use of virtual care by urban populations.

LOOKING FORWARD

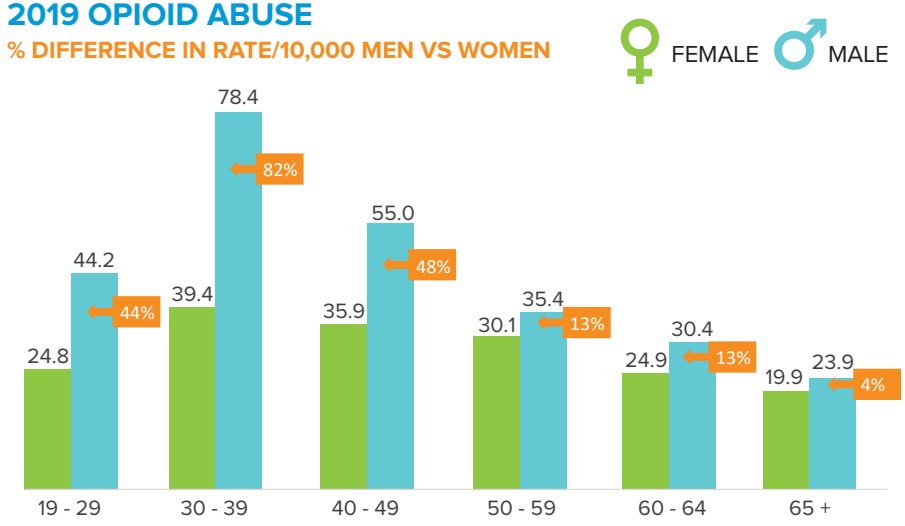
As fourth quarter 2020 claims data becomes available, BHI will continue to assess the impact of COVID-19 on preventive services and telehealth utilization. Examining these trends with the inclusion of data from the second wave of the pandemic will help to quantify the longer-term, lasting impact on population health and healthcare service delivery in the U.S.

* January – August have a one-month runout; September has no runout.

USING BHI DATA TO UNCOVER IMPROVEMENT OPPORTUNITIES IN MEN'S HEALTH

2019 OPIOID ABUSE

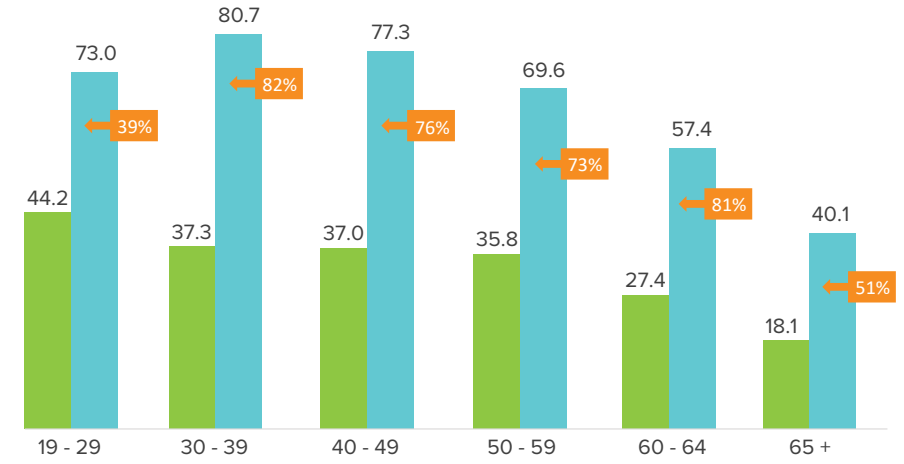
% DIFFERENCE IN RATE/10,000 MEN VS WOMEN



ICD – 10 Dx F11
Based on 144,000 members with opioid dependence of which 60% are men

2019 ALCOHOL ABUSE

% DIFFERENCE IN RATE/10,000 MEN VS WOMEN



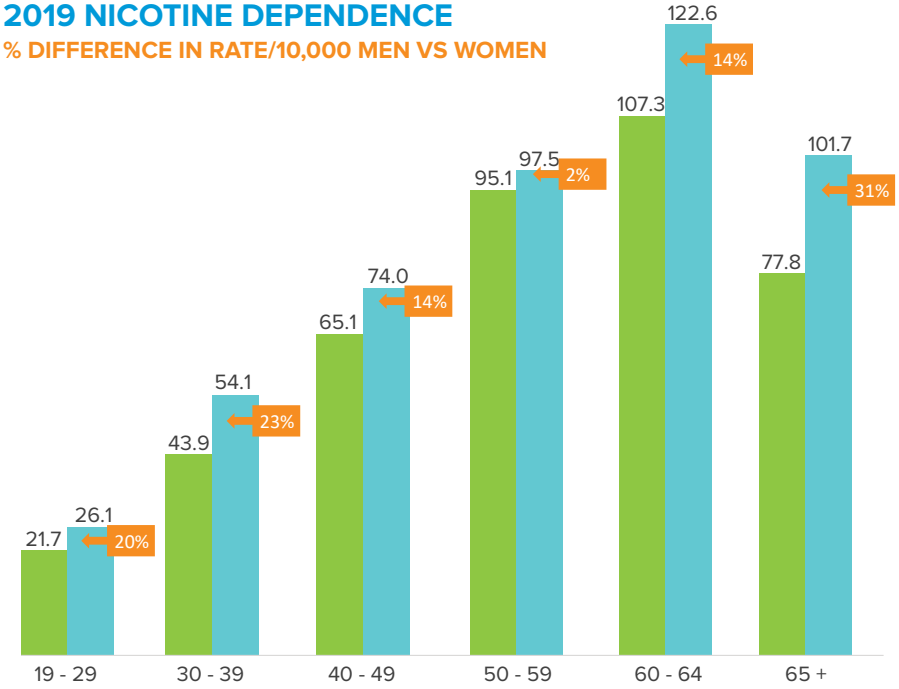
ICD – 10 Dx F10
Based on almost 200,000 members with alcohol dependence of which 66% are men

WHAT THE DATA SAYS

Research from BHI revealed that men faced a number of health challenges in 2019, and, in many cases, had significantly higher rates of disease than their female counterparts. Higher rates of alcohol abuse, opioid abuse, and nicotine dependence were observed in all age groups of men 19 and older.

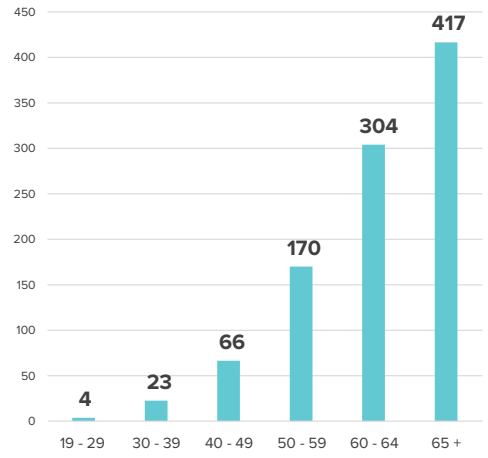
2019 NICOTINE DEPENDENCE

% DIFFERENCE IN RATE/10,000 MEN VS WOMEN

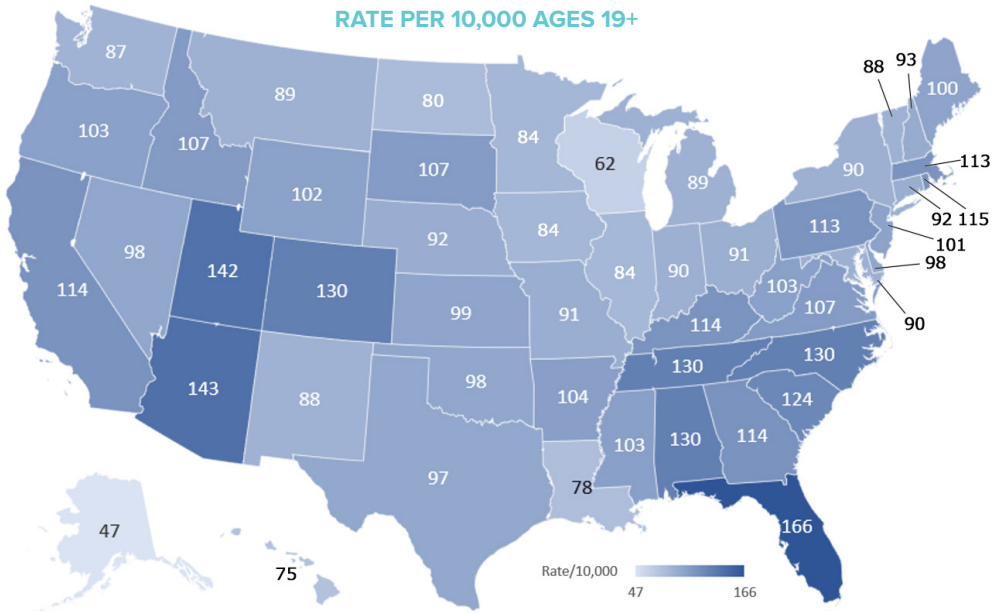


ICD – 10 Dx F17
Based on 250,000 members with nicotine dependence

2019 CANCERS OF THE SKIN
RATE PER 10,000



2019 CANCERS OF THE SKIN
RATE PER 10,000 AGES 19+



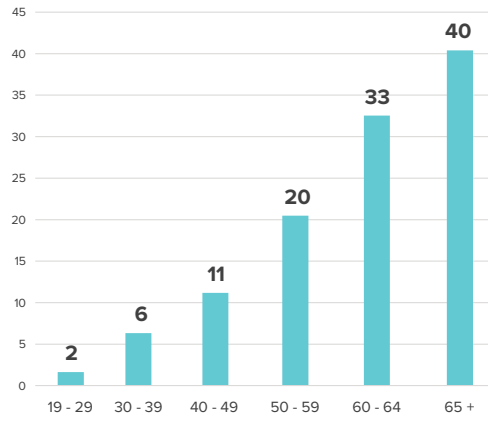
WHAT THE DATA SAYS

Research from BHI found that skin cancer and melanoma rates differed widely from state to state. Typically, warmer, sunnier states had higher rates of skin cancer, though for Maine, Massachusetts, and Pennsylvania, rates were higher than the southern states of Texas and Louisiana. Of note, Hawaii and Alaska, two states at opposite ends of the weather spectrum, shared the lowest rate of melanoma.

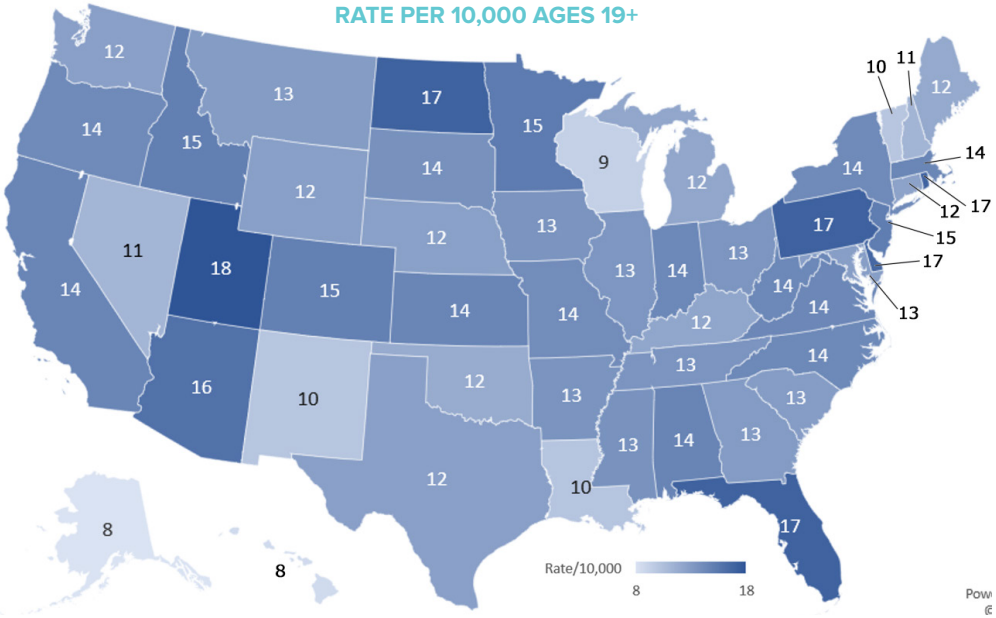
As people aged, skin cancer and melanoma rates increased, illustrating the cumulative effects of skin damage from sun exposure over time.

Note: All rates are age-adjusted.

2019 MELANOMA
RATE PER 10,000

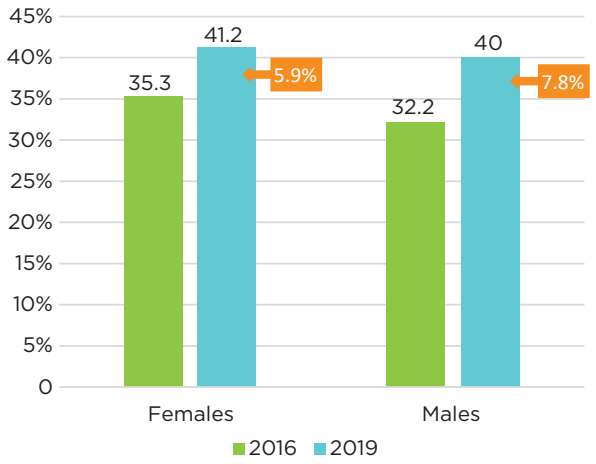


2019 MELANOMA
RATE PER 10,000 AGES 19+



USING BHI DATA TO UNCOVER IMPROVEMENT OPPORTUNITIES IN CANCERS RELATED TO HPV

PERCENTAGE OF FEMALES/MALES AGES 10–18 WHO HAD AT LEAST ONE HPV VACCINATION WITH A 4-YEAR LOOKBACK, 2016–2019



WHAT THE DATA SAYS ABOUT HUMAN PAPILLOMAVIRUS (HPV) VACCINATIONS

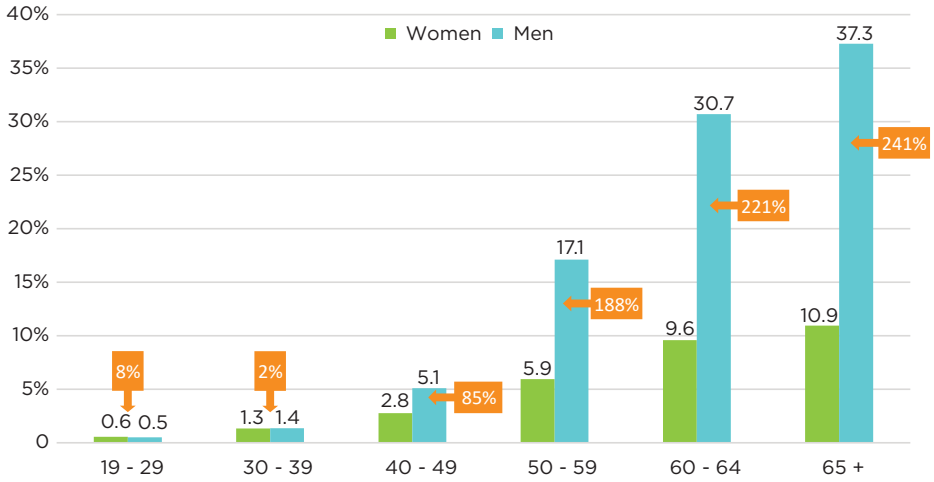
According to the CDC, each year approximately 44,000 new cases of cancer are found in places where HPV often attacks. HPV causes about 34,800 of these cancers.[1]

BHI examined claims data for females and males who were continuously enrolled in a commercial health insurance plan and found the rate of HPV vaccination increased 5.9 percentage points for females and 7.8 percentage points for males in four years (2016 and 2019.)

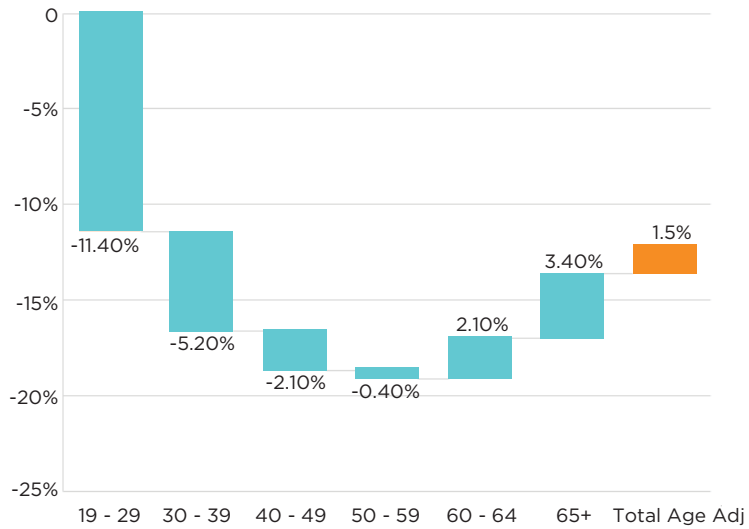
National data further estimates that approximately 60-70% of all cancers of the oropharynx may be linked to HPV.[2] Looking at trends in cancer of the lip, oral cavity, and pharynx in 2019 revealed that rates are significantly higher for men compared to women for ages 40+. HPV plays a significant role in the higher rates for men. In addition, men have higher rates of nicotine and alcohol dependence, which also impacts these differences (as evidenced in a prior study on men's health.)

BHI analyses show that between 2016 and 2019, the most notable decrease in these types of oral cancers occurred in men below the age of 39. Since HPV vaccines were introduced in 2006, men in their middle to late twenties had the greatest potential for positive impacts from the vaccine.

CANCER OF LIP, ORAL CAVITY, AND PHARYNX % DIFFERENCE IN RATE/10,000 WOMEN VS MEN AGES 19+ IN 2019

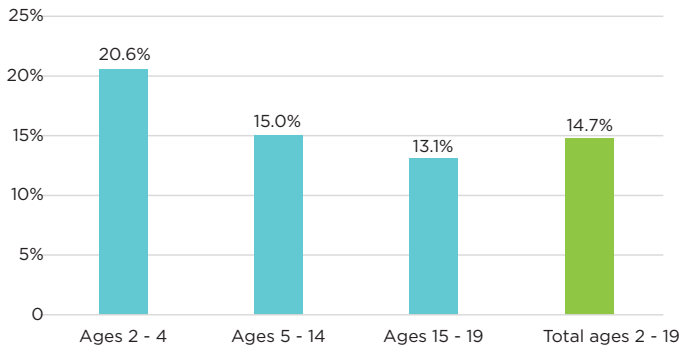


TRENDS IN CANCER OF LIP, ORAL CAVITY, AND PHARYNX IN MEN 19+, 2016–2019

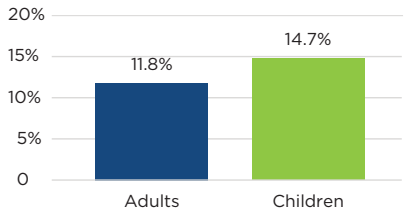


[1] https://www.cdc.gov/cancer/hpv/statistics/cases.htm
[2] https://www.cdc.gov/cancer/hpv/basic_info/cancers.htm

AVERAGE ANNUAL TREND IN CHILD OBESITY RATE BY AGE GROUP, 2016-2019



AVERAGE ANNUAL TREND IN OBESITY RATE, ADULTS VS. CHILDREN, 2016-2019



TOP 10 STATES WITH THE HIGHEST AVERAGE ANNUAL TREND IN CHILD OBESITY RATE PER 1,000 (2016-2019)

State	Children Ages 2-19
Alabama	35.4%
Nebraska	35.1%
Arkansas	33.6%
Iowa	28.9%
Missouri	28.9%
Washington	27.7%
Rhode Island	27.1%
Texas	23.5%
Kentucky	22.4%
Ohio	21.2%

WHAT THE DATA SAYS

Research from BHI found that trends in obesity increased in both adults and children from 2016-2019. Children ages 2-4 showed the highest annual increase (20.6%).

Childhood obesity puts children at increased risk of cardiac disease, diabetes, breathing difficulties, joint and musculoskeletal discomfort, and gastrointestinal issues. Being overweight can also result in social and psychological problems such as low self-esteem, anxiety, and depression.[1]

These health risks can continue into adulthood, as children who suffer from obesity are more likely to become adults with obesity, with even more severe disease risk factors.[2]

Genetics, environment, and lifestyle choices all influence excess weight gain making childhood obesity a complex health issue. While many healthcare professionals are reluctant to document “obesity” for fear of offending patients, experts believe that patients still need an accurate understanding of their condition and its detrimental effects on their overall health.[3]

Looking at the obesity growth rate by individual state, higher rates cannot necessarily be viewed negatively as an indication of a greater rate of obesity occurrence. These higher rates could be evidence of improvement or intervention initiatives that are resulting from more conscientious efforts by providers at documenting these health risk factors.

[1,2] https://www.cdc.gov/obesity/childhood/causes.html
[3] https://www.bcbsm.com/content/dam/microsites/corpcomm/provider/the_record/2019/mar/Record_0319d.shtml

At BHI, there are no black boxes: our clients understand exactly how we use data to uncover insights and recommend actions.

Leveraging the power of claims data from more than 200 million Americans, Blue Health Intelligence® (BHI®) delivers insights that empower healthcare organizations to improve patient care, reduce costs, and optimize performance. With the largest, most up-to-date, and uniform data set in all of healthcare, BHI provides a highly accurate representation of the health profile of commercially insured Americans.

At BHI, our mission is to help stakeholders make the right strategic decisions based on the best data and the most actionable analytics. To fulfill our mission, BHI offers software-as-a-service products, fully transparent methodologies, experienced consultants, and big data.

In 2020, BHI began receiving Medicare fee-for-service claims data from all 50 states and the District of Columbia due to our recent certification as a Qualified Entity by CMS. Through this partnership, BHI is able to combine medical and pharmacy claims information for people over the age of 65 and for those who have a long-term disability with our existing commercial information.