2019 COMMUNITY HEALTH NEEDS ASSESSMENT

IMPLEMENTATION STRATEGY

Building Healthier Lives and Communities

DEARBORN

Beaumont, Dearborn

P16556g1_22692_020620

Executive summary

DEARBORN

Beaumont Health understands the importance of serving the health needs of its communities. To do that successfully, we must first take a comprehensive look at the issues our patients, their families and neighbors face when making healthy life choices and health care decisions.

Beginning in January 2019, Beaumont began the process of assessing the health needs of the communities served by the eight Beaumont hospital facilities for an updated community health needs assessment. IBM Watson Health was engaged to help collect and analyze the data for this process and to compile a final report made publicly available by Tuesday, Dec. 31, 2019.

The community served by Beaumont includes Macomb, Oakland and Wayne counties. These counties comprise the majority of the geography covered by the combined primary service areas of each of the eight hospitals and contains 3.9 million people. Each hospital's primary service area is defined by the contiguous ZIP codes where 80% of the hospital's admitted patients live.

IBM Watson Health performed a quantitative and qualitative assessment. More than 200 public health indicators were examined, and a benchmark analysis of the data was conducted. The analysis compared community values to the overall state of Michigan and United States values. For a qualitative analysis and to get input from the community, focus groups, key informant interviews and a survey were conducted. The focus groups solicited feedback from leaders and representatives who served the community and had insight into community needs. The interviews were conducted with public health and community leaders along with key Beaumont leaders to gain their perspective on the community needs. Participants in these sessions included state, local or regional governmental public health departments (or an equivalent department or agency) with knowledge, information or expertise relevant to the health needs of the community, as well as individuals or organizations serving and/or representing the interests of medically underserved, low-income and minority populations in the community. Additionally, a community survey was fielded to solicit input directly from community members regarding their perception of community health needs.

Needs were first identified when an indicator for a hospital community was worse than the state benchmark. A need differential analysis conducted on all the low performing indicators determined the relative severity by using the percent difference from benchmark. The outcome of this quantitative analysis aligned with the qualitative findings of the community input sessions to create a list of health needs in the community. Each health need received assignment into one of four quadrants in a health needs matrix. The matrix shows the convergence of needs identified in the qualitative data (interview and focus group feedback) and quantitative data (health indicators) and identifies the top health needs for each community.

The results were aggregated across the eight hospital communities to identify the predominant health needs for the overall Beaumont community. Needs were identified for the overall Beaumont community if they were common across at least five of the eight Beaumont hospital communities.

In June 2019, the Beaumont CHNA Prioritization Workgroup met to review the health needs matrix and prioritize significant community health needs for Beaumont. The meeting was moderated by IBM Watson Health and included an overview of the CHNA process for the Beaumont community, the methodology for determining the top health needs and the selection and prioritization of significant health needs for the community Beaumont serves.

The group reviewed the Beaumont Health needs matrix and identified the significant community health needs to prioritize. They next used criteria selected by the Beaumont CHNA Steering Committee to score the community's significant health needs. The list of significant health needs was then prioritized based on the overall scores. The session participants subsequently reviewed the prioritized health needs for each community and chose the four community health needs with the highest prioritization scores as those to be addressed by Beaumont through subsequent implementation strategies. The health needs to be addressed by Beaumont include:

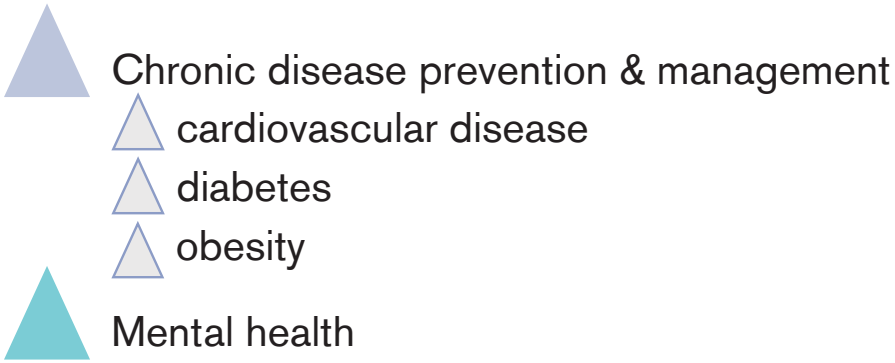
- Chronic disease prevention and management (cardiovascular disease, diabetes, obesity)
- Mental health

A description of these needs is included in the body of the full report. The hospital facilities will each develop implementation strategies with specific initiatives to address the chosen health needs, to be completed and adopted by Beaumont by April 15, 2020.

The Community Health Needs Assessment for Beaumont has been presented and approved by the Beaumont Health board of directors, and the full assessment is available to the public at no cost for download and comment on our website at beaumont.org/chna.

This assessment and corresponding implementation strategies are intended to meet the requirements for community benefit planning and reporting as set forth in federal law, including but not limited to the Internal Revenue Code Section 501(r).

The health needs to be addressed by Beaumont include:



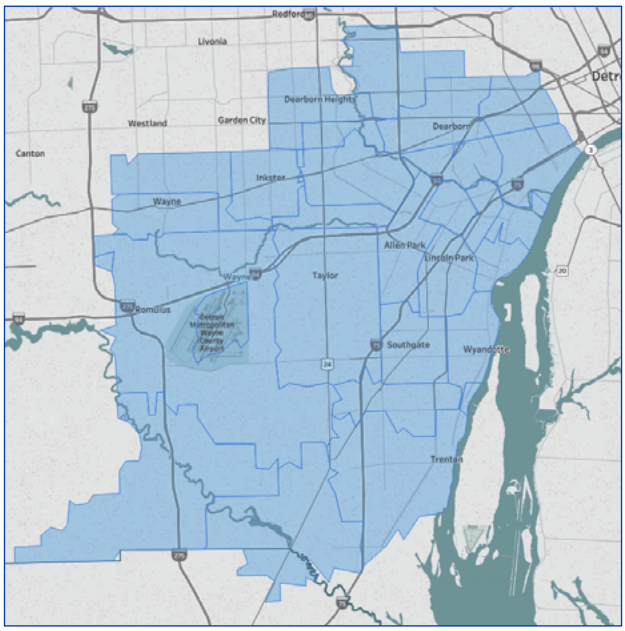
Beaumont, Dearborn

Beaumont, Dearborn has proudly served residents across southeastern Michigan since 1953. It became part of Beaumont Health in September 2014. With 632 beds, Beaumont, Dearborn is a major teaching and research hospital and home to three medical residency programs in partnership with the Wayne State University School of Medicine. Beaumont, Dearborn is verified as a Level II trauma center, is accredited by the Joint Commission as a Primary Stroke Center. The hospital known for clinical excellence and innovation in the fields of orthopedics, neurosciences, women's health, heart and vascular care and cancer care.

Community served

The Beaumont, Dearborn community (Beaumont, Dearborn) is defined as the contiguous ZIP codes that comprise 80% of inpatient discharges. Below is a map that highlights the community served (in blue) as a portion of the overall Beaumont community.

Beaumont, Dearborn: Map of community served



Source: Beaumont Health, 2019

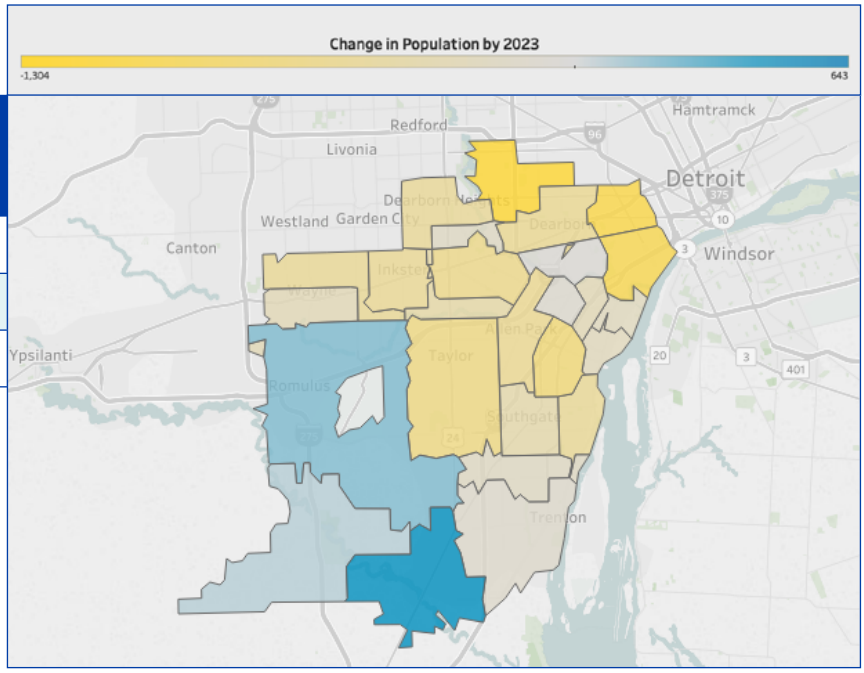
Demographic and socioeconomic summary

The population of the community served is expected to decrease 1.7% by 2023, a decline of more than 11,000 people. The community's population decline contrasts with Michigan's slow projected growth rate (0.6%) and higher national projected growth rate (3.5%).

Only three (3) of the 27 community ZIP codes are expected to experience growth in the next five years:

Zip Codes	Growth in five years (# of people)
48134 Flat Rock	**643**
48174 Romulus	**249**
48164 New Boston	**97**

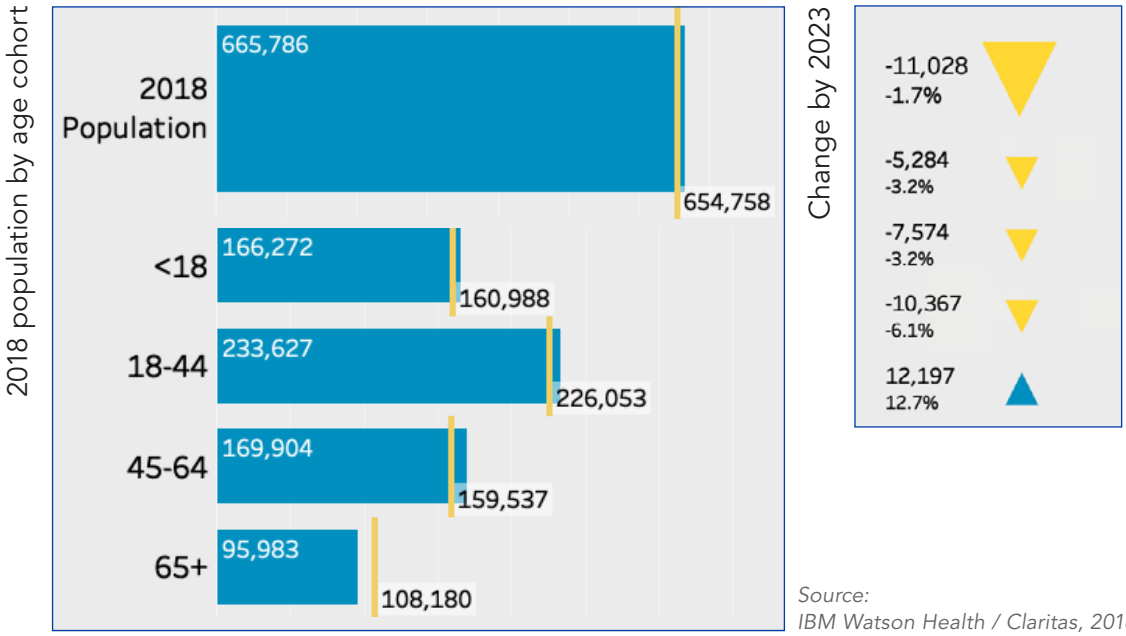
2018 - 2023 Total population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

The community's population skews younger with 35.1% of the population ages 18-44 and 25.0% under age 18. The largest cohort (18-44) is expected to decrease by 7,574 people by 2023 and the age 65 plus cohort (the smallest at 14.4% of the population) is the only age group expected to experience growth (12.7%) over the next five years, adding 12,197 seniors to the community. Growth in the senior population will likely contribute to increased utilization of services as the population continues to age.

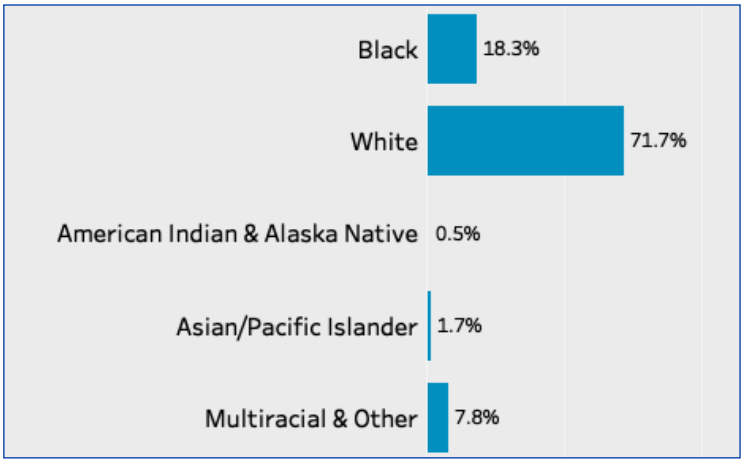
Population distribution by age



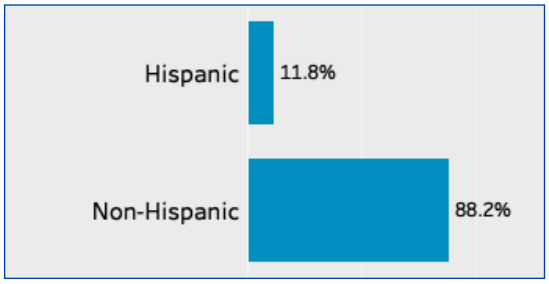
Source: IBM Watson Health / Claritas, 2018

Population statistics are analyzed by race and by Hispanic ethnicity. The largest proportion of the population in the community is racially white (71.7%) and black (18.3%). However, both these populations are projected to decline over the next five years. The black population is projected to decline by 8,700 people (-7.2%) and the white population by 5,400 people (-1.2%). The Asian/Pacific Islander population is expected to grow by 1,204 people (10.5%). The expected growth of the Hispanic population (all races) is more than 4,300 people (5.5%) by 2023, while the non-Hispanic population (all races) is expected to decline by more than 15,300 people (-2.6%) by 2023.

2018 Population by race

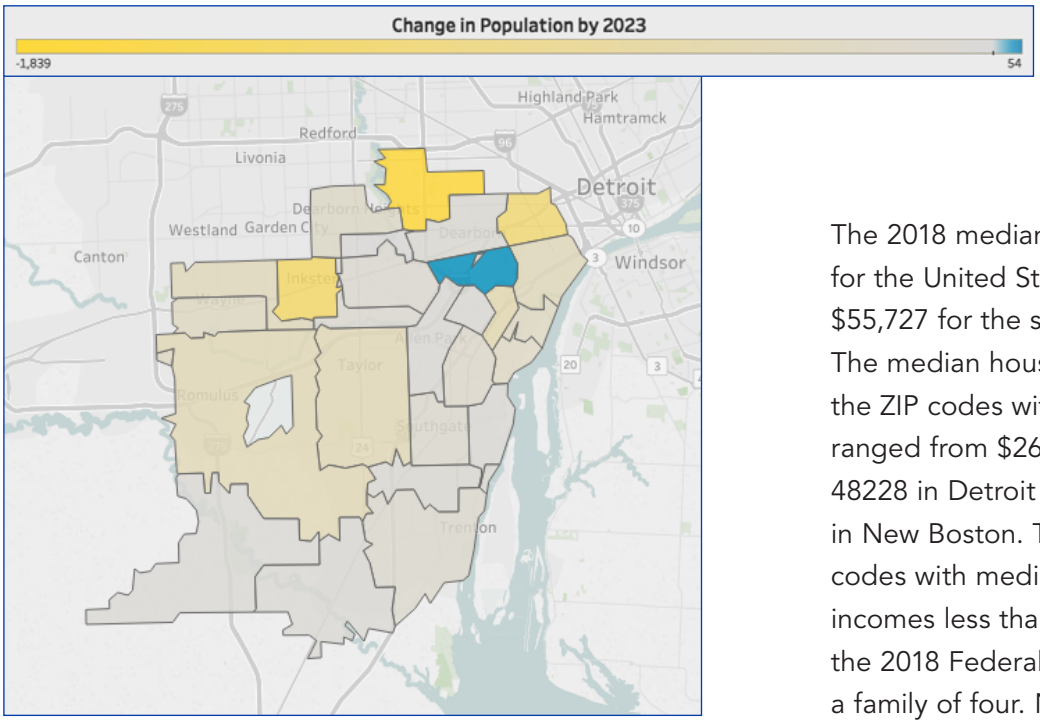


2018 Population by ethnicity



Source: IBM Watson Health / Claritas, 2018

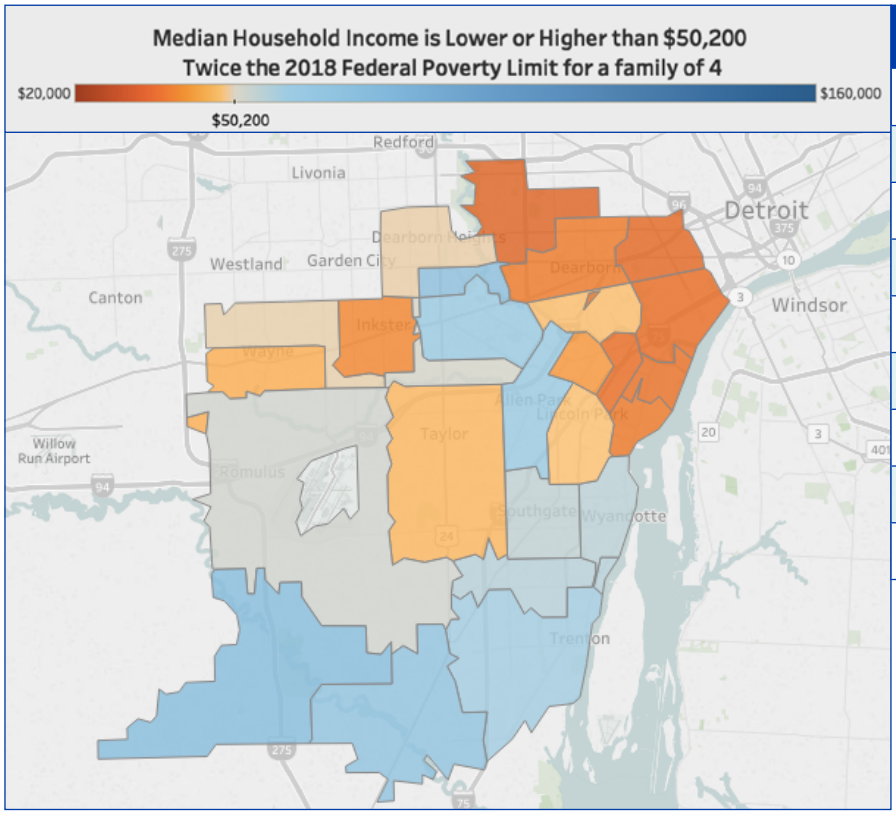
2018 - 2023 Black population projected change by ZIP code



Source: IBM Watson Health / Claritas, 2018

The 2018 median household income for the United States is $62,175 and $55,727 for the state of Michigan. The median household income for the ZIP codes within this community ranged from $26,089 for ZIP code 48228 in Detroit to $83,688 for 48164 in New Boston. There are 15 ZIP codes with median household incomes less than $50,200, twice the 2018 Federal Poverty Limit for a family of four. Nine ZIP codes have a median household income of less than $40,000:

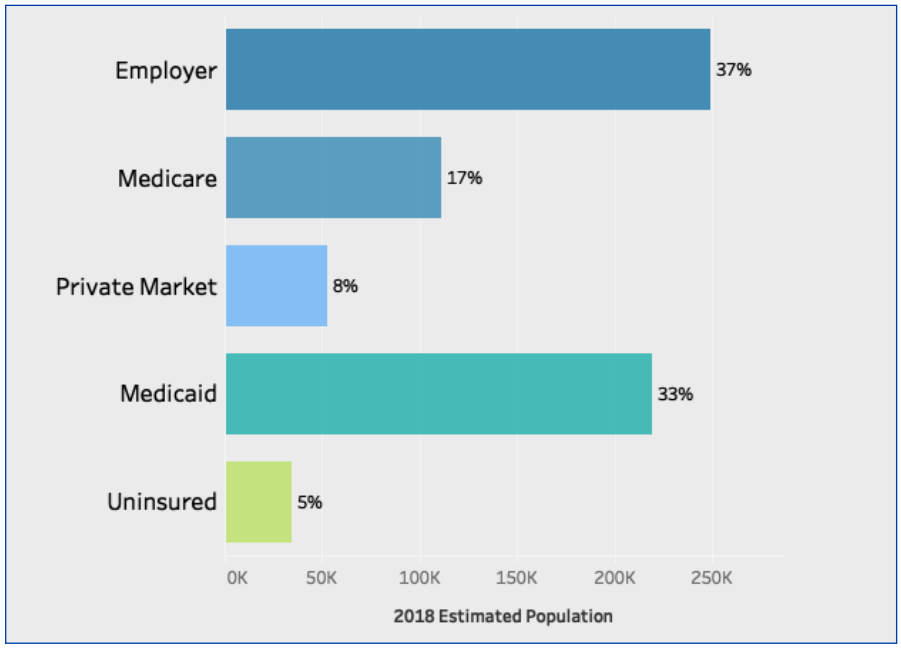
2018 Median household income by ZIP code



Zip Codes	Income
48228 Detroit	**$26,089**
48210 Detroit	**$27,636**
48217 Detroit	**$28,916**
48209 Detroit	**$28,991**
48218 River Rouge	**$29,533**
48229 Ecorse	**$31,775**
48126 Dearborn	**$32,239**
48141 Inkster	**$34,676**
48122 Melvindale	**$37,594**

Source: IBM Watson Health / Claritas, 2018

2018 Estimated distribution of covered lives by insurance category



Source: IBM Watson Health / Claritas, 2018

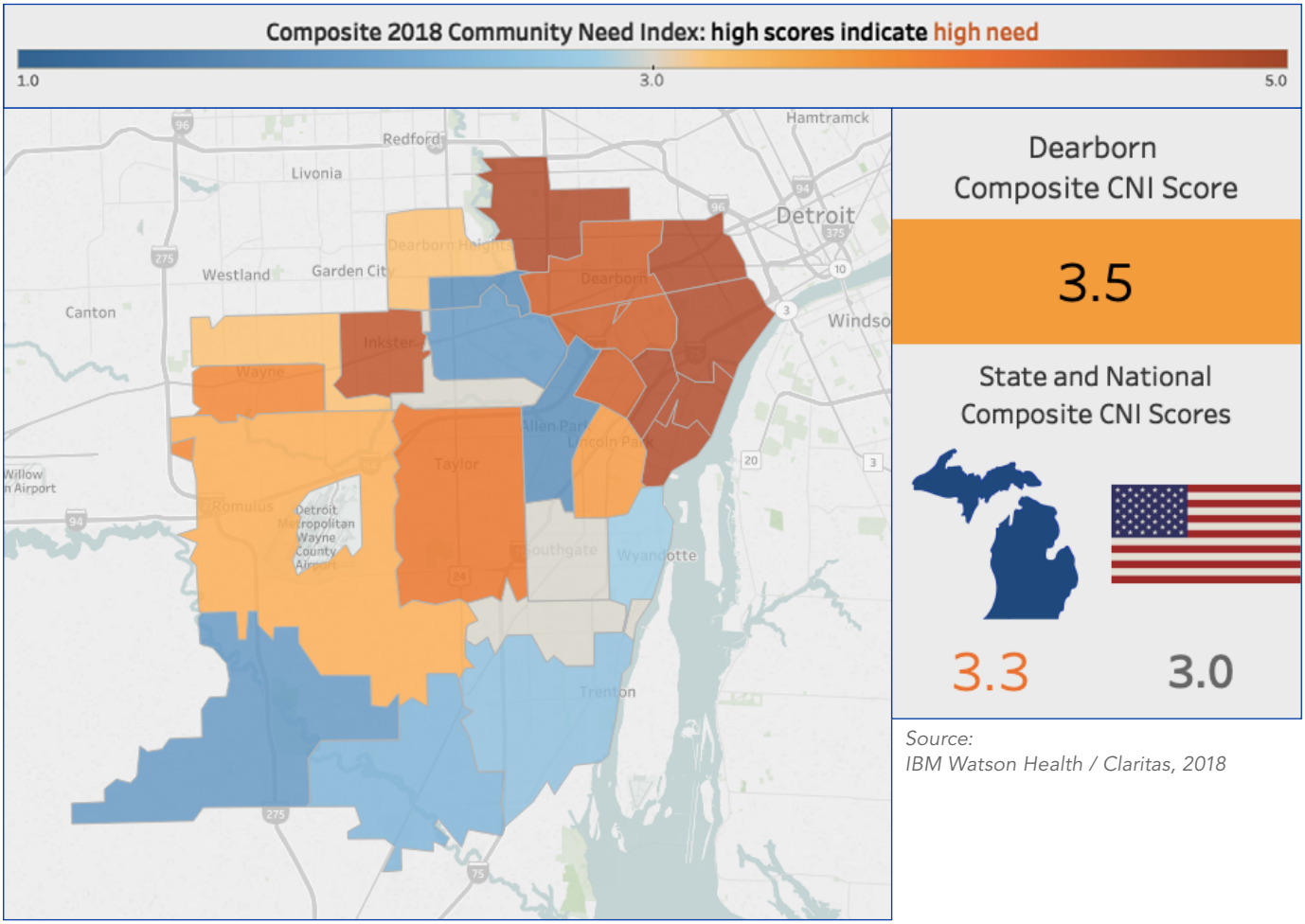
A majority of the population are insured either through employer-sponsored health coverage (37%) or Medicaid (33%). The remainder of the population are divided between those covered by Medicare (17%) and those with private market insurance (8%), who are the purchasers of coverage directly or through the health insurance marketplace. Five percent (5%) of the community is uninsured, higher than Michigan's 3.8% but lower than the national 9.4% uninsured rate.

The IBM Watson Health Community Need Index is a statistical approach to identifying areas within a community where health disparities may exist. The CNI takes into account vital socioeconomic factors (income, cultural, education, insurance and housing) about a community to generate a CNI score for every populated ZIP code in the United States. The CNI strongly links to variations in community health care needs and is an indicator of a community's demand for various health care services. The CNI score by ZIP code identifies specific areas within a community where health care needs may be greater.

Overall, the CNI composite score for the community served is 3.5, higher than the CNI national average of 3.0 and state average of 3.3, potentially indicating greater health care needs in this community.

In portions of the community (all Detroit ZIP codes, Ecorse, Inkster, and River Rouge), the CNI score is greater than 4.5, pointing to potentially more significant health needs among those populations. These communities have scores of 5.0 in four of the five barrier scores that comprise the CNI composite score: culture, education, housing, and income.

2018 Community need index by ZIP code



Source:
IBM Watson Health / Claritas, 2018

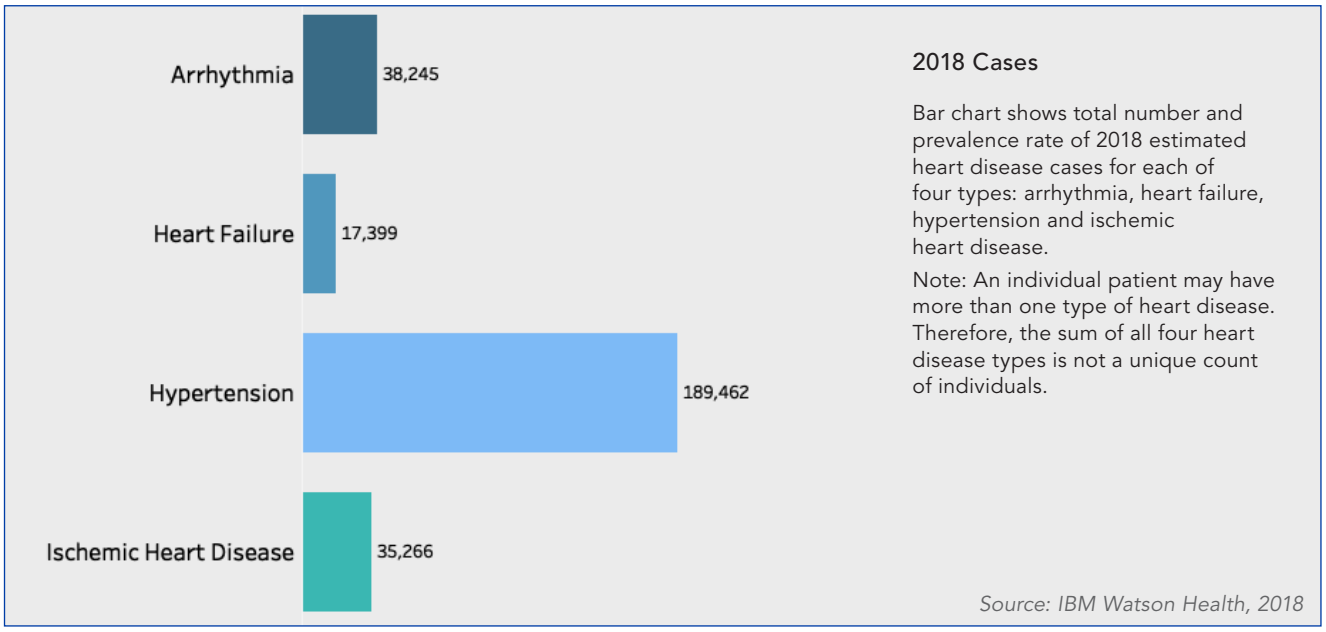
ZIP Map where color shows the Community Need Index on a scale of 0 to 5. Orange color indicates high need areas (CNI = 4 or 5); blue color indicates low need (CNI = 1 or 2). Gray colors have needs at the national average (CNI = 3).

IBM Watson Health community data

IBM Watson Health supplemented the publicly available data and population statistics with estimates of localized disease prevalence of heart disease and cancer as well as Emergency Department visit estimates.

IBM Watson Health heart disease estimates identified hypertension as the most prevalent heart disease diagnosis; there are over 189,000 estimated cases in the community overall. The 48180 ZIP code of Taylor has the most estimated cases of each heart disease type, likely due to population size. The 48193 ZIP code of Riverview has the highest estimated prevalence rates for all types of heart disease: arrhythmia (79 cases per 1,000 population), heart failure (37 cases per 1,000 population), hypertension (345 cases per 1,000 population) and ischemic heart disease (75 cases per 1,000 population).

2018 Estimated heart disease cases

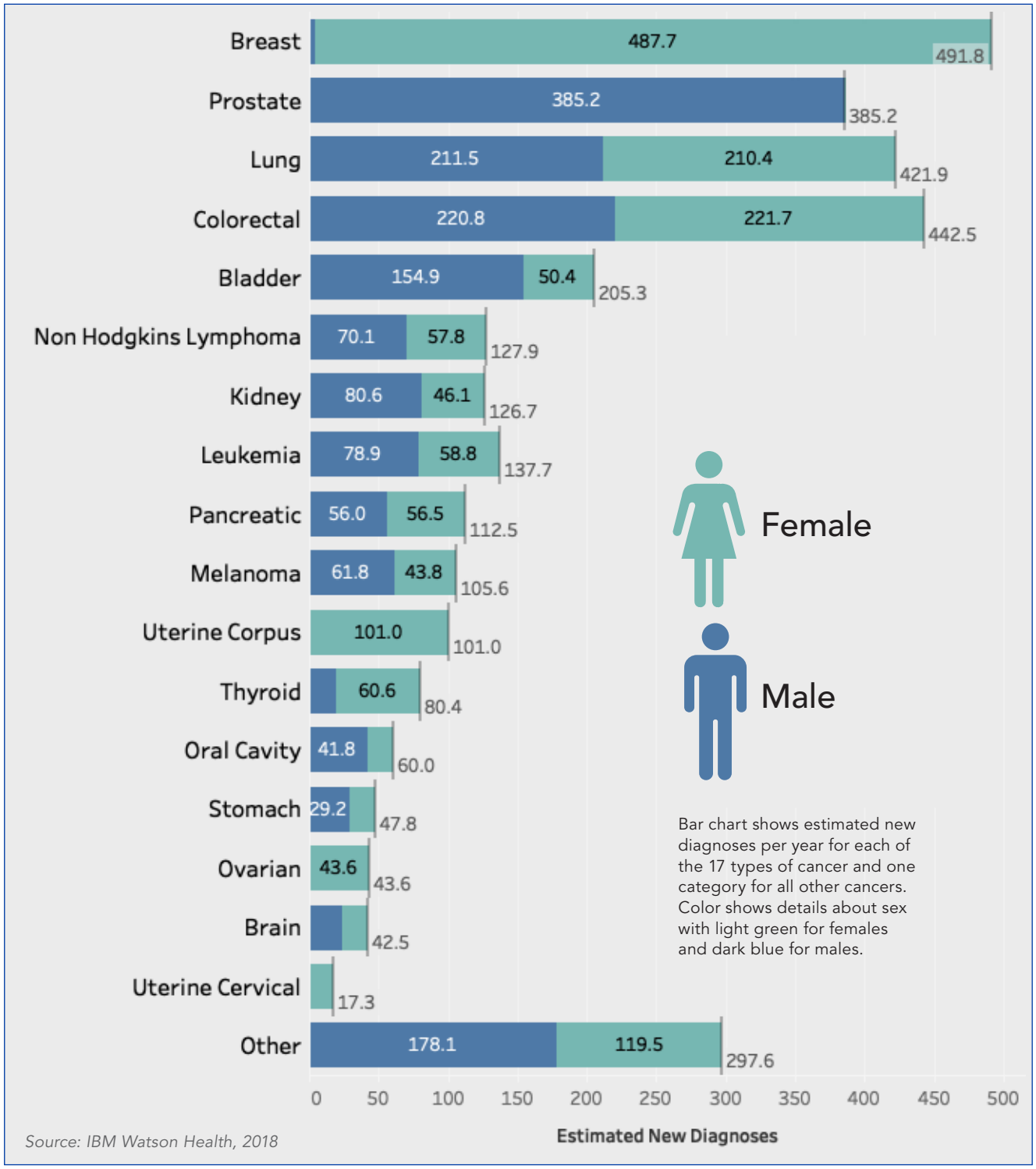


Source: IBM Watson Health, 2018

Beaumont, Dearborn

For this community, IBM Watson Health's 2018 cancer estimates reveals the cancers estimated to have the greatest number of new cases in 2018 are breast, colorectal and lung cancers. The cancers projected to have the greatest rate of growth in the next five years are melanoma, pancreatic, bladder and thyroid, based on both population changes and disease rates.

2018 Estimated new cancer cases



Estimated cancer cases and projected five-year change by type

Cancer type	2018 Estimated new cases	2023 Estimated new cases	5-year growth (%)
Bladder	205	224	9.0%
Brain	43	43	2.2%
Breast	492	506	2.9%
Colorectal	443	403	-8.9%
Kidney	127	134	5.7%
Leukemia	138	146	6.0%
Lung	422	437	3.5%
Melanoma	106	115	9.3%
Non-Hodgkin's lymphoma	128	135	5.6%
Oral Cavity	60	63	5.5%
Ovarian	44	44	1.8%
Pancreatic	112	122	8.3%
Prostate	385	373	-3.1%
Stomach	48	49	1.8%
Thyroid	80	87	7.8%
Uterine - cervical	17	16	-5.1%
Uterine - corpus	101	106	4.9%
Other	298	314	5.5%
Grand total	**3,247**	**3,318**	**2.2%**

Note: Case numbers are rounded to the nearest integer, which may mask minor differences. *Source: IBM Watson Health, 2018*

Beaumont, Dearborn

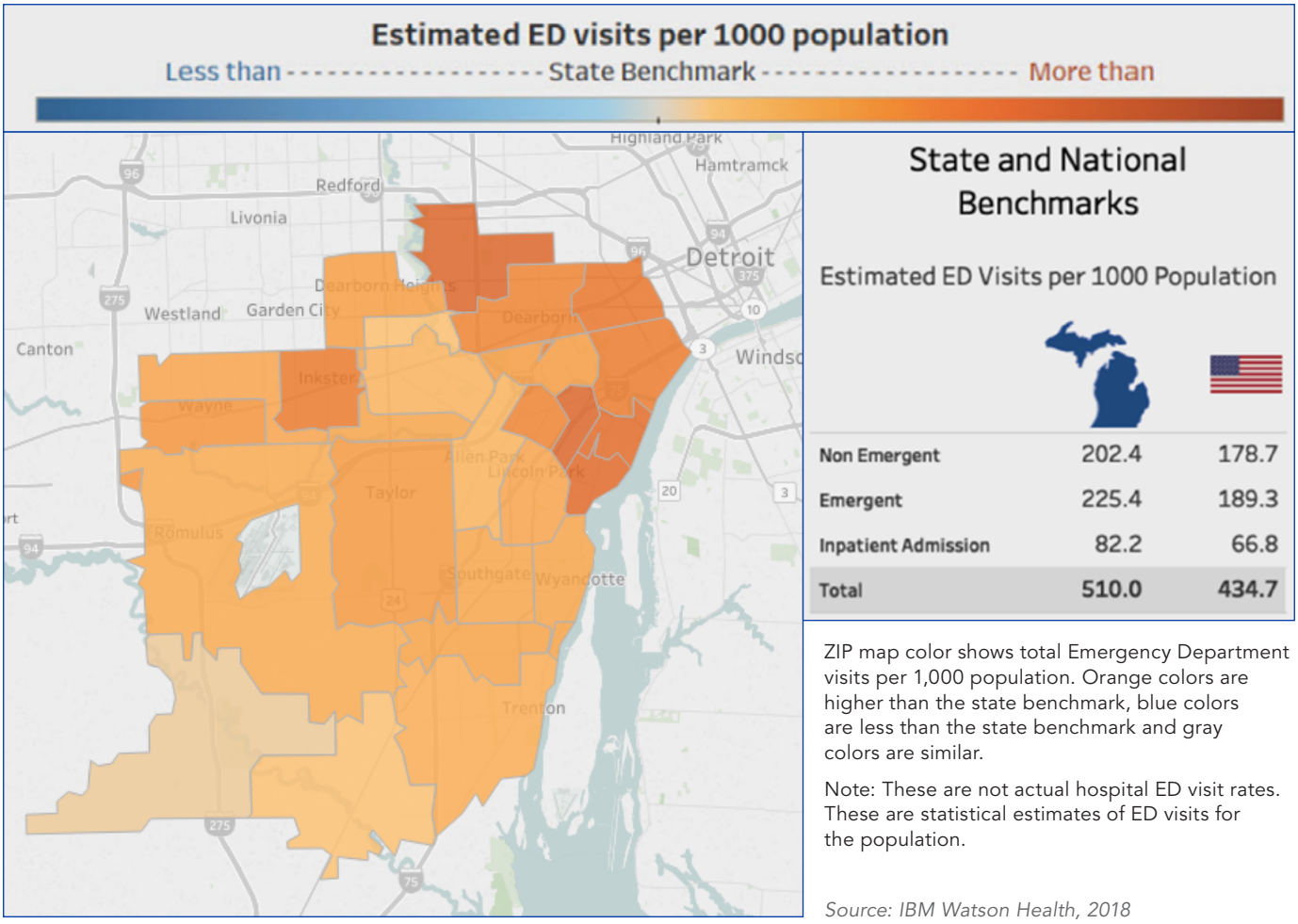
Based on population characteristics and regional utilization rates, IBM Watson Health projected all Emergency Department visits in this community to decrease by 1.3% over the next five years.

Although the total number of ED visits is projected to decrease slightly, estimated ED use rates in all the community's ZIP codes are higher than both the Michigan state and U.S. benchmarks (510 visits and 435 visits per 1,000 respectively). The highest ED use rates are in two Detroit ZIP codes (48217 and 48228): 807.1 to 807.5 ED visits per 1,000 residents. The ED use rate in these Detroit ZIP codes is almost twice the U.S. benchmark of 435 visits per 1,000 and almost 60% higher than the Michigan state benchmark of 510 visits per 1,000.

ED visits consisted of three main types: those resulting in an inpatient admission, emergent ED visits treated and released, and non-emergent ED visits that are lower acuity. Non-emergent ED visits present to the ED but can potentially be treated in more appropriate and less intensive outpatient settings.

Non-emergent ED visits could be an indication of systematic issues within the community regarding access to primary care, managing chronic conditions or other access to care issues such as ability to pay. IBM Watson Health estimates non-emergent ED visits to decrease by an average of 4.1% over the next five years in this community.

Total estimated 2018 Emergency Department visit rate



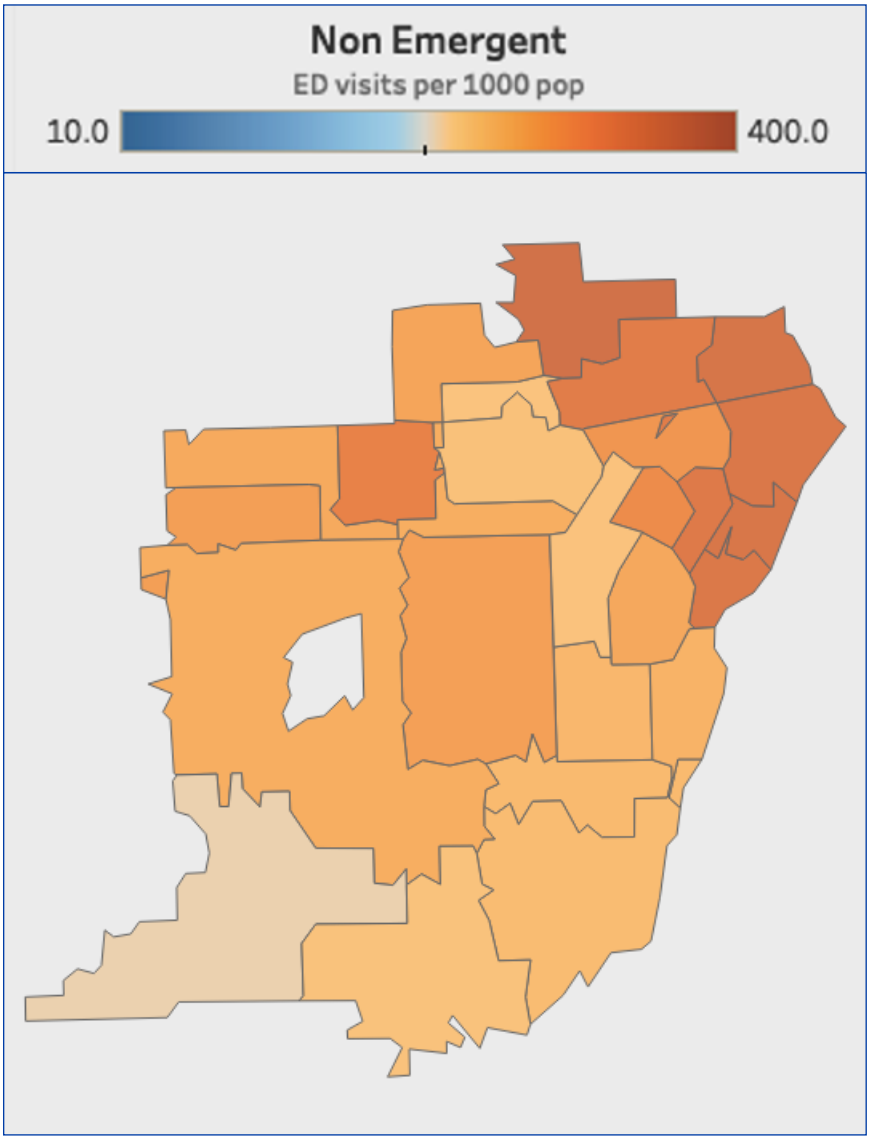
Non Emergent	202.4	178.7
Emergent	225.4	189.3
Inpatient Admission	82.2	66.8
Total	510.0	434.7

ZIP map color shows total Emergency Department visits per 1,000 population. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar.

Note: These are not actual hospital ED visit rates. These are statistical estimates of ED visits for the population.

Source: IBM Watson Health, 2018

Non-emergent estimated 2018 Emergency Department visits by ZIP code



ZIP map color shows total Emergency Department visits per 1,000 population by non-emergent status. Orange colors are higher than the state benchmark, blue colors are less than the state benchmark and gray colors are similar. Color range is set for the entire study region. ED visits are defined by the presence of specific CPT® codes in claims.

Non-emergency visits to the ED do not necessarily require treatment in a hospital Emergency Department and can potentially be treated in a fast-track ED, an urgent care treatment center or a clinical or a physician's private office.

Source:
IBM Watson Health, 2018

Note: These are not actual hospital ED visit rates.
These are statistical estimates of ED visits for the population.

2019 CHNA implementation strategy

The implementation strategy for the chosen health needs of 1) chronic disease prevention and management (cardiovascular disease, diabetes, obesity) and 2) mental health are outlined in the following pages.

Over the next three years each Beaumont Health hospital will execute its implementation strategies, which will be evaluated and updated on an annual basis.

Priority #1

Chronic disease prevention and management (cardiovascular disease, diabetes, obesity)

Goal #1: Decrease rates of chronic disease in children and adults by promoting healthy eating and active living behaviors.	
Objective #1: Provide education and services that support healthy eating, active living and maintaining a healthy weight.	
OUTCOME MEASURES	• Decrease percent of adult obesity. • Decrease percent of students who are obese.
STRATEGIES AND TACTICS	• Implement Cooking Matters program, grocery store tours and food demonstrations to equip families with knowledge and skills to prepare healthy meals. • Continue multi-sector Healthy Dearborn coalition to implement community and worksite strategies on healthy eating and active living. • Implement initiatives and partner collaborations to increase access to fresh fruits and vegetables and reduce food insecurity. • Implement the Coordinated Approach to Child Health (CATCH) Early Childhood program focusing on gardening, nutrition and healthy eating. • Provide education on nutrition, chronic disease prevention and management through community events and the Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Gleaners Community Food Bank of SE Michigan • Dearborn Public Schools • Healthy Dearborn Coalition • Dearborn Farmers Market • City of Dearborn
EVALUATION	• Partnership agreements • Participation surveys • Pre/post participant surveys • Restaurants awarded certification • Quantitative surveys
Objective #2: Increase opportunities for physical activity.	
OUTCOME MEASURES	• Increase education and opportunities for physical education. • Increase percent of physically active adults
STRATEGIES AND TACTICS	• Implement community wide walking, wellness and fitness activities to increase physical activity and social interaction across the community. • Support the Healthy Dearborn coalition to improve walkability and bikeability across the community. • Plan and implement environmental change strategy such as open streets initiative. • Explore development of a Wellness Park, inclusive of environmental improvements and programming, to create an outdoor experience to increase activity options for residents. • Expand walking infrastructure project as part of Dearborn Multi-Modal Transportation plan.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Healthy Dearborn Coalition • City of Dearborn Parks and Recreation • Leaders Advancing and Helping Communities (LAHC) • Bike Dearborn • City of Dearborn • University of Michigan-Dearborn • Dearborn Public Schools
EVALUATION	• Participant surveys • Bike share usage reports • Participation rates

Goal #2: Decrease cardiovascular disease risk factors and prevent death from sudden cardiac arrest.	
Objective #1: Provide education programs and services.	
OUTCOME MEASURES	• Decrease percent of adult hypertension. • Decrease in cardiovascular disease risk factors. • Increase knowledge and awareness of self-monitoring practices.
STRATEGIES AND TACTICS	• Implement Blood Pressure Self-Monitoring Program in churches and community organizations. • Mentor and assist schools in attaining the state Heart Safe School designation and provide AED equipment as needed.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Local churches • Schools • Community agencies
EVALUATION	• Attainment of Heart Safe School designation • Pre/post participant surveys • Participation rates
Objective #2: Provide early detection screenings.	
OUTCOME MEASURES	• Decrease percent of adult hypertension. • Decrease in cardiovascular disease risk factors. • Decrease deaths from sudden cardiac arrest.
STRATEGIES AND TACTICS	• Provide blood pressure, cholesterol, glucose, BMI, heart and vascular screenings across the community. • Implement the Student Heart Check Program to detect abnormal heart structure or abnormal rhythms and explore development of student support group for those currently diagnosed or affected by abnormal diagnoses.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Local churches • Schools • Community agencies
EVALUATION	• Screening results • Participant survey
Goal #3: Decrease rate of new diabetes cases and of diabetes complications.	
Objective #1: Provide early detection screenings, diabetes prevention programs and diabetes education services.	
OUTCOME MEASURES	• Decrease in new incidences of diabetes.
STRATEGIES AND TACTICS	• Provide diabetes screenings at various locations across the community and provide counseling as needed. • Provide the Diabetes PATH chronic disease self-management program. Explore implementation of online version. • Implement National Diabetes Prevention Program for adults with pre-diabetes or at high risk for diabetes.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• National Kidney Foundation of Michigan • The Senior Alliance • Community organizations • Local churches • Senior centers
EVALUATION	• Participation rates/volumes • Outcome measures • Increase in physical activity • Screening results • Average weight loss • Pre/post participant surveys • Participation rates

Priority #2

Mental health

Goal #1: Decrease rate of mental health and substance use disorders.	
Objective #1: Improve access and coordination of services.	
OUTCOME MEASURES	• Increase referral linkages for mental health and opioid use disorders.
STRATEGIES AND TACTICS	• Support partnerships to improve integration of health care and community-based mental health services. • Pilot telehealth social worker counseling assessment and care model via telecommunications technology with teens in school linked to Child and Adolescent Health Center.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community mental health agencies • Universal Health Services • River Rouge School District
EVALUATION	• Patients connected to community resources • Assessment visits • Partnership agreements • Quality goals
Objective #2: Provide education program and services.	
OUTCOME MEASURES	• Increase knowledge and awareness of mental health.
STRATEGIES AND TACTICS	• Provide education on mental health through community events and Beaumont Speakers Bureau.
COMMITTED RESOURCES	Beaumont, Dearborn will commit both financial and in-kind resources, including staff time, charitable contributions and employee volunteerism.
PARTNERS	• Community organizations • Schools
EVALUATION	• Participation rates • Pre/post participant surveys